

THE LIE DETECTOR AND MECHANICAL JURISPRUDENCE

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Whether or not the lie detector will find a definitive place in the judicial system of the United States is still an open question. The use of the lie detector has mushroomed these past three decades to where it is found in public and private employment (hire, fire, promote, et cetera), investigative situations (police, private, governmental), and many others; here we question its use in a judicial setting. For example, the American Bar Association, in a 1965 editorial, concluded that "the genuine *voluntary* use of the polygraph test should not be prohibited by law,"¹ whereas the Committee on Labor and Social Legislation of the Association of the Bar of the City of New York, in a 1973 report, concluded that, at least in job employment tests, it preferred "the total ban embodied in the Ervin bill and the statutes of seven states."²

Of somewhat major importance, for us, is the problem of its jurisprudential impact, that is, if the lie detector is accepted, wholly or partially, as a tool for the ascertainment of truth, what consequences may reasonably be foreseen insofar as the concepts, effectuation, and practice of law are concerned? The lie detector is therefore examined from this point of view, and it may be suggested at the outset that, assuming acceptance, the impact may well change the common law systems on the lowest levels into a modified civil law type. The reason is that an eventual transformation should undoubtedly occur from the present judicial and administrative adversary fact gathering and determining process to an investigating one, and this even though superficially the common law trappings will remain. This is the great transformation which looms forebodingly in the future, at least in theory.

Before ascertaining whether this fear is justified two points of clarification are required. First, we have just spoken of the lie detector "as a tool for the ascertainment of truth," not ascertaining facts. There is an important difference between these approaches and this must be kept in mind through-

¹ 51 *A. B. A. J.* 456, 457 (1965), emphasis added. The editorial felt that a job-seeker (or employee faced with its loss) "(for example, because of suspicion of theft) ought not to be deprived of the right, purely of his own volition, to submit to a polygraph test and have the report of a competent operator presented to the employer on his behalf . . ."

² 28 *The Record* 464, 176 (1973), although see note 6, at 478, giving twelve states excluding the use of the polygraph as to employees, e. g., *Calif. Labor Code* 432.2 (L. 1963).

out, even though fact gathering is also an element, albeit here a separate element, in the use of the lie detector. For example, the machine may be simply used to examine people to get facts, as where a recalcitrant witness (having no connection with a crime, not charged or to be charged) is fearful of testifying during the investigatory phase. Here the emphasis is upon the detection of "errors" concerning statements or denials of facts. But even such a factual identification of a person does not necessarily convict him of a crime; the identification may even be required as part of the *res gestae*, and yet the trier of the facts must still make a determination of not only this fact but of other facts as well, weigh and balance them, and, on the final evaluation, perhaps sprinkle some mercy on the verdict.³

Apart from such fact gathering there may be conflicting alibi testimony, and now the lie detector's results disclose Jones to be lying when he testified that he (or Brown, et cetera) was not present at the scene of the crime; but even this, as we have seen, should not automatically implicate him in or convict him of its commission. This ubiquitous aspect of the machine's use, i. e., lie detection, is contrasted by one psychologist with a "guilty knowledge test," i. e., where it is desired to determine whether the person is aware of certain information; in this situation one may possibly differentiate between a guilty and an innocent person,⁴ i. e., the truth outs. To what extent, however, does a jury distinguish between these and other fine touches, regardless of a judge's charge or *caveat*? This is one of the problems which the great legal transformation may presage.

Second, for purposes of clarification, is the situation in those few jurisdictions which admit the results of a polygraph test in a court of law but insist upon a preliminary showing of compliance with minimum standards,⁵ and also that all parties voluntarily stipulate to the admission.⁶ Regardless, and even in this consensual area of admissibility, the problems engendered by the lie detector still remain, and it is to these problems that we now turn.

1) Truth is the law, and facts are its bases. Without correct facts there can be no socially or other oriented laws. In any judicial system the sole function of a trial body, whether judge or jury, is to ascertain these correct

³ To what degree this is implicit in the power of a petit jury, in a criminal libel trial in common law jurisdictions, to determine not only the facts but also the law applicable to the facts, is, of course, within each jurisdiction's power to determine. The English common law, however, left law and fact within the jury's power to determine. T. Plucknett, *A Concise History of the Common Law* 138, 500-01 (5th ed. 1956).

⁴ Lykken, "Psychology and the Lie Detector Industry", 29 *Amer. Psychologist* 725, 726 (1974): "It is probable that more than 90% of all polygraph examinations in the field employ lie detection methods exclusively..." On the assumptions and limitations of the guilty knowledge test see 727-29, and see also his "The Validity of the Guilty Knowledge Technique: The Effects of Faking", 44 *Jl. Applied Psychology* 258 (1960), as well as Davidson, "The Validity of the Guilty-Knowledge Technique: The Effects of Motivation", 52 *id.* 62 (1968).

⁵ See note 53 (and also 32), *infra*.

⁶ See discussion and formulation in text and note 59 et seq., *infra*.

facts. From the welter of admitted and conflicting evidence, whether testimonial, documentary, or otherwise, the trier chooses what are considered correct, and the trial judge ordinarily then applies (or has applied) the principles of law laid down by the higher courts. With all due respect this means that after the correct facts are so determined the judge acts somewhat mechanically. For example, a jury necessarily exercises great discretion in evaluating not only the testimony, et cetera, but also the witness' demeanor and other subjective elements or factors;⁷ but, *pari passu*,⁸ what does a presiding judge ordinarily do but recite the applicable law in his earlier charge to the jury, ask them to apply it, and then bring in a verdict? Of course the "applicable" law may not itself have been mechanically found, but in any civilized nation the vast number of cases tried on disputed facts requires little more than statutory or decisional general principles of conceded law. And ordinarily a trial judge does not engage in the fashion of "new" law but leaves this to his appellate superiors.

If the preceding is acceptable as a general statement of principles and practice ordinarily found in all except a small, perhaps minute, number of cases, then the ascertainment of the correct facts becomes the most important function of the *nisi prius* tribunals, judicial or administrative. This is not peculiar to the law. Even legislative⁹ and executive¹⁰ bodies cannot act without correct facts, whether because they desire to enact, apply, or create exceptions to the law; and entrepreneurs, as well as governments, also need correct facts to engage in and operate businesses and their own bureaucratic and clerical machinery. This concentration on facts is a worldwide phenomenon of long standing for, even before the Age of Reason, which exalted and still exalts facts, nature, and man, Plato and Aristotle and their successors sought and discussed facts upon which to build their social, political, physical, and other sciences. Today's Ages of Technology and of the Computer, in conjunction with psychological behaviorism and its progeny, have culminated in a legal approach to what may be called applied manipulative law. Let me explain this term.

Applied manipulative law may be illustrated as a contrast between, on the one hand, doctrines such as natural or even positive law, which in some direct or indirect manner appeal to a higher, external, objective *rationale* for a content which is somewhat ethical, moral, unswayable, and continuing, and, on the other hand, the kind of unprincipled, *ad hoc*, subjective approach which changes as whim or temporary desire dictates, and which admittedly alters the content and application of law as any special person, group, interest

⁷ The late Learned Hand termed such demeanor evidence "lost evidence." *National Labor Relations Board v. James Thompson & Co., Inc.*, 208 F. 2d 743 (2d Cir. 1953).

⁸ E. g., a special or directed verdict may plunge the judge into fact evaluation and analysis, or similarly on a motion n. o. v. or even a year later for a new trial on newly found evidence. In general, on all these areas, see M. Forkosch, *Carmody-Forkosch New York Practice* Chaps. XXXI and XXXIII (8th ed. 1963).

⁹ E. g., *McGrain v. Daugherty* 273 U. S. 135 (1927).

¹⁰ See, e. g., *J. W. Hampton, Jr. & Co. v. United States*, 276 U. S. 394 (1928).

or need impinges overtly or covertly (e. g., the Watergate mentality).¹¹ Of course this black-white statement is itself so biased as to remove a choice, but, more importantly, does the lie detector's judicial acceptance for fact finding necessarily lead to such applied manipulative law? If it does, whether completely or in any significant degree, then such acceptance must be denied the mechanism or, at the very least, its use must be curbed, carefully limited, and, perhaps, admitted only for corroborative, defensive, or both purposes.

The conjunction of computer technology and applied manipulative law has not, ordinarily, involved a one-on-one situation. That is, a Jones versus Brown confrontation has not occurred in which one or more facts must be resolved, the correct fact(s) thereby obtained, and a determination then made on that basis. Rather, stored mass data give mechanical retrieval systems excellent scope for somewhat replacing personal investigatory needs, and computer evaluations and print-outs apparently solve the need for a person or body so to analyze and determine. These general statements may be particularized by contrasting a courtroom with, say, an insurance company and a businessman's operations. For example, an insurance company determines rates, coverages, et cetera, on bases obtained by numerous events over a large scene, e.g., deaths per hundred thousand population, classifications within, and probabilities stemming therefrom. Revisions occur with changes in the facts, e.g., life-saving and prolonging techniques and drugs, general health increases, et cetera, or, *au contraire*, increases in smoking, drinking, or drugs which result in life-lesening. Businessmen ordinarily seek to determine their production and distribution operations on a massive assortment of detailed facts, e.g., pricing, manufacturing or retail locations, advertising; they take risks, of course, but on the basis of "informed" opinions.

2) In the pre-scientific poll or fact-taking days, without the present computer print-out and the mechanization of private, as well as public (e.g., the federal Bureau of Labor Statistics), conclusions and determinations, months and years went into a businessman's tentative, shaky, and hopeful

¹¹ The concepts in applied manipulative law find their counterpart in many fields. The public and private sectors indicate such factual-conclusory manipulations. The Vietnam conflict discloses the technique of concocting facts which become the basis for military inferences and conclusions which Congress (and even courts) accept and then make a determination thereon (e. g., the Bay of Tonkin Resolution, escalation, and extension). In place of the concocting of facts there may be distorting or deliberate misinterpreting, as, for example, not only the President and Watergate, but also the CIA with the situations in the Bay of Pigs and the Dominican Republic (to mention but these). The importance of facts in the public sector are also disclosed in such historic occurrences as Napoleon's lack of them during Waterloo and his miscalculations of Russia's winter. The private sector finds the "planting" of misinformation among competitors, the issuance of false information for stock and manipulative purposes (e. g., the United States National Bank, the Pennsylvania Railroad situations) the filing of sworn data for governmental approvals (e. g., F. D. A. acceptance for drugs on private tests, of contract awards based on equipment and other statements), and so forth; the list is endless.

courses of action; today, on the assumption that the basic facts are correct, adequate, and sufficient in scope and depth, with proper techniques and procedures being used, so that a correct picture or reflection results of what is involved,¹² the print-out becomes the accepted projection for not only adoption but, if necessary, reformulation, discarding, et cetera, of conduct, goals, and even men and issues.

In other words, in this era of mass statistical information the indispensably necessary use of mechanical techniques warrants their adoption and reliance on them; for, as with the Industrial Age, the needs of society now also require mass production with a corresponding sacrifice of individual and personal attention to the facts of quality, et cetera. And, perhaps unfortunately, the public has been bombarded to such an extent with all these methods and uses that they have become a part of our accepted ways of thinking and looking at things (e.g., political polls, t.v. ratings), with reliability and acceptability becoming an automatic reflex along conditioned lines (e.g., Pavlov's dogs).

3) Does our system of court-administered justice proceed directly or analogously on the basis of an indispensably necessary computer print-out? Phrased differently, do we need mass justice because otherwise there will be a general breakdown in the system and application of the law? And, even if we answer yes, are the techniques and procedures available today sufficiently justifiable to warrant their use? One extreme situation may be envisaged, namely, traffic courts and speeding.¹³ In the United States, if not elsewhere, the institutionalized concepts of justice and due process require that nomenclature and formality be observed by having traffic crimes tried in a "court" before a "judge". This system of appearing to respond and plead guilty to a citation, or even the time consumed by an explanation or request for leniency, proved too much; there weren't enough courts and judges. Eventually a twofold system has, generally, evolved: traffic crimes are broken into "traffic offenses" and "traffic crimes", with only the latter continuing to receive the full panoply of applied justice, and the latter being handled administratively where pleas of guilty are made before the clerks. But even this bifurcation has proved unsatisfactory, and more needs to be done. One remedy is here proposed.

Let us, for example, construct our super-highways so that every so often (say, every ten kilometers) a beam intersects the road, and every licensed

¹² And without this assumption we would be in the situations envisaged in note 11, *supra*.

¹³ The details and ramifications in a speeding case are discussed by this writer in "Speeding and Due Process", 28 *Fordham L. Rev.* 115 (1959), and see also text keyed to notes 28 et seq., *infra*. On one such device so discussed see *Los Angeles Times*, January 24, 1975, part I, page 1, col. 1, going into the so-called "Speedgun", which is a (hand-held) radar device plugged into the lighter outlet of an automobile or into a portable battery pack, then pointed at a moving object, and, immediately registering on a calibrated scale the exact speed of that object (ordinarily a 3 m. p. h. tolerance in speedometers is observed). For possible objections, errors, flaws, etc., in its workings, see "Speeding and Due Process", *supra*.

automobile has a plate attached to its side which provides an identification; if the elapsed time between beams discloses speeding then a print-out is mailed to the speeder, or the exit tollgate automatically adds to his costs (or, when entering and leaving the first and last toll-gates, the elapsed time cannot be below the easily calculated and published averages). In this situation the only question might be the proper functioning of the mechanical means, but if built-in inspection techniques provide for self-corrections or immediate warnings and repairs, then even this loophole is eliminated. Perhaps mass justice in this situation may be justified on several bases, e.g., necessity, the consequences otherwise resulting, the over-balancing in favor of the public's needs as against the individuals' constitutional or other rights; but a better reason may also be that mechanical transportation can be monitored by mechanical evaluation, for there is nothing subjective really involved. Put differently, when a fact can be ascertained mechanically, objectively, reliably, and beyond peradventure of doubt as to means or result, then seemingly no reason to doubt its acceptability arises —the facts become judicially admissible for evidentiary purposes.

4) Perhaps this type of mass and impersonal justice based on a mechanical contrivance checking another mechanical contrivance in speeding situations is not only warranted in a traffic court for many reasons, but is also "fair" in that context and thus not dangerous to our established and future institutions and *mores* —but that is not what is involved in our present examination of the lie detector. It is a far cry from the preceding analysis of a particular and exceptional situation to what is found in the ordinary court of law, and what is now proposed by the advocates of the lie detector.

Two situations may be treated which arise in the ordinary courts of law. The first is where an individual is the only person involved, and only he can determine the fact, i.e., no thing, document, or any one else can asseverate to the contrary or even corroborate him.¹⁴ That fact may be whether the employee in the department store, bank, et cetera, took the merchandise, money, et cetera; or did the government or business clerk or official pass on government or trade secrets; or did he do something or other in his past life warranting a job refusal, dismissal, et cetera? The second situation starts with the first one, but now with another person(s) added who can swear to the contrary, a confrontation occurs, and there must be a resolution of the conflicting statements or testimony.

In the first situation the injection of the results of a lie detector will, we feel, always determine the issue because of reasons too obvious and plain to require enumeration — or, at most, it will be a rare situation when the determiners will decide the fact contrary to the results of the lie detector. In the second situation we hazard the same general conclusion, even though

¹⁴ We attempt to keep these situations simple, e. g., the story is not inherently improbable, or flies in the face of judicial notice or scientific facts, e. g., Hunter v. New York, Ontario & Western R. R. Co., 116 N. Y. 615, 23 N. E. 9 (1889).

conceding that in rare instances the determiners may be swayed otherwise, e.g., an overwhelming array of testimony and corroboration as to character, although this exception really does not do violence to the reasoning and even “proves” it, i.e., a subjective exception to an objective view of a fact.

Let me illustrate these assumed situations by reference to the Alger Hiss-Whittaker Chambers confrontation when Richard M. Nixon was a congressman. Initially it was Hiss’ word against Chambers’; and the position and reputation (and its corroboration) of the former, contrasted with the latter’s, decidedly gave the edge to Hiss’ story note, however, that the factual confrontation remained the same, with believability and acceptability going to Hiss’ version because of external factors such as status and reputation.¹⁵ But then, however, the Chambers story began to be buttressed by external, objective (“real”) evidence, e.g., the typewriter, and, finally, the *coup de grace* of the “pumpkin papers”. All this material had to be presented, assimilated, evaluated, and then determined, with everything hinging on one question, Who is to be believed? Who is telling the truth? Here, if ever a situation cried out for an external, objective, and unbiased determination, was the perfect spot for the lie detector judicially to resolve the confrontation — or, at least, so it would appear.¹⁶

There are other types of procedures whereby facts and truth may be ascertained. For example, fingerprints are a classic illustration which need not be explored¹⁷ beyond the comment that they are the person’s figurative *alter ego*; similarly are blood groupings and other items in this vein a person’s body identification in some degree, positive or negative. In these situations the only questions ordinarily asked are whether the method *per se* is, in theory, sufficient; if so, is the particular mechanical contrivance used also ordinarily and here properly sufficient; and, if so, whether it was now properly used by an expert and competent person so as to produce judicially admissible results.

For example, the admissibility of voiceprint identifications is in a state of suspended animation because “as of this date”¹⁸ the state of this art “is not now sufficiently accepted by the scientific community as a whole

¹⁵ See, in general, Forkosch, “The Nature of Legal Evidence”, 59 *Calif. L. Rev.* 1356 (1971).

¹⁶ For facts and information on this celebrated affair see, e. g., W. Chambers, *Witness* (1952); A. Hiss, *In the Court of Public Opinion* (1957); R. Seth, *The Sleeping Truth* (1968). It may be pointed out that oral evidence only vouched for this typewriter, and that after the trial two police experts swore that tampering had occurred to have the keys conform to the typed material. A retrial was refused.

¹⁷ See the use of thumbprints for identification purposes on checks, with banks, department stores, and other accepting or cashing places reporting great success in reducing losses, but civil liberties organizations objecting because of “concern over the long-range ramifications...” *Los Angeles Times*, October 23, 1974, part 1, page 1, col. 1.

¹⁸ *State v. Cary*, 49 N. J. 343, 230 A. 2d 384 (1967), and see also 53 N. J. 256, 250 A. 2d 15 (1968), and 56 N. J. 16, 264 A. 2d 209 (1969).

to form a basis for a jury's determination of guilt or innocence";¹⁹ other courts, however, have permitted the results into evidence without qualification,²⁰ or only "to corroborate defendant's identification by other means".²¹ It is significant to note that the rejection quoted above seems to indicate that the court would, if and when the results were to be admitted, permit these "to form a [but not 'the'] basis" for the jury's determination, i.e., guilt or innocence, and in the cited case where the court permitted it in only for corroboration "of identification by other means", it also expressly refused to determine whether the voiceprint identification was alone sufficient to sustain a conviction.²² In effect the courts seem to feel that such an identification (proof of the fact) is so great in its impact upon a jury that it almost mandates their determination; the legal-technical reasons advanced for rejection or limited admission probably obscure the underlying unconscious premises; and one of these undoubtedly is the consequence for our system of personal justice, i.e., justice is not to be determined, or punishment inflicted, *en masse* as if it were a mechanical jurisprudence, and this necessitates rejecting, or at least limiting, any mechanical contrivance which so encourages or results even in an indirect fashion.

5) We have referred to but a few methods used for ascertaining facts, e.g., speeding, fingerprints, thumbprints, blood-groupings, ballistics tests, and then voiceprints, all of which we classed into either the *alter ego* or the external aspects of a human being.²³ Identification by fingerprint, for

¹⁹ United States v. Addison, 498 F. 2d 741, 745 (App. D. C. 1974), and for a like result, i. e., rejection, see People v. King, 266 Cal. App. 2d 437, 72 Cal.Rptr. 478 (1968). The rationale behind the voiceprint is that normally the human voice operates both in audible frequencies and inaudible frequency modulations; when a person is under stress, however, the latter modulations disappear; and, while a listener cannot detect this, a machine can. See *Trial Mag.*, August, 1972, p. 56, col. 1, for reference to testimony before Fresno County Superior Court Judge Blaine Pettitt, in California, by Dr. Oscar Tosi, professor of audiology at Michigan State University, who testified concerning his experiments on 250 people, with only 6 percent of some 50,000 voiceprints being incorrect for purposes of identification; the Judge "ruled that there has been sufficient experimentation to show the voiceprint machine has been accepted by the scientific community as a means of identification". One is tempted to say, hogwash; there has been no such general acceptance, at least to this writer's knowledge. And in the Addison case, *supra*, it was the testimony of this same Dr. Oscar Tosi which was rejected! Criticisms of this device have alluded to the subject's fatigue, illness, etc. and in its operations, and see also text and note 39, *infra*, and note 20.

²⁰ If the expertise of the examiner was established, United States v. Raymond, 337 F. Supp. 641 (D. C. D. C. 1972), and see also United States v. Sample, 378 F. Supp. 44 (E. D. Pa. 1974). See also *New York Times*, June 5, 1972, page 1, col. 5, on the use of a machine to "detect psychological stress by analysis of a person's voice... in a few court proceedings". See also note 19, *supra*.

²¹ Worley v. State, 263 So. 2d 613 (Fla., 4th Dist. C. A. 1972), Alea v. State, 265 So. 2d 96 (Fla. 3d Dist. C. A. 1972), United States v. Wright, 17 U. S. M. C. A. 183, 37 C. M. R. 447 (1967), State ex rel. Trimble v. Hedman, 291 Minn. 442, 192 N. W. 2d 432 (1971) (approving results but only to corroborate voice identification by ear and if a proper foundation on expertise is first made).

²² Respectively, the Addison and Worley cases, *supra* notes 19 and 21, and on the lie detector see notes 61-62, *infra* and text.

²³ See, e. g., on forensic odontology, Sperber, "Trial Aids and the Role of the Forensic Odontologist", 44 *F. B. I. Law Enforcement Bull.* 27 (1975), and on the external aspects, Forkosch, "Reflections Upon Hegel's Concept of Property, Contract,

example, or connecting a bullet to a gun ballistically, does not, as has been mentioned, automatically result in a conviction. A witness need take no position on evaluating guilt or innocence, truth or falsity, and testify as to the fact as objectively as he can; one additional possible, not admitted, fact is thus presented to a jury, for there are others just as expert as, or even more expert than, the witness, to testify to the contrary, i.e., the battle of the experts.

The jury is thus presented with the physical facts (the finger's whorls or the gun's grooves and lands, in conjunction with the prints or the markings on the bullet), which alone could be used for its own comparison, evaluation, and determination, or it could (also) have the expert witness further give his views and opinions on the question (which is the usual case). Regardless, the physical facts may be attacked as to clarity, gathering, et cetera, as may the opinion of the witness for any reason or by others. And through all this the defendant, under the system of law in the United States, need not take the stand.

There is a separate legal concept involved which is imposed by the scientific knowledge utilized, namely, the limitations inhering in the procedures, tests, evaluations, or results. The best illustration is the use of blood tests in paternity proceedings, for in other non-legal or even legal situations a different view may be warranted or permitted. In a paternity proceeding the mother of the child (ordinarily born out of wedlock) contends that the defendant is the father; proof on this issue follows the usual pattern with one exception. Assuming the defendant agrees, and according to one authority thirty percent of the men in one jurisdiction actively seek it,²⁴ a blood test of the child and the man determines their blood groups. If, for example, both are found to be AB, no inference one way or another follows, as this group can result from several combinations; but if the child is AB and the defendant is O, then it becomes scientifically impossible for a blood relationship to be present and the defendant cannot possibly be the father. The negative, not the positive, results are admissible to disprove paternity because in this situation the law could not decide otherwise — “to hold to the contrary almost seems an absurdity”.²⁵ What is really involved in this method is the ascertainment of a fact, *sans* anything else; but, once obtained, negative proof becomes conclusive and no evaluation, analysis, or law is required, as the law has become settled based on this fact. And this legal concept is not strange, nor is it applied only in this area, for example, the President of the United States has power to act when an external objective fact occurs, as provided by law.²⁶

Punishment, and Constitutional Law”, 18 *Vanderbilt L. Rev.* 183 (1964) concerning such an *alter ego* found in other areas of the law.

²⁴ S. Schatkin, *Disputed Paternity Proceedings* 166 (4th ed. 1967).

²⁵ Comment 25 *Iowa L. Rev.* 823, 825 (1940).

²⁶ And when a time period elapses, or a fact occurs, the law or power may lapse or be withdrawn. In general see, e. g., Forkosch, “Constitutionality of the Vietnam Venture and a Registrant’s Right to Counsel Within the Selective Service System”, 22 *So. Car. L. Rev.* 287 (1970).

In the light of this blood-grouping negative, what can be said of other tests and examinations? Negatives may also be utilized where the situation invites, for example, Jones' fingerprints are concededly found on the revolver left at the scene, but ballistically this revolver could not have been used for the murder. Positives, however, are the usual mode for the introduction of tests at a trial and, save for blood tests in paternity proceedings, that is what one ordinarily thinks of. Furthermore, when the tests involve what we have called a person's *alter ego*, then another factor intrudes. That factor has to do with either a psychic aspect or a non-psychic one. For example, fingerprints, blood groupings, phrenology, and like items do not encompass psychic aspects and may be considered in a light different from, say, an examination of a person to determine whether he is mentally competent to stand trial. A lie detector test, however, ordinarily deals with a person's intentional statements and the recording of the non-psychic elements are but one, allegedly scientific and better, way of ascertaining the fact of truth or falsity. Unfortunately, to a jury of laymen, and regardless of any charge by a judge, this objective and scientific roll of lines and waves gives the *imprimatur* of acceptability and authority, and even conclusiveness, to the evaluation and interpretation by the examiner. Is this method judicially acceptable for the scientific ascertainment of such factual truth so as to be introduced positively and be sufficient *per se* to uphold a determination based upon it?

6) The detection of lies, or the ascertainment of truth, is not embodied in an instrument of recent vintage. Even Moses cried out unto the Lord to aid him in dispelling from the minds of his people (the jury) any question concerning his veracity, truth-telling, and believability.²⁷ The Inquisition sought to determine the true facts of belief in its own way, the English common law early used compurgation, trial by *battel*, and other methods,²⁸ and in India the movement of the big toe disclosed the lie, while the early Chinese forced suspects to chew rice powder which, remaining dry, disclosed guilt. The civil law countries ordinarily rely on the investigatory, and common law ones on the adversary, procedures whereby facts and truth become interrelated and necessary ends as bases upon which to decide. Thus procedures may change, methods may wither and be replaced, and new ways come into existence—but the immediate goal remains the same, namely, to ascertain correct facts for use upon a trial.

Apparently the Italian physiologist, Cesare Lombroso, in 1895, was the first person to utilize a method involving blood pressure so as to ascertain guilty or innocence; by 1914 another investigator added an "inspiration and expiration" recording. However, in 1908 James MacKenzie, a heart specialist,

²⁷ See Forkosch, "God and Man in Law", in *Festschrift für Pan. J. Zepos* (Athens, 1973), repr. 3 *Univ. of San Fernando Valley L. Rev.* 43 (1974).

²⁸ See W. Stubbs, *The Constitutional History of England* I, 427, 653-55 (5th ed., 3 vols., 1891), Forkosch, "Nature", *supra* note 15, and also M. Forkosch, *A Treatise on Labor Law* Chap. IX (2d ed. 1965).

described his "polygraph" in the British Medical Journal which, in 1921, was successfully used by a medical student in California to detect a dormitory thief.²⁹ By 1922 a "cardio-pneumo-psychogram" was being used which, as a variation of the preceding and with them, initiated the modern technique of recording a person's (allegedly reflex and uncontrollable) responses to stimuli, after which the measurements could be evaluated. As one among several pre-conditions, however, experts were required to give the tests and to pass upon the records, and it was concluded by one investigator "that there is no test in its present [1922] state which is suitable for the positive identification of deception and suitable for court procedure..."³⁰

In the following year, 1923, in the first case in the United States to discuss the lie detector, the intermediate Court of Appeal of the District of Columbia, without specifically referring to any person or expert, rejected "the systolic blood pressure deception test [because it] has not yet gained such standing and scientific recognition among physiological and psychological authorities as would justify the courts in admitting expert testimony deduced from the discovery, development, and experiments thus far made".³¹ That court then described the test and its claimed results in language which is still *à propos*:

It is asserted that blood pressure is influenced by change in the emotions of the witness, and that the systolic blood pressure rises are brought about by nervous impulses sent to the sympathetic branch of the autonomic nervous system. Scientific experiments, it is claimed, have demonstrated that fear, rage, and pain always produce a rise of systolic blood pressure, and that conscious deception or falsehood, concealment of facts, or guilt of crime, accompanied by fear of detection when the person is under examination, raises the systolic blood pressure in a curve, which corresponds exactly to the struggle going on in the subject's mind, between fear and attempted control of that fear, as the examination touches the vital points in respect of which he is attempting to deceive the examiner.

In other words, the theory seems to be that truth is spontaneous, and comes without conscious effort, while the utterance of a falsehood requires a conscious effort, which is reflected in the blood pressure. The rise thus produced is easily detected and distinguished from the rise produced by mere fear of the examination itself. In the former instance, the pressure rises higher than in the latter, and is more pronounced as the examination proceeds, while in the latter case, if the subject is telling the truth, the registers highest at the beginning of the examination, and gradually diminishes as the examination proceeds.

²⁹ See, on these, Highleyman, "The Deceptive Certainty of the 'Lie Detector,'" 10 *Hastings L. J.* 47, 53 (1958).

³⁰ Larsen, "The Berkeley Lie Detector and Other Deception Tests", 47 *A. B. A. Rpts.* 619-28 (1922).

³¹ *Frye v. United States*, 293 F. 1013, 1014 (App. D. C. 1923) and see also Comment, "The Use of Psychological Tests to Determine the Credibility of Witnesses", 33 *Yale L. J.* 771 (1924). On the scientific-conceptual basis as given in the quotation, see also the analogous one in note 19 et seq. for voiceprints.

What the court also impliedly said, in its description of the procedures, was that no polygraph or other machine can itself detect and pronounce a lie. All that can be and is done is to record in some manner the emotional (subjective) states induced by the questions, and these states and records vary as the blood pressure, for example, rises and falls, or as the breathing varies, or the skin resistance to electrical current changes. Since then improvements on recordings of different variations have been sought so as to make the machine "fool-proof", but to date the tests are not completely conclusive.³² Thus, four years after the above rejection, tests with a new and improved polygraph, which went beyond the earlier method, were also found by a commentator as not "having been sufficiently proven as to reliability of technique to warrant courts in accepting their results in evidence at the present time".³³ However, taking up the cudgels of court and commentators, the late Leonard Keeler then began perfecting his own version of the polygraph, and performing his own experiments and procedures; in a preliminary comment he observed that "almost anyone can operate a polygraph . . . , but only individuals with training and long experience can interpret the resultant recorded curves. The inexperienced operator cannot diagnose deception with a polygraph any more than he can diagnose a cardiac murmur with a stethoscope".³⁴

This polygraph type of lie detector is not to be confused with one invented by Walter G. Summers in the 1930's. That instrument registered the emotions "detected by silver electrodes on the outer surface of the skin receiving the stimulus from the periphery nerve endings".³⁵ This psychogalvanometer was rejected in 1938 in the jurisdiction where it was born and has not thereafter been much before the courts. What since occurred, however, was a borrowing of the galvanometer by the polygraph for an additional instrument in the latter's arsenal. Regardless of the type³⁶ of lie detector used, the concepts here examined still apply.

³² Although see *State v. Lucero*, —N. M.—, 526 P. 2d 1091 (1974), *State v. Alderete*, 86 N. M. 176, 521 P. 2d 138 (1974). In the latter case the concurring opinion (see note 53, *infra*) nevertheless agreed that *Frye v. United States*, *supra* note 31, was no longer an obstacle to admissibility, with the majority (at 140) referring to six federal cases and two articles in support of admissibility (see note 56, *infra*, and also 53).

³³ McCormick, "Deception-Tests and the Law of Evidence", 15 *Calif. L. Rev.* 484, 503 (1927).

³⁴ Keeler, "Debunking the Lie Detector", 25 *J. Am. Inst. Crim. L.* 153, 159 (1934). The Keeler machine is described, as of 1933, in *State v. Bohner*, 210 *Wisc.* 651, 246 *N. W.* 314 (1933), rejecting admission in court of results, although additionally perfected since then.

³⁵ Described in this writer's "The Lie Detector and the Courts", 16 *N. Y. U. L. Rev.* 202, 204 (1939), and see also description given in *People v. Kenny*, 167 *Misc.* 51, 3 *N. Y. S. 2d* 348 (1938), admitting the results, but with the same instrument then rejected in *People v. Forte*, 167 *Misc.* 868, 4 *N. Y. S. 2d* 913 (1938), *affd.* 279 *N. Y. 204*, 18 *N. E. 2d* 31 (1938), and Summers, "Science Can Get the Confession", 5 *Ford. L. Rev.* 3334 (1939).

³⁶ Whether or not a breathalyzer is also a lie detector (the subject denies he is "drunk") is immaterial, for its legal acceptance on a large scale is general knowledge. See, e.g., *People v. Hitch*, —Cal. 3d—, 527 P. 2d 361, 363 (1974), describing it, although, because of the failure of the officers and agencies involved to preserve the

7) The lie detector breaks down instrumentally and legally into several details. First are particular items which are to be included and assembled into the polygraph, and serious questions arise as to their reliability and accuracy in general and in particular.³⁷ Second is the scientific theory upon which the polygraph is to function, and immediately the question of scientific community recognition and acceptance arises. A theory remains a theory *sans* experience and experiments, independent and like tests, parallel results on parallel equipment and theory, et cetera. Third is a question whether items functioning properly and accurately alone, likewise function accurately when assembled and in conjunction with others.³⁸ Fourth is the problem of the operator, who is to use the assembled and functioning instrument (assuming it is not moved to another location, e.g., a portable polygraph, for now additional questions arise on whether the instruments remain accurate because of possible jarring during transportation, rechecking in new location, et cetera), and who just can't be anybody, i.e., he must be a trained expert.

The late J. Edgar Hoover felt that ninety percent of the polygraph's usefulness is found here, that is, who is to be the examiner, for his carefulness in not only giving but in preparing, formulating the questions, giving them, operating the machine, soothing the person being examined, getting proper recordings, reading and evaluating them properly, et cetera, is a major factor.³⁹ Courts, as we will see, find this a weak spot; those states requiring licenses for operators stress this expertise, although the licensing requirements and procedures are woefully weak; and commentators advert to this. In 1934 Keeler, as quoted above, castigated the inexperienced operator; after almost half a century of experimentation and use, one writer, in 1964, felt that only twenty percent of those holding themselves out as examiners were, by training, competent,⁴⁰ while another, ten years earlier, gave the figure as ten percent.⁴¹ And what is required for blood testing⁴² is even more required for the polygraph.

ampoule a question arose as to admissibility, resolved in the rule now set forth at 369 (see also *Calif. Vehicle Code* 23126, which provides for a presumption of intoxication when the amount of alcohol measures 0.10 percent of more weight, etc.). The dissent desired to apply the decision to the instant defendant and not reverse because of the new rule.

³⁷ See, e.g., this writer's "Speeding and Due Process", *supra* note 13, where the speedometer in the police chase car must ordinarily have recently been tested against a master speedometer before its reading during the chase is admitted into evidence.

³⁸ See, e.g., Burkey, "The Case Against the Polygraph", 51 *A. B. A. J.* 855 (1965), stating it is, as of then, unreliable (and also violates personal rights).

³⁹ See MacDonald "The Lie Detector Era: Part II", *The Reporter Mag.*, June 22, 1954, p. 22.

⁴⁰ Inbau & Reid, "The Lie-Detector Technique: A Reliable and Valuable Investigative Aid", 50 *A. B. A. J.* 470, 473 (1964), although note that this recommends it as an "investigative" aid, not necessarily, therefore, as a judicially admissible aid. See also J. Reid and F. Inbau, *Truth and Deception* (1966).

⁴¹ MacDonald, "The Lie Detector Era: Part I", *The Reporter Mag.*, June 8, 1954, p. 14.

⁴² Schatkin, *Disputed . . .*, op. cit., note 24, p. 162, states that the safeguards included a "highly competent and qualified pathologist" to administer the procedures.

In 1974 one psychologist observed that "the examiner's brain is an integral part of the machinery of the test, and it would obviously be very difficult to train an examiner to get his subjective cutting score in such a way as to produce an optimum validity for a given base-rate situation..."⁴³ We may thus note that whereas a mechanical-mechanical relation is the key factor in speeding, and this elimination of the human factor makes for some degree of accuracy and admissibility, in the polygraph the relation now is mechanical-human-mechanical at the very least, i. e., during the interrogation the machine is operated and questions are asked by a human being, with a recording made mechanically. But this is not all. For before and after the recording is made a human being must also prepare and set up, and thereafter read and evaluate, so that the ultimate relation is to be expressed as human-mechanical-human-mechanical-human. In other words, three subjective factors are introduced into the scheme of the lie detector's accuracy.

Other problems are found, for fifth, is the problem of the setting for the test, as persons are somewhat influenced by their surroundings; these factors vary, perhaps, with the individual, e. g., a youngster finds somber black where cheery magenta is called for, or a woman finds no female present. Sixth is the person to be tested, and this is a most important element. There is no need to press the factors of sleep, alertness, illness, et cetera;⁴⁴ these, and other like factors, are within the power of the examiner to determine and to control, one way or another, with unquestioned consequences upon the results. Should a medical examination first be held? What of a psychiatric one? Lykken writes that "A truthful, innocent suspect who happens to be unusually loquacious and who feels that being prosecuted for the crime in question might ruin his career could obviously give a stronger emotional and autonomic response to the question, 'Are you guilty?' than a psychopathic, guilty suspect whose liability is law and who does not really care whether he 'fails' the test or not..."⁴⁵

⁴³ Lykken, "Psychology...", *supra* note 4, at 737.

⁴⁴ See, e.g., note 19, *supra*. What of a so-called truth serum (sodium pentothal or sodium amytal) being administered separately or in conjunction? According to one court, this is of no consequence, ad the lie detector was rejected. *People v. Jones*, 52 C. 2d 636, 653, 343 P. 2d 577 (1959), cert. den. 361 U. S. 926 (1960).

⁴⁵ Lykken, "Psychology", *supra* note 4, at 731-32. See also quotation in *Los Angeles Times*, february 25, 1975, part IV, page 1, col. 2, by Dr. Barbara B. Brown, stating in part: "Human beings can learn to develop voluntary control over any or all of their intimate physiological systems when monitored. This includes control over heart rate, blood pressure, brain waves, skin temperature and other vital mechanisms of the body which function automatically, chiefly by reflect. We call this ability biofeedback..." Whether or not this biofeedback can be utilized by persons being interrogated in a lie detector examination has not yet been tested or determined; it is worthy of examination.

In another article Lykken reiterates his view that the lie detector must be operated by an expert, again asseverates that the machine should be used for investigative purposes only, and points out that when doubt, fear, and lack of confidence in the test are present, innocent people also may appear guilty because of the increase in their autonomic responses to incriminating questions, i.e., through such emotions anyone

Regardless, still other questions intrude. Seventh, who is to prepare, check, certify and propound the questions to be asked?⁴⁶ The "traditional" methods utilize oral questions, answered orally, but there has recently been proposed a "silent answer test" because, it is suggested, there may be flaws in the "yes test."⁴⁷ The importance of all of these various elements cannot be over-estimated. If the examiner is in control of all these, and in addition is to be in control of the actual recording, and then evaluate and interpret, he becomes almost a super-man, and even his integrity is suspect. As one private investigating company states in its brochure, "The reliability of any polygraph examination rests primarily on the expertise of the examiner."⁴⁸ Eighth are the problems inherent in the interpretation and evaluation of the recordings, whether to have another test run immediately or later, and with or without the same questions.

These eight items do not present all the questions which may be asked, or all the problems which may be encountered.⁴⁹ Merely to illustrate the need for safeguards in this highly unregulated area, only a few states fix basic requirements of licensing, and even these are not fully adequate. For example, Illinois has a license requirement for a "Detection of Deception Examiner," which, among other things, requires an academic degree, at least six months internship training, and the passing of an examination "to determine his competency. . . ." ⁵⁰ Unfortunately, the Examiner Committee is composed of five appointees who themselves are practicing examiners, which prompts the question, who examined the examiners in the first instance, or does the Act's grandfather clause perpetuate incompetency?⁵¹ Kentucky's requirements are even looser, e. g., the applicant for the examiner's license need be only eighteen years of age although he must have "administered detection of deception examinations for a period of at least two (2) years. . . ." ⁵² And New Mexico's laws are in effect merely hort-

can look guilty because shifts are thereby generated, "The Right Way to Use a Lie Detector", *Psychology Today*, vol. 8^a p. 56 (march, 1975).

⁴⁶ We do not go into these in detail, although see Forkosch, "Lie Detector", *supra* note 35, at 227, on "loaded" questions.

⁴⁷ Horvath & Reid, "The Polygraph Silent Answer Test", 63 *J. Crim. L., Criminology & Police Science* 285, 286 (1972). The "yes test" is one in which the entire series of questions is to be affirmed, "including the pertinent relevant questions to which he had previously answered 'no' on the prior tests. . ." It was discovered, say the authors, that a large number of the liars now responded in the same degree as when answering no before.

⁴⁸ Reference *Manual of California Attorneys Investigators, Inc.* (undated), p. 10. See also Poling, "Invasion by Lie Detector", *Reader's Digest*, may, 1966, pp. 109-13, who cautions against the abuses and illustrates by numerous references.

⁴⁹ See, e.g., Highleyman, "Deceptive", *supra* note 29, at 57-62 for other objections and criticisms.

⁵⁰ *Ill. Rev. Stats.*, Chap. 38, 202-11(E). The sections encompass 202-1 through 202-30.

⁵¹ The grandfather clause is found in 202-6, which permits those practicing the business of examiner for at least one year before the Act became effective to receive licenses without taking any examination.

⁵² *Ky. Rev. Stat.* 329.030(2)(c).

atory!⁵³ Thus, even though investigators offer paeans of praise as to the accuracy of lie detector examinations,⁵⁴ there is always at least one qualification presented, namely, proper examination by a highly qualified examiner, i. e., "Turning to examiner competence, it is without question that this factor is of critical importance. . . . The emphasis put on the skills, experience, and integrity of the examiner is not surprising."⁵⁵

8) The court decisions generally reject lie detectors,⁵⁶ whether directly or indirectly sought to be introduced,⁵⁷ unless the court accepts the parties' stipulations and agreements to permit introduction of their results.⁵⁸ It is in this area that a judicial policy of limited acceptance seems to be in the process of adoption. Hesitancy is understandable, and strict limitations and scrutiny a necessity, but the policy has not (fortunately) spread. To illustrate, the New Mexico Supreme Court has prepared a series of requirements which must be met before lie detector results may be admitted, but it appears to have rejected its lower court's view that when all parties so

⁵³ *N. Mex. Stats.*, vol. 10, Part I, 67-31A-1 et seq. For an interpretation and application of the Act, and upholding the trial court's rejection of defendant's tendering of the results, see *State v. Alderete*, *supra* note 32. The court, at 140, said that "Scientific recognition of polygraphic tests has now arrived. A proper foundation must [however] first be established. . ." The majority then formulated a series of requirements for this purpose, but, in *State v. Lucero*, *supra* note 32, at 1093, the Supreme Court overruled these and presented its own views: "The failure to accept the testimony of the polygraph testimony was not error. This court has held to the rule which admits polygraph test results when each of these requirements are [sic] met: 1. The tests were stipulated to by both parties to the case; 2. When no objection is offered at trial; 3. When the court has evidence of the qualifications of the polygraph operator to establish his expertise; 4. Testimony to establish the reliability of the testing procedure employed as approved by the authorities in the field; and 5. The validity of the tests made on the subject. . ." See also *Commonwealth v. A Juvenile*, —Mass—, 313 N. E. 2d 120, 127 (1974).

⁵⁴ See, e.g., R. Arther & R. Caputo, *Interrogation For Investigators* 214 (1959), claiming "an accuracy of over 96 per cent, with a 3 per cent margin of inconclusive (indefinite) determinations, and a 1 per cent margin of maximum possible error" over a five-year period of testings by Arther.

⁵⁵ In *Commonwealth v. Juvenile*, *supra* note 53, at 135 (dissenting opinion), all of the opinions and Justices agreed in this assessment.

⁵⁶ See, e.g., *United States v. Alvarez*, 472 F. 2d 111 (9th Cir. 1973), cert. den. 412 U. S. 921 (1973), following *United States v. De Betham*, 348 F. Supp. 1377 (S. D. Calif. 1972), affd. 470 F. 2d 1367 (9th Cir. 1973), cert. den. 412 U. S. 907 (1973), and cases cited, and see also *Ballard v. Superior Court*, 49 Cal. Rptr. 302, 64 C. 2d 159, 410 P. 2d 838 (1966), and *Anno*, 53 A. L. R. 3d 1005 (1973), as well as notes 32 and 53, *supra*, and references in the *Alderete*, *Lucero*, and *A Juvenile* cases.

⁵⁷ *People v. Wochnick*, 98 C. A. 2d 124, 219 P. 2d 70 (1950), *People v. Aragon*, 154 C. A. 2d 646, 316 P. 2d 370 (1957). See also Note: "Status of Lie Detector Evidence in California", 39 *Calif. L. Rev.* 439 (1951).

⁵⁸ See, e.g., *People v. Davis*, 76 Cal. Rptr. 242, 270 C. A., 2d 841 (1969), although in *People v. Dobler*, 29 Misc. 2d 481, 215 N. Y. S. 2d 313 (Suffolk County Ct. 1961), where defendant had consented, and the results were submitted to the Grand Jury which indicted, the indictment was dismissed because New York rejected any and all such tests regardless of consent. *Cf.*, however, on a Huntley hearing, the use of the results in *People v. Donato*, *N. Y. L. J.* may 24, 1966, p. 18, col. 4 (Nassau County Ct., per Kolbrener, J.), and also notes 32 and 53, *supra*.

stipulate then each party “should have the right to rely on the examination,”⁵⁹ apparently thus giving each party a veto on admissibility. The Massachusetts Supreme Court insists upon a limitation on admissibility “to carefully defined circumstances . . . [, but] that if a defendant agrees in advance . . . regardless of their outcome” then the results may be admitted.⁶⁰ However, these results are admitted “not as binding or conclusive evidence, but to be considered with all other evidence, as to innocence or guilty. . . .”⁶¹ To which one dissenter responded, “there is a grave risk that the jurors will regard such opinion testimony as resolving the ultimate question of the defendant’s guilty or innocence, not considering polygraphic evidence as they do other expert testimony and, contrary to the court’s instructions, not in fact weighing it with all the other evidence presented. . . .”⁶²

When a trial court does admit the test and an acquittal follows there is, of course, no appellate review available to the prosecution in a criminal matter, so that in the few instances where this has occurred there is a finality in judicial use which bars analysis.⁶³ There is a paucity of cases in the civil area, where appeals are available pro and con, so that commentators have generally confined themselves to the criminal area; but if the lie detector’s use becomes generally accepted, it is in the civil suit area that it may become the basis for push-button determinations, the obvious reason being the absence of those strict procedural safeguards which are constitutionally mandated in criminal trials. Regardless of admissibility in a criminal matter, one court felt that statements by the defendant made to the examiner prior to the giving of

⁵⁹ In *State v. Alderete*, *supra* note 32, at 138 of 521 P. 2d (and see also note 53, *supra*), the intermediate court stated that “Each [party] should have the right to rely on the examination. If the polygraphic test is reliable as to the guilt of the accused, it is equally reliable as to the innocence of the accused. We should no longer deny the State the right to exercise this privilege when a defendant *voluntarily* submits to the examination. The lie detector test must be *voluntary* because to compel a person to submit to testing to determine his guilt or innocence, whether willed or not, evokes the spirit and history of the Fifth Amendment. *Schmerber v. California*, 384 U. S. 757 (1966)”. However, in *State v. Lucero*, *supra* note 32, the Supreme Court overruled the foundation proposed in *Alderete* and formulated its own (see note 53 *supra*). This new series of requirements not only necessitates an initial stipulation by the parties but, in its second item, seemingly gives each party a veto on admissibility regardless of the stipulation.

⁶⁰ *Commonwealth v. A Juvenile*, *supra* note 53, at 124. The trial judge has first to deal with examiner qualifications, etc., and should “first make sure that the defendant’s constitutional rights are fully protected.” See the four situations envisaged in the majority opinion, at 126, in which a trial judge’s discretion can be exercised, the court then writing: “In all four instances, the defendant would agree in advance that the results be admissible irrespective of the results. . . .” This was a 4-3 decision, with the dissenters agreeing in two separate opinions, the thrust of the main dissenting opinion being that the court under its rule making powers appoint a special commission to investigate the matter (at 134).

⁶¹ *Ibid.*, at 124, and see also 127.

⁶² *Ibid.*, at 135-36, and see text and notes 75-76, *infra*, on the jurors’ responses.

⁶³ See, e.g., *People v. Kenny*, *supra* note 35, and *Los Angeles Times*, october 8, 1972, Sec. A, col. 4, where the federal trial court in California admitted the results indicating defendant did not lie; *New York Times*, september 22, 1959, p. 78, col. 3, where a New Jersey trial court ordered an acquittal, but six witnesses there supported defendant’s alibi in addition to the results on the lie detector examination.

the test are not rendered inadmissible,⁶⁴ a conclusion which may hardly be in consonance with the context within which an examination is supposed to be conducted for purposes of assuring truthfulness,⁶⁵ while another court refuses to permit the results of the test into evidence unless the defendant so desires, but allows the prosecutor to introduce defendant's confession to the examiner on a tape recording of their discussions taken simultaneously while both were observing the polygraph recordings and discussing them.⁶⁶

The federal government, however, has been using polygraph machines for many years and for many purposes,⁶⁷ as have numerous states. The problems engendered by such federal use were highlighted by hearings conducted by a subcommittee of the House of Representatives, culminating in a scathing attack on polygraphs, after which Lyndon B. Johnson appointed an inter-agency committee to study their use;⁶⁸ almost a decade later, after hearings conducted by his own subcommittee, Senator Ervin introduced a bill outlawing federally and by persons engaged in or subject to the commerce clause any requirement for a polygraph test for a job or to deny employment, discharge an employee, et cetera where such a person objected to such a test;⁶⁹ nothing of importance has since occurred. The family court in one large American city (Los Angeles) began to use a polygraph in cases where the parties' accusations had to be resolved because of custody, property, and other reasons, but apparently after two or three years nothing much further was done.⁷⁰ Private business use the instrument for many reasons,⁷¹ even the Ku Klux Klan reported its use "to root out government informers,"⁷² and now the Southwest Conference (National Collegiate Athletic Association) has adopted legislation which makes the results of polygraph tests to "be considered ... to be part of the fact-finding process."⁷³

⁶⁴ *People v. McHenry*, 22 Cal. Rptr. 621, 204 C. A. 2d 764 (1962).

⁶⁵ Although this comment may not apply where the statement is subsequent to the giving of the test, *People v. La Belle*, 44 Misc. 2d 327, 253 N. Y. S. 2d 901 (Rensselaer County Ct. 1964), although here the statement was made less than forty minutes afterwards.

⁶⁶ *State v. Green*, —Ore.—, 525 P. 2d 205 (Or. App. 1974).

⁶⁷ A staff study for the subcommittee of the Senate's Committee on Constitutional Rights recommended that the use of lie detectors by both the government and private industry in screening applicants for jobs be outlawed as an invasion of privacy. The study estimated between 200,000 and 300,000 such tests were conducted annually, whether by mechanisms installed in a chair registering psychological changes or by voiceprints, both able to be used without the applicant's knowledge. *San Diego Eve. Tribune*, december 15, 1974.

⁶⁸ See, e.g., Hearings Before Subcommittee of the Committee on Government Operations, House Rep., 88th Cong., 2d Sess. (1964), extending into the 89th Cong., 1st Sess. (1965), and the Tenth Report to this latter body, H. Rept. N° 198 (1965). See also Goodman, "Don't Lie, But—", *New York Times Magazine*, january 24, 1965, p. 12, who cautions about "this somewhat mysterious trade..."

⁶⁹ S. 2156, 92d Cong., 1st Sess., introduced in 1972.

⁷⁰ See Roger A. Pfaff, the presiding judge, who wrote on it in 50 *A. B. A. J.* 1130-33 (1964).

⁷¹ See notes 67 and 69, *supra*.

⁷² *New York Times*, september 13, 1972, p. 28, col. 4.

⁷³ *Los Angeles Times*, december 15, 1974, part III, p. 6, col. 1, with all coaches required to agree, in their contracts, to cooperate in this respect and themselves to submit to a testing if so requested.

9) The lie detector thus has a somewhat general non-judicial acceptance and use, as well as a few state licensing requirements, which permits the observation that this may eventually provide a broader base upon which to renew its proponents' efforts to obtain the introduction of its results in the courts. Which means that at that time the reasons for its rejection must be placed upon a plane other than acceptance by the scientific community, lack of experimentation, paucity of data, et cetera.⁷⁴ In some degree that is what we have sought to do, but in two ways, first as to the inherent inability of this machine to solve a human problem of evaluation of imponderables, and, second, on the consequences to our legal system, way of justice, and even way of life. For example, as to the first, no matter how long and continued are the experiments, uses, and perfections, the human-machine-human-machine-human relation cannot be eliminated or reduced. So, too, is the psychological impact upon a jury of laymen accustomed to the scientific marvels of an age which has placed man on the moon; in effect the jury might "try" the lie detector, rather than the defendant, but court admissibility with its concomitant judicial *imprimatur* removes even this question as to accuracy and automaticity, so that what we have termed applied manipulative law enters.

That the fear of a trial centering on the instrument, rather than the person, is not far-fetched, with the jurors thus having their evaluative noses ringed by the results, is disclosed by this writer's study of an early trial (in 1938) during which the results of a lie detector were admitted with an acquittal resulting. Some months after the trial we polled the jury "to determine the exact influence exerted upon [them] by the detector testimony..."⁷⁵ Ten questions were sent to all the jurors,⁷⁶ and only two jurors did not respond. Among the conclusions drawn by this writer were: without the lie detector testimony the acquittal would have been almost unanimous, and that with the testimony the jurors' views and results remained unchanged. "Yet, based upon these opinions, which were formed without the aid of the detector testimony, such testimony convinced six men of its conclusiveness to such an extent that five of them accepted its testimony without question and four would accept it again in the future."

However, if the only evidence for the defendant were the lie detector results (in his favor), how would the jury have voted in the light of the

⁷⁴ It is not amiss to point to Chief Justice Burger's language and use of medical references, albeit slight, in the Abortion Cases of 1973, *Roe v. Wade*, 410 U. S. 113, 159-61 (1973), and also to the slight use of psychological knowledge by the late Chief Justice Warren, in the Desegregation Case of 1954, *Brown v. Board of Education*, 347 U. S. 483, 494 (1954), even though both Chief Justices felt that a sufficiency had been indicated for legal purposes. *Pari passu*, any Supreme Court, federal or state, has power to parallel these cases in the polygraph field—it is not a question of power but of policy, and the legislature ordinarily should be the instrument for this change.

⁷⁵ Forkosch, "Lie Detector", *supra* note 35, at 228. All references hereafter are to pp. 228-31.

⁷⁶ The ten questions are given at 228 and are not set forth for reasons of length.

prosecutor's evidence? One intransigent juror would have continued to vote for conviction regardless; another, also voting to convict, nevertheless felt that if the test was taken shortly after the crime he might accept the result; two who voted to acquit felt that they were unable to respond to the "only evidence" question, although one qualified it as had the preceding juror, i.e., test taken shortly after the crime; the six remaining jurors "would accept this sole evidence for defendant as sufficient basis and justification for acquittal... [A]ll six except one were so impressed by the detector testimony, accepting this testimony without question, that they would accept it again as conclusive".⁷⁷

In other words, fifty percent of the jurors responding to the questionnaire would accept the results of the lie detector test "without question... [and] as conclusive" upon truth or falsity, guilt or innocence! If this is not a truly great transformation in our legal procedures and institutions, then one may query, what is? For law has come to one cross-roads in its role as a method for the social control of man, namely, whether its factual base is to become a given datum upon which a judge (clerk?) merely superimposes statutory or decisional law (push-button law *via* a retrieval or print-out method?), with a verdict following automatically. "The jury's historic function as the finder of fact and their related responsibility to determine the credibility of witnesses may be replaced by the polygraph machine."⁷⁸

This is not to reject the lie detector as an adjunct of investigatory or other procedures and methods—to the extent that it can be used without treading upon constitutional or other prior rights, or creating fear, animosity, discord, and frustration among the persons examined and the business or government involved, or impinging upon one's privacy and desires, or not running counter to society's *mores* and humanistic concerns, then to that extent the lie detector may be of some use. And even more so does the judicial problem encompass these and other factors and elements.

So far as the judiciary is concerned, there is no way in which the lie detector can be used satisfactorily, whether for negative or corroborative purposes, lie detection or guilty knowledge results, without having its alleged (human interpretation) conclusions become practically accepted as conclusive. Even if we ape the paternity blood-grouping negative approach, so that lie detector results negative guilty (or fact existence) but do not prove it positively, the consequence is no different—it is applied mechanical and manipulative jurisprudence, with manipulative justice following. And this is a consummation devoutly not to be wished.

⁷⁷ See also text and note 62, *supra*.

⁷⁸ Commonwealth v. A Juvenile, *supra* note 53, at 136 (dissenting opinion).