III. "TRUTH" WHEN THE POLYGRAPH OPERATOR SITS AS ARBITRATOR (OR JUDGE): THE DECEPTION OF "DETECTION" IN THE "DIAGNOSIS OF TRUTH AND DECEPTION"

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I. Framing the Issues

"Judicial practice is entitled and bound to resort to all *truths of human nature established by science,* and to employ *all methods recognized by scientists* for applying those truths in the analysis of testimonial credit. . . . Insofar as science from time to time revises them, or adds new ones, the law can and should recognize them."[1]

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[1]3A Wigmore, Evidence, § 875 at 642 (Chadbourn rev. 1970). There has been over the years a remarkable dearth of critical appraisal of the validity of the polygraph—"lie detector"—by the professionals, scientists, and lawyers. Dr. David T. Lykken, Ph.D., Professor of Psychiatry and Psychology, University of Minnesota Medical School, has been practically the only scientifically critical voice to rise above the din of self-interested hard sell by the polygraph industry. Today he is "generally regarded as the country's foremost authority on the subject of lie-detection research." Rice, *The New Truth Machines,* Psychology Today 61, 67 (June 1978). In 1977, Dr. Lykken presented extensive testimony before the Senate Subcommittee on the Constitution, Committee on the Judiciary, on S. 1845 (the proposed "Polygraph Control and Civil Liberties Protection Act), hereinafter cited as Lykken, Prepared Statement; Senator Birch Bayh is chairman of the subcommittee. *See also* Lykken, *The Validity of the Guilty Knowledge Technique: The Effects of Faking,* 44 J. App. Psych. 238 (1960); Lykken, *Psychology and the Lie Detector Industry,* 29 Amer. Psychologist 725 (1974); Lykken, *Polygraph Tests in Business Unscientific, UnAmerican, Illegal,* Hennepin (Minn.) Lawyer 4 (May-June 1976); Lykken, *Where Science Fears to Tread,* 23 Contemporary Psych. 81 (1978) (review of Reid and Inbau, Truth and Deception, 2d ed. 1977); Lykken, *The Psychopath and the Lie Detector,* 15 Psychophysiology 137 (1978); Raskin, *Scientific Assessment of the Accuracy of Detection of Deception: A Reply to Lykken,* 15 Psychophysiology 143 (1978); Lykken, *The Detection of Deception: A Reply to Raskin* (preprint copy, 1978); Lykken, *The Detection of Deception* (accepted for publication in Psychological Bull., 1978). *See also* Dearman and Smith, *Unconscious Motivation and the Polygraph Test,* Am. J. of Psychiatry (1963).

Even as Dr. Lykken has been the lone voice of critical science, so has Chicago attorney Lee M. Burkey been the lone critical voice in the wilderness among practicing lawyers over the years. *See* Burkey, *Lie Detectors in Labor Relations,* 19 Arb. J. 3 (1964); Burkey, *The Case Against the Polygraph,* 19 A.B.A.J. 855 (1965); Burkey, *Privacy, Property and the Polygraph,* 18 Lab. L.J. 79 (1967); Burkey, *Employee Surveillance: Are There Civil Rights for the Man on the Job?,* 21st Ann. Conf. on Labor 199 (1968).

Three professors have been the principal academic critics of the uses of the polygraph, Morris D. Forkosch, Jerome Skolnick, and Alan F. Westin. *See* Forkosch, *The Lie Detector and the Courts,* 16 N.Y.U. L. Rev. 202 (1939); Skolnick, *Scientific Theory and Scientific Evidence: An Analysis of Lie Detection,* 70 Yale L.J. 694 (1961); Westin, Privacy and Freedom (1967) (particularly chs. 6 and 9). *See also* Sternbach, Gustafson, and Colier, *Don't Trust the Lie Detector,* 40 Harv. Bus. Rev. 127 (1962); Highleyman, *The Deceptive Certainty of the Lie Detector,* 10 Hastings L.J. 47 (1958); Kaplan, *The Lie Detector: An Analysis of Its Place in the Law of Evidence,* 10 Wayne L. Rev. 381 (1964); Levin, *Lie Detectors Can Lie!,* 15 Lab. L.J. 708 (1964); Levitt, *Scientific Evaluation of the "Lie Detector,"* 40 Iowa L. Rev. 440 (1955).

The principal proponents of the uses of polygraphs are Professor Fred Inbau of

A young woman working for a food store found herself suddenly charged with defrauding her employer. She was told by the employer that she would be wise to submit to a lie-detector test "to clear yourself." She was reluctant, but she decided to comply. The polygraph operator asked her, "Did you check out items to your mother at a discount?" He evaluated her emotional loss of composure and the correlative arousal symptoms —blood pressure, pulse, respiration, skin conductivity—recorded on the instrument graphs to have disclosed "deception" when she answered, "No." She was promptly terminated for "dishonesty." A grievance investigation undertaken by her union later disclosed that her mother had died several years earlier. The question had evoked an emotional response which the polygraphist evaluated as "deception."[2]

Northwestern University and John C. Reid of the Reid College of Detection of Deception, Chicago. Inbau and Reid, Truth and Deception: The Polygraph (Lie-Detector) Technique (2d ed. 1977); Inbau and Reid, *The Lie-Detector Technique: A Valuable Investigative Aid,* 50 A.B.A.J. 470 (1964). *See also* Pfaff, *The Polygraph: An Invaluable Judicial Aid,* 50 A.B.A.J. 1130 (1964); Tarlow, *Admissibility of Polygraph Evidence in 1975: An Aid in Determining Credibility in a Perjury-Plagued System,* 26 Hastings L.J. 917 (1975); Wicker, *The Polygraph Truth Test and the Law of Evidence,* 22 Tenn. L. Rev. (1953); Note, *The Emergence of the Polygraph at Trial,* 73 Colum. L. Rev. 1120 (1973); *Pinocchio's New Nose,* 48 N.Y.U. L. Rev. 339 (1973); *Problems Remaining for the "Generally Accepted" Polygraph,* 53 Boston U. L. Rev. 375 (1973).

The most recent legal study of the uses of the polygraph focuses on its admissibility in arbitration. Craver, *The Inquisitorial Process in Private Employment,* 63 Cornell L. Rev. 1 (1977). Professor Craver is a somewhat ambivalent endorser, however. While he concludes that "labor arbitrators should recognize polygraph evidence as a significant aid in resolving credibility disputes," (*id.* at 36), his conclusion is curiously out of sync with his manifest sensitivity to the problems inherent in the uses of lie detectors. He sets forth valuable precautions for arbitrators who, called on to cope with polygraph evidence, may be inclined to admit it into evidence; he so cogently discusses the problems that the polygraph poses as to amount to a persuasive, even if for him a *sub silentio,* argument for exclusion! *See id.*, at 36–43. Perhaps his thinking on the matter is still in transit. *See also* Menocal and Williams, *Lie Detectors in Private Employment: A Proposal for Balancing Interests,* 33 Geo. Wash. L. Rev. 932 (1965).

[2]Los Angeles Times, June 28, 1974, p. 1. Resort to the "lie-detector" polygraph is becoming epidemic and can be devastating to the persons caught up in these polygraphing situations. The owner of a bar in Washington, D.C., uses the polygraph for "periodic checks" of his employees and expresses his relief that he no longer has to "worry about looking over anyone's shoulder." Besides, he adds, he has had no complaints from his employees and the use of the lie detector is written into his employee contracts. *Ibid.* The Southwest Conference of Universities votes unanimously to use lie-detector tests for investigations of recruiting violations and other infractions of conference regulations. Coaches, athletes, university officials, and financial backers are to be asked to take the tests. An athlete who refuses to do so, the president of the conference declares, could be forbidden to compete. Remarks one athletic director, "You assume that if you have to take a lie-detector test someone is not telling the truth or someone has to prove he is telling the truth. I don't think the purpose of intercollegiate athletics is to accuse someone of lying." New York Times, December 24, 1974. Foremost-McKesson operates 100 wholesale drug and liquor warehouses across the country. Plagued with thefts, the company 25 years ago began polygraphing its workers. Now theft is "unusual for us," the security director states. Munford, Inc., operates over 1,000 food stores, warehouses, and import stores. It requires as many as 25,000 lie-detector tests each year and has even

In a one-on-one credibility confrontation between a defendant and an accusing witness in a criminal trial, a defendant proffered a polygraph test result affirming his credibility. The state judge in this 1973 case ruled admissible the testimony of the lie-detector operator about his opinion of the results of his polygraph testing of the defendant. The operator then testified that, based on his administration of the test, he believed that the defendant, when asked about his conduct, had been truthful in his denial that he had acted as accused. The judge stated that he had then used that testimony as the basis for his own conclusion of the truthfulness of the defendant's testimony and the untruthfulness of the accusing witness.

The judge observed that the issue of guilt or innocence in the great majority of trials, as in civil proceedings, depends on the credibility of witnesses. But, he declared, "[P]erjury is prevalent, and the oath taken by witnesses has little effect to deter false

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sold its stores in states where the practice is prohibited. Business Week, February 6, 1978, p. 101. In Hyannis, Mass., nursing-home employees are required to take lie-detector tests. State law forbids an employer from demanding or even requesting them. But a federal bankruptcy judge orders the tests over the objections of the workers' union, reasoning that the bankruptcy case arose under federal, not state, law. *Ibid.* Despite official opposition to the use of lie detectors by employers, national labor unions have used them for internal investigations as well as to verify complaints from members who have been fired by employers. Five polygraphists in the Midwest report that they have conducted 32 separate lie-detector investigations for local unions between 1960 and 1971. *Id.*, at 100. A California district attorney and one of his deputies get into a hot argument. Some pushing and shoving occurs. The deputy is fired on the spot. Each files a police complaint charging the other with physical assault. Each insists on taking a lie-detector test. *Each* is certified to be a truthsayer about the event (described to the author by an attorney involved). The Denver brewery, Adolph Coors Co., has utilized lie-detector tests to screen job applicants with "such questions as: What are your sex preferences? How often do you change your underwear? Have you ever done anything with your wife that could be considered immoral? Are you a homosexual? Are you a Communist?" Although the company insists that it has discontinued using those questions, it has stoutly refused the striking brewery union's negotiations demand that it agree to cease lie-detector tests. Coors executives believe that "the tests helps reveal 'whether the applicant may be hiding some health problem' and ensure that 'the applicant does not want the job for some subversive reason such as sabotaging our operation.' " The (Denver) Rocky Mountain News has editorialized on the subject: "A lie detector carries only one message to an employee: It says the company does not trust an employee's word. It is a personal insult. For the good of all concerned, it is time to stop this nonsense about lie detectors. . . . " Time, December 26, p. 15. Sociologist Daniel Bell has written of a young black man in Chicago who in 1951 was accused of rape by a woman who had encountered him for the first time in a bus two days *after* her experience. No one had seen her being dragged screaming by her assailant into a side street in a densely populated area at night. A lie-detector test operator concluded that the young man was lying. The judge sentenced him to life in prison. Two years of investigation by an unconvinced Sun-Times reporter disclosed (1) a medical report saying that she actually had not been raped, (2) the prosecutor was sweating out a graft charge on letting another man go, and (3) the police had not checked beyond the woman's story and the lie-detector operator's conclusion. Bell, The End of Ideology (rev. ed. 1962), n. 41, p. 417.

testimony." To him, that problem of irresolution justified admission into evidence of the testimony of the polygraph operator of his opinion about deception. As the trial judge saw it, "*The principal role of a trier of fact is the search for truth* and any reasonable procedure or method to assist the court in this search should be employed."[3]

In due course, at the subsequent appellate court hearing in that case in 1975, one of the justices remarked during the oral arguments, "If it helps in the ascertainment of truth, that's good," and he proceeded to wonder, with surprising ingenuousness, "why there was any difference between the *testimony of a polygraph operator who believes a defendant is telling the truth,* and of a physician who gives his expert opinion on a medical condition."[4]

Whatever may be the uses of the polygraph in the context of criminal law investigations and trials, of course, we are here only

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[3]Los Angeles Times, December 28, 1973, p. 23 (emphasis added).

[4]Los Angeles Times, May 29, 1975, p. 28 (emphasis added). Emphasis on "the search for truth" is the major component of the argument for resort to lie detectors. Thus Professor Craver, *supra* note 1, at 35, writes, "If ascertaining truth is the principal function of adjudicatory bodies, courts must acknowledge the assistance that lie detectors can provide."

"If the judicial system is to fulfill its duty of searching for truth and maintaining integrity, it must commence a war against perjury. The war cannot be won with weapons restricted to cross-examination, inferences from demeanor, and other relics from the crossbow era of Henry II. The arsenal against sophisticated witness mendacity must be equipped with the most advanced, accomplished, and effective scientific system devised to date. Unless we are interested in the preservation of institutionalized perjury, there is no tenable reason why qualified polygraphers should not be welcomed by courts confronting credibility questions. . . . " Tarlow, *supra* note 1, at 920. The irony of this argument, of course, is that the polygraph operator, as we shall see, depends substantially on demeanor-type conduct of the person being polygraphed. See text at note 107 *infra.*

The use of the specific phrases "search for truth" and "ascertainment of truth" is common. Thus a writer of widely used texts on evidence and legal procedure for attorneys in California, critical of the Fourth and Fifth Amendment decisions heedlessly hampering law enforcement, as he believed, during Chief Justice Earl Warren's tenure, has praised the present Supreme Court majority for "chipping away" at those earlier decisions protective of persons accused of crime. He looks to the day when the law will again be "not a game but a *search for truth.* " H.E. Witkin, as quoted in Los Angeles Times, October 27, 1977, Pt. II, p. 5 (emphasis added).

In an opinion for the Court in that Warren era, Justice Potter Stewart wrote that "[t]he basic purpose of a trial is the determination of the truth." "By contrast," he continued, "the Fifth Amendment's privilege against self-incrimination is *not an adjunct to the ascertainment of truth.* That privilege, like the guaranties of the Fourth Amendment, stands as a protection of quite different constitutional values—values reflecting the concern of our society for the right of each individual to be let alone." *Tehan* v. *United States, Ex. rel. Shott,* 382 U.S. 406, 416 (1966) (emphasis added).

Arbitrators have also embraced this concept. "Surely the search for truth in arbitration . . . is the *very core* of the matter," declares Russell Smith in his paper *The Search for Truth—The Whole Truth* (*supra,* these proceedings). Harold Davey similarly asserts that arbitration "is (or should be) a search for truth." *John Deere Waterloo Tractor Works,* 20 LA 583, 584 (Davey, 1953).

concerned with its uses in connection with the conduct of an employee whose employer has a collective bargaining agreement with a union. The employee's conduct has somehow been brought into contention in an arbitration by a grievance challenging an action of the employer adverse to the grieving employee.

But the remarks of the judges supply us with a ready agenda to explore. Perhaps the most significant area of inquiry implicated by the polygraph involves the relevance of "truth" in adversary proceedings, in general and in arbitration hearings in particular. The use of the polygraph, after all, as its proponents insist, is rooted in the "search for truth"; if that search were called off for any reason, into the antique shop then goes the polygraph on the same shelf with the buggy whips! (I trust none of you has invested your life savings in commercial polygraphs.) As tempting as it is to launch into that "search for truth" immediately, it seems preferable, instead, to describe briefly what the polygraph is about, and then selectively but broadly to explore its potentials for reliability. That latter area of inquiry will lay the foundation for some thought about the respective judgmental roles of arbitrator and polygraph operator in the making of decisions about credibility.

Polygraph evidence proffered in arbitration hearings has involved test results allegedly supportive of an inference of the guilt or innocence of an employee suspected or charged with wrongdoing or of the truth or falsity of a prior or subsequent testimonial or written assertion of fact by a possible participant or a witness involved in events that have given rise to suspicion by an employer of wrongdoing by employees. The factual assertion being tested by resort to the polygraph may be of the lack of any knowledge of the circumstances, or it may purport to be a partial or complete description of what occurred. The issue has also arisen of the significance to be attributed to the refusal of an employee "to cooperate" by submitting to lie-detector examination where the employee has then been suspended or discharged for the refusal.

Should it be a matter for proper discipline that an employee has refused to submit to a lie-detector test when he has already been personally identified as a suspect by allegations or the circumstances; or when he is one of a group among whom he is believed to be a wrongdoer in a particular instance; or when he is a presumptive witness; or when he is one of a group—a

department or the entire workforce—among whom the employer wishes to query, not about any specific instances of wrongdoing, but generally to inquire if anything wrongful is going on?

II. The Polygraph—What Is It?

> "Although the lie detector is viewed as a very modern instrument, devices of this sort which measure bodily manifestations conditioned upon a subject's reactions to committing a falsehood are of ancient origin. History tells, for instance, that in Ancient China, a primitive lie detector was impressed into service when an accused person, after having told his story, had his mouth stuffed full of rice. If it was false, his mouth would tend to be dry and he would choke and not be able to swallow the rice."[5]

As early as 250 B.C., it is said, a celebrated Greek physician and anatomist, Erasistratus, proposed that a person's pulse measurably increased its rate when uttering falsehood.[6] Experimentation evolved a device at the turn of this century, now called a "polygraph," whereby it was hoped, and by its more recent devotees is confidently expected, to be able accurately to distinguish truthful from false statements.

The device simultaneously measures blood pressure and pulse rates, respiration rate and depth, and the galvanic skin responses which are changes in the electrical conductivity of the skin due to the person's emotionally "sweating it out." These

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[5] *General American Transportation Corp.*, 31 LA 355, 361 (Sembower, 1968). A new wrinkle has been added to the detection of deception which may disconcert a number of arbitrators (one immediately thinks of Ralph Seward, Bill Murphy, Dave Feller, Don Wollett, and oneself). United Air Lines recently cautioned its Red Carpet clientele that a survey has disclosed that businessmen do not repose truth in those sporting bow ties as they do in those wearing four-in-hands. Quoting John Molloy's *Dress for Dinner:* "The tie, according to Molloy, is a symbol of respectability and responsibility. . . . A bow tie creates the impression of being unpredictable, and 'the number of people who will trust you at all, with anything, will be cut in half,' he says." V Executive Air Travel Report (April 1978). And a UPI report of attitudes among job applicants reads: "A Los Angeles financial analyst turned his back on a film production company because his prospective boss wore bow ties and, therefore, couldn't be trusted." The Miami Herald, June 1, 1978, p. 5-C.

[6] Trovillo, *A History of Lie Detection*, 29 J. Crim. Law 848 (1939). The hypothesis underlying the lie-detector polygraph has been stated thus: "If the psycho-physiology of the lie is such that the conscious volition to depress a true utterance of recollection and to substitute a false imaginative one causes changes in the subject's heart action; and if these changes can be recorded for external observation regardless of the subject's volition; and if the record of such changes can be discriminated from similar changes due to other influences than the will to suppress the truth; then the record of such changes will show the utterance of a lie." 3A Wigmore, Evidence, § 999 at 946 (Chadbourn rev. 1970).

are products of our body's "antonomic" system—the nerve centers and nerves that control digestive and other involuntary reactions. Administration of the polygraph requires the connecting of the "subject," as polygraphists refer to the individual being assessed, by conductors to a machine which seismically charts changes of rate on a moving drum of graph paper. These changes are prompted by the need to answer questions propounded by the polygraphist who observes the visible reactions and conduct of the respondent while conducting the mechanical measurements. Stress generated by an acceptance of the infallibility of the device in unmasking falsehood is indispensable to its successful use in prompting confessions of guilt or in stimulating "giveaway" emotional reactions which are interpreted as "deception" by the polygraphist.

There are three basic kinds of polygraph-testing situations, only one of which may accurately be termed scientific in purpose and conduct:

First, there are three to five thousand commercial operators[7] being hired annually by employers to test the honesty of some 300,000 employees (including job applicants) in general-survey sweeps or in relation to specific suspicion of wrongdoing. Uniformly, commercial operators use standard polygraph equipment measuring blood pressure, pulse rate, respiration rate and depth, and electrical (galvanic) skin conductivity. Some commercial operators maintain elaborate offices furnished with testing cubicles containing the standard equipment as well as concealed microphones with tape recorders to record interchanges between "the subject" and the operator and one-way mirror-viewing windows for observation. Most operators, however, carry their equipment to the employer's location, conducting tests in an office on the premises.

Arbitrator Jay Murphy heard a case in which a truck driver had been discharged for having altered a fuel-pump setting which was contrary to company policy. Having heard extensive evi-

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[7]Estimates of the number of commercial polygraph operators, or "examiners" as they prefer to be called. J. Kirk Barefoot, former president of the American Polygraph Association (APA) appearing before the Bayh subcommittee on November 15, 1977, stated that he spoke for 1,100 APA members and 2,500 members of state and regional polygraph associations. Dr. Lykken, in Prepared Statement, at galley 18, estimated 4,000 polygraphers to be at work in the country. There are uncounted numbers of persons in the country pursuing polygraphing as a career and largely free to fend for themselves in the market place, licensed only in 18 states and even then with laxity. See Craver, *supra* note 1, at 29.

dence in what was a factually complicated case, he found himself disturbed at the simple-mindedness of the polygraph solution to it all:[8]

> "I must say that after several hours of careful testimony from many witnesses delineating the step-by-step circumstances of all of this complicated fact situation, the arbitrator was shocked by the thought that the most circumstantial of evidence would be turned into proof beyond a reasonable doubt following asking the following seven questions, and receiving 'No' answers to Nos. 4, 6, and 7, and which resulted in a change in 'blood pressure,' 'perspiration on the fingers and palms,' and change in 'respiration':
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> "1. Were you born in the United States?
>
> "2. Do you intend to answer truthfully?
>
> "3. Do you remember stealing anything of value from friend or relative?
>
> "4. Did you, in any manner, set up the fuel pump on Tractor 130?
>
> "5. Do you remember lying about anything important?
>
> "6. Do you know, for sure, who set up the fuel pump on Tractor 130?
>
> "7. Did you have the fuel pump set up on tractor 130?
>
> "In response to my question to the examiner concerning the specific empirical data pointing to deception on the part of an examinee, the response was that such data was not available for the hearing and that only a person specially trained in administering of polygraphs could properly interpret it."

Second, there are countless governmental law-enforcement and administrative agencies—state and federal, civilian and military—which have purchased standard polygraph equipment and assigned staff employees—a police detective, an air force sergeant, or an administrative assistant, or the like—to operate it who have little, if any, educational foundation on which to build any expertise in distinguishing truthfulness from deception. These governmental uses are largely investigative in nature, but they do nonetheless result in occasions when admission of test results is sought in proceedings such as arbitrations and court trials.[9]

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[8] *Bowman Transportation, Inc.*, 59 LA 283, 286 (J. Murphy, 1972).

[9] See Westin, *supra* note 1, at 145–47 (half of U.S. police departments use polygraphs in investigations). *See* O'Connor, *"That's the Man": A Sobering Study of Eyewitness Identification and the Polygraph*, 49 St. John's L. Rev. 1, 17 n. 59 (1974): "To the knowledge of the writer [a New York City trial judge, 1969–1974, and, earlier, Queens County District Attorney, 1956–1966], a polygraph is used extensively by many large district attorneys' offices in the country. Between 1956 and 1966 it was used in the Queens district attorney's office in almost every case involving pure identification. It is presently used in the district attorneys' offices in Manhattan and the Bronx and is used by the prosecutors in more than thirty courts throughout California, particularly in relation to paternity

Third, growing numbers of university and private corporate psychophysicists and other physical scientists are performing cognitive and neurologic experiments exploring relationships between "psychological" and "physiological" events. The equipment which they use—often running to $10,000 or more in cost—commonly "interface" with computers, and the laboratory setting and controlled conditions of their work is far more sophisticated in purpose, design, and conduct than characterizes commercial or governmental polygraph testing.[10]

These scientifically designed and conducted experiments simultaneously measure, in addition to the three standard factors of concern to commercial polygraphists (blood pressure, respiration, skin conductivity), eye movement, pupil size, muscle tension, brain waves, tiny beat-to-beat changes in heart rate, skin temperature, blood volume in the finger tip, recording a stream of reactions so fine as to be beyond the capacity of a three-factor "lie detector" polygraph. But the purpose of the uses of those newer multichannel versions is the study of the human nervous system, including the brain and its images. The interests of psychophysiologists, in university environments nervous about scientific determinism and human subjects, are insistently related, not to the control of man, but to the understanding of human nature.

As the flow of reports from these psychophysiologists increases, we will need to be careful to avoid the fallacy of equating information generated by them with the largely self-serving "studies" characteristic of commercial polygraphers. The differences in the degree of reliability of results and the

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cases." Perhaps the most well known of the incidents of persons later discovered to be innocent who have been caught in the coils of a police investigatory use of polygraph lie-detection, followed by an accusation of criminal wrongdoing, is that of 18-year-old Peter A. Reilly of Connecticut, who, although later evidence placed him miles away from the scene at the time of the crime, confessed to the brutal murder of his mother. He had undergone 25 hours of grilling while held incommunicado by the police who let him have little sleep or food. "But primarily Peter Reilly confessed he had murdered his mother because the polygraph machine used by the police 'said' that he had. ["The polygraph says you did it, Peter, but you've blocked it out of your mind."] By afternoon of his second day in custody, Peter Reilly was so willing to believe he had done what the polygraph charts indicated, that when the police pressed him for details on how exactly he had committed certain aspects of the crime, he didn't know and pathetically asked the polygraph operator for hints. . . . [T]he polygraph transcripts . . . are chilling in their exposure of the Connecticut State Police's dependence upon and mindless faith in those damned machines." C.D.B. Bryan, *The Lie Detector Lied,* review of Barthel, A Death in Canaan (1976), in New York Times Book Review, December 12, 1976, at 6.

[10]New York Times, November 28, 1971, p. E-6.

definition of results sought, as between commercial and scientific polygraphing, are graphically underscored by the contrasts between the scientifically controlled conditions that are standard operating procedures in laboratories to validate the reliability of findings, but which are almost wholly absent in commercial testing situations. In commercial settings, there is unlikely to be any precise attention to the implications—human and mechanical—of such elemental factors as room temperature and humidity, time of day, concentrations of various constituents in the air, the subject's general activities previous to the test, the subject's physiological and psychological conditions, and the levels ("initial values") of relevant physiological activities prior to test stimulation. These factors, carefully catalogued and evaluated in controlled laboratory conditions, are not and cannot be expected to be present in the calculations of commercial polygraphers. In contrast, the system design, if such it can be called, of the latter is far more expedient and coincident, wholly variable among test settings and equipment operators. This fundamental distinction between commercial and scientific polygraphing led Sternbach, Gustafson, and Colier to conclude in their 1962 study that the measures used in commercial polygraphing "appear to have a high degree of unreliability." They counsel employers that "the inherent weaknesses of the polygraph" should prompt them to resort to "other ways of gaining information about employees—tests, questionnaires, interviews, and, probably best of all, firsthand observations of performance. These ways may be slower and more time-consuming, but in the long run they are still the best a company can use."[11]

III. Courts, Arbitrators, and Commercial Polygraphers in Five Slow-Motion Decades

> "Until the courts have established the admissibility of the results of such tests through the extensive resources available in judicial proceedings of specialized experts converging on the whole problem of the prediction of falsehood through mechanical and chemical tests and reactions, the arbitrator feels he should tread warily in this field where the overwhelming weight

[11]Sternbach, Gustafson, and Colier, *supra* note 1, at 134.

> of judicial expertise has itself 'feared to tread.' Doubtless advances in the psychology and physiology of human behavior will continue to be made in the area of truth prediction, and when they occur the arbitration process will be affected by them. But until that happens the arbitrator must continue to try to get at the truth with the proven resources of weighing the evidence with the tools of judgment, healthy skepticism, modesty and good sense, all with a consciousness that he or she is not in a courtroom as a judge with a jury, but that the arbitrator is both judge and jury, and likely as not in a motel hearing room with little or no advance notice concerning the nature of the issue he is to hear, with no 'pleadings,' without a stenographic record of the proceedings, and generally without briefs being filed by the parties, and where the issues to be decided are as real and the consequences as far reaching to the parties as if they were in court. The foregoing is particularly applicable to ad hoc arbitration in the Southeast."[12]

At the outset it is necessary to state quite plainly both that this is a subject—the probative uses of the polygraph—and that this is a time in its evolution—its fifth decade of knocking on the door of evidentiary respectability—that demands some blunt talk about the "lie-detector" polygraph and for raising some questions that go well beyond the narrow issues of polygraph admissibility.

For at least four decades, the polygraph and its proponents, so far as courts and arbitrators were almost universally concerned, had remained on the less-than-creditable fringe, although it continued to gain considerable acceptance among police because of its demonstrable utility in prompting spontaneous confessions among ignorant criminals gulled by the pseudo-scientific trappings. But the commercial polygraph proponents persisted, managing to publish self-serving "studies" in respectable criminology journals,[13] the constant theme

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[12] *Bowman Transportation, Inc.*, 59 LA 283, 289 (J. Murphy, 1972).

[13] *See*, for example, Horvath and Reid, *The Reliability of Polygraph Examiner Diagnosis of Truth and Deception*, 62 J. Crim. Law, Crim'gy and Pol. Sci. 276 (1971); Hunter and Ash, *The Accuracy and Consistency of Polygraph Examiner's Diagnoses*, 1 J. Pol. Sci. & Admin. 370 (1973); Wicklander and Hunter, *The Influence of Auxiliary Sources of Information in Polygraph Diagnoses*, 3 J. Pol. Sci. & Admin. 405 (1975); Slowik and Buckley, *Relative Accuracy of Polygraph Examiner Diagnosis of Respiration, Blood Pressure, and GSR Recordings*, 3 J. Pol. Sci. & Admin. 305 (1975) (the authors note themselves to be holders of master of science degrees "in the detection of deception from Reid College, Chicago" and have been on the staff of John E. Reid and Associates as "examiners and instructors," respectively, since 1968 and 1971, each being a college graduate, licensed in Illinois as "a Polygraph examiner," and a member of the American Polygraph Association and the Illinois Polygraph Society).

In his 1977 testimony before the Senate subcommittee relative to a proposed "Poly-

of which has been the near infallibility of this "complete diagnostic technique" for the "detection of deception" which should be recognized to have great utility in courtrooms and the marketplace alike.

The leading court case rejecting the claim to scientific status for lie-detection by polygraph administration remains the 1923 federal court of appeals decision in *Frye* v. *United States.*[14] The court enunciated the rationale that has ever since been regarded as the measure of admissibility of polygraph evidence:

> "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. We think the

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graph Control and Civil Liberties Protection Act," Dr. David Lykken stated, "My practice in trying to follow this literature has been to disregard . . . alleged studies, except those that are done under normal conditions of impartial scientific control and which find their way into the edited scientific literature. . . . The established system of scientific publication is one in which submitted articles are given for review to disinterested impartial experts in the area, scientists, who serve as referees to decide whether to publish them and put them in the archives. This is a very important and necessary system that has evolved in the history of science in order to prevent misleading and inadequate and incompetent research reports from cluttering up an already voluminous and burgeoning literature. . . . [T]here are polygraph studies which have appeared in unedited journals, such as the Journal of Police Science, for example, which in my opinion would never have made their way into the scientific literature had they been subject to the scrutiny of impartial scientists. . . . The Journal of Police Science is an example of a perfectly respectable periodical which, however, does not follow the practice of submitting its articles for editorial review to disinterested, scientifically trained people who are experts in the area.

"To cite one illustration, an article by Horvath and Reid in the Journal of Police Science in 1971 claimed to find an accuracy of 88 percent when the polygraph test was scored 'blindly,' that is, by polygraphers who had not administered the tests and could base their diagnoses solely on the polygraph charts. However, the article states that nearly half of the available tests were not used in the analysis, having been discarded by the authors on subjective grounds which no other investigator could emulate. If these mysteriously missing tests had been included, then the average accuracy might have been 93 percent or 70 percent or 48 percent—if the polygraphers had been correct on all, half or none, respectively, of the tests that were omitted. No edited scientific journal would have published this article because of the uncertainty created by these missing data. A basic principle of scientific research is that it must be replicable, that the methods must be stated clearly enough so that an independent investigator could repeat the study and check the results. As we shall see, Horvath did subsequently repeat essentially the same experiment later under the supervision of trained scientists and without arbitrarily discarding data. This time he obtained an average accuracy of only 64 percent." Lykken, Prepared Statement, at galley 8.

[14]293 Fed. 1013 (D.C. Cir. 1923).

systolic blood pressure deception test 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."[15]

Even though it has practically stood still technologically, commercial polygraphy has come a long way economically since 1923. In its fifth decade, it has become a very lucrative industry. Millions of employer dollars ride on its supposed "reliability."[16] But employers are evidently beginning to doubt it.[17] Self-serving "studies" by polygraphists in their own files of tests done by their own staff, they insist, "demonstrate" that they can attain "an average accuracy" in the higher reaches of certitude, of 87.75 percent, or 87.21, or 95, or whatever; some of them seem to churn their files con-

[15] *Id.*, at 1014. For a more recent expression of that caution, see *United States* v. *Alexander*, 526 F.2d 161, 164, n. 6 (8th Cir. 1975): "Some commentators have posited the argument that the polygraph need only attain general acceptance among the polygraph operators themselves to satisfy the test for admissibility. [Citations.] This position must be rejected. The polygraph technique is premised upon a complicated interrelationship of psychological stress, a concomitant effect upon the autonomic nervous system and a resultant physiological response. There must be some assurances and explanations, in assessing the polygraph, that these stimuli and responses are precipitated by attempts to deceive and that no other cogent explanation exists for these interassociated reactions. Experts in neurology, psychiatry and physiology may offer needed enlightenment upon the basic premises of polygraphy."

The court phrases the issue before it thus: "The key issue on this appeal is whether the modern polygraph machine and the technique have attained sufficient scientific acceptance among experts in polygraphy, psychiatry, physiology, psychophysiology, neurophysiology and other related disciplines to justify the admission of the results of an unstipulated polygraph examination in evidence." *Id.*, at 164. The court concluded that "[t]here is an insufficient degree of assurance that polygraph machines and operators are capable of discovering and controlling the many subtle abnormalities and factors which affect test results." It expressed its willingness to change its mind "in the future if objective and probative evidence is proffered indicating greater acceptability in the relevant scientific community." *Id.*, at 166. But the court also noted that it had previously allowed a trial court to admit polygraph evidence upon stipulation of the parties to its admission. *United States* v. *Oliver*, 525 F.2d 731 (8th Cir. 1975). "In the present case, there was no such stipulation." *Id.*, at 170, n. 18.

[16] In Dr. David Lykken's Prepared Statement for the Senate Subcommittee, at galley 17, he observed: "Since it is hard to see why cost-conscious businessmen would continue to pay for the use of invalid tests, I will offer alternative explanations for their popularity. One is that the lie test is a very powerful form of stress interview, a kind of painless 'third degree' which induces many individuals to blurt out all their guilty secrets. Whether or not these revelations may be job-related, when this personal information is reported to the employer he understandably concludes that the test is remarkably effective—even though the procedure may elicit these confessions without having any validity whatever as a test. Second, some polygraphers report alleged 'findings' or conclusions which have no basis in fact but which nonetheless are impressive to the employer paying for the testing. Third, the prospect of having to take a polygraph test serves to intimidate many employees and may thus have a deterrent value from the employer's point of view."

[17] *See* text at note 152 *infra*.

tinuously for such reassuring statistics.[18] One stout fellow insisted in testimony in a New York court that he could not have committed over 20 errors in 15,000 tests[19] (and an arbitrator actually credited that!).[20]

The realities, however, are, first, at least 80 percent of the polygraph operators are publicly declared by the elite among them in this simplistic business to be incompetent[21] or charlatans (one operator gloomily asserting that there are no more than 50 who are competent out of all 3,000 in the country).[22] Second, it must also be said that however honest, well-intentioned, or versed in the manipulation of the machine, even the elite polygraph operators are not competent, either in a legal sense or as a practical matter, to do what they claim they can do: "*diagnose deception.*"[23]

The very way they talk about themselves casts a con-artist aura around the selling of the polygraph. An operator with a "master's degree in detection of deception from the Reid College, Chicago" who happens to work for and was trained by John E. Reid and Associates, also of Chicago, tells you in a quasi-medical jargon replete with science-oriented words and phrases that he uses a "complete diagnostic technique" in the course of "observing the subject's attitude and verbal and nonverbal behav-

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[18] *See* note 13 *supra.*

[19] *A.* v. *B.*, 72 Misc.2d 719, 336 N.Y.S.2d 839 (1972). Chicago Polygraphist John E. Reid declares that the known errors in more than 100,000 lie-detector tests which he has administered in over 35 years are under 1 percent. Reid and Inbau, *supra* note 1, at 304. Dr. David Lykken testified before the Senate subcommittee, Prepared Statement, at galley 15, as follows: "Claims based upon personal experience and on years of testing are wishful thinking. We had a man, for example, who testified before the Minnesota State legislature a few years ago, a polygrapher, who had given more than 20,000 lie detector tests in his career. He said: 'I have never once been proven to be wrong.' He did not tell us whether he had once been proven to be right. The fact is that in perhaps 10 percent of all these tests or less, had he ever known, after the tests had been scored and decided, whether he was right or wrong."

[20] *Bowman Transportation, Inc.*, 61 LA 549, 556 (Laughlin, 1973).

[21] Inbau, *The Case Against the Polygraph*, 51 A.B.A.J. 857 (1965).

[22] Business Week, February 6, 1978, p. 104.

[23] Dr. Joseph F. Kubis, Fordham University Professor of Psychology, in testimony before the 1964 House Committee on Government Operations, said, "Lie detectors don't prove fact. Lie detectors are merely belief verifiers if they are used properly; namely, they indicate, if it is correctly done, whether the man believes what he is saying. This does not indicate that what he says is a fact." Dr. Martin T. Orne, at that time with the Massachusetts Mental Health Center, asked in that same session to define "lie," responded, "I don't know how to define a lie. . . . It is not a term which has been carefully defined by scientists. What a lie is, is a matter of point of view which varies with individuals; *however, it may not be necessary to define this concept because the so-called lie detector does not actually detect 'lies.'* " Exhibit No. 8, Senate Subcommittee on the Constitution, Hearings on S. 1845, galley 62 (1977) (emphasis added).

ioral symptoms," including "subject motivation," a "verified" process entailing the use of a "control question technique" in order to "give an opinion as to truth or deception" of "the subject" (the person being tested).[24]

That sales pitch of the commercial polygraph industry has not changed in style or content in the past five decades. But in this last decade a market for "the detection of deception" has truly burgeoned among the nation's employers.

"Whatever their problems or stated objectives," *Business Week* recently reported, "U.S. businesses have found a surprising range of applications for lie detectors. Not only are they looking for thieves, junkies, liars, alcoholics, and psychotics among their workers; increasingly the machines are being used to screen out applicants with health problems without resort to more expensive physical exams. According to Bill R. Cannon, owner of a security agency in Dallas, Texas, his customers want polygraphs to reveal if a job seeker has a history of filing too many workmen's compensation claims. In addition, some employers want to spot workers who do not intend to stay on the job long enough to warrant costly training programs. Others are clearly interested in learning whether an interviewee holds extreme political opinions. Some have been known to wonder about unusual sex habits. . . . However, the overriding concern of most lie-detector users is to cut losses through employee theft."[25]

Abuses of mechanical "lie detection" adversely widely affecting American employees, reported by investigative reporters in reliable publications such as the *Wall Street Journal,* the *Los Angeles Times,* the *New York Times, Business Week,* and *Time* magazine,[26] are approaching the dimensions of a national scandal. The roll of employees wrongfully discharged, falsely accused of deception by polygraph operators, grows steadily as surveys, largely by investigative journalists, have repeatedly disclosed in the past several years. Practically all of the workers covered by labor-management collective bargaining agreements may at least appeal polygraph-triggered discharges to arbitration. But 95 percent of American employers and 80 percent of the workers are

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[24] Jargon gathered from "studies" cited *supra,* note 13.
[25] Business Week, February 6, 1978, p. 101.
[26] *See,* for example, extensive reports in Wall Street Journal, May 4, 1977, October 18, 1977; Los Angeles Times, June 4, 1973, June 28, 1974; New York Times, November 22, 1971; Business Week, February 6, 1978; Time, December 26, 1977.

nonunion, do not have access to grievance procedures, and have no effective remedy of protest.

A federal response appears now to be building which may yet relieve *all* triers of fact of the need to react to proffers of polygraph evidence. In the Privacy Act of 1974,[27] Congress created the Privacy Protection Study Commission. It has completed a two-year study of individual privacy rights, and it submitted its report to President Carter and Congress in July 1977.[28] It found that an estimated 300,000 individuals had submitted to lie-detector testing in 1974 alone. It declared this and other comparable techniques of collecting information "so intolerably intrusive as to justify banning them, irrespective of the relevance of the information they generate." The commission formally recommended to Congress *"[t]hat Federal law be enacted or amended to forbid an employer from using the polygraph or other truth-verification equipment to gather information from an applicant or employee."*[29]

The commission emphasized its sweeping condemnation of mechanical lie-detecting by calling for a "clear, strong Federal statute" which would ban even the manufacture and sale of polygraph devices for use by employers. It called for a law that "would preempt existing State laws with less stringent requirements and make it impossible for employers to subvert the spirit of the law by sending applicants and employees across State lines for polygraph examinations." A Senate subcommittee chaired by Senator Birch Bayh has commenced hearings to develop such legislation.

In addition to a possibly impending federal proscription, by 1976 15 states had enacted legislation substantially inhibiting the use of polygraph "lie detectors."[30]

Despite these negative implications, however, in its fifth decade the polygraph has finally, and strangely, begun to make some inroads among some state and federal trial courts embracing the demonstrably false conclusion that the "probative value of the polygraph," as one trial court put it, has been established by its "substantial reliability and acceptance" (neither of which

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[27] 5 U.S.C.A. § 552a (1974).

[28] Letter of transmittal, July 12, 1977, to President Jimmy Carter from Chairman David F. Linowes of the federal Privacy Protection Study Commission.

[29] Final Report of the Privacy Protection Study Commission, July 12, 1977, at Appendix 3, p. 45.

[30] Craver, *supra* note 1, at 29.

can be shown).[31] It has also gained acceptability among a handful of appellate courts,[32] perhaps the National Labor Relations Board,[33] several arbitrators,[34] and some law-review commenta-

[31] *United States* v. *De Betham*, 348 F.Supp. 1377, 1389 (S.D. Cal. 1972). There are three federal district court opinions (two decisions) in defendant-proffer cases favorable to the polygraph. In *United States* v. *Ridling*, 350 F.Supp. 90 (E.D.Mich. 1972) (perjury prosecution in which District Judge Charles Joiner accepted the polygraph as a valid technique to aid the court in resolving the central credibility issue and set forth guidelines for admission of the test results, including appointment by the court of the "expert" polygrapher). The decision was not appealed. But the Fifth Circuit in *United States* v. *Frogge*, 476 F.2d 969, 970 (1973) in a *per curiam* opinion wrote, "Though a trend may be emerging towards loosening the restrictions on polygraph evidence [citing only a 1948 intermediate appellate court decision in California], the rule is well established in federal criminal cases that the results of lie detector tests are inadmissible. . . . Nothing in *United States* v. *Ridling*, 350 F.Supp 90 (E.D. Mich., Oct. 6, 1972), heavily relied upon by the appellants, persuades us to abandon the traditional view." *Accord: United States* v. *Alexander*, 526 F.2d 161 (8th Cir. 1975); *United States* v. *Wilson*, 361 F.Supp. 510 (D.Md. 1973); *United States* v. *Urquidez*, 356 F.Supp. 1363 (D.C. Cal. 1973).

In a second federal district court decision admitting polygraph evidence, *United States* v. *Zeiger*, 350 F.Supp. 686 (D.C., Oct. 10, 1972), mentioning *United States* v. *Ridling*, District Judge Barrington Parker had "thought the probative value of the polygraph outweighed policy considerations against admission." But the federal court of appeals reaffirmed its 1923 decision in *Frye* v. *U.S.*, 293 Fed. 1013 (D.C. Cir. 1923) and summarily reversed the district court in a brief *per curiam* opinion. 475 F.2d 1280 (D.C. Cir. 1972).

A third federal district court, *United States* v. *De Betham*, *supra*, sitting without a jury, rejected a defendant's proffer of polygraph results because of the Ninth Circuit's stated adherence to the *Frye* doctrine. But the trial court remarked that the "probative value of the polygraph" had been demonstrated through evidence of its "substantial reliability and acceptance." Although it felt bound to reject the polygraph evidence, it expressed the conviction that the policy issues raised against it were not sufficient reasons to exclude it. *Id.*, at 1389–90. Even so, this most reluctant exclusion was affirmed on appeal. 470 F.2d 1367 (9th Cir. 1972), *cert. denied*, 412 U.S. 907 (1973).

Those cases are discussed in *Problems Remaining for the "Generally Accepted" Polygraph, The Emergence of the Polygraph at Trial,* and *Pinocchio's New Nose,* all *supra* note 1.

[32] *E.g.*, *Commonwealth* v. *Juvenile (No. 1)*, 313 N.E.2d 120 (Mass. 1974); *State* v. *Dorsey*, 88 N.M. 184, 539 P.2d 204 (1975). Curiously, some courts, while refusing to admit unstipulated polygraph evidence because of its scientific unreliability, are nonetheless willing to admit polygraph evidence on stipulation of the parties. *Compare United States* v. *Oliver*, *supra* note 15 (test results inadmissible absent stipulation of the parties).

[33] *See*, for example, text at note 83 *infra*. In 1971, the National Labor Relations Board, addressing the issue of discharges of union-activist employees for refusals to submit to polygraph testing, stated its view that, "[a]lthough a requirement that employees take polygraph tests may in certain circumstances be unreasonable, the circumstances here . . . persuade us that . . . respondent required . . . the lie detector test as an understandable and permissible measure to learn whether either of the two or both had been involved in the burglary. . . . " *American Oil Co.*, 189 NLRB No. 2, 76 LRRM 1506, 1507 (1971). The Board has not allowed flunking polygraph tests to be a pretext for antiunion discharges of employees. *See*, for example, *Glazer's Drug Co.*, 152 NLRB 467, 59 LRRM 157 (1965).

[34] The arbitral cases are of two general types: (1) Is polygraph evidence admissible? (2) May the employee be disciplined for the refusal to submit to a test at the direction of the employer? It is not the admissibility cases that disclose how polygraph evidence fares decisionally in arbitration. This is due to the occupational proclivity for many arbitrators to admit evidence "for what it is worth" even when they may regard the worth to be *zero*. A more reliable indication of the acceptability in arbitration of polygraph evidence is in the refusal cases. Five cases were found in which discipline—suspensions

tors,[35] and among employers grappling desperately with millions of dollars worth of inventory erosion in major part due to thieving employees among the workforce.[36] Theft is by no means the sole focus of the employers' interests, however; they are also spending polygraph monies ferreting out other suspected employee misconduct like sabotage, drug abuse, sexual abuse, falsified applications, disloyalty, and malingering.

What is most peculiar about the growth of polygraph popularity in this fifth decade is that it has occurred despite the fact that the commercial polygraph format remains remarkably unchanged from what it was five decades ago. It is still essentially based on the triumvirate of blood pressure, respiration, and sweat conductivity of electricity, however many "channels" are used to record those basic phenomena. Although the technology of polygraphing for scientific research in laboratories has become quite sophisticated, the commercial technology for polygraphing in the marketplace has remained essentially static.[37] It seems likely that the statements now being made about a supposed "marked improvement" warranting a change in legal status are due to a confusion of the scientific with the commercial applications. The scientific technology, however, is not designed nor has it been applied in order to engage in "lie detection." This underscores the need for caution among courts, arbitrators, and commentators not to be deluded that commercial polygraphy has somehow been transformed from its pseudo-scientific status; it has not.

The operators perform the same functions today that they did five decades ago. There continues to be no "thing" generated by the operation of the machine which can be submitted and made the subject of critical examination and cross-examination. Indeed, it is somewhat amusing the lengths to which polygraph

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or discharges—were upheld for refusals to submit to polygraph testing. Three of them involve one employer. The five are: *Allen Industries*, 26 LA 363 (Klamon, 1956); *Bowman Transportation, Inc.*, 61 LA 549 (Laughlin, 1973); *Bowman Transportation, Inc.* (unpublished but cited at 64 LA 456) (Whyte, 1974); *Bowman Transportation, Inc.*, 64 LA 453 (Hon, 1975); *Warwick Electronics*, 46 LA 95 (Daugherty, 1966).

[35] *See supra* note 1. There has been an unfortunate tendency to misperceive that "traditional lie detection methods such as polygraphs . . . have undergone significant technological and scientific development" of significance to triers of fact. Craver, *supra* note 1, at 29. This is simply not so as to commercial polygraphing which is what is involved in testimonial situations. See text between notes 10 and 11.

[36] *Business buys the lie detector*, Business Week, February 6, 1978, 100–104. See Dr. David Lykken's Prepared Statement for the Senate Subcommittee, *supra* note 1, at galley 18.

[37] "The polygraph . . . was developed in its modern form during the 1920's, as an instrument to aid police in the detection of crime." Westin, *supra* note 1, at 133.

operators go in hearings to shield from scrutiny by anyone other than themselves the graphs generated by the machine—the only tangible product of the test process. Professor Irving Younger probably put his finger on the reason when he observed that the graphs reproduced in the Reid-Inbau book on lie detection "make it clear that the needles move as subtly as Raskolnikov's soul," requiring far more subjective and intuitive thinking on the part of the operators than they would like to have generally realized.[38] The polygraph proffer made five decades ago is the same one made today in an arbitration or a courtroom: the oral or written opinion of a polygraph operator that the suspected person was or was not guilty of deception (or that the operator is unable to decide) based on several simple-minded questions, each followed by either a "yes" or "no" answer, with no explanations possible to amplify the naked simplicity of those "yes" or "no" answers.[39]

It is not only the technology of the commercial polygraph that has remained relatively static, aside from some cosmetic additions—chrome trim, red and green lights, extra "channels," and the like. The views of the courts of last resort which declare the law of their respective jurisdictions continue almost entirely to see polygraph evidence for what it has been and continues to be: unreliable as a "detector of deception."[40]

Although there have been instances of trial courts improperly deviating from the declared law of their jurisdictions,[41] and of arbitrators curiously crediting them as if they were valid statements of law,[42] it remains true in 1978 that the substantial weight of legal authority rejects the admissibility of polygraph evidence. No federal court of appeals has yet sanctioned the admission of polygraph evidence except by stipulation of the parties, despite several federal trial-court ventures into admissi-

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[38]Younger, Saturday Review, December 31, 1966, p. 20 (review of the first edition of Inbau and Reid, *supra* note 1).

[39]*See*, for example, text *supra* at note 8.

[40]"In applying the scientific acceptability standard to polygraph tests, all United States courts of appeals addressing the issue have excluded the results of unstipulated polygraph tests." *United States* v. *Alexander*, *supra* note 15.

[41]*See* note 31 *supra*. *Compare*, for example, *A.* v. *B.*, *supra* note 19 (family trial court admitting polygraph evidence) *with People* v. *Leone*, 25 N.Y.2d 430, 517, 255 N.E.2d 696, 700 (New York's highest court, the Court of Appeals: "the criterion for interpretation of the [polygraph] test chart has not as yet become sufficiently definite to be generally reliable so as to warrant judicial acceptance").

[42]*See*, for example, *Bowman Transportation, Inc.*, 64 LA 453, 457 (Hon, 1975); *Bowman Transportation, Inc.*, 61 LA 549, 551 (Laughlin, 1973).

bility.[43] Only three or four state supreme courts have tolerated the admission of polygraph evidence, and each of them has surrounded it with skeptically motivated requirements to be met which severely limit admissibility, most particularly relative to the competence, required to be tested in open court, of the polygraph operator.[44]

In contrast, the Court of Appeals, New York's highest court, declared in 1974 in *Pereira* v. *Pereira*[45] that "[i]t appears to be still true that 'the criterion for interpretation of the test chart has not yet become sufficiently definite to be generally reliable so as to warrant judicial acceptance; *nor can it be said that the examiner's opinion demonstrates reasonable certainty as to the accuracy of the polygraph test in most instances.*' "[46]

The Court of Appeals, holding that the trial court had erred in receiving into evidence the polygraph tests and related testimony, took a dim view of the polygraph process. It observed that a polygraph examiner "could not tell the magnitude of a false answer, that is, whether it was a little lie or a big lie; that he does not know whether a witness' anxiety to clear himself may cause the polygraph instrument to make lines suggesting his guilt even though he be innocent; that all emotional disturbances shown on the chart are not caused by lying; *that expert observations of the subject during the test and interpretation of his reactions are required.* . . . "[47]

The court clearly sympathized with the dilemma of the trial judge. But it gently rebuked him: "However one may be inclined to agree with the trial court's conclusion that defendant's conduct is suspect and his testimony incredible (with or without consideration of the evidence of the polygraph tests), such visceral reactions cannot be a substitute for evidence."[48]

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[43] *See* notes 40 and 31, *supra.*

[44] *See* 53 A.L.R.3d 1005 (1973) and, for example, *State* v. *McDavitt*, 62 N.J. 36, 297 A.2d 849 (1972) (stipulation by the parties of admissibility); *State* v. *Ross*, 7 Wash.App. 62, 497 P.2d 1343, 53 A.L.R.3d 997 (1972) (stipulation). In *People* v. *Zazzetta*, 27 Ill.2d 302, 189 N.E.2d 260 (1963), a polygraph test was held to be improperly admitted into evidence when in open court defendant, accused of burglary but not represented by counsel, "agreed to stipulate" to admissibility of test results. The Illinois Supreme Court, observing that no foundation has been established, stated that there were no cases on record in which lie-detector evidence had been admitted on stipulation of the parties without the presence in the trial court, and pretestimonial qualification by the court itself, of the operator as an "expert witness."

[45] 35 N.Y.2d 301, 361 N.Y.S.2d 148 (1974).

[46] *Id.*, at 152 (emphasis added).

[47] *Id.*, at 154 (emphasis added).

[48] *Ibid.*

The Supreme Court of Connecticut, in turn, in its 1975 decision in *State* v. *Mitchell*,[49] upholding a trial court's refusal to admit polygraph evidence, expressed the still-prevailing legal view when it reiterated its earlier opinion of the reliability of polygraph examinations:

> "The unreliability of the polygraph test has resulted in its universal rejection as competent legal evidence of truthfulness. . . . The record before us fails to demonstrate any basis for reevaluation of our attitude towards the competence of such evidence. Although there has been a growing trend among law enforcement personnel toward the use of the polygraph as an investigative aid, its reliability is still subject to question. *It is a subjective rather than objective examination, the results of which are influenced by a number of human variables and we, therefore, adhere to our position.* . . .
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> "*Credibility as an issue is committed to the sole determination of the trier of fact; . . . and the admission of the results of polygraph examinations, rather than serving as an aid to that determination, would tend to cloud the issue with an aura of scientific conclusiveness of the examiner's opinion that could foreclose a true consideration of the issue.* We are not convinced that the polygraph has progressed to a level of sophistication that would warrant the conclusiveness that would, in all probability, be appended to its results. . . . "[50]

In an interesting case, the Fifth Circuit in a 1973 decision[51] reversed a federal district court's refusal to enforce an arbitrator's award reinstating two employees who had been charged with the theft of meat from their employer's meat-packing plant. The collective agreement contained a clause providing that the employer "reserves the right to require . . . polygraph-tests of any employee in case the company suspects . . . theft of company property." The arbitrator, applying a standard of "beyond a reasonable doubt" due to the "moral turpitude or criminal intent" implicated, held that the incriminating results of polygraph tests would not be, and under the quoted clause need not be, credited as evidence of guilt or of whether the person taking the test was telling the truth. The arbitrator also declined to rule that one grievant's refusal to take a second lie-detector test was "per se grounds for discharge."

The district court refused to enforce the award on three grounds. First, it held that the arbitrator had violated the thou-

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[49] 362 A.2d 808 (Conn. Sup. Ct. 1975).

[50] *Id.*, at 812–13 (emphasis added).

[51] *Amalgamated Meat Cutters District Local No. 540* v. *Neuhoff Bros. Packers, Inc.*, 481 F.2d 817 (5th Cir. 1973).

shalt-not "alter in any way" provision by imposing on the employer a burden of proving guilt "beyond a reasonable doubt." Second, it held that he had "exceeded his authority in that his refusal to consider the tests' results was nonrecognition of the collective bargaining agreement's provision that Neuhoff reserved the right to require polygraph tests of any employee suspected of theft." Third, the district court ruled, as a matter of law, the grievant's refusal to take the second test "to be of itself proper cause for his discharge."

The court of appeals, in reversing, held that the arbitrator could "as a basic part of his decisional process" adopt the standard that he did. It rebuked the district court for its ruling preemptive of the arbitrator on the refusal to take the test: "We must regard this action by the district court as singularly unwarranted."[52] If the company wanted to be contractually able to discharge for such a refusal, it could bargain for its express inclusion. "Failing that, the decision is for the arbitrator." As for the polygraph contract provision, the court of appeals concurred with the arbitrator rather than the district court. The provision did not refer to the use of polygraph tests in arbitration, it observed; the company could use them for investigations; and "to deny their use in one specific context does not render the contract provision meaningless." The court then added: "Viewed as a question of admissibility of evidence, the arbitrator has great flexibility and the courts should not review the legal adequacy of his evidentiary rulings. This must particularly be so when the issue, the admission of lie detector tests, is one that even the courts have found debatable."[53]

Arbitrators, of course, have a strong functional and legal bias against the idea of refusing to admit proffered evidence. In collective bargaining, the "therapy of arbitration," as Justice Douglas put it, suggests the advisability of the admission of evidence rather than its exclusion. What is sought is the experience of having been heard, that is, of having had "all the facts" assessed and all the arguments considered. Most arbitrators are loath to foreshorten that experience by ruling evidence inadmissible. So there is a pronounced arbitral tendency to let otherwise objectionable matter be admitted "for whatever it may be

[52] *Id.*, at 820.
[53] *Ibid.*

worth," usually a code-phrase for *zero* weight. In addition, most arbitrators agree with Harry Shulman that the hazard for the arbitrator is that he will not hear enough of what might technically be excluded under the rules of evidence. So the risk he will usually prefer to accept is that of undue inclusion. Finally, the prospect of vacation of an award is nil for admission of evidence which would be technically excludable in a courtroom. But arbitration statutes typically authorize vacation of an award where "the rights of [a] party were substantially prejudiced by . . . the refusal of the arbitrators to hear evidence material to the controversy. . . ."[54] Thus the legal stimulus for admissibility in general is strong.

Even so, the published decisions by arbitrators relative to polygraph evidence proffered over a couple of decades before them are not that numerous—42 cases, 37 arbitrators.[55] On the

[54]California Code of Civil Procedure, § 1286.2(e).

[55]At the April 6 Academy "Search for Truth" session in New Orleans, I took a raised-hand poll at the outset of my remarks. There were about 1,000 persons present. Some 250 of them were arbitrators. To my—and their—astonishment, fully half of them indicated that they had had hearings in which polygraph evidence had been proffered, although there is a relative paucity of published cases. Of the persons present who indicated that they were representatives of unions (about 200 or so), half of them, in turn, had encountered polygraphs. The 500 or so management representatives present also indicated that half of them, as well, had had contact with grievance situations involving the polygraph.

The following are cases in which the discipline or discharge or suspension for refusal to submit to polygraph testing was *set aside: B.F. Goodrich Co.*, 36 LA 552 (Ryder, 1961); *Bowman Transportation, Inc.*, 59 LA 283 (J. Murphy, 1972); *Bowman Transportation, Inc.* (Vadakin, 1974) (unpublished but described at 64 LA 456); *Bowman Transportation, Inc.*, 60 LA 837 (Hardy, 1973); *Brass-Craft Mfg. Co.*, 36 LA 1177 (Kahn, 1961); *Continental Air Transport Co.*, 38 LA 778 (Eiger, 1962); *LAG Drug Co.*, 39 LA 1121 (Kelliher, 1962); *Louis Zahn Drug Co.*, 40 LA 352 (Sembower, 1963); *Sanna Dairies*, 43 LA 16 (Rice, 1964); *Saveway Inwood Service Station*, 44 LA 709 (Kornblum, 1965); *Skaggs-Stone, Inc.*, 40 LA 1273 (Koven, 1963); *Town & Country Food Co.*, 39 LA 332 (Lewis, 1962); *United Mills, Inc.*, 39 LA 1259 (D. Miller, 1963).

The following are cases in which discharges or indefinite disciplinary suspensions in refusal cases were sustained: *Allen Industries*, 26 LA 363 (Klamon, 1956); *Bowman Transportation, Inc.*, 61 LA 549 (Laughlin, 1973); *Bowman Transportation, Inc.* (Whyte, 1974) (unpublished but described at 64 LA 456); *Bowman Transportation, Inc.*, 64 LA 453 (Hon, 1975); *Warwick Electronics*, 46 LA 95 (Daugherty, 1966).

The following are cases of refusals to be tested in which arbitrators attributed *no evidentiary weight: Coronet Phosphate Co.*, 31 LA 515 (Vadakin, 1958); *Illinois Bell Tel. Co.*, 39 LA 471 (Ryder, 1962); *Publishers Ass'n of New York City*, 32 LA 44 (Simkin, 1959); *Simoniz Co.*, 44 LA 658 (McGury, 1964).

The following are cases in which proffers of polygraph evidence proof were *denied admission: American Maize Products Co.*, 45 LA 1155 (Epstein, 1965); *Bethlehem Steel Corp.*, 68 LA 581 (Seward, 1977); *Dayton Steel & Foundry Co.*, 39 LA 745 (Porter, 1962); *Marathon Elec. Mfg. Co.*, 31 LA 1040 (Duff, 1959); *McDonnell Aircraft*, 66–1 ARB ¶ 8236 (McKenna, 1965); *South Center Dep't Stores*, (Luskin, 1958) (unpublished but quoted in 19 Arb. J. 15 (1964)); *Spiegel, Inc.*, 44 LA 405 (Sembower, 1965).

In the following cases polygraph proof was deemed admissible to be *accorded evidentiary weight: American Maize Products Co.*, 57 LA 421 (Larkin, 1971); *Daystrom Furniture Co.*, 65

record, it is obvious that an "overwhelming majority" do reject the polygraph as valid evidence.[56] This is so even though my net impression (from reading the opinions) is that the arbitrators have too frequently been unduly restrained, even apologetic, in their analysis of and reaction to the negative implications of the polygraph to collective bargaining and grievance administration and particularly to the individual employees implicated.[57] I suspect that this does not so much evidence respect for the polygraph as it reflects well-warranted concern for the plight of the rather desperate employers who have proffered that polygraph evidence, many of whom are quite obviously being ripped off by some thieving employees.

Those employers are hardly in the mood—and, after all, we are mood-sensitive decision-makers—to sit in a hearing and listen to some squeamish arbitrator philosophizing about the role of "truth" in arbitral proceedings; or about the nondelegable arbitral duty to decide issues of credibility; or about the inherent unreliability of polygraphs and their operators in coping with ascertaining truth or deception among employees; or that the majority of employees in any industrial setting are more apt than not to be innocent of wrongdoing. The arbitrator learns, and the employer probably realizes, that the employees must be presumed to be innocent, even though those same presumably innocent employees may well, and if intelligent most assuredly will, quail under the stress of the prospect of the loss of livelihood under a cloud of moral turpitude in an investigation situation which they can readily and accurately sense to be rampant with Catch-22 possibilities.

So the arbitral response in that tense situation, I hunch, has

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LA 1159 (Laughlin, 1975)("more useful in verifying the truthfulness of testimony than in detecting its unreliability"); *Grocery Supply Co.*, 59 LA 1280 (Taylor, 1972); *Indianapolis Transit System*, 31 LA 433 (McIntosh, 1958) (unilateral test inadmissible but "of immeasurable value" if jointly submitted); *Owens-Corning Fiberglass Co.*, 48 LA 1089 (Doyle, 1967); *Westinghouse Elec. Co.*, 43 LA 450 (Singletary, 1964) ("does not pass upon the reliability . . . " but observes that as the "conclusions reached by that examiner are corroborated by this arbitrator from evidence other than those tests"); *Wilkof Steel & Supply Co.*, 39 LA 883 (Maxwell, 1967) ("indicative at best, not conclusive").

[56]Even though Elkouri and Elkouri devote only three short paragraphs to the lie detector, citing a smattering of the cases in print and largely dismissing the polygraph, without analysis, their statement is accurate that the "overwhelming weight of arbitral authority" bars penalizing employees for refusal to take a polygraph test and "where an employee does submit to lie detector testing, the test results should be given little or no weight in arbitration." Elkouri and Elkouri, How Arbitration Works 268–69 (2d ed. 1973).

[57]*See*, for example, *Warwick Electronics, Inc.*, 46 LA 95, 97 (Daugherty, 1966), discussed *infra* in the text after note 69.

often been to resort to some version of the hoary ruling, "I'll admit it for what it's worth," and even less desirably to indicate that it will be given some indeterminable weight along with the other evidence in the record even if no weight is actually accorded it.[58] It manifests some courage in the world of arbitral acceptability for an arbitrator to say, as did Arbitrator James Vadakin in a case in which he had earlier admitted lie-detector results into evidence, "while he allowed the test to be introduced during the hearing, the Arbitrator records no weight to it in reaching his decision."[59]

There is a certain disturbing lack of self-guarding humility in the assumption that evidence which is concededly "prejudicial" if presented to a jury is somehow not prejudicial if received by an arbitrator or a judge sitting without a jury. Our knowledge of the psychology of the act of judgment in dispute resolution is still primitive. There is no warrant whatsoever for assuming that a seemingly scientific apparatus like the polygraph will have any less effect on an experienced trier of fact than among a jury of amateur triers. There is no evidence, other than occupational self-assurance, that sole triers are less susceptible to a technological con job than is a jury. As Arbitrator Arthur R. Porter candidly—and accurately—observed in such a case, he might have been influenced by his knowledge of the adverse test result that he had admitted into evidence although, in upholding the discharge, he had tried to limit his thinking solely to the non-polygraph evidence.[60]

Interestingly, among the 37 arbitrators there was repetitive exposure, four each deciding more than one published case.[61] The principal grounds for rejection or discounting of the poly-

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[58]For cases in which, with varying results, polygraph tests were admitted as part of the record, see *Daystrom Furniture Co.*, 65 LA 1159 (Laughlin, 1975) (termination reduced to suspension); *Owens-Corning Fiberglass Co.*, 48 LA 1089 (Doyle, 1967) (reinstatement); *Wilkof Steel & Supply Co.*, 39 LA 883 (Maxwell, 1967) (reinstatement); *Westinghouse Elec. Co.*, 43 LA 450 (Singletary, 1964) (discharge sustained).

[59]*Coronet Phosphate Co., Inc.*, 31 LA 515, 520 (Vadakin, 1958) (reinstatement).

[60]*Dayton Steel & Foundry Co.*, 39 LA 745, 746–47 (Porter, 1962) (discharge sustained). The grievant was discharged for being the aggressor in a fight. He refused a polygraph test. His adversary, Snow, volunteered to take one. "The testimony of the expert examiner ' . . . revealed that Snow . . . was telling the truth. . . . ' " Arbitrator Porter observed: "There is no evidence from a witness who saw the fight. No one observed the two men in the shower room; the evidence supporting the story of Snow is indirect. Impressions from the hearing and the results of the polygraph may have played a role in the decision of the arbitrator, although an effort has been made to rule only on the basis of the factors that have been described and analyzed."

[61]The four are Charles Laughlin (2), John Sembower (3), Meyer Ryder (2), and James Vadakin (2). Two of them tell me that they have had several more than the published

graph as a valid credibility test were scientific unreliability (often coupled to the widespread refusals of courts to credit the tests on that ground);[62] the invasion of privacy and dignity of the employees affected;[63] and the imperiling of the constitutional

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ones. Arbitrator Sembower's decision 20 years ago in *General American Transportation Corp.*, 31 LA 355 (Sembower, 1958) (employer prohibited usage for proposed investigation of false production reports) has been cited as a leading case ever since. *See*, for example, Burkey, *Lie Detectors in Labor Relations*, *supra* note 1, at 8. *See also Louis Zahn Drug Co.*, 40 LA 352 (Sembower, 1963) (reinstatement); *Spiegel, Inc.*, 44 LA 405 (Sembower, 1965) (reinstatement). The other four arbitrators: *Bowman Transportation, Inc.*, 61 LA 549 (Laughlin, 1973) (polygraph admissible, discharge sustained); *Daystrom Furniture Co.*, 65 LA 1159 (Laughlin, 1975) (polygraph admissible, discharge reduced to suspension); *B.F. Goodrich Co.*, 36 LA 552 (Ryder, 1961) (discharge for refusal of test set aside); *Illinois Bell Tel. Co.*, 39 LA 471 (Ryder, 1962) (three discharges sustained, polygraph admissible but refusals not); *Coronet Phosphate Co.*, 31 LA 515 (Vadakin, 1958) (reinstatement); *Bowman Transportation, Inc.* (Vadakin, 1974) (suspension set aside). This was unpublished but described is another *Bowman* case at 64 LA 453, 456 (Hon, 1975) (polygraph not solely sufficient but helpfully supplemental; discharge sustained).

[62] *See*, for example, *Bethlehem Steel Corp.*, 68 LA 581 (Seward, 1977); *Coronet Phosphate Co., Inc.*, 31 LA 515 (Vadakin, 1958); *Grocery Supply Co.*, 59 LA 1280 (Taylor, 1972); *Marathon Elec. Mfg. Co.*, 31 LA 1040 (Duff, 1959); *Sanna Dairies*, 43 LA 16 (Rice, 1964).

[63] *See*, for example, *American Maize Products Co.*, 45 LA 1155 (Epstein, 1965); *B.F. Goodrich Co.*, 36 LA 552 (Ryder, 1961); *Illinois Bell Tel. Co.*, 39 LA 471 (Ryder, 1962). Arbitrator Hardy in *Bowman Transportation, Inc.*, 60 LA 837 (1973), setting aside a discharge for refusal to submit to a polygraph test, observed, "The Arbitrator is mindful of the serious problem the Company has when employees tamper with Company equipment but in view of the overwhelming weight of impartial scientific authority that polygraph tests are not accurate, and legal authority that they do not constitute competent evidence and invade the right of privacy and self-incrimination, the Arbitrator cannot uphold such a requirement in the instant case."

In contrast, see Arbitrator Laughlin's discussion of the problem of invasion of privacy as the "most forceful objection to requiring polygraph testing," "vague yet cogent," in *Bowman Transportation, Inc.*, 61 LA 549, 554–55 (1973), a case of suspension for refusal to submit to the test. He concluded on the privacy issue: "The arbitrator has had considerable difficulty resolving the issue presented by this argument [that a polygraph test involves an invasion of the body of the person being tested. The very apparatus involved may have a terrifying effect upon some people, something like being strapped in an electric chair]. He has changed his mind several times in the course of his deliberations. After much thought the arbitrator feels required to reject the argument on the facts of this case."

Compare Arbitrator Sembower, having listened to Professor Fred Inbau testify in *General American Transportation Corp.*, 31 LA 355 (1958): "The Company, however, believes that the use of the lie detector on all employees in a section where actual production totals do not jibe with incentive pay claims is the best method. . . . While Prof. Inbau has testified that the taking of the test is not an ordeal for the subject, we must not lose sight of the fact that many persons of sensitive nature—perhaps those most disinclined of all to do any cheating of any nature—are greatly repelled by such experiences which would not [faze] the more sophisticated and hardened. We must bear this in mind when contemplating the possibility that the bare fact of an employment relationship, plus the existence of a dereliction on the part of somebody in a relatively large group, may serve as justification for wholesale, nondiscriminatory use of such a device as the lie test. Are not such honest, law-abiding employees entitled, as the author puts it, to protection from 'unpleasant investigations'?" *Id.*, at 362, citing and quoting *Methods of Scientific Crime Detection as Infringements of Personal Rights*, 44 Harv. L. Rev. 842, 845 (1931) ("Infinitely more difficult to restrict without impairing the efficacy of criminal procedure, is the practice of subjecting suspects to unpleasant investigations prior to judicial determination of guilt.") and 14 U. Chi. L. Rev. 601, 616 (1947) ("But if we admit such an encroachment upon the personal immunity of an individual where in principle can we stop? Suppose medical discovery in the future evolves a technique whereby the truth

testimonial right not to be compelled to incriminate oneself.[64]

In the lexicon of the polygraph arbitrations, the name of Bowman Transportation, Inc., looms larger than any employer in the United States. Among the 13 cases in which arbitrators *set aside* discipline meted out for refusals to submit to a polygraph test, three involved this one local Georgia company which, I am told, runs peanuts between Atlanta and Plains, Georgia. Among the five cases in which suspensions or discharges were *sustained* by arbitrators, three arose from the same Bowman Transportation, Inc.[65] If I were the industrial relations manager of Bowman Transportation, Inc., looking at what those six arbitrators had wrought for me, I might be tempted to form a negative judgment about a process which can produce three cases of "yes" and three cases of "no" to the uses of the polygraph to cope with wrongdoing in quite mephitic circumstances. And yet, he should be consoled. His company's three wins on that issue constitute almost two thirds of the reported American decisions favorable to his position on those refusals!

Oddly, my research disclosed that there are arbitrators who reason to exclusion or no-weight conclusions based on "unreliability," yet whose concerns in this regard would be wholly dissipated if an employee were to "consent" to be tested.[66] But that

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may infallibly be secured from a witness by trepanning his skull and testing the functions of the brain beneath. No one would contend that the witness could be forced against his will to undergo such a major operation at the imminent risk of his life, in order to secure evidence in a suit between private parties. How then can he be forced to undergo a less dangerous operation, and at what point shall the line be drawn? To my mind, it is not the degree of risk to life, health and happiness which is the determinative factor, but the fact of the invasion of the constitutional right to privacy.").

[64]For example, Arbitrator Ryder reasoned that punishing an employee for refusing a test as "insubordination" due to lack of cooperation has overtones of compelled self-incrimination, "a proposition repugnant to Anglo-Saxon legal codes." *Illinois Bell Tel. Co.*, 39 LA 471 (1962). *Contra: Simoniz Co.*, 44 LA 658, 659 (McGury, 1964).

[65]*Bowman Transportation, Inc.:* Discipline was *set aside* in 59 LA 283 (J. Murphy, 1972); 60 LA 837 (Hardy, 1973); and (Vadakin, 1974) (unpublished but noted in 64 LA 456). Bowman discipline was *sustained* in 61 LA 549 (Laughlin, 1973); (Whyte, 1974) (unpublished but noted in 64 LA 456); and 64 LA 453 (Hon, 1975).

[66]For example, Arbitrator Ralph Seward has expressed what appears to be a widely held—and, I believe, erroneous—view of the significance of the "consent" of the person to be tested or the admission by joint stipulation of the parties to the proceeding. Properly (in my view) ruling polygraph test results to be inadmissible, he nevertheless added, "The courts have generally—indeed, almost universally—rejected polygraphic evidence unless offered with the consent of all parties concerned. Though arbitration proceedings are not controlled by the strict rules of evidence, wisdom suggests that the Impartial Umpire's office should follow this judicial approach and admit polygraph evidence only if both the Company and the Union agree." *Bethlehem Steel Corp.*, 68 LA 581, 583 (Seward, 1977). *Accord: Daystrom Furniture Co.*, 65 LA 1159, 1161 (Laughlin, 1975); *Marathon Elec. Mfg. Co.*, 31 LA 1040, 1042 (Duff, 1959): "Voluntary stipulations would undoubtedly make such tests admissible in Arbitration proceedings."

is surely an unworldly view on at least two grounds. First, and obviously, unreliability is not altered simply because some workers, succumbing to employer appeals to motivations of fear or favor express or implicit in the situation, have been conned into submitting to it.[67] Second, and less obviously but no less realistically, the "consent" of an innocent employee, fearful of the loss of livelihood or reputation, over whom looms the possibility of criminal proceedings brought by a presumed influential employer in the community who is angered by the refusal of a suspected employee to "cooperate," is no real consent.[68] It falls within those instances of contractual relationships in which disparate bargaining power nullifies any prospect of negotiation and consent to be bound—situations of "adhesion," as the courts term them.

Thus the conclusion is compelling that it would be improper for a court or an arbitrator to relax the determination to assure fair procedures that are protective of ignorant or misled persons solely because they have "consented" to a polygraph examination or, by "stipulation," to the admission in evidence of test results. If that is a well-warranted conclusion as to those two forms of "consent," as I am convinced, a third—and, potentially, far more serious variation on "consent"—is the inclusion in collective bargaining agreements of provisions for compulsory lie-detector tests. Provisions authorizing or requiring polygraph testing can readily work their way into collective agreements through union inertia, ignorance, bargaining weakness, or the desire to pick up some protection against fair-representation litigation by employees whose grievances it regards to be unwarranted but finds it difficult to deny short of arbitration without the challenge of costly litigation. It does, after all, give a business representative a talking point: "Now, of course, *I*

[67]"Of course, it is difficult to understand how the polygraph method is improved merely because the parties stipulate to be bound by it. Would the court approve a stipulation to be bound by the toss of a coin?" Burkey, *Privacy, Property and the Polygraph*, *supra* note 1, at 86.

[68]"The subject may have consented out of fear for his job, or he may have been under extreme social pressure from other employees. Where consent was extracted under such circumstances, the results of the test should not be admitted. The fundamental right of the subject to be free from such nonconsensual intrusions should take precedence over any evidentiary benefits that might be derived from the polygraph." Craver, *supra* note 1, at 37. As a professor-arbitrator, Craver has concluded that "labor arbitrators should recognize polygraph evidence as a significant aid in resolving credibility disputes" in large part because "traditional evidentiary rules are no better at resolving credibility conflicts in the arbitral forum than they are in courts of law." *Id.*, at 36.

believe you, but the box says you're guilty and we can't beat the box!"

In *Warwick Electronics, Inc.*,[69] Arbitrator Carroll Daugherty encountered that sort of situation. The issue submitted was whether written warnings were properly issued to several guards who had refused to take polygraph examinations in the course of a "cloud of suspicion" investigation of an actual theft. The collective agreement required the guards to "cooperate fully" with the company in any investigation of theft. That phrase, the arbitrator reasonably concluded in the evidence before him, had been understood by the parties in the course of their negotiations to encompass compulsory polygraph testing. The union had unsuccessfully resisted its inclusion. The arbitrator, manifestly ill at ease, wrote as follows:[70]

> "At the outset of this opinion the arbitrator deems it desirable to make clear that his decision here cannot be grounded on any personal feelings that he or anyone else might have about the uses and validity of polygraph examinations in general. He is fully aware of the emotional storms that the use of this device by government agencies and private companies often arouses in people subject to such use. He knows how many people feel about this and the other invasions of individual privacy found in American life today. And he is cognizant of the dubious validity of the results obtained from polygraph tests. But the Arbitrator's award in this case must be based strictly and narrowly on the issue submitted to him by the parties."

When one reads that paragraph, can there be any doubt of the nature of the decision that is about to be disclosed? Each arbitrator in this Academy has on more than one occasion experienced that acute sense of dilemma as he clenched his teeth and applied the contractual language as the parties intended it even though one of the parties—and the arbitrator—now realize that the result is unduly harsh or onerous.

The arbitrator is distressed at the seeming necessity to reach what by many—and perhaps the arbitrator himself—will be viewed as a "bad" decision. Yet he feels compelled to do so by required adherence to the collectively bargained agreement that expressly vests the company with the contractual right it asserted. This agreement most likely had the usual clause caution-

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[69] 46 LA 95 (Daugherty, 1966).
[70] *Id.*, at 97.

ing the arbitrator not to "amend, alter or modify this agreement in any manner." Even if it had not, the arbitrator would imply such a restriction in any event as the parties' jointly selected "reader of the contract." We are aware, therefore, of Arbitrator Daugherty's acute sense of dilemma as he wrestles with the problem, one which we have all experienced at one time or another.

Yet, one wonders, had he perhaps been more informed, or more convinced, of the essential irrationality of polygraph testing, of its capricious and untutored capacity for harm to innocent workers, might he then have felt less constrained by that express polygraph language, more free to listen to and be counseled by those "personal feelings" of which he spoke in such a get-thee-behind-me-Satan manner?

"The central issue in this case," Arbitrator Daugherty continued," is whether the Union actually had made a prior agreement granting the Company such a right and thereby waiving for any . . . guard any right to refuse to take such a test, given the subject circumstances that led the Company to try to exercise said right."[71]

But in 1974 the Supreme Court in its decision in *NLRB* v. *Magnavox Co.*,[72] by creating an exception to it, significantly modified the basic principle that a union may through collective bargaining effectuate a "waiver" of the individual rights of employees. It dealt there with the distribution of literature in nonwork areas on nonwork time. It held that a union by collective agreement with an employer cannot by contractual waiver lawfully foreclose an employee's statutory right under the NLRA to engage in expressions of opposition to or support for an incumbent union.

The collective agreement authorized the employer to issue rules for the "maintenance of orderly conditions on plant property" so long as the rules were not "unfair" or "discriminatory." During the nearly 20 years of bargaining relationship, the company had consistently applied that provision to bar employees from distributing literature on their own time in nonwork areas. The collective agreement also stated that bulletin boards would be available for the posting of union notices. But

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[71] *Ibid.*
[72] 415 U.S. 322, 85 LRRM 2475 (1974).

the employer reserved the right to reject "controversial" notices.

The justices were unanimous in their decision that "a union cannot contractually waive the right of disaffected employees to distribute in nonwork areas and during nonwork time literature advocating the displacement of the incumbent collective-bargaining representative."[73] A majority of them further constricted the scope of possible waiver, however, so as to preserve the right of union supporters, as well as dissidents, to distribute on the premises.[74]

The Court had some years earlier in the *Mastro Plastics* case qualified the contractual waiver doctrine so as, in the face of a no-strike clause, to preserve the right of employees to strike "against unlawful practices destructive of the foundation on which collective bargaining must rest."[75]

The Court has recognized "freedom of contract" as "[o]ne of [the] fundamental policies of the National Labor Relations Act."[76] Judicial—or arbitral—nullification of contractual concessions runs counter to that underlying conception. Furthermore, the reality is that union concessions, like authorization of polygraph investigations, are not gratuitously given. Some *quid pro quo* has been extracted from management negotiators, even though it is rare to be able to match the specific concession taken for the one given. So nullification of a waiver, whether by a court's invalidating a provision or by an arbitrator's declining to enforce it—deprives management of the benefit of its bargain, leaving the union with a windfall. As Justice Stewart remarked in his *Magnavox* concurrence, "This sort of invalidation of bargained-for concessions does not promote stability in the collective-bargaining process and must certainly have a negative effect on labor-management relations. For this reason, the Board and the Courts should not relieve the parties of the promises they have made unless a contractual provision violates a specific section of the Act *or a clear underlying policy of federal labor law.*"[77] So, presumably, at the very least would it be in arbitration which,

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[73] *Id.*, at 327 (Stewart, J., concurring, with Powell and Rehnquist, J.J., on this proposition, thereby making the decision unanimous as to it).

[74] *Id.*, at 362.

[75] *Mastro Plastics Corp.* v. *NLRB*, 350 U.S. 270, 281, 37 LRRM 2587 (1956).

[76] *H.K. Porter Co.* v. *NLRB*, 397 U.S. 99, 108, 73 LRRM 2561 (1970).

[77] *Magnavox Corp.* v. *NLRB*, *supra* note 72, at 328–29 (Stewart, J., concurring) (emphasis added).

unlike the Board or the courts, is a uniquely internal forum, composed at the will of the parties, in which it is normal and reasonable for them and their arbitrators to expect close conformance to the discernible intent of the bargainers.

The essence of that background of principle and practice undoubtedly was in Arbitrator Daugherty's mind as he undertook to resolve the express contractual allowance of polygraphing with the claim of personal privilege not to have to choose to be subjected to it or to lose employment.

Is the contractual provision for polygraphing so contrary to public policy that an arbitrator ought not to effectuate it in the face of either a refusal initially to submit to it or a protest against its admissibility once having done so? Before responding to that question there is, of course, the necessity to cope with the more fundamental, much-debated, and intractable question whether arbitrators, in order to be attuned to latent public policies potentially in conflict with express contractual terms, should ever undertake to pierce the semantic veil woven by the parties.[78] Even so, and quite aside from situations of estoppel or past practice, there *are* working-place situations in which one may assert with some assurance that among arbitrators generally the probability of a countermanding response in protection of individual rights against otherwise expressly authorized actions is of a very high order. This is so regardless of the competing views about the uses or abuses of public policy in the interpretation of collective agreements. Several brief descriptions will suffice to afford the basis of comparison with the situation of an actually innocent employee being compelled to choose between livelihood and the unpredictable but defamatory vagaries of polygraphing. Making the assumption in each instance that *there are no express contractual terms dealing with discrimination of any sort,* consider the following situations:

A. Suppose a security-intensive employer were to obtain a contract provision that provided: "The Director of Security of the Company may at any time and under any circumstances order any, some or all of its employees, regardless of sex or other characteristics, to undergo a stripped-down body search

[78]A dead horse that keeps kicking those who beat it. *See* Morris, *Comment,* in Arbitration and the Public Interest, Proceedings of the 24th Annual Meeting, National Academy of Arbitrators, eds. Gerald G. Somers and Barbara D. Dennis (Washington: BNA Books, 1971), 66.

in the Company's maingate guardroom to be conducted by guards on duty under the supervision of the Supervisor of guards. The Chief Steward or his representative shall be present. A refusal to comply with such an order shall constitute just cause for immediate termination."

Could an employer reasonably be advised to expect an arbitrator to uphold the discharge of a female employee who had refused an order to comply with that provision at a time when, because of illness or other reason, only male guards were on duty?

B. Suppose a collective agreement were to provide that "only employees of male Anglo-American ancestry shall be eligible for promotion to the position of leadman or leadlady, or to any of the 'A' classifications detailed in Appendix 'A' of this agreement."

Could an employer reasonably be advised to expect that an arbitrator would decide in its favor that a woman of Mexican-American heritage, otherwise qualified, had no grievable claim to promotion to a job vacancy as leadlady?

C. Suppose a collective agreement were to provide that "Self-defense shall not be recognized as a valid reason to avoid the automatic discharge of an employee who becomes physically involved in any way in a fight."

Could an employer reasonably be advised to expect that an arbitrator would sustain the discharge of an employee who had been physically attacked without provocation?

D. Suppose a collective agreement contained a provision that "It shall be a dischargeable offense for an employee to discuss any political or religious subject at any time or any place on the premises of the Employer."

Could an employer reasonably be advised to expect that an arbitrator would sustain the discharge of two employees who had discussed the morality of the Supreme Court's pro-abortion decision as they ate lunch in the company cafeteria?

There is no doubt, in my mind at least, that on one rationale or another most and probably all of the arbitrators—who have a caseload extensive enough to qualify for membership in this Academy, which is to say, they have become widely acceptable as arbitrators to collective bargainers—would, without hesitancy of decision but with at least *some* qualms about how to express it, sustain the grievance of each aggrieved employee in those hypothetical cases, and this despite the bilateral conference of

express powers in the employer. One way or another, lawyer or not, what those arbitral decisions would be exemplifying would be the ancient Anglo-American common-law concept of decision-making that there may be agreements that are not enforceable because they are so contrary to some basic precept or "public policy" of society that countermands the expressed intent of contracting parties offensive to it.

Now there is no doubt that such an overriding of express contractual intent is a most serious matter. It runs counter to the fundamental precept of "freedom of contract" in which is encompassed our idea of contract in interpersonal economic relations. That is why it is rare indeed for a court, a forum external to the will of the contracting parties, to invoke this override doctrine to nullify an express agreement. How much more rare may we expect applications of the public-policy override doctrine to be among arbitrators who, upon joint selection, compose an internal forum so subject to the will of the parties as to be wholly dependent upon their creation of it each time they fall into dispute! But the occasions do nevertheless occur when the question arises whether override reasoning is required in arbitration even though it goes deep and strong against the functional grain of an arbitrator to say to the parties, "You cannot do that." The very fact of those occurrences, set in the context of the historic acceptance in our judicial system of the public-policy override doctrine, suggests to me that it is reasonable to infer that the prospect of the applicability of that doctrine may be implied as part of the global intent of the parties,[79] unexpressed but available nonetheless to their tribunal in those quite rare instances which have traditionally summoned it to the fore. But if you ask me, "What if the parties make even *that* subject to a term of their agreement, through a clause expressly overriding the impliable override doctrine?" I must answer that I cannot as an arbitrator effectuate an express term which so contravenes public policy as to make it unconscionable for me to become the parties' instrument of injustice, as an accessory, as it were, to their wrongdoing. Most particularly is this true when

[79] "It is . . . settled that the laws which subsist at the time and place of the making of a contract, and where it is to be performed, enter into and form a part of it, as if they were expressly referred to or incorporated in its terms. This principle embraces alike those which affect its validity, construction, discharge, and enforcement." *Von Hoffman* v. *City of Quincy*, 4 Wall. (U.S.) 535, 550, 18 L.Ed. 403 (1867).

the personal rights of an individual—employee, union representative, or employer representative—are thereby being transgressed.

In ad hoc arbitration, such decisions as these typically must be made without prior warning and, doubtless, arbitrators do get stampeded on occasion into mistaken decisions for lack of the happenstance of personal forethought or forewarning by the parties.[80] If forewarning does occur, then I would decline to serve and state the reason. If, instead, the issue emerges in the course of the hearing, a far more likely prospect, then the necessity of a decision based on the override doctrine must be confronted. Because the rights of the parties, and of the adversely affected employee, have by then been put in issue, it would be a serious impropriety, in my judgment, for an arbitrator to withdraw from the matter at that point, perhaps even a failure of due process because of the practicalities of cost and consensus about proceeding again. Whoever would benefit by the decision is surely entitled to it once the issue has become engaged, particularly, once again, if it be an adversely affected employee who so frequently has little to say in the timing of the hearing and the choice of arbitrators.

Whatever may be your own decisions in those four hypothetical contract cases, what I suggest here is that the same underlying reasoning should as well govern your response to the refusal cases involving polygraph testing of the sort encountered by Arbitrator Daugherty in *Warwick Electronics, Inc.* The same approach, of course, would be applicable to the admissibility cases.

For myself, I group the polygraph cases in the same area of public intolerability in which I find those four hypothetical instances of contract terminology. None should be effectuated in arbitration. I would adopt the *Magnavox* style of reasoning, that the uses of polygraphs are so contrary to accepted tenets of public policy that contract terms authorizing or requiring the subjecting of employees to them may not be effectuated by me as an arbitrator.

A few arbitrators seem not to recognize the serious dimen-

[80] *See* text at note 12, *supra*, for the realistic description of the plight of the ad hoc arbitrator out on the circuit of motel hearing rooms groping on the run to understand what is involved and is at issue in the dispute. Arbitrator Jay Murphy expresses the thought that the scene he sketches may be particularly descriptive of the Southeast. My own impression is that it is, instead, true throughout the country; it is certainly so in the West.

sions of the problems of unreliability, however, taking an unrealistically casual view of the innocent employee's dilemma.[81] In a passage typical of that view, in a decision much cited by polygraph-proffering employers (for the lack of other citable cases until quite recently), an arbitrator had before him evidence of stolen material in an employee's automobile. The employer had demanded that the employee undergo a "lie-detector" test. He refused and was discharged. The arbitrator observed:

> "While a lie detector test is far from perfect and while it may have many shortcomings, it is very difficult to see how the taking of such a test by X could in any way adversely affect his interest if he has no knowledge at all that might be helpful to the Company in ascertaining whether or not he was an accessory or whether or not X has any knowledge of who may have placed this Company material in X's car."[82]

On the other hand, it was with no casual view of the innocent employee, rather with an acute awareness of the employer's plight and that of a whole community of workers, that Arbitrator Thomas J. McDermott approached his decision in *Monarch Rubber Co.*[83] in 1975, a strange and violent mystery.

The company is a multistate, multiplant employer. This plant is located in a small West Virginia mountain community. The evidence disclosed that a person or persons unknown began in July 1974 to foul the company's product with pieces of metal. A rubber and plastic compound is used to make sheets of heel and sole material for shoe manufacturers. Into it, as the mix proceeded through the several stages of processing, was tossed an assortment of rivets, pieces of steel, nuts, bolts, hacksaw blades, washers, and even cutting knives, all apparently thrown deliberately into the mix.

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[81]The dilemma is very real indeed for an employee confronted with the polygraph. Dr. David Lykken reported to the Bayh subcommittee that two recently available tests—one by Horvath, the other by Barland—reliably demonstrate that "the lie test is strongly biased against the innocent subject. Horvath's 10 polygraphers, on the average, called 49 percent of truthful subjects deceptive, erroneously. . . . In Barland's study, 55 percent, more than half of the truthful innocent subjects, were false positives, were incorrectly called deceptive by the scorer" (i.e., the polygraph-test analyst). Lykken, Prepared Statement, *supra* note 1, at galley 10. *See also* text at note 99, *infra*.

[82]*Allen Industries, Inc.*, 26 LA 363, 367 (Klamon, 1956).

[83]Unpublished opinion and award (Thomas J. McDermott, October 23, 1975). The case was described to me by Arbitrator McDermott after my April 6 remarks on the New Orleans Academy program about the substance of this paper; a copy later was sent to me.

After investigations, by questioning employees and covert observations by supervisors, had failed to develop any firm evidence of suspects, and another fouled batch was discovered, the plant was ordered shut down, and the employees were sent home. But the sabotage continued. When yet another fouled batch turned up, the plant was shut down for three days. When production was resumed, the sabotage again resumed and escalated. Two "firecrackers" blew a hole in the roof of the foreman's office. Another was tossed into a truck inside the plant, setting material on fire. Later, two electrical safety switches were thrown, shutting down all four of the mills in the plant. Still later, a press mold was extensively damaged when someone inserted in it a large nut and bolt.

Management and union officials met on August 15, and the latter were told that a decision was imminent to shut down the plant permanently. The economic reasons were compelling and union officials believed, and had reason to believe, that what they were told about the shutting down was real, not merely some phony bargaining gambit. Even so, the sabotage continued.

The company's corporate officers met thereafter and the chairman of the board of directors declared his intention to shut the plant. The company's attorney, however, as a final effort to save the plant, proposed the administration of polygraph tests to a list of possible suspects that had been accumulated by hearsay and surmise because nothing else was available. Management agreed to his proposal, and the company attorney informed an official of the union that the plant would have to be shut down permanently unless the sabotage could be stopped, which, he said, required that the union agree to polygraph testing of the list of possibly involved employees. The official answered "that he did not like lie detector tests, that the International did not endorse the use of such tests but that the situation was grave and the life of the bargaining unit was at stake so that he could understand." Neither he nor any union official, local or international, could suggest how the sabotage could be stopped. All but one of the union's local officers agreed that the tests should be given. The next day, the company's attorney informed the international that the tests were scheduled, *that no one would be discharged as a result of taking the tests,* and that anyone refusing to take the test would be suspended.

The company had considered hiring undercover agents to

work in the plant. But the idea was dropped because in this small mountain community an outsider would undoubtedly be spotted and identified for what he was.

A meeting was arranged for September 4 between five local union representatives and the plant manager with several company representatives, at which time the plans for polygraphing were discussed in detail. The plant manager said that no one would be discharged as a result of taking the tests, but that anyone refusing would be suspended. The union representatives expressed their opposition to the sabotage, expressed the wish to get the matter over with, but, when asked for any recommendations, offered no suggestions of how to stop it.

The following day, once again, another act of sabotage occurred on the first shift. Management directed that the plant be closed down for one week. Arrangements were made for a detective agency to administer the polygraph tests during the shutdown on September 9 and 10. Thirty employees were selected from various areas of the plant, including some supervisors because of the union's stated suspicion of some supervisoral involvement.

Of the 30 scheduled for testing, 10 bargaining-unit employees refused the test. When they subsequently reported for work on September 12, each was told that he was suspended but would be reinstated when and if he took the test. The 10 thereafter became signatories on September 20, 1974, to the grievance that was submitted to Arbitrator McDermott.

In the period of this travail from July to the first week of September, 36,000 pounds of the mix had to be destroyed because it was too contaminated with metal. In addition, over 30,000 sheets of the material had to be sold as salvage at considerable loss. There were losses of good will and prospective sales. More than 60 shipments were returned by customers at a cost of $93,000. Product-liability litigation was in prospect by shoe purchasers who had slipped and fallen because of the projection of unsuspected pieces of metal from a heel or a sole. The total of directly measurable damage accumulated in those several weeks of sabotage exceeded $300,000.

After filing the September 20 grievance on behalf of the suspended 10 who had refused the polygraph test, the union on October 3, 1974, also filed an unfair labor practice charge against the company that read:

> "The Employer, without just cause and in violation of the terms and provisions of the contract, discharged from their employment on September 12, 1974, the following named employees because of their failure to submit to a polygraph (lie-detector examination) in connection with an investigation being conducted regarding damage to certain company property. The Company acted in a discriminatory nature in the choice of persons to submit to said examination."

The NLRB regional office investigated the matter. On December 2, 1974, the regional director notified the union that a complaint would not be issued, writing:

> "The evidence revealed that the Employer's request that certain employees submit to a lie detector test to determine who was responsible for sabotage of the Employer's production process, and the subsequent suspension of employees who refused to submit to such test, was not in violation of the Act. Where the Employer requires, as here, employees to submit to a lie detector test for legitimate business considerations, individual employee's refusal to submit to the lie detector test does not constitute protected activity."

After the tests had been given and the suspensions imposed, no further acts of sabotage had occurred prior to the arbitral hearing on July 23, 1975.

At the arbitral hearing, two of the grievants testified. One said that he had refused to take the test "because of the principle of the thing." The other said that he had refused because "if they could not take my word, I would not take the test."

Arbitrator McDermott reviewed the arbitral polygraph decisions and literature on the subject, finding that there was a strong, but not unanimous, trend among arbitrators to reject polygraph proof. He found from the three pro-polygraph *Bowman Transportation* cases[84] enough support for his conclusion that an absolute ban on polygraphing was not warranted, and that these extraordinary circumstances justified the company's requiring the tests. His conclusions were that the company had unsuccessfully tried every angle it reasonably could to investigate and cope with the sabotage, and had carefully kept the union informed throughout its efforts before deciding to require the polygraph tests. Even then, he emphasized, no employee was to be discharged due to the polygraph results. Be-

[84] *See supra*, note 65.

cause the very survival of the plant was at stake, along with the economic welfare of this small one-plant mountain community, "the desperateness of the situation" warranted resort to the polygraph as a "reasonable business decision." Accordingly, the arbitrator denied the grievance. He directed that they would be reinstated, but without back pay, should they submit to the tests.

In the light of the findings and analysis spread throughout this paper, what are we to make of *Monarch Rubber?* Hard cases make bad law, Justice Holmes once observed. The thought was that the magnetic pull on human judgment of especially appealing circumstances tended to skew legal principles as the judges reacted empathetically to the plight of the litigants rather than to the structural integrity of the legal principles being applied. Whatever the validity of that observation as to the functions of the law-giving Supreme Court, in arbitration, at least, hard cases simply prove that the principles to which they apply stress have until then been drawn in terms too absolute for useful service in the real world of disputes. This is an unsettling but needed lesson that is taught to labor arbitrators recurrently over the years (and, I suspect, to trial and appellate judges as well).

So is it here. It is difficult to fault Arbitrator McDermott's decision. This was subversive warfare. Substantial harm was being inflicted on the employer and on the community of workers and their families by some mentally unbalanced person or persons which was destroying this common enterprise.

What is truly remarkable about this bizarre situation is how careful and deliberate were the responses of the company to this persistent onslaught. Instead of imperiling innocent employees whose livelihood was also at risk by intemperate reactions, management progressively escalated the penalizing impact of its corrective measures, patiently seeking in trying circumstances to find the remedy. That eluded it and the union leadership alike. Resort to polygraph testing was a final step, not an initial one.

The factors that influenced the arbitrator to sustain the company's indefinite suspensions for refusal to submit to polygraph testing were that (1) resort to the polygraph was a final step rather than an initial one; all normal investigative options had first been tried unsuccessfully; and (2) the company had assured its employees that no one would be terminated on the basis of the results of the tests. Those two measures effectively narrowed to an irreducible minimum the foreseeable scope of potential

damage to actually innocent employees erroneously "convicted" of deception by the polygraph operator.

But harm there still was, assuming innocence, as we must. The employees were being compelled on the threat of loss of livelihood to surrender a certain measure of dignity, in the sense of self-worth and of pride in personal integrity. It is those compelled surrenders—even aside from its inherent unreliability—which render the polygraph unacceptable as a tactic of investigation and an element of proof of deception, *except,* the circumstances of *Monarch Rubber* now compel us to concede, when the dilemma confronting the employer is of such a harmful magnitude and has been shown by good-faith pursuit of other measures of relief to be otherwise unrelievable. Adoption of extraordinary measures for the survival of the common enterprise may then justify the kind of restrained use of polygraphing exemplified by the management in *Monarch Rubber.*

In summary, it is accurate to observe, however, that practically all arbitrators today manifest negative and uneasy reactions, albeit in varying degrees, to the proffer of polygraph evidence,[85] even when admitting and crediting polygraph proof. It is also clear from the opinions, regardless of the decisions to admit or deny, that each of the arbitrators confronting a polygraph proffer was concerned to assure that conditions of reliability should surround the hearing in which the evidence was produced. In those instances in which polygraph proof is allowed, it is indispensable that there be the physical presence of the polygraph operator, and his careful examination by the trier of fact and cross-examination by opposing counsel about both his personal qualifications and the circumstances of the testing. This minimum precaution has been adopted by even those courts and arbitrators disposed to admit polygraph proof into evidence.[86]

Surely, in the absence of convincing evidence of the competence of the polygraphist, inadmissibility should be the arbitrator's ruling. Those few courts that have admitted polygraph test results in evidence, other than by stipulation of the parties, have

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[85] *See,* for example, *Bowman Transportation, Inc.,* 61 LA 549, 557 (Laughlin, 1973), and notes 61 and 66 *supra.* This same ambivalence emerges even more markedly in the course of Professor Craver's article (*supra* note 1) advocating admission of polygraph proof in labor arbitrations, but so hedging it about with well-merited cautious conditions as to prompt the expectation that he would disfavor rather than favor admissibility.

[86] *See* note 55, *supra.*

required the presence of the polygraphist to be cross-examined as to his qualifications and the conditions that attended the testing. That opportunity should certainly be a minimal prerequisite to admissibility in any case. Interestingly, even courts that have allowed admission by stipulation have felt constrained to require that even then the trial judge undertake to assure that the examiner be present[87] and, to the court's satisfaction, be shown to be qualified and to have conducted the test under proper conditions.[88] Experience has demonstrated that careful attention to the competence of each polygraph operator is well warranted.[89]

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[87] *See,* for example, *State* v. *Valdez,* 91 Ariz. 274, 371 P.2d 894 (1962); *People* v. *Zazzetta, supra* note 44 (no cases found on record in which a lie detector had been admitted by stipulation without the presence and qualification of the operator and interpreter of the test as an expert witness during the trial); *State* v. *McDavitt, supra* note 44; *see Polygraph —Stipulation of Admissibility,* 53 A.L.R.3d 1005.

[88] *See,* for example, *United States* v. *Oliver, supra* note 15, in which the appellate court reviewed in detail the trial court's exercise of caution to assure that a competent polygraph operator administered the test and then testified about the results. The Indiana Supreme Court in *Carpenter* v. *State,* 251 Ind. 428, 241 N.E.2d 347 (1968), held that it would be a denial of due process were the polygraph operator not to be present in the court for examination and cross-examination concerning his qualifications and the circumstances of the test. The one federal district court that, unreversed (there was no appeal), provided for conditions of admissibility, required the presence of the polygraphist and indicated that the court would itself inquire concerning the test. *United States* v. *Ridling, supra* note 31.

[89] The importance of cross-examination of the polygraph operator was dramatically established in *Spiegel, Inc.,* 44 LA 405 (Sembower, 1965). The polygraph examiner had testified on direct examination about his conclusion that the suspected employee had been "deceptive" when tested, a finding that had resulted in his discharge. On cross-examination, the union attorney, Lee Burkey, asked the operator several questions developing his lack of educational qualifications and the cursory nature—six weeks—of his polygraph training. The cross-examination continued as follows:

Q. As an operator and as a supervisor [of operators], do you have any general acquaintance with the literature in this field on lie detectors and their uses?

A. Yes, sir.

Q. I suppose you have heard of John E. Reid, haven't you?

A. Yes, sir.

Q. Do you know a man by the name of Holcomb at the University of Iowa, or of him?

A. Yes, sir.

Q. Are you a member of the National Academy of Polygraph Operators?

A. I am a member of the Academy for Scientific Interrogation.

Q. Are you acquainted with the work at M.I.T. of Gustafson on the polygraph?

A. No, sir.

Q. You are, however, acquainted with the work of Charles R. Judson at the California Institute of Technology on this subject, are you not?

A. Not fully, sir.

Q. But you do know of him and have at least seen some of his work, haven't you?

A. Yes, sir.

ATTORNEY: I would like the record to show that I have a better lie detector than this witness. There is no such person. I have no further questions.

The quotation from the Spiegel arbitration transcript is from Burkey, *Privacy, Property and the Polygraph, supra* note 1, at 84. Arbitrator Sembower, ruling on the motion of the union's attorney to strike the lie-detector findings, wrote: "The evidence of these

IV. The Potentials for Reliability

> "There is now good evidence available concerning the accuracy of the so-called 'control-question' lie test and this evidence confirms what theory would predict. The lie test does better at separating the truthful from the liars than one could do by flipping coins, but not much better: it is not 99 or even 80 percent accurate, but more like 65 to 70 percent accurate on average. Moreover, as theory would suggest, the lie test is strongly biased against the truthful subject; about half of the truthful subjects in the studies . . . were erroneously scored as 'deceptive' by the lie test."[90]

When discussing the work of triers of fact, it is useful to distinguish between the inquiries and objectives associated with philosophic truth and those concerned with what we might call pragmatic truth. It is the latter that professionally preoccupies triers of fact who are confronted with the decisional necessity of reconstructing as accurately as possible the past events from which have emerged the disputes put in issue before them.

The extent to which any of us may range in search of philosophic truth is determined by the limitations of our own minds. In contrast, in the course of adversary proceeding in which there are conflicts in testimony, the success of the search for pragmatic truth—"the facts of the case"—is subject to distortions due to the limitations of others, not just to those of the trier of fact. In this context, "truth" has as many faces as there are witnesses whose testimony about it is in conflict. That is why a chronic problem of irresolution encumbers decision-making by triers of fact.

Psychological studies reinforce the experiential observations of triers of fact that people typically have considerable difficulty reconstructing past events in which they have participated. A corollary of that realization is that the more certain is the recital of events, the more is an experienced trier of fact apt to feel a

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findings must be stricken and disregarded because of the complete discrediting of the witness who was presented to authenticate them. . . . Not only were his training and educational qualifications revealed to be meager indeed, but he professed a recognition of 'leading scholarly works' in the field and their purported 'authors' which do not even exist. By using one of the oldest 'lie detectors' known—cross examination which exposes a witness who has completely misrepresented—the Union's counsel demolished the standing of the witness as the 'expert' which he would have to be in order to be able to qualify the exhibit." 44 LA at 409.

[90]Dr. David Lykken, Prepared Statement, *supra* note 1, at galley 18. In the course of this and subsequent sections of this paper, there will be minimal effort to footnote the text.

mounting sense of skepticism about the accuracy of the account; that is not to say, of course, that credibility inheres in uncertainty, just that uncertainty inheres in credibility.

Human Perceptual Limits

For a person to "lie" means that the relater has purposely set forth an account that is a calculated distortion of what is believed to have occurred. One can only distort what one presently recalls had earlier been perceived to be the "real" events. The major problem with testimonial eyewitness evidence, with which experienced triers of fact are repetitively familiar, is that the relater starts out as basically an unreliable perceiver whose unperceptions and misperceptions are simply compounded by his shortcomings as an unreliable recaller. And that is even before getting strapped into anything like a polygraph. Furthermore, it is not enough that, as humans, we cannot accurately reproduce events in which we have involuntarily in some way become participants. We cannot even summon up truthful, which is to say not just honestly intended but also factually accurate, accounts from our own unstressed memory banks about the details of the quite ordinary events in our own life histories. How may we then recall, with any semblance of what could possibly be called "reconstructive objectivity," any, some, or all of the details of the more startling events in which each of us at one time or another has abruptly and without any prior warnings become involved?

It is quite evident from psychological studies and the experiences of triers of fact that the problems of imperfect, which is to say unresolvable, perception are infinite in their variety and detail, caused by the humanity of the persons involved in the events and, in turn, of that of the trier-of-fact arbitrator (or judge) who listens and views those same persons in their efforts honestly or dishonestly to recount what has occurred. Most of them, my own experience as an arbitrator suggests, are earnestly, some even passionately, desirous of truthfulness. Even so, some—which ones?—are undoubtedly just as earnestly, even passionately, bent on falsehood. Would that not seem to make it appropriate to resort to a technologically reliable detector of deception, if such there may be? Unfortunately, the answer must be negative, and the reason is both simply and deeply rooted in our human nature.

The spectrum of the capacity to perceive among humans ranges from sheer blindness to reality to its wholly imaginative recollective creation, with countless intermediate waystops of perception in varying degrees concerning the fleeting moments of action and inaction perceived or misperceived by our senses —sight, hearing, smell, taste, touch, and, most important, that ancient sixth sense—the intuitive leap of recognition that so often in fables alights on iridescent truth, while in life as often plunges into some mudhole of surmise. Individual conditionings and deficiencies of all sorts—physical and mental—encumber the prospect of an accurate process of perception, storage, recall, and recounting.

The principal weakness in the potential for reliability of polygraph testing thus arises from the limited extent of the capacity of humans, caught up in events unexpectedly or, for that matter, even with full anticipation of involvement, realistically to perceive, and then to store their perceptions as reliable recollections which can later be accurately summoned and recounted. Psychological studies reinforce the experiential observations of triers of fact of the constant occurrence of reconstructive problems created for them as they grope about reassembling the bits and pieces of action and dialogue in a dispute situation. That reconstructive process is encumbered by this basic human shortcoming in the capacity to observe and relate accurately, and humility compels the professional triers of fact to concede that, as judges or arbitrators, they may be empowered to say the "yes" or the "no," but they *do* share the same human deficiencies of observation and assessment as they listen to and watch witnesses in the course of a trial or a hearing.

The Warps of Guilt

A second major weakness in the reliability potential of the polygraph arises from the existence of the sense of guilt which apparently all of us carry around to some extent, consciously or unconsciously, in myriad variations of content and degree.

It is common psychological knowledge that wholly normal fantasies of a destructive or other wrongdoing nature, reflecting social and personal frustrations, in some measure tending to ameliorate them, may routinely occur in people, but are rarely ever translated into real-life action. Even so, the residue of those fantasies are stored in our memory banks and involuntarily are

summonable by the accidental stimulation attached to triggering words and images. Otherwise wholly innocent persons may therefore have recordably nervous reactions when key words and images are suggested in a context of tension in the course of an interrogation potentially affecting their livelihood. Interestingly, the principal source for the high degree of reliability that polygraph proponents assert is their alleged experience of the "verification" of the "diagnosis of deception" afforded by confessions (which typically are wholly undocumented, but of which they routinely claim personal knowledge).

Yet one of the phenomena of latent senses of guilt is the volunteered but partially or wholly false confession. The existence of voluntary false confessions has been recognized for decades, at least since the Borchard study was published.[91] University of Pennsylvania Psychiatry Professor Martin T. Orne has described its roots thus: "Lots of people carry around a lot of guilt. They feel themselves to blame for things. They are fairly isolated, unconnected with the rest of humanity, lead quiet lives. Nobody notices. Confession satisfies a lot of needs—to assert responsibility for something and to get a lot of attention. That's a very hard-to-resist combination for somebody who feels guilty, worthless and nothing."[92]

Among those who have written about the polygraph, it has been common to observe that its successful use in smoking out confessions of wrongdoing is wholly dependent upon the gullible belief of those being tested that "the black box knows all." When the operator points to the needle movements measuring arousal, out will blurt the employee's admissions of wrongdoing, frequently enough not involving *this* employer, but just some earlier incident that has nettled the conscience. The result, however, at least among the 95 percent of unorganized employers where there is no recourse to arbitration to challenge arbitrary discharge, is typically the discharge of the confessor as an undesirable employee.

Interviewed by the *New York Times,* Chicago union attorney Lee M. Burkey, who has handled a number of polygraph arbitrations and has written on the subject, described the attraction of

[91]Borchard, Convicting the Innocent (1932) (report of 65 cases, selected from a much larger number, of innocent men sent to jail or sentenced to death by American courts).

[92]Los Angeles Times, March 12, 1978, p. 1.

employers to uses of the polygraph as " 'a deeply ideological thing by people who desperately long for law and order. I see employer after employer depending on the lie detector,' Mr. Burkey said, 'They are only perpetuating the lack of order in America by going through this magic ritual, with all its terrible injustices. The real criminals don't care about the lie detector. It isn't admissible as evidence in court. So the truly amoral people breeze through the polygraph, while the introspective, nervous, sensitive person who probably is guilty of some wrongdoing—but perhaps not the theft under investigation—shows all the wrong tracings, believes the machine knows all, and makes damaging confessions.' "[93]

An interesting piece of investigative reporting on the subject, involving queries of a number of psychologists and psychiatrists around the country, concluded: "The experts are skeptical about the usefulness of hypnosis, truth serums or lie-detector tests in weeding out the false confessors. . . . Will a suspect always tell the truth in a hypnotic trance? 'Certainly not,' said Orne. . . . 'That's a serious fallacy. . . . The way to go is good detective work.' "[94]

The Pollyanna Principle

A third weakness in the reliability potential of polygraph examinations is suggested by a recent research project on perception and recollection. Current psychological studies, for example, have established the prevalence among humans of what has come to be referred to by psychological experimental researchers as the "Pollyanna principle." Psychologists Margaret Matlin and David Stang thus write of it:[95] "In brief, it holds that pleasantness predominates. We process pleasant items more accurately and efficiently than less pleasant items."

Of the incidents that typically occur in the course of labor disputes, how many could possibly be said to be "pleasant"? To the extent that this continues to be proven valid, it has obvious implications relative to the capacity of persons to perceive as witnesses and then to recall and relate in testimony their observations.

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[93]New York Times, November 22, 1971, p. 1.
[94]*Supra* note 92.
[95]Matlin and Stang, *The Pollyanna Principle,* Psychology Today 56 (March 1978).

A few of these preconditions in favor of pleasantness which are of import to testimonial credit are as follows: (1) people avoid looking at unpleasant scenes whenever they have a choice; (2) they take longer to recognize unpleasant or threatening stimuli; (3) they communicate good news more frequently than bad news; (4) even when people have seen pleasant and neutral stimuli equally often, they report that the pleasant stimuli were more frequent; (5) people judge pleasant objects to be larger in size than unpleasant or neutral stimuli; (6) in a free-association they produce a greater number of responses to pleasant stimuli, and they produce them more quickly; (7) they also recall the responses to pleasant stimuli more accurately; (8) they memorize and recall pleasant items more accurately than less pleasant ones; (9) they remember events to be more pleasant with the passage of time; (10) they overestimate the importance of pleasant events and understate the importance of unpleasant events.

Interestingly, this line of research certainly makes more explicable the pronounced proclivity for judges and arbitrators to articulate their mission in terms of the "search for truth" and "the ascertainment of truth." That surely is a more pleasant prospect than to have to say the "yes" or the "no" while entangled in an ineradicable and ego-eroding welter of irresolution!

The rationale underlying the predominance of pleasantness, which is favored by Matlin and Stang, is that proposed in 1974 by psychologist Matthew H. Erdelyi who reasons "that cognitive processes are selective, favoring some kinds of information over others. We need this selectivity because of our limited capacity to deal with the great mass of material that is available for processing. Cognitive control processes, located in long-term memory, seem to favor the processing of pleasant information rather than neutral or unpleasant information."

Erdelyi also proposes, as Matlin and Stang summarize his study, that "selecting operates at many different stages in information-processing. It operates during sensation and perception (some unpleasant information never makes it past the first hurdle), during both short-term and long-term memory (unpleasant information is forgotten more readily), and also during output (some unpleasant information may survive the selectivity process only to be abandoned at the very last step and never reported). Thus, selectivity in favor of pleasant information is

not limited to perception, language, or memory. Instead, it seems to be inherent in the way humans handle all information."

Although the processes of cognitive control may demonstrably favor pleasant information, psychological research has not as yet been able to supply definitive explanations. It remains undetermined whether this pleasantness masking-out phenomenon may ultimately be attributable to defense mechanisms identified in psychoanalytic theory, or as the instinctual survival reactions articulated in the theory of evolution or as the product of the selection of pleasant reactions attributable to the principles of reinforcement theory. As Matlin and Stang conclude their report, "For now, the products of cognitive processes may be very concrete, but the explanations remain elusive."[96]

Scientific Studies Versus Polygraphist "Studies"

There has certainly been an outpouring of "studies" emanating from the Chicago polygraph firm, John E. Reid and Associates, which has achieved the economic scope of national operations. The basic thrust of these studies appears to be to demonstrate the reliability of the Reid firm in detecting deception among employees for industrial clients and among persons suspected or charged or otherwise involved with law-enforcement authorities in criminal proceedings. Polygraphing itself has become a big business, and John E. Reid evidently has been the most successful of its pioneers throughout its emergence since the 1930s. His staff "chief examiner," a college graduate in police science, declares his own qualifications thus: "Received his polygraph training from John E. Reid and Associates in 1965 and received a master of science degree in the detection of deception from the Reid College in 1973."[97]

Dr. David Lykken reported in November 1977 to Senator Bayh's Subcommittee on the Constitution on the state of research into the reliability of the polygraph. John E. Reid and Frank Horvath had in 1971 published a study of their own files "to determine if Polygraph examiners working independently of each other, are able to successfully diagnose deception solely from an analysis of Polygraph records."[98]

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[96]*Id.*, at 100.
[97]Wicklander and Hunter, *supra* note 13.
[98]Horvath and Reid, *supra* note 13.

Twenty-five "case investigations" records were used in which 75 persons had been tested. Only the test results of 40 of the 75 were used to test the 10 examiners, however, the other 35 being felt to be "too obvious" as instances of truth or deception to be a real challenge to the examiners. That wholly unscientific selective deletion of 47 percent of the original charts, on the basis of the subjective judgment of the authors, made it impossible for any other investigator to replicate, and therefore validate or invalidate the study. No scientific journal, subject to prepublication referee review, would therefore have published this study.

Twenty employees were regarded to be "verified as guilty" and 20 were "verified innocent" subjects. They were so determined, respectively, by a "fully corroborated confession of the guilty subject" in each set of the 20 cases. No indication, however, is given of how corroboration occurred in any of the cases, surely an important datum in assessing the research.

The style of the report of this study reflects an evident effort to document a very high statistical efficiency rating through a series of published—and then reprinted and widely distributed —accounts of studies among the John E. Reid group. Each successive one refers to and incorporates the results of earlier ones.

This one reports that the 10 examiners "achieved an average 87.75 percent accuracy in solving the cases, i.e., in correctly detecting the guilty subjects and correctly identifying the innocent subjects."

In contrast to this unscientific, selective, and self-laudatory "research," several years later Horvath left the Reid organization, undertook a doctoral program at the University of Michigan where he again, this time as his academically supervised doctoral dissertation for a Ph.D. in sociology, undertook another study of polygraph reliability. Dr. David Lykken described this later project along with two others for the Bayh subcommittee in his prepared statement thus:[99]

> "There have been many laboratory studies of the lie detector, mostly using college student subjects and mock crime situations. It should be apparent—and it is generally agreed by both sides—that one cannot estimate the accuracy of the lie test in real life situations, involving important consequences and real emotional concerns,

[99]Lykken, Prepared Statement, *supra* note 1, at galley 17.

from these laboratory simulations. There have been just three scientifically respectable studies of the lie test accuracy in the field. One of these by P. Bersh (J. Applied Psychology, 1969), reported an average accuracy of nearly 88 percent. However, Bersh's polygraphers made *'global' judgments based not just on the lie test charts but on everything they knew about the evidence and about the suspect at the time.* Therefore we cannot be sure how much the actual polygraph results contributed to the accuracy achieved by Bersh's examiners. It seems probable that their subjective evaluation of the suspect and the evidence against him would have led them to separate liars from the truthful with much better than chance accuracy, using the same kind of intuitive assessment that juries or police detectives rely on. It is possible that the polygraph itself, unsupplemented by the examiner's intuitive judgments would have yielded much lower accuracies than Bersh reported.

"A later study by F. Horvath (Doctoral dissertation, University of Michigan, 1974 [62 J. App. Psych. 127(1977)] supports the latter interpretation. Horvath was a professional polygrapher affiliated with the John Reid firm in Chicago, who recently obtained a graduate degree and conducted this study under the supervision of trained scientists.

"Polygraph tests given to 112 criminal suspects were obtained from police files. Half of these had later been verified as to guilt or innocence, either by subsequent confession of the subject tested or by confession of another person clearing the subject tested. Ten experienced polygraphers independently scored each of these test records, agreeing among themselves about 87 percent of the time. The average accuracy of their judgments on the 56 verified cases was only 64 percent, as compared with the chance expectancy of 50 percent (that is, since half of these cases were verified deceptive and half truthful, one might expect to score 50 percent correctly just by flipping a coin). On the verified-guilty cases, 77 percent were correctly classified; i.e., 23 percent errors. *In the case of the verified-truthful suspects, 49 percent of their polygraph tests were scored as 'deceptive.'*

"The most recent field study of polygraph accuracy was also done by a professional polygrapher who, like Horvath, had gone back to the University for an advanced degree. G. Barland (Doctoral dissertation, University of Utah, 1975) himself administered Backster control-question tests to a group of criminal suspects. (Barland's sample was subsequently extended to 102 cases under Research Contract 75-NI-99-001 with the U.S. Law Enforcement Assistance Administration and it is to this finished study that I shall refer.) Barland's collaborator, Dr. D. Raskin, scored the polygraph charts 'blindly' without knowledge of the details of the case, as was done in the Horvath study. The Barland study used as a criterion the consensus of at least 4 of 5 judges and criminal lawyers who later reviewed the completed case files and estimated their confidence in the suspect's true guilt or innocence. On the criterion-guilty cases, Raskin's scoring agreed with the criterion on nearly 98 percent—as compared with 77 percent accuracy for Horvath's 10 polygraphers.

> The fact that the control-question method does this well—77 percent to 98 percent accuracy in 'detecting' lying—is not surprising since most of the tests were scored as 'deceptive' in both studies. Horvath's examiners scored 63 percent deceptive and detected 77 percent of the liars. Raskin scored 88 percent as deceptive and detected 98 percent of the liars. *But both the Horvath and the Barland studies show that the control-question test is exceedingly inaccurate in its ability to 'detect' truthful responding. In both cases, at least half of the innocent suspects were classified as 'deceptive' by the polygraph.* This again is just what one would expect since the 'control' questions used would seem relatively non-threatening to most people (e.g., "Before the age of 18, did you ever take anything that didn't belong to you?") in comparison to the relevant questions ("Did you steal the $2,000 from the vault?")"

It is obvious that an innocent employee, compelled to submit to a polygraph test that may cost both livelihood and reputation, is wholly justified in being fearful. As Dr. Lykken emphasized, "The lie test is strongly biased against the innocent subject."

A Case History

Wall Street Journal reporter Jonathan Kwitney has recently written of an incident in which he became directly involved as one with first-hand knowledge in the case of a polygraph that gave false witness against an innocent employee.[100] His account graphically illustrates the plight of an innocent employee entangled in the polygraphic coils of deceptive detection. A Mr. Y had given the reporter inside information that was decidedly unfavorable to his employer's business practices; disclosure had resulted in a steep drop in the value of the company's stock on the New York Stock Exchange. The employer promptly launched an effort to find the disloyal Mr. Y. It scheduled lie-detector tests. Shortly it zeroed in on innocent Mr. Z as the detector-disclosed source of the leak. He got polygraphed as an "adverse reaction" to questions about whether he knew the reporter, had talked with him, and had given documents to him. Ultimately, Mr. Z, now no longer an employee, an anguished man who had been hounded into quitting his job, called the reporter to ask if he could clear his name. The reporter described Mr. Z's account thus:

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[100]Wall Street Journal, May 4, 1977, p. 20.

" 'They interrogated me. Rumors started circulating throughout the company. My bosses became suspect. My associates, my peers, believed that I was the person. They would not confide in me any longer. I just felt I would not work in that type environment under those conditions,' he says. He began drinking heavily and calls himself an alcoholic. He says his family left him because of it. He says he found another job in the industry, but lost it in a lay-off. . . . I had never talked to him before. He had never supplied me any documents or information before, directly or indirectly. And any detector that says different is lying."

Concluded Mr. Kwitney: "The detectors are . . . not nearly good enough to depend on in serious matters. Even the polygraph establishment concedes that guilty persons might on occasion fool the detector with well-performed denials. But the establishment insists the detector will never point its accusing needles at a subject who is telling the complete truth. I have less faith."

A Conclusion on Reliability

After a careful study of the polygraph and lie detection, Professor Jerome H. Skolnick concluded in 1961 that "[t]he scientific basis for lie detection is questionable. There seems to be little evidence that upholds the claim to a regular relationship between lying and emotion; there is even less to support the conclusion that precise inferences can be drawn from the relationship between emotional change and physiological response."[101]

From my review, I believe that it is accurate to observe that nothing has emerged since the Skolnick study that would in

[101]Skolnick, *supra* note 1, at 727. Interestingly, there is at least a preliminary indication that resort to techniques of biofeedback or autohypnosis may confound polygraph examination. In a recent Air Force experiment, three groups were formed among 30 volunteers; one was given a month of training to monitor and control galvanic skin response (i.e., sweat) by use of a relaxation technique; a second was trained to control arousal by autohypnotic suggestion; the third was an untrained control group. In testing all 30 before the training period, a polygraph examiner got an 88-percent accuracy rate in spotting efforts to deceive him about card identifications. After the training period, he got about the same results from the untrained control group. But he could only muster 24-percent accuracy—well below the level of chance—with the trained groups. Lackland Air Force Base psychiatrists James Corcoran and M. David Lewis report the experiment in 23 J. of Forensic Sciences No. 1, reports Berkeley Rice in Psychology Today 107 (July 1978). Dr. Corcoran told Rice that this "means that many industries which in the past have hired, threatened and fired employees through that instrument have no longer a scientific basis for such action." He conjured a chain of biofeedback or hypnosis schools cashing in with quick cram courses for those confronting polygraph tests.

any way afford the basis for discounting his cautiously stated skepticism of the scientific validity of polygraphing to detect deception. Dr. David Lykken's continuing studies confirm that conclusion.[102] Optimistic statements about technological improvements appear to be more a compliment to the proselytizing energy of the polygraphists than any reflection of change in commercial polygraphy.

V. "Truth" in Testimony

> "And have we not encountered many occasions when we have been able to detect the lies of other persons by various indications such as blushing, twitching of the lips, squinting of the eyes, a failure to look the inquirer 'straight in the eye,' a peculiar monotone of the voice, a 'forced laugh,' a counter inquiry of 'who me?', an unnecessary request for a repetition of the question, movements of the hands and feet exhibiting a state of uneasiness, increased activity of the 'Adam's apple,' and many other reactions of a similar nature?"[103]
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> . . .
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> "But the Lord said to Samuel, 'Take no notice of his appearance or his height for I have rejected him; God does not see as man sees; man looks at appearances but the Lord looks at the heart."[104]

We continue to have only a primitive understanding of how the mind of a trier of fact in an adversary proceeding sorts out impressions of trust and acceptance from those of distrust and rejection in order to attain enough of a state of conviction about what is likely to have occurred as to enable a sense of rationality in saying the "yes" or the "no" to resolve the dispute. We remain dependent on our intuition and perceptions of appearances—how witnesses look and act and how their accounts jibe one with another—in order to decide what has occurred.

When I remarked some time ago to my friend and fellow arbitrator, one of the real pros, Pat Fisher, on the difficulties, even the impossibility, of determining with assurance who is and who is not telling the truth under oath, he grinned characteristically and said, "Well, I may not know who is telling the truth; but I know whom I believe!" That is a piece of arbitral wisdom that is worth some reflection relative to the crucial distinction

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[102]Lykken, *supra* note 1

[103]Inbau and Reid, *supra* note 1, at 1.

[104] 1 Samuel 16:7–8.

between the making of findings of fact and the "ascertainment of the truth."

All of us who function as triers of fact are subject—and unquestionably each of us on occasion falls victim—to the occupational hazard of conclusory reasoning—that is, allowing readily stated general propositions to substitute in the decisional reasoning for hard-to-come-by facts that are only to be found, if at all, by a determined digging in the record. An experienced trier of fact is less apt to be misled by the invocation of the phrase "the search for truth," knowing that the task at hand is instead the more modest one of making "findings of fact," which is to say, statements of what the arbitrator concludes to have probably been the actual circumstances. An arbitrator or judge who "finds the facts" does not certify that the facts as found are "the truth." "Facts" must and will be "found"—that is, determined—even if God from on high would think the trier's view of them to be remarkably inaccurate compared to what only God on high could possibly know to be the true account. The trier of fact can only certify that he has honestly and, he hopes, intelligently said the "yes" or the "no" to the claimant after doing his best to balance the competing contentions about what has occurred, and the competing views of what should be done about it.

We have recently been told that persons unconsciously use their eyes, their arms and legs, their voices, even their bodily attitudes in nonverbal, even unrealized, ways of communicative significance.[105] It may be, it is even suggested, that each of us radiates a constantly active and changing personal "aura" composed of electrical and "auroral" fields that are somehow communicative in nature.[106] Perhaps one day scientific research will turn up data to demonstrate that one person, in the mental attitude of a trier of fact in an adversary-hearing encounter with another person in the mental attitude of a witness—whether the latter tries to tell the truth or to falsify—has some kind of validation experience below the level of conscious perception due to wholly nonverbal and unrealized communicative emanations of the witness.

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[105] *See,* for example, Archer and Akert, *How Well Do You Read Body Language?* Psychology Today 68 (October 1977). *See also,* Fast, Body Language (1970); International Herald Tribune, September 26, 1977.

[106] *See* UCLA Daily Bruin, February 23, 1978 (Kinesiology Professor Valerie Hunt describing research in "human aura" utilizing an electric process measuring light radiation).

Now if indeed that turns out to happen, who needs a polygraph? We've got Pat Fisher and his peers! The informed-hunch judgments of the arbitrator and the trial judge, those ancient models of the justice system's trier of fact, would be vindicated! Does that then foretell for us triers an assured security of competence and conscience in what we do? Hardly. Surely that research would also discover that varying and unpredictable conditions will produce enough aurora borealis, or static, or whatever, to confound the prospect of infallible credibility from even those emanations. So, after all that, we are likely to be left with the imperfect, unperfectible judgment of the human trier of fact which will continue to be the real-world model of arbitrator and judge.

The problems of credibility are assuredly real. But I fear that the willingness of my colleague, Professor Charles Craver of U.C. Davis, to substitute the polygraph, itself an imperfect and subjectively operated instrument, for the time-immemorial groping efforts of triers of fact to separate honest from dishonest accounts[107] is to despair of the imperfections of the human situation, a dangerous state of mind to slip into in our compulsively technological era. The history of our species, and our own individual introspection, gives no reasonable basis for

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[107] *See* Craver, *supra* note 1, at 36, supporting his conclusion that "labor arbitrators should recognize polygraph evidence as a significant aid in resolving credibility disputes," by observing, quite accurately, I am sure, that "traditional evidentiary rules are no better at resolving credibility conflicts in the arbitral forum than they are in courts of law," citing my own earlier observation that "[a]nyone driven by the necessity of adjudging credibility, who has listened over a number of years to sworn testimony, knows that as much truth has been uttered by shifty-eyed, perspiring, lip-licking, nail-biting, guilty-looking, ill at ease, fidgety witnesses as have lies issued from calm, collected, imperturbable, urbane, straight-in-the-eye perjurers." Jones, *Evidentiary Concepts in Labor Arbitration: Some Modern Variations on Ancient Legal Themes*, 13 U.C.L.A. L. Rev. 1241, 1286 (1966). Now that litany of nonsequitur symptoms catalogued the various quirks of testimonial conduct that have been simplemindedly thought by some to be reliable indicia of falsification. It neither said nor inferred that the truthtellers had been disbelieved nor that the perjurers had won the day, just that the thicket of contention cannot reliably be penetrated by observing physical symptoms of stress. This kind of nonsensical reliance on outward manifestations of stress to indicate a falsifying state of mind has been of concern for a long time relative to trial judges. For example, Judge Jerome Frank in Courts on Trial 247, 335 (1949) observed as follows: "Occasionally there are astonishing revelations of absurd rules-of-thumb some trial judges use, such as these: A witness is lying if, when testifying, he throws his head back; or if he raises his right heel from the floor; or if he shifts his gaze rapidly; or if he bites his lip. Every psychologist knows how meaningless as signs of prevarication any such behavior may be. . . . Not very long ago, a federal trial judge, toward the end of his long career on the bench, publicly revealed for the first time that he had always counted as a liar any witness who rubbed his hands while testifying. That judge must have decided hundreds of cases in which he arrived at his [findings of fact] by applying that asinine test for detecting falsehoods."

expecting other than that each of us, no matter how modest may be our respective deviations from what we would like to be, and

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Particularly ironic here, given the reliance on the scientific integrity of the polygraph by those who accept or advocate its admissibility as reliable evidence, is the fact that the polygraph operators themselves subscribe to and rely on their observation of precisely the same kinds of visually observable reactions of their "subjects" that are comprised in the litany of nonsequitur symptoms quoted above! Thus the advice given polygraph operators about their "technique" by Inbau and Reid as recently as 1977, *supra* note 1, is shot through with astonishingly simplistic "guidelines" for subjective evaluations by "examiners" which are depicted by them to be "very helpful in the overall diagnosis of deception," supplementing the polygraph test interpretations. Inbau and Reid, *supra* note 1, at 296. So naive are their postulates for "the detection of deception" by direct observation of "the subject" that it should provide amusing reading, but it does not; one can only be appalled when one contemplates the impacts on the livelihood of innocent employees being "examined" by polygraph operators who are being tutored by this "bible" of polygraphy, turned loose on several hundred thousand employees each year in the anxious search by their employers for deception.

Inbau and Reid waste no time setting up the perspective. The theme is set in the second paragraph of page 1 of their book, which is quoted *supra* note 103, and it is amplified throughout the book. Apparently they are in large part drawn from a 1953 study of Mr. Reid's files of 486 "verified lying subjects" who were "examined" over a five-year period, which was published in 44 J. Crim. Law, Crim'gy and Pol. Sci. 104–108 (1953). Some examples (which, incidentally, underscore the impressioniatic nature of the materials in these "subjects" files):

(1) "The examiner should . . . carefully observe the subject's demeanor; *i.e.*, his looks and actions at the time of his answers. . . . [D]elay in answering, movements of the eye or other bodily movements, and the general attitude of the subject while answering questions are of considerable value. . . . A truthful subject of average or better than average intelligence will usually respond immediately, by making some such statement as: 'Look, I didn't have anything to do with it; I'm as anxious as you are to have the guilty person found out.' On the other hand, a lying subject usually will not display such frankness or interest; he is rather prone to speak evasively or in generalities about the matter in question. Many times he will, in contrast to the truth-telling subject, squirm around in the chair, look away from the examiner, cross his legs, use his hands as though trying to dust something off his clothes, or engage in other similar tension-relieving activities." Inbau and Reid, *supra* note 1, at 17.

(2) "[A] liar will probably manifest considerable concern by such reactions as a delay in his answer, by looking away from the examiner, or by squirming around in the chair." *Id.*, at 18. These are "tentative indications of deception." *Id.*, at 19.

(3) "Another revealing pretest interview question is: 'How do you feel about taking this test?' The truthful person usually gives some such answer as: 'I'm glad to take the test and I hope it finds the guilty party.' On the contrary, a lying subject's answer is usually excusatory; he tells of his nervousness, or of physical disabilities and indicates quite clearly that he would rather avoid the test or at least delay it for the present. . . . The truthful subject is confident that the results will favor him, but the lying subject is evasive and indicates that he is unsure of himself and sometimes attacks the accuracy of the test as being without any probative value." *Id.*, at 20.

(4) "Lying subjects . . . in personnel investigations, exhibited a characteristic tendency to be late for their appointment. . . . Once in the examination room the lying subjects often appeared to be very worried and highly nervous. This nervousness was manifested in a variety of ways, e.g., acting aggressively, having a resentful attitude, appearing to be in a shocked condition, experiencing mental blocks, being evasive, having an extremely dry mouth, continually sighing or yawning, refusing to look the examiner in the eye, and moving about. Some were overly friendly or polite. . . ." *Id.*, at 293.

(5) "Truthful subjects were very sincere and their straightforwardness was displayed when they discussed the case during the pretest interview. . . . The attitude was one of confidence in both the instrument and the examiner. Because of this confidence they regarded the examination as an experience they would want to relate to their family and friends." *Id.*, at 294.

to be seen to be, will have to cope with our own personal shortcomings of charity, honesty, and fair dealing in our relationships with all around us, loved ones and strangers alike. Most of us seem to manage to keep such proclivities to tolerable dimensions and their effects on others relatively benign. Some among us, however, and every generation has them in numbers great or small, act harmfully to their fellows, doing violence to their dignity, their persons, or their property. Every society in the history of our species has undertaken to restrain and punish them. So employees and supervisors who act violently to others, or who steal in stealth from an employer, will always be among us, and problems of restraint and punishment will continue. Nor do managers have any higher claim to rectitude, as the recent American overseas bribery scandals show.

But each of us knows that the baser elements of our shared humanity coexist with other more worthy and equally common traits, and that most among us in the course of our lives are guilty of only small and regretted sins against our fellows, in-

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(6) "Since 1953 further observations have been made with respect to a polygraph subject's behavior. One of the most important has been that a subject's answer to a pretest or posttest question is not nearly so important as are his looks or acts while answering that question.

"Truthful subjects are quite composed and very direct while answering questions, whereas lying subjects are like actors 'on stage' and very guarded and protective while giving their answers. The strain of staying 'on guard' is revealed in such actions as facial features, and a liar is very conscious of his eye contact for fear that the look in his eyes will expose his deceit.

"A lying subject's efforts to conceal his lies may cause such physical upsets as gurgling stomach sounds, and his loss of sleep due to worry may be revealed by tired eyes and masklike features, all the result of concern that his lying will be detected.

"When asked probing questions, a lying subject may make unnecessary gross movements while answering, the purpose being to distract the inquirer's direct observation and to camouflage an untruthful reply.

"A lying subject's mind may be in a constant turmoil and he may experience difficulty in answering probing questions or responding to direct accusations of lying. He either qualifies his answer with a half-lie, such as 'I don't remember' or he may be unable to complete his answer, such as 'if you . . . think . . . !' or 'I'll do anything to . . . !' or 'You see how important . . . !'

"Once again we wish to emphasize that whereas a subject's behavior may be very helpful in the overall diagnosis of deception there are, as is true of most general rules, some exceptions—for instance, a truthful subject who is of such a nature as to be distraught just by being under investigation, or a neurotic subject who, even though truthful, looks and acts as a liar. Finally, an apprehensive subject may also display misleading behavior symptoms. The percentage of truthful subjects within these groups is small, however, and the problem presented is relatively minor. Nevertheless, sole or even major reliance should not be placed upon behavior symptoms; they should be considered only in the context of the entire Polygraph examination." *Id.*, at 296.

Their students follow in their footsteps: "We may reasonably assume that accuracy is further enhanced when an examiner has *the added benefit of face-to-face observations of the subject's general behavior symptoms.*" Wicklander and Hunter, *supra* note 13, at 407 (emphasis added).

cluding our employers (and our employees). The perennial social dilemma has been how to design and implement programs of restraint which do not so overreact as to penalize or demean the many whose intentions and conduct do not warrant retaliation prompted by the misdeeds of the inevitable few.

On balance, then, and to draw the import of these very broad ruminations down to the very specific, if the lie-detecting polygraph were indeed to be what it is *not*—a monument to technological infallibility—if it were a chrome-plated, flickery-lighted, super-efficient computerized conduit of discovery, linked to the sweaty wrist, breath-gulping, heaving chest of an evasive, guilt-worried, fault-smothering, self-excusing human being, which is surely descriptive of what each of us has become on some occasions in the course of our lives, I would still come down on the side of exclusion.[108] Each of us is too imperfect and fragile a creature to sustain such rigorous thrusts of suspicion and rejection into our being and yet maintain that sense of personal worth and higher purpose—and recurrent resolve to do better—which is indispensable to each of us in making it through this difficult life with a minimal sense of dignity and accomplishment. I think it is far preferable that a fellow human, concededly imperfect in the capacity to perceive calculated falsehoods, be the assessor of credibility than to achieve a mechanical perfection akin to Orwell's *1984* and Huxley's *Brave New World.*

That kind of perfection is undoubtedly what the Federal Gov-

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[108]Perhaps the leading exponent of doing away with polygraph evidence regardless of its probative value has been Helen Silving. She argued in 1956 that the lie detector is so fatally flawed on both due-process and moral grounds that it should not even be permitted to be proffered by a criminal defendant in his own defense. She equated the lie detector with "truth serums" as "objective tests" designed to extract from the mind repressed images and ideas from an individual's life history. (*But see* Skolnick, *supra* note 1, at 724–25, asserting that it is error to identify the polygraph with the serums, because the polygraph is limited in its intended reach to probing only whether the respondent believes what he is saying.) *See also Bowman Transportation, Inc.*, 61 LA 549, 554 (Laughlin, 1973): "Professor Gerhard Mueller of New York Law School has suggested that the courts and critics seem to be merely using a scientific imperfection argument to avoid the issue of ethical justification for probing a man's mind. In Europe, it is said, courts and commentators have rejected the lie detector as an impermissible police technique, not because of error ratio but because it violates the essential dignity of the human personality and individuality of the citizen. It was this view that led Pope Pius XII in 1958 to condemn the lie detector as an intrusion into man's interior domain. For similar reasons the German Supreme Court banned polygraph testing as an unsconscionable interference with the integrity of the person. Psychology Professor Joseph Kubis of Fordham University writes that 'the threat to use the lie detector on a continuous basis in industrial and business organizations is degrading. The fundamental dignity of man is the issue.' "

ernment researchers were after when, some 20 years ago, they developed a lie-detection chair that can be used without the knowledge of the person being examined. "A seemingly 'normal' chair which has equipment built into it to register body heat, changes in limb volume, and nervous movements. Hidden cameras are also used in such covert polygraphing to measure changes in eye-pupil size as an indicator of stress during the interview."[109] Even *this* appalling device, however—a veritable but *not* a verifying Chair of Torquemada—falls victim to all the irresolution factors that cripple the ordinary commercial polygraph as a potential "detector of deception."

It is important to realize that, in the present and foreseeable operation of the polygraph and other like devices, we are not in or remotely near the Orwellian era of the omnicompetent discovery machine, however pressing may be the inquisitional ambitions of some among us. The major recording component remains the brain of the person operating the lie-detector device.

But the thousands of Federal Government dollars spent on conceiving and developing that Chair of Torquemada, in blind ignorance or disregard of its malevolent incompatibility with human dignity and individual rights, underscores the existence of other basic concerns relative to "truth" and the unique American commitments to individual rights. Implicated in the use of polygraph testing for "deception" as a condition of employment are also the right of privacy and the privilege against self-incrimination.

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[109]*Westin, Privacy and Freedom*, 133–34 (1967). A more recent variation on mechanical lie detection in stress situations is the "voice analyzer" which, like the Chair of Torquemada, is an outgrowth of Federal Government research, in this case that of the Army during the Vietnam war. The developers, former Army officers, have built a device —"psychological stress evaluator" (PSE)—around the physiological fact that the frequency of sound vibrations generated by speaking—microtremors—changes when a speaker is under stress. Ads promoting its sale (at $4,000) tout it under the headline "To Catch the Truth." Competitive devices—the "Mark II" and "Hagoth"—have also appeared on the market, the "Mark II" as "The Truth Machine" (also $4,000), the "Hagoth" as able "to unerringly spot a liar" (only $1,500). Dr. David Lykken aptly referred to this development as "a gimmick, a Rorschach test. You can read into it anything you want." Rice, *supra* note 1, at 77. Evidence based on the uses of "voiceprints" or "spectograms" has been held inadmissible in courts. *See D'Arc* v. *D'Arc*, 157 N.J. Super 553, 385 A.2d 278 (N.J. Super. Ct. 1978). In a study commissioned by the Army Land Warfare Laboratory, comparing the voice-analysis devices with the polygraph, Fordham Psychology Professor Joseph F. Kubis concluded in 1973 that "neither of the presently existing voice-analysis instruments may be accepted as valid 'lie detectors' within the constraints of an experimental paradigm." Kubis, *Comparison of Voice Analysis and Polygraph as Lie Detector Procedures* (USALWA Techn. Rep. No. LWL-CR-03B70, August 1973).

Implications to the Right of Privacy

It is possible to become so enthralled at the materialistic utility of the prospective accomplishments of technological development that one overlooks or unwarrantably discounts social disutility that should countermand its use. Several years ago a discussion occurred in which management of a publicly owned small business investment corporation described to its board of directors a proposed investment of a couple of million dollars in a company that had developed a mobile electronic-monitoring vehicle that could quietly and unobtrusively cruise the city streets at night and register the channels of television being viewed in the various households it passed. It seemed that it could put the sampling techniques of the TV-rating business into the buggywhip past as a means to document the public's program preferences!

As we listened to the briefing on the proposed acquisition, this new-technology development seemed to add up to a commercial bonanza. One could see its possible coupling to reports of data gotten from public sources correlating an evening's viewing in selected neighborhoods with published market values of each house, prices at local retailers for various goods and services, and some selected opinion interviewing of homeowners, to produce—and sell—the kind of sociological stuff on which ravenously feed the corporate spenders of television-advertising millions and the programming directors of the television networks.

But a simple question laid it low: "What will happen after the first news report about our new peeping-Tom TV prowler?" As that risk suddenly loomed large, the air audibly went out of our rating balloom. Once the question was asked, it was clear that we would have had on our hands the legal consequences of a strongly emerging tort—invasion of privacy. Foreseeably, we would have acquired a $2 million electronic prowler once active but then injunctively immobilized and generating punitive-damage lawsuits. Entrancement with the economic rewards implicit in the technology of this electronic marvel of fact-finding had, fortunately only temporarily, obscured the reality that our society would not—and should not—tolerate the thrust of that kind of fact-gatherer into the personal lives of members of the community. In short, the value of personal privacy countermanded the anticipated reward of intrusion. We have come to regard that kind of unwanted penetration of one's personal life by

others as demeaning to the dignity of the individual and, therefore, socially intolerable.

John E. Reid, the Chicago polygraphist, sees no problem involving a potential invasion of privacy due to the lie-detector test. Apparently this reflects his view that only consenting adults are involved as "subjects" because, as he says, anyone can refuse. "If we're invading their privacy," he was quoted by an investigative reporter, "it would be similar to a striptease dancer going before an audience, taking off her clothes, and then suing the audience for watching her."[110] That simile somehow recalls to mind his other reported observation: "We get better results than a priest does."[111]

The right of privacy has been expressly incorporated in the California constitution as an "inalienable right."[112] The federal Constitution does not make a right of privacy explicit, but the First Amendment has been read by the Supreme Court to encompass such a right.[113]

Assuredly the physical acts involved in being hooked up voluntarily to the polygraph for the registering of blood pressure, pulse, respiration, and perspiration are not in themselves so contrary to personal dignity, particularly when assessed relative to judicially countenanced methods of obtaining bodily evidence.[114] But is it an invasion of the interest to be free from

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[110]Business Week, February 6, 1978, p. 100.

[111]New York Times, November 21, 1971, Pt. 1 at p. 45.

[112]California Constitution, Article 1, Section 1.

[113]*Griswold* v. *Connecticut,* 381 U.S. 479 (1965). *See* Privacy, Polygraphs and Employment, Staff Report, Subcommittee on Const. Rights, Senate Committee on the Judiciary, 93rd Cong., 2d Sess. (1974), at 10–14.

[114]Courts have expressed several concerns about whether to admit into evidence material from, or data about, the contents of the body of an accused person: the person's consent, the effect on personal dignity, and the probative value involved.

The consent of the person is widely viewed as eliminating the problem of admissibility of proffered "bodily evidence." Even so, our law still tends to be somewhat harsh in this regard. As Justice Douglas has remarked, "Of course, an accused can be compelled to be present at the trial, to sit, to turn this way or that, and to try on a cap or a coat. . . . But I think that words taken from his lips, capsules taken from his stomach, blood taken from his veins are all inadmissible provided they are taken from him without his consent. They are inadmissible because of the command of the Fifth Amendment." *Rochin* v. *California,* 342 U.S. 165, 179 (1951) (concurring opinion). When the Court allowed evidence about blood extracted by needle from the body of an unconscious suspect, Chief Justice Warren, dissenting, wrote, "Of course, one may consent to having his blood extracted or his stomach pumped and thereby waive any due process objective." *Breithaup* v. *Abram,* 352 U.S. 432, 441 (1956) (dissenting opinion).

Do workers "consent," in the legal sense, when they accede to their employers' direction to undergo polygraph testing in the course of general programs of theft prevention or in situations of particular suspicion of wrongdoing? What of the warning that refusal to submit to testing will be treated as a cause for discharge? *See supra* note 55.

indignity when the polygraphist knowingly or unknowingly deceives the respondent as he assures him—as he routinely does—of the near infallibility of the machine? What innocent employees do find demeaning is the assumption of their guilt, and the more so when the occasion for lie detecting has no specific focus on the conduct of the individual, but is in the nature of a broad security sweep among employees at large. Yet would any among us cavil at an employer's contractual right to question at length and with skepticism each employee in a department about suspicions of wrongful conduct in general or in particular?

The Privacy Protection Study Commission, established under the Privacy Act of 1974, however, was emphatic in its conclusion that uses of lie-detector devices should be wholly proscribed regardless of the potential relevance of the results. That position in no way challenges the right of employers to investigate wrongdoing by employees and to interrogate them under reasonable conditions. It rules out the polygraph as such a condition. The basis for that pronounced aversion to polygraphing was stated by Chairman David Linowes thus: "If adopted, we believe these recommendations which are designed to safeguard a person's right to be fairly treated and to be spared unwarranted intrusion would buttress a vital human right of every American—his right to personal privacy."[115]

The commission reported polygraph usage in employment to be "humiliating and inherently coercive" and recorded the suspicion "that some employers who use it do so more to frighten employees than to collect information from them."[116]

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[115]Final Report, Letter of Transmittal by Chairman David F. Linowes, Privacy Protection Study Commission, to President Jimmy Carter, July 12, 1977. Harvard Professor Arthur R. Miller recently remarked the growth of privacy consciousness: "I believe that the past decade has seen a revolution in privacy. I believe that there has been a growing national sensitization. There are simply more people who are privacy-conscious than there were 10 years ago." New York Times, April 12, 1978, p. 32. A series of Louis Harris polls led to the conclusion of "the rising level of public concern on the issue of privacy." Wall Street Journal, May 9, 1978, p. 33.

[116]*Id.*, at Appendix 3, p. 44. For example, President Richard Nixon, in an Oval Office conversation taped on July 24, 1971, discussing proposed polygraph tests for the sources of leaks about his secret foreign-policy decisions among as many as 1,500 people with "top secret" security clearance in Federal Government jobs, said: "Listen, I don't know anything about polygraphs and I don't know how accurate they are, but I know they'll scare the hell out of people!" House Report No. 94–795, Committee on Government Operations, 94th Cong., 2d Sess. (1976) at 38. *See also:* "The threat to use the lie detector on a continuous basis in industrial and business organizations is degrading. The fundamental dignity of man is the issue.

"The periodic use of this instrument implies that the majority of innocent, trustworthy employees must submit to the test. And yet the lie detector is basically an instrument of distrust, to be used where there is a strong suspicion that one or more individuals are not telling the truth.

The commission found in 1977 that there are two main objections to the use of the polygraph in the employment context: "(1) that it deprives individuals of any control over divulging information about themselves; and (2) that it is unreliable. Although the latter is the focal point of much of the continuing debate about polygraph testing, the former is the paramount concern from a privacy protection viewpoint."[117]

The "privacy protection viewpoint" was given strong voice by the New Jersey Supreme Court in 1974 in *State* v. *Community Distributors, Inc.*[118] The state legislature had enacted a statute in 1966 declaring it to be a misdemeanor for "[a]ny person who as an employer shall influence, request or require an employee to take or submit to a lie detector as a condition of employment or continued employment, is a disorderly person."

The defendant operated a chain of drugstores under the name of "Drug Fair." Several employees were asked to submit to lie-detector tests. Each did, and each of them had signed a form entitled "Consent to Taking a 'Lie-Detector' Test" which contained the following: "Drug Fair has not influenced, requested, or required me to take this lie detector test as a condition of employment or continued employment."[119] Drug Fair conceded, however, that each had at least been requested to take the tests. Two were later terminated, but "without apparent reason and there was no evidence to relate the termination to the results of the test." A third employee was terminated immediately upon being tested and because of its results.

Drug Fair was convicted and appealed, arguing that the statute violated its constitutional right to protect its property, in-

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"In the 'storewide' checkup the innocent are placed in an embarrassing role—that of being considered a suspect whose word and intentions are fundamentally distrusted.

"It is no argument to say that the test is used to prove the innocence of the innocent, or to 'protect' the reliable employee. Since the instrumental test is far from perfect, there is a strong possibility that the innocent will be judged as culprits. . . .

"Finally, in the hands of inexperienced and unscrupulous men, the instrument assumes the character of a blindly probing instrument that can severely damage the inner life or reputation of the person tested. Reference here is made to the 'fishing' expeditions that deeply embarrass the worker and yield no useful information to the operator (who may misinterpret the responses anyway). . . .

"Who knows what use such misguided interpretations are put to, how long they remain in the personnel file of the company, and how often they are transmitted as 'reference material' when the worker leaves the employ of the company? . . ." Prepared statement by Fordham Psychology Professor Joseph F. Kubis for the 1964 House Committee on Government Operations, *supra* note 23, at galley 63 (1977).

[117] *Supra* note 116, at 44.

[118] 64 N.J. 479, 317 A.2d 697 (1974).

[119] *Id.*, at 698.

cluding the narcotics and dangerous drugs it dispensed in the course of its business. It also insisted that the tests had not been given as a condition of employment.

In 1973, the New Jersey Supreme Court received and considered at a judicial conference a report of its committee on criminal procedure directed by it to consider the polygraph. A majority of the committee advised the court "that even if the reliability of polygraph test results is accepted there may be policy considerations dictating their exclusion from criminal proceedings" except where admission had been agreed to by consent. (The court had earlier ruled in 1972[120] that procedure to be an appropriate one so long as the stipulation of consent was "freely entered into" and the polygraph examiner was "qualified and the test administered in accordance with established polygraph techniques.") In contrast to those precautionary conditions, however, was the "employer-employee context" of the tests. "There is no judicial control when an employer subjects his employee to a lie detector test and there is no licensing or other objective method of assuring expertise and safeguard in the administration of the test and the interpretation of its results. *Nor is there any assurance of true voluntariness for the economic compulsions are generally such that the employee has no realistic choice.*"[121] The court had no doubt that an employee would accurately interpret the employer's request to be a condition of continued employment "and his understanding would be wholly realistic in view of the employment relationship."

The court remarked that labor groups have often expressed "intense hostility" of unions to employer requirements that employees submit to polygraph tests which they view "as improper invasions of their deeply felt rights of personal privacy and to remain free from involuntary self-incrimination."[122] The state court rejected the Drug Fair argument of deprivation of property without due process as invalidating the antipolygraph statute. It concluded that the legislature could relatively assess: the need of employers to protect their property; the "suspense and distrust between employers and employees" when personnel departments resort to lie-detector tests; and "organized labor's view that the use of polygraphs in the industrial field represents

[120] *State* v. *McDavitt, supra* note 44, at 855.
[121] *State* v. *Community Distributors, Inc., supra* note 118, at 700 (emphasis added).
[122] *Id.*, at 701.

uncalled for if not unconstitutional breaches of the employees' rights to personal privacy and to remain free from involuntary self-incrimination." Therefore it "could reasonably conclude that on balance the public welfare would be furthered by prohibiting the employer from using the lie detector test as a condition of employment or continued employment." The conviction of Drug Fair was therefore affirmed. We may infer that, at least in New Jersey, arbitrators are no longer apt to be confronted with the proffer of polygraph test results as evidence of "just cause" for the discharge of an employee.

Implications to the Privilege Against Self-Incrimination

There is also a substantial Fifth Amendment problem in polygraph testing. Without undertaking here to explore its dimensions at length, it should at least be noted. The crux is *the testimonial nature* of what goes on in the course of polygraphing.

The physiological response is directly attendant upon verbalization; questions are asked and answers are made, both being in some way recorded. The combination is testimonial in nature.

That reality has led the Supreme Court to take the position in the *Schmerber* case[123] that the privilege against self-incrimination—not to "be compelled in any criminal case to be a witness against himself"—is applicable to lie-detector uses. The Court has held that the withdrawal of blood from the body of a suspect and its chemical analysis, disclosing guilt of driving while drunk, was admissible as proof which was not barred by the privilege. It drew the distinction between acts which are "communicative" or "noncommunicative" in nature. It held that "the privilege protects an accused only from being compelled to testify against himself, or otherwise provide the State with evidence of a testimonial or communicative nature."[124] It recalled its observation in its *Miranda*[125] decision concerning the "complex of values" protected by the privilege, "the essential mainstay of our adversary system": "All these policies point to one overriding thought: the constitutional foundation underlying the privilege is the respect a government—state or federal—must accord to

[123] *Schmerber* v. *California*, 384 U.S. 757 (1966).

[124] *Id.*, at 761. *See Malloy* v. *Hogan*, 378 U.S. 1 (1965) (Fifth Amendment privilege against self-incrimination applicable to states under Fourteenth Amendment).

[125] *Miranda* v. *Arizona*, 384 U.S. 436, 460 (1966).

the dignity and integrity of its citizens . . . to respect the inviolability of the human personality. . . ."

Of the lie-detector, the Court in *Schmerber* wrote: "Some tests seemingly directed to obtain 'physical evidence,' for example, lie detector tests measuring changes in body function during interrogation, may actually be directed to eliciting responses which are essentially testimonial. To compel a person to submit to testing in which an effort will be made to determine his guilt or innocence on the basis of physiological responses, whether willed or not, is to evoke the spirit and history of the Fifth Amendment."[126]

Although it held the Fifth Amendment inapplicable to blood tests because of their nontestimonial nature, it did hold the Fourth Amendment prohibition against unreasonable searches and seizures to be implicated. "The overriding function of the Fourth Amendment," it declared, "is to protect personal privacy and dignity against unwarranted intrusion by the State."[127] It reasoned that "the Fourth Amendment's proper function is to constrain, not against all intrusions as such, but against intrusions which are not justified in the circumstances, or which are made in an improper manner."[128] Its conclusion, upon scrutinizing the reasonableness of the arresting officer's conduct in the circumstances, at the scene of the accident and later in the hospital, was that "the test was performed in a reasonable manner."[129]

The Court emphasized its concern for how the test was conducted: "Petitioner's blood was taken by a physician in a hospital environment according to accepted medicine practices. We are thus not presented with the serious questions which would arise if a search involving use of medical technique, even of the most rudimentary sort, were made by other than medical personnel or in other than a medical environment. . . . The integrity of an individual's person is a cherished value of a society."[130]

It should be elemental that the presence of an unqualified polygraphist, or the existence of improper conditions in the course of the testing, would surely cause those "serious ques-

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[126] *Supra* note 123, at 764.
[127] *Id.*, at 761.
[128] *Id.*, at 768.
[129] *Id.*, at 771.
[130] *Id.*, at 771–72.

tions" to arise concerning the constitutional rights of the person subjected to that kind of lie-detection testing.

Although rules of evidence need not, as a matter of law, be observed in arbitrations,[131] an arbitrator should realize that arbitral deference to a claimant's privilege not to testify may be legally mandatory either expressly (as in California)[132] or impliedly (as under the federal or a state constitution.) Failure to accede to a valid claim may result in the vacation of a subsequent adverse arbitral award.

Quite aside from legal review, an arbitrator who recognizes this problem should, in my judgment, feel professionally responsible to intervene to correct it to the extent that he can. Were an incompetent polygraphist to have been the "examiner," or if circumstances existed during the test negativing the accuracy or fairness of it, admission of the test results would appear contrary to the requirement expressed in the *Schmerber* case that "the test was performed in a reasonable manner."[133] The arbitrator's response upon becoming aware of the problem of privilege should then be, depending on his evaluation of which is a preferable course of action in the circumstances, either to exclude the proffered test results as inadmissible or to be explicit that he considers them to have no probative value.

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[131] *See,* for example, California Code of Civil Procedure, § 1282.2(d).

[132] California Evidence Code, § 901, defines the term "proceedings" to include "any . . . hearing . . . by . . . arbitrator . . . in which, pursuant to law, testimony can be compelled to be given." A "presiding officer" is declared by Section 905 to mean "the person authorized to rule on a claim of privilege in the proceedings in which the claim is made." Section 913 states: "(a) If in the instance proceeding or on a prior occasion a privilege is or was exercised not to testify with respect to any matter, or to refuse to disclose or to prevent another from disclosing any matter, neither the presiding officer nor counsel may comment thereon, no presumption shall arise because of the exercise of the privilege, and *the trier of fact may not draw any inference therefrom as to the credibility of the witness or as to any matter at issue in the proceeding.*" (Emphasis added.)

Section 912 states that the right of a witness to claim a privilege may be "waived with respect to a communication protected by such privilege if any holder of the privilege, without coercion, has disclosed a significant part of the communication or has consented to such disclosure made by anyone." Manifestation of consent may be by "failure to claim the privilege in any proceeding in which he has the legal standing and opportunity to claim the privilege." Does an arbitrator have a professional duty to caution a witness apparently ignorant of a privilege not to testify that testimony is tantamount to waiver? *See* Jones, *Evidentiary Concepts in Labor Arbitration: Some Modern Variations on Ancient Legal Themes,* 13 U.C.L.A. L. Rev. 1241, 1255, 1286–91 (1966).

[133] *Supra* note 129.

VI. The Personal Equation of Decision

"The name 'lie-detector,' popular with the news media but seldom used by modern-day polygraphists, is a misnomer. Because of sensational publicity arising out of its use in criminal cases, the public has a false picture of an instrument that flashes lights, rings bells and gives some other dramatic reaction when a lie is told. This impression could not be farther from the truth. The work of the polygraphist might be likened to that of the radiologist reading an X-ray picture or the cardiologist interpreting the tracings of an EKG. If there is such a thing as a 'lie-detector' or 'truth-verifier,' it must be the polygraphist himself."[134]

. . .

"If we compare the polygraph with a medical specialty, we can say that the polygraph is a quasi-medical specialty . . . . If the general philosophy which the U.S. Government is applying to public health were adhered to with respect to the polygraph, this machine would be restricted to specialists with high rather than low qualifications. Furthermore, the utilization of polygraphs in private industry would be forbidden.

"To find the methods permitting the effective diagnosis of psychological and mental states has been one of the most challenging tasks throughout history. This task, which was not solved even by torture and which remains unsolved, is continuing but it cannot possibly be entrusted to individuals with perfunctory preparation. In the United States, to pull a tooth, one must have a dental degree. To handle a mild neurosis, one needs a degree in clinical psychology. To perform surgical operations, one must be a highly qualified and certified surgeon. Of course, medical doctors cannot function without nurses and nurses aides. Similarly, in the polygraph field, some tasks can be performed by the 'operators.' But it is entirely inappropriate to use such operators as diagnosticians and to allow them to work without professional supervision. . . .

"If and when these basic points are finally grasped—but not before—psychodiagnostic research may begin to turn from fake to fact."[135]

The polygraph will record emotional arousal. But it does not detect lies. That distinction is crucial. There is no question that a properly functioning polygraph can be wholly accurate in recording emotional arousal. Even so, as we have seen, it cannot reliably relate that arousal to an act of deception. All it can do is pose the question of truth or deception; it cannot answer it.

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[134]The Polygraph Technique (J. Kirk Barefoot, ed.; 2d printing, 1973) (monograph published by American Polygraph Association), at 7.

[135]Dr. Stefan T. Possony, Hoover Institution on War, Revolution and Peace, Stanford University, in House Report No. 94–795, Committee on Government Operations, 94th Cong., 2d Sess. (1976), at 31.

The answer can only be given by the operator of the machine after appraisal of both the arousal indications and the conduct of the "subject" during and before the test.

It is regarded by polygraphists as indispensable to the process of detection for the operator who frames the questions and asks them while operating the machine to record arousal responses, also to have the subject under view throughout. The purpose of this visual observation of the respondent by the examiner is to form a judgment of truth or falsity, based on the conduct of the subject—facial and bodily motions, timbre and inflection of voice, posture, seeming earnestness or evasiveness, and the like. For example, a polygraph case history typically bears the following notation: "[T]he subject exhibited good eye contact with the examiner during the pretest interview; he was also cooperative, sincere and attentive."[136]

Not only the prospects for reliability, but also the propriety of this sort of opinion evidence, must therefore be assessed with the recognition that technology may raise the question—by recording symptoms of arousal—but that it is human judgment that forms the opinion of truth or deception based on a personal evaluation of the significance of the arousal.

As Arbitrator Bert Luskin observed 20 years ago, "The machine and its component parts are only as good as the person performing the tests, and the value of the findings is the result of the experience, qualifications or inexperience of the operator of the machine."[137] "The instrument itself plays a rather minor role in the conduct of the test," according to Law Professor Fred Inbau of Northwestern University, co-author with John E. Reid of the standard lie-detector test. "Consequently, the technique is no better than the man who is making the diagnosis."[138]

Most practicing polygraphists are reported to be former law-enforcement officers, armed-services personnel, or government employees. However honorable men and women they may be, they are not customarily regarded as a pool of talent from which to draw labor arbitrators. No psychologist, physicist, neurophysiologist, or psychophysiologist is our ordinary polygraphist out there beating the industrial boondocks for deception in all

[136]Wicklander and Hunter, *supra* note 13, at 406.
[137]Burkey, *Lie Detectors in Labor Relations*, *supra* note 1, at 205 (unpublished opinion).
[138]Los Angeles Times, June 28, 1974, p. 1 at 20.

those personnel conference rooms in plants and stores around the country. After they have questioned hooked-up employees about possible wrongdoing, their conclusions are increasingly being proffered in evidence in arbitrations throughout the country.[139]

The leading proponents of the credibility uses of the polygraph—Polygraphist Reid and Professor Inbau—suggested in 1966 that the following minimal requirements should be met before a polygraph examiner is allowed to testify: (1) possession of a college degree; (2) experience that includes at least a six-month training period with an experienced examiner; and (3) at least five years' experience as a specialist in polygraphing.[140] Yet very few states have licensing requirements for polygraphists "in this highly unregulated area"[141] and the few that do have requirements that are, to say the least, not unduly rigorous. A Kentucky applicant for a license must be at least 18 years old and have been in business for at least two years.[142] Illinois is perhaps the strictest and its requirements appear to have been written by the Chicago polygraphists! It requires an "academic degree," at least six months of internship, and the passing of a test administered by an examiner committee of five polygraphists, and it "grandfathers" the state's older polygraph operators by exempting from examination those engaged in the business for at least one year before the 1969 act.[143]

Perhaps the leading firm of polygraphists is the Chicago-based Reid firm, many of whose staff polygraphists record themselves as recipients of "a master of science degree in the detection of deception from the Reid College" (an "academic degree" under the Illinois statute?). Mr. Reid and Professor Inbau are co-authors of the leading text on the uses of the polygraph in "the diagnosis of truth and deception," as they

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[139]*See supra* note 55 (poll taken at 1978 Academy meeting).

[140]Reid and Inbau, Truth and Deception, *supra* note 1.

[141]Inbau, *supra* note 21 (80 percent are unqualified).

[142]Kentucky Revised Statutes § 329.030(2)(c) (Supp. 1968).

[143]38 Illinois Revised Statutes § 202.11(E) (1969). In California "[n]o employer shall demand or require any applicant for employment or any employee to submit to or take a polygraph, lie detector or similar test or examination as a condition of employment or continued employment." California Labor Code § 432.2. The statute, however, excepts the testing of police or police applicants. The California Attorney General has construed the statute *not* to preclude an employer asking an employee or an applicant for work to submit to a test; nor is an employee prohibited from volunteering to submit. He suggests, however, that the actions of the employer should be "scrutinized" to assure that the "request" is not a requirement. 43 Cal. Op. Atty. Gen. 25 (1964).

phrase their sense of mission.[144] Mr. Reid is an active and even the leading writer, certainly among the practitioners, about polygraphing. In a typical passage he describes the polygraph "technique" thus:

> "Ordinarily, in actual Polygraph testing, the examiner uses a *complete diagnostic technique* to determine deception. He takes into account *detailed background information regarding the subject and the investigation;* he has the *benefit of actually conversing* with the subject and *observing the subject's attitude and behavior symptoms* . . . and to *make allowances for a resentful or angry attitude,* a condition which could cause an error in interpretation of Polygraph records. *An opportunity to observe the subject and evaluate his attitude* toward the test would allow the examiner to *diagnose truth and deception more reliably.* . . . [I]n many case situations he has *the full complement of Polygraph records of all the subjects in the case before he issues an opinion* as to whether the subject is truthful or not. . . . In addition, he prepares and reviews the *general comprehension of the questions.* . . . *[A]ll of these auxiliary sources of information may be factors in arriving at a truth-deception diagnosis.* . . ."[145]

At least two factors are immediately manifest in that description. First, a major element in the procedure is the exercise of human judgment by the polygraphist in a personal appraisal of the conduct of the person whose honesty is being appraised. Dr. David Lykken merely affirms Inbau and Reid when he observes: "It is clear to me that the polygraph test result is strongly dependent upon the specific behaviors, the demeanor, the tone of voice, the questions posed by the examiner. It is certainly dependent upon the examiner's judgment in the way he evaluates the complicated chart record."[146] Second, the polygraphist who

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[144]Inbau and Reid, *supra* note 1.

[145]Horvath and Reid, *supra* note 13, at 277, 281. The same highly impressionistic approach is described in the Inbau and Reid book. For example: "Notes also should be made during the pretest interview regarding the subject's composure (*e.g.,* apprehensiveness or uneasiness). Particular attention should be paid to a subject's expressions reflecting his attitude toward the test and to any comments or questions from him regarding his physical, mental, or emotional condition." Inbau and Reid, *supra* note 1, at 15.

"[A] definite advantage can be gained from observing and classifying a subject's behavior. The real value comes from the assistance a subject's behavior gives the examiner in determining what a particular subject's attitude is toward the entire Polygraph situation. When a subject, regardless of lying or truthfulness, exhibits a certain behavior pattern, he should be accorded special treatment. If he is a highly nervous person, he must be quieted. If he is angry, he must be appeased. . . . The Polygraph examiner should be able to recognize each subject's various behavior symptoms and then be able to determine the suitable procedure to be followed. If this is properly done, fewer errors will result and there will be a substantial reduction in indefinite reports." *Id.,* at 295. An "indefinite" report means an inconclusive one in which the operator is unable to make up his mind whether he should diagnose truth or deception.

[146]Lykken, Prepared Statement, *supra* note 1, at galley 14.

makes that personal appraisal is first supplied and then utilizes "detailed background information regarding the subject and the investigation," statements often including polygraph records and assorted information about all the other persons who have also been tested. That inevitably includes statements by other persons about the personal history and conduct of the person being tested and the circumstances which prompted the arousal of suspicion of deception concerning wrongful conduct.[147]

At least two conclusions are certainly indicated. First, although arbitrators and trial judges are not apt to think about what they do in terms of "diagnosis," it is evident that polygraphists do engage in the same judgmental functions as do those triers of fact in the course of assessing the credibility of a witness.

Second, it is also evident from that passage and others like it that prior to and in the course of "testing" their "subjects," polygraphists routinely take into account unproven allegations about the personal character and conduct of the person whose credibility is being appraised, even comparing notes and other data about other subjects running in this truth derby.

Together with the oral or written accusatory statements by the supervisors of the suspected employees, that is the substance of the "detailed background information" which is made available to them, in employment cases, by the employer who hires and pays them to uncover wrongdoing. An experienced arbitrator, let alone an industrial-relations manager or union business representative, and their respective counsel, will readily recognize that that phrase is simply a euphemism for the usual grab bag of raw data, random notations of performance, and snippets of

[147]An appalling ignorance of the misleading mischief of unreliable evidence, particularly of the exponentially creative capacity of hearsay compiled from hearsay, radiates throughout the Inbau and Reid book of polygraph instructions. The polygraph operator is advised to become "reasonably well informed about the case" before a pretest interview with "the subject," and it is "also helpful" to "know as much about the subject and his background as is available. Such information facilitates the pretest interview as well as a posttest interrogation of a lying subject." Inbau and Reid, *supra* note 1, at 11.

See also Wicklander and Hunter, *supra* note 13, at 407: Utilizing "auxiliary sources of information," study examiners "not only increased their average accuracy by 4.72 percent . . . but also the inconclusive opinions were reduced by 50 percent." Translated, that means that the hearsay was very helpful indeed in making up their minds!

In addition, "much can be gained from preliminary observation of the subject from the time he enters the examiner's office or reception room until he is escorted into the examination room. The recorded observations of a secretary or receptionist as to the subject's general conduct or behavior while in the waiting room will be very helpful to the examiner." *Id.*, at 13.

gossip and other scattered observations that accumulate like pins to a magnet in an employee's personnel-file jacket.

That collection of "facts" is routinely used as a significant resource by the polygraphist in forming his judgment about credibility. But no competent arbitrator or judge would allow such a mélange of information and misinformation to be dumped into a hearing without insisting that it first be subjected, bit by bit, to the acid tests of reliability inherent in examination as to admissibility and cross-examination as to the weight. Such files are commonly seen at the hearing table, but only the most unsophisticated of advocates would expect other than that their contents, to be given *any* consideration, must pass scrutiny in terms of relevance, of materiality, of the extent and character of any hearsay involved, and of the competence of the asserters of fact, which is to say, their capacity and their opportunity to make the observation of who said that or who did this which must support their factual statements if they are to be accorded any validity at all.

As Dr. Lykken somewhat wryly reminds us, "Suppose someone were to set himself up as an unusually expert human lie detector and were to say: 'I have examined this subject and talked with him, and I have studied the evidence against him. I have listened to his alibi, and in my expert opinion he is deceptive and, therefore guilty.' Or 'He is telling the truth.' I doubt that any court in this country could take that sort of 'expert' testimony very seriously. I doubt that many employers would be willing to act on such an important matter on the basis of that kind of evidence."[148]

As if all of this were not enough utterly to disqualify their testimony as "expert opinion" witnesses, there is yet a further major basis for disqualification. Polygraph operators in these employment cases are inextricably caught in the middle of a substantial conflict of interest. They are paid by employers who have only called them into action because of some experience of loss. They are summoned to find the guilty. They are a type of bounty-hunter. Their reward is for tracking down wrongdoers. Inconclusive or "truthful" findings, instead of "deception," will not result in their rehire to detect later suspected deceivers. They thus have an inherent economic bias for "deception"

[148]Lykken, Prepared Statement, *supra* note 1, at galley 9.

findings. By hypothesis, if the employer knew or could prove who the guilty employee was, he would not need the polygraphist to tell him. So a polygrapher's finding of "deception" will be unassailable by the employer who hired him due to uncertainty in the first place.

Finally, Senator Birch Bayh's query to Dr. Lykken in the Senate polygraph hearings underscored another psychological aspect to this functional conflict of interest, asking, "Is there sort of an incentive, subconscious incentive, to test in such a way that you would presume that the person is not telling the truth so that you are more apt to catch someone—that is, you are more concerned about catching the liar than exonerating one that is not lying?" To which Dr. Lykken replied, "I think you are quite right in suggesting that it is psychologically reasonable and normal to hate to be fooled. You hate to think that someone is putting one over on you. The examiner is much more concerned, from one point of view, in not himself being gullible. . . . So, I think there is a natural bias to make sure that no one lies and gets away with it."[149]

Law Professor Irving Younger, in his review of the first edition of the Inbau and Reid book on polygraphy, accurately located the real source of the "finding" of "deception" or "no deception": "The graphs printed in the book make it clear that in most cases the needles move as subtly as Raskolnikov's soul. It devolves upon the operator of the machine to read, analyze and interpret the graphs, finally arriving at an *opinion* whether or not the subject is telling the truth. Despite all the paraphernalia of machinery, that opinion is the result of thinking as subjective and intuitive as if it were based simply on a long talk with the subject, unaided by the counting and measuring devices provided by technology."[150]

Many of those functions described by the polygraphist are obviously judgmental and of a nature traditionally assigned in our justice system to persons—arbitrators and judges—whose education, experience, and selection has led to their functioning as triers of fact in dispute resolution, legally vested with the judgment power and responsibility. Whatever may be the view of the mechanical polygraph as an accurate recorder of emo-

[149] *Ibid.*
[150] Saturday Review, December 31, 1966, p. 20.

tional arousals, or even of credibility, the judgment of the polygraphist is *not* what collective bargainers have provided for in their arbitration provisions. John E. Reid may well be a person whose judgment and experience warrant disputants' retaining him to be their arbitrator, but as a polygraphist he has no place in the seat of judgment of the trier of fact from which the traumatic choices about credibility must be made.

Recall now, if you will, the query of the California appellate judge quoted at the outset of this paper, wondering "why there was any difference between the testimony of a polygraph operator who believes a defendant is telling the truth, and of a physician who gives his expert opinion on a medical condition."[151]

By now a reader of this paper could surely state the difference. It may be done succinctly. It is that the doctor is expressing a medical judgment about physical and psychological phenomena based on his scientific education and his professional experience. The polygraph operator, however, is assessing guilt or innocence in the guise of his findings of truthfulness or deception. That is an analysis which he is not educationally qualified to undertake, nor has he a lawful commission to do so. The clinical psychologists or psychiatrists who *are* educationally qualified to deal with such matters shun that kind of simplistic conclusory findings of "guilt" or "innocence" of a specific act. In addition, the polygraph operator who is allowed to testify that he *"believes the defendant is telling the truth"* is being allowed to preempt the power to decide the crucial issue of credibility, a truly complex judgment often reactive to other factors in addition to the personal honesty of the witness. This is legally vested in the trier of fact, a judge appointed by the state to exercise that discretion, or an arbitrator jointly selected to do so by the parties to a labor dispute. Arbitrators and judges should heed, and shield from ignorant intrusion, their legal duty to perform the act of judgment.

Employers should heed the counsel of *Business Week* which warns its readers: "One thing that many businessmen do not seem to have taken into account is that lie detectors are only as good as the people who conduct the tests, and that employers victimize themselves as well as workers when testing is slipshod. Many polygraph operators contend that their clients shop price

[151] *Supra* note 4.

before accuracy, an attitude that opens the door to abuse. 'I've come to the conclusion that polygraphs and similar equipment are only investigative crutches,' says the security officer for an oil company. 'We're better off depending on gathering evidence and direct confrontation with suspects and building a case that way.' "[152]

In summary, the conclusion is compelling that no matter how well qualified educationally and experientially may be the polygraphist, the results of the lie-detector tests should routinely be ruled inadmissible. The polygraph is treacherous in its applications to innocent employees ensnared in circumstances suggesting their guilt, and this because of its unreliability. It is, as we have also seen, improperly preemptive of the act of judgment of the arbitrator on the issue of credibility. Indeed, the irony is that the more capable and experienced the polygraphist may appear as an observer of credibility, the more intrusively, and therefore improperly, preemptive of the arbitrator's exercise of the discretion of the office of trier of fact are the test results apt to be. And, of course, the less competent the polygraph operator, the more obviously does unreliability escalate as the polygraphist is demonstrated to be incompetent to make sensitive subjective judgments personally required in the situation.

VII. Conclusions

"Of all passions," A. E. Housman wrote, "passion for the truth is the feeblest in man." Housman had evidently never met a polygraph operator. A multimillion-dollar industry of "lie detecting" has been built on that deceptive passion. It has prompted arbitrators of labor disputes to pay formal heed to its claims. Having done so, the conclusions are these:

First, faith in the technology of the polygraph as a "lie detector" is misplaced because inherent human limitations on the powers to perceive, store, recall, and recount events effectively frustrate the prospects of any kind of real "lie detection," be it human or mechanical.

Second, although with relatively rare exceptions arbitrators and courts continue to reject polygraph proof, polygraph opera-

[152]Business Week, February 6, 1978, p. 104.

tors have been improperly allowed by some courts and arbitrators to preempt a central aspect of the act of judgment by triers of fact—the relative assessment of the testimonial credit of witnesses—by unwarranted acts of self-abnegation on the part of those courts and arbitrators who have admitted polygraph-test results to evidence and credited them with probative value.

Third, those acts of self-abnegation are unwarranted because even the best of polygraph operators (who see 80 percent of their peers to be a sorry lot) are not educationally or experientially nearly so well equipped as are professional triers of fact to distinguish deception from truthfulness, and to protect the innocent in the process.

For the polygraph operator, the search in each case is for "truth" or "deception," a venture in human understanding and perception for which he is rarely, if ever, prepared through education and experience. For the labor arbitrator, the search in each case is for a fair and rational decision within the parameters of the collective bargaining agreement.[153] It is for this professional effort that he is mutually selected by the disputants. If success attends, it will be marked by intelligence and empathy, and a humility of judgment that reflects our shared human failings.

Comment—

JOHN E. MCFALL*

I appreciate the invitation to the Academy's annual meeting. I must admit that when I was asked to be a discussant, I willingly accepted with not a small amount of anticipation. I thought it was going to be nice to comment upon the work of arbitrators for a change, as some arbitrators have commented on my work by saying such things as "I don't believe the company's witness," or "the company failed to prove its case," or "as the

[153] "Since the object of a trial is the ascertainment of the truth, we reason, and since the inventions of technology help ascertain the truth, we ought to make increased use of those inventions. This is an unexceptionable sentiment, so long as we remember that, in truth, the object of a trial is not the ascertainment of truth. The object of a trial is the resolution of a controversy in accordance with the principled application of the rules of the game. . . . There is no technology to do it for us." Younger, *Technology and the Law of Evidence*, 49 U. Colo. L. Rev. 1, 7 (1977).

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