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PHYSICAL AND PSYCHOLOGICAL SURVEILLANCE

IN THE PRIVATE SECTOR.
I. STATEMENT OF THE PROBLEM

Rapid gains in science and technology have made it easier than ever before, through the use of electronic devices and psychological tests, to discover what an individual is saying, thinking, and doing. The intent of this paper will be to examine how widespread is the use of such surveillance techniques in the private sector of American society today, and to see whether their use poses a threat to the individual's right to privacy. This report will also deal with future improvements likely to be made in surveillance technology, and the implications of such changes for the rights of the average citizen.
II. SUMMARY OF PRINCIPLE FINDINGS

1. The widespread use of electronic surveillance devices by private detectives, bugging experts, and industry, and the likelihood of future technological advances in the art of snooping, pose a serious threat to the privacy of the individual. Surveillance equipment is often purchased from firms across the country which specialize in the production of "bugging" gadgets.

2. While the average citizen is often unable to purchase surveillance devices from these firms, correspondence courses, mail catalogues, and magazine advertisements offer him the opportunity to take a crack at snooping with less sophisticated equipment. In order to solicit customers, private detective agencies often advertise about their surveillance activities in brochures and in the classified sections of telephone books.

3. Though the federal Omnibus Crime Control and Safe Streets Act of 1968, and also many state laws, forbid the use, manufacture, or distribution of surveillance devices, these statutes have yet to be effectively enforced.

4. The use of the polygraph ("lie detector") in industry has proved effective in detecting employee theft and in protecting innocent workers, without invading the rights of the individual. Nevertheless, primarily because of union pressure, several states have passed laws prohibiting polygraph tests of prospective or present employees. The lack of qualified polygraph examiners, however, is a problem which most states have not yet confronted with adequate legislation.

5. The sensitive nature of many questions asked on personality tests in industry and education represents a significant danger to the privacy of the prospective employee or student. The results of these tests are often interpreted by unqualified corporation staffs or guidance counsellors, and they have generally been poor indicators of employee and academic performance.
III. POLICY RECOMMENDATIONS

1. **States without eavesdropping laws or lacking adequate provisions should enact legislation forbidding surveillance by private individuals and groups.**

   These statutes should prohibit the use, manufacture, distribution or advertising of devices whose design makes them especially useful for the purposes of eavesdropping. In addition, victims of surveillance should have access to legal remedies in the courts against both eavesdroppers and those for whom the latter are employed (pp. 8-9, 14-16, 31-33).

2. **Civil liberty groups, bar associations, and public interest organizations must educate the general public regarding the serious dangers to privacy represented by unchecked wiretapping and eavesdropping.**

   Public consciousness must be aroused as to the unethical and illegal practice of snooping, in order that Federal and state laws against eavesdropping be more effectively enforced. The television and film industries can help by giving less emphasis to programs and films which glorify the bugging expert, and conveying to the public the serious danger of snooping (pp. 16-17, 31-33).

3. **States should enact laws which require polygraph examiners to be licensed and to possess both an educational background and adequate training in the use of this device.**

   A code of ethics should be established by the Council of Polygraph Examiners, so as to prevent abuses in polygraph testing and the disclosure of confidential information. Laws might also be instituted which prevent discrimination in hiring and dismissal of employees who refuse to comply with an employer's request to undergo a polygraph test (pp. 21-24, 33-34).

4. **The use of personality tests which question the religious beliefs, sexual desires, family relationships and similar intimate thoughts of a job applicant, present employees, or group of students, should be**
prohibited by state legislation.

The only exception should be given to qualified guidance counselors, preferably with at least a master's degree in psychology, who desire to help students with obvious emotional problems. At all times, parental consent must be obtained before administering such a test (pp. 29-31, 34).
IV. TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>STATEMENT OF THE PROBLEM</td>
<td>11</td>
</tr>
<tr>
<td>II.</td>
<td>SUMMARY OF PRINCIPAL FINDINGS</td>
<td>iii</td>
</tr>
<tr>
<td>III.</td>
<td>POLICY RECOMMENDATIONS</td>
<td>iv</td>
</tr>
<tr>
<td>V.</td>
<td>DISCUSSION</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>The Eavesdropper's Arsenal</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Wiretapping and other snooping gadgets</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Surveillance devices and the mass market</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Private surveillance and the law</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Private Eyes, Undercover Agents, and Corporate Espionage</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>The industry of private investigation</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Industrial espionage and surveillance</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Coming to grips with physical surveillance</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>The Polygraph (&quot;Lie Detector&quot;)</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Principle and technique</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>The use of the polygraph in private industry</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Accuracy and the quality of examiners</td>
<td>24b</td>
</tr>
<tr>
<td></td>
<td>Personality Tests</td>
<td>24c</td>
</tr>
<tr>
<td></td>
<td>Types of tests</td>
<td>24d</td>
</tr>
<tr>
<td></td>
<td>Testing personality in industry and education</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Future uses and restrictions</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>31a</td>
</tr>
<tr>
<td></td>
<td>Physical surveillance</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Psychological surveillance</td>
<td>33</td>
</tr>
<tr>
<td>VI.</td>
<td>APPENDIX</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Subjects of Polygraph Examinations</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Statistics Regarding the Polygraph and Employee Theft</td>
<td>38</td>
</tr>
<tr>
<td>VII.</td>
<td>BIBLIOGRAPHY</td>
<td>41</td>
</tr>
</tbody>
</table>
V. DISCUSSION

The current debate over the right of the Federal government to conduct surveillance over its citizens has tended to overshadow the equally important issue of eavesdropping by private groups and individuals. Today, private surveillance takes the form of both physical and psychological snooping. Manufacturers who specialize in bugging devices sell their wares to private eyes and corporations, who in turn use them to eavesdrop upon "suspicious" employees and other persons. Advertisements appear in mail catalogues, popular scientific journals, and classified phone book sections, offering bugging gadgets and the service of snooping experts to the general public. In personnel selection and evaluation of employee performance, industry is making frequent use of polygraph and personality tests. And in our public schools, guidance counselors eager to hunt out the emotionally disturbed administer psychological tests to large groups of students.

This paper will examine some of the major types and purposes of surveillance techniques in the private sector today, in addition to several advances likely to be made in the near future. Undoubtedly, there are many uses of private eavesdropping which will not be touched upon in this report. In the four chapters which follow, I have attempted to describe only some of the primary examples of surveillance, and their implications for the individual's right to privacy. At the conclusion, I intend to offer a brief summary of my findings and recommendations, and to make some general comments on the use of private surveillance in a democratic society.
A. The Eavesdropper's Arsenal

In February, 1965, the Senate Subcommittee on Administrative Practice and Procedure commenced hearings on the invasions of privacy by Federal agencies.\(^1\) The investigation began with a general overview of the art of snooping, and the testimony procured from experts in this field revealed the degree to which surveillance technology has progressed in recent times. Wiretapping devices, monitored martinis, tape recorders enclosed in briefcases, and other bugging gadgets were presented before the subcommittee, all capable of transmitting the conversations and activities of the unsuspecting individual. The mass production of these devices, and the likelihood of more effective surveillance techniques in the future, point to a conflict between technological progress and the individual's right to privacy.

**Wiretapping and other snooping gadgets**

The most common method of surveillance today is the telephone tap, and a brief description of the various means of wiretapping is in order. In the direct tap, an audio transformer and a resistor are connected to the microphone and earphone of either the telephone itself, or to the lines at a terminal box. Output wires then usually head from the transformer to the tapper's tape recorder, which makes a record of the entire conversation.\(^2\) A rarer technique is the induction-coil method, which does not require

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\(^1\)U.S. 89th Congress, 1st Session. Senate Committee on the Judiciary, Subcommittee on Administrative Practice and Procedure, *Invasions of Privacy (Government Agencies)*, *Hearings*, 1965. (This work will be cited hereafter as *Senate Hearings on Privacy*.)

any connection to the telephone line, but merely the insertion of a coil in the magnetic field created by the line current. Becoming increasingly popular today is the microphone tap. A small microphone is concealed inside or close to the telephone, and powered by the line current, transmits not only the phone conversation but also all voices in the room, even when the phone is not in use. Finally, the introduction of electrically conductive paint has enabled wiretappers to paint undetectable circuits along walls without any need for wires.¹

The invention of the transistor and printed circuit has allowed for a remarkable miniaturization of bugging equipment. Units containing both tiny transmitters and wireless mikes can be disguised in the form of cigarette packs, wristwatches, desk pen sets, and picture frames. Broadcasting over varying distances, the transmitter sends signals to a receiving unit which demodulates the waves and feeds them into the eavesdropper's recorder.² Television cameras with transistors replacing all electron tubes except the camera tube, operated on batteries and small as a lady's handbag, can be positioned in the walls or ceiling of a room.³

Several other ingenious methods make use of a microphone piece. For the eavesdropper who has secured the room adjoining that of his target, there is available a contact microphone attached to the end of a wooden


²Myron Brenton, The Privacy Invaders, pp. 152-153. For a detailed description of such devices, including charts and pictures, see Ralph V. Ward, testimony before Senate Hearings on Privacy, Part 1, February 18, 1965, pp. 27-58.

³Carroll, op. cit., pp. 207-208.
or metal spike. This so-called "spike mike" is driven through walls or doors to pick up conversations in the neighboring room. For long-distance work, two types of mikes are most advantageous. The disk-shaped reflector of the parabolic microphone, or the long-tubular shotgun microphone, are both capable of picking up sounds from over three hundred yards away.

The growth of the surveillance industry has been countered by the development of an anti-bugging industry, and both are often undertaken by the same firm. Amplification tests with certain listening devices can determine whether a microphone or transmitter is monitoring room conversation. Another tool helpful in detecting bugs is the field-strength meter, a sensitive radio receiver which sweeps across an entire band of frequencies to find the exact location of the device.

Already there are indications, however, that new and more effective modes of surveillance are ready to come into use. Lasar and infrared light beams have already shown through experimentation their ability to project upon targets and transmit back both voices and television pictures over distances of some thirty miles. But the most potent bugging gadget of the future could well be the integrated microcircuit, whose infinitesimal size, indefinite life, and cheap cost, might very well replace present-day transmitters and prove a boon to the eavesdropper.

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1 Ibid., p. 196.
2 Brenton, op. cit., p. 154.
3 Carroll, op. cit., p. 211. Ward, op. cit., p. 41.
Surveillance devices and the mass market

Many firms throughout the nation have profited from the expanding profession of eavesdropping, selling components or complete instruments which can be used in setting up bugs.¹ Some of these corporations restrict their sales to the Federal government, others to law enforcement officials and licensed detectives, and still others open their business to private individuals. At the Privacy Hearings of the Subcommittee on Administrative Practice and Procedure, representatives of all three types offered testimony regarding their sales.

One, a Sholly Kagan of a Massachusetts concern selling surveillance equipment, stated that since, in his opinion, the use of such equipment posed a threat to the individual's privacy, his sales were restricted to law enforcement officials in certain federal agencies.² Ralph V. Ward, Vice-President of Mosler Research Products, Inc. in Danbury, Connecticut (now Mosler Electronics Systems), one of the larger surveillance device firms in the country, testified that his company's business had recently been opened to licensed detectives as well as law enforcement officials, because of the increasing use of eavesdropping in industry.³

One witness whose New York company sold almost exclusively to private individuals was Emanuel Mittleman. In replying to a question concerning the sale of bugging equipment to his customers, Mittleman

¹For a list of firms which manufacture surveillance devices, see Alan F. Westin, Privacy and Freedom, p. 91.


³Ward, op. cit., p. 27.
stated:

To the best of my knowledge I have—well, I would sell it to anyone who wanted to buy it unless I had a specific reason for not doing so. If I thought... it was going to be used for nefarious purposes I would think twice before I would make such a trans-
action.¹

Statistics regarding the purchasers of surveillance equipment are generally unavailable, principally because those who engage in this busi-
ness wish, for obvious reasons, to keep such information confidential.

Nevertheless, it would appear that those who make a practice of electronic surveillance, namely governmental officials, detectives, and private bugging experts, have greater access to these manufacturing firms than does the average citizen.

This is not to say, however, that the amateur who desires to take a crack at snooping is without recourse to any equipment. Less sophisticated bugging devices are advertised in correspondence courses, mail-order cata-
logues, and in many electronics and mechanics periodicals. The magazine Popular Science provides us with several excellent examples. Its January, 1971 issue included a full-page mail-order form of the Johnson Smith Com-
pany in Detroit, advertising pocket transmitters, midget spy cameras and pocket sound detectors, all for $6.00 or less.² In March, the magazine’s classified section contained ads for a $9.75 FM wireless mike (range of 200 yards) and a miniature aircraft receiver called a “sky spy” going for $13.50.³

¹Emanuel Mittleman, testimony before Senate Hearings on Privacy, Part 1, February 18, 1965, pp. 22-25.


³See advertisements in Popular Science, 198 (March 1971), 161.
And in the June issue of this year, a survey of new ideas in electronics included a description of a parabolic microphone, part of Bell and Howell's Astro-Mike Kit, selling at $54.95.\(^1\)

The danger here is not that we are all on the verge of becoming potential eavesdroppers, but rather that we may be willing to accept the use of surveillance devices as an inevitable outgrowth of scientific progress. In the detective programs on television, in the James Bond movies, and in the Superman comics, it is generally the "hero" who makes use of the concealed mike or his telescopic vision in order to apprehend the criminal offender. Thus, the fact that the hero may be snooping illegally, or that the room of an innocent individual can be just as easily bugged, is often ignored by the average citizen.\(^2\)

Private surveillance and the law

Until 1968, no federal statute, except for the ambiguous section 605 of the Federal Communications Act of 1934, prohibited surveillance by private individuals. That section, stating that "...no person not being authorized by the sender shall intercept any communication and divulge or publish the existence, contents, substance, purport, effect or meaning of such intercepted communication to any person..."\(^3\) was often ignored by Justice Department officials and thus rarely enforced. Then in June of 1968, President Johnson signed into law the Omnibus Crime Control and Safe Streets Act of 1968. While giving law enforcement officials the right to


\(^{2}\)Alan F. Westin, "Privacy," McCall's, 95 (February 1968), 58, 118.

\(^{3}\)Brenton, op. cit., p. 166.
eavesdrop with court approval, the Act bans the private use of wiretapping and other surveillance devices to intercept or disclose wire and oral communications. The manufacture, distribution, possession, or advertising of any device whose design "renders it primarily useful for the purpose of the surreptitious interception of wire or oral communications," and with the knowledge "that such device or any component thereof has been or will be sent through the mail or transported in interstate or foreign commerce," is forbidden. ¹

In addition, the Act creates a National Commission for the Review of Federal and State Laws Relating to Wiretapping and Electronic Surveillance. Composed of four Senators, four Representatives, and seven Presidential appointees, the Commission is invested with the duty of studying the operation of this act's provisions for a six-year period.²

Despite the unequivocal position of this legislation however, advertisements and mailings like the ones in Popular Science still continue. More significantly, one must question how effectively the Federal government can prohibit a business which is so often veiled in secrecy and is conducted within state lines as often, if not more so, than it is between states. It would seem that in the field of private surveillance, the states themselves are more capable of dealing with the problem. Today, forty-two states


have laws forbidding wiretapping by private individuals, and twenty-five
also prohibit eavesdropping. Only seven states—Indiana, Maine, Mississippi,
Missouri, Texas, Vermont, and West Virginia—have failed to enact bans on
either wiretapping or eavesdropping.¹

It is to be hoped that the remaining states will follow suit and
pass laws outlawing electronic and mechanical surveillance by private
individuals and groups. However, as will be discussed at the conclusion
of the following chapter, even these state laws have their limitations.
Private investigators and corporate spies are still snooping in flagrant
violation of federal and state bans. The fields of private detection and
industrial espionage and surveillance are growing considerably today, and
it is to them that we must now turn our attention.

B. Private Eyes, Undercover Agents, and Corporate Espionage

The industry of private investigation

Since World War II, there has been a steady growth in the private
detective trade, with more than 20,000 investigators today either self-
employed or working for agencies and corporate security staffs. Often
former government law-enforcement agents or veterans of military intel-
ligence, private eyes work at a wide range of investigative and security
jobs.

A recent trip to New York City provided me with an opportunity

¹ Congressional Research Service, Wiretapping and Eavesdropping—
Electronic Surveillance: A Brief Discussion of Pertinent Supreme Court
Cases, a Summary and Compilation of Federal and State Statutes and a
Select Legal Bibliography (Compiled by Charles Doyle, Legislative At-
torney, American Law Division, and revised April, 1971), p. 19.

² Westin, Privacy and Freedom, p. 90.
to obtain some literature from the Metropolitan Bureau of Investigation, Inc., a well-known detective agency with branches in several major cities across the country. The contents of its brochures give a good indication as to the various types of work detective agencies indulge in today.

Besides the commonplace tasks of locating missing persons and investigating accidents, Metropolitan provides security guards to protect against industrial theft, conducts fingerprinting and polygraph ("lie-detector") tests, and carries out investigations of prospective employees and cheating husbands or wives. Undercover agents from Metropolitan are available to spy on thieving or lazy employees. And working for lawyers, Metropolitan detectives untrack evidence for civil and criminal cases.

One of the more common uses of private eyes has been in the area of matrimonial cases. Not only do detectives check on the activities of the marriage partner for a suspicious husband or wife, but they also come up with evidence helpful in obtaining a favorable divorce or alimony terms. Another field of detective work becoming more important today with the increase in surveillance mechanisms is the anti-bugging sweep. Corporate executives and professionals who suspect the presence of snooping devices in their offices call in experts to conduct frequency probes and other tests in order to uncover bugs.

Often, the same agency which undertakes these anti-bugging tours makes use of electronic surveillance equipment in the course of other investigative assignments. Not all private eyes have a direct part in snooping;

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1. See brochures of Metropolitan Bureau of Investigation, Inc., Security Against Loss in Industry, and Accident, Criminal, Civil Investigative Service.

more often, the agency has several bugging experts perform the "dirty work." This all leads up to the fact that the private detective industry today is one of the most serious violators of wiretapping and eavesdropping statutes.

Detective agencies frequently advertise their illegal surveillance activities openly to the general public. In a survey during 1964-1965 of the classified telephone directories for several cities in each of the fifty states, Alan Westin found that many investigative firms promote their eavesdropping work to prospective clients with ads like, "Evidence is Preserved by Photographic and Recorded Means," or, "Automatic Electronic Recording Devices."¹

A present-day check through several city Yellow Pages show that Westin's findings still hold true. The Chicago Private Detective Bureau says in its ad that, "Electronically We Can Protect Your Right to Privacy--Latest Modern Electronic and Scientific Devices--Modern Photographic Equipment."² In Philadelphia, the B. W. Hassinger Detective Agency boasts of its results in "electronic surveillance equipment and closed circuit television."³ And the brochure of the Metropolitan Bureau of Investigation states: "Radio-equipped vehicles, photography, surveillance and other electronic devices

¹Ibid., pp. 91, 98. For the results of Westin's survey, see table, ibid., pp. 92-97.
are put into use for these [investigative] purposes.¹ These promotions appear often today, despite Federal and state prohibitions against private use or advertisement of electronic surveillance devices.

Industrial espionage and surveillance

An article several years ago in *Newsweek*² estimated that in 1966, industry lost approximately $2 billion apiece in stolen property and stolen trade secrets. In order to combat such loss, corporations employed a security force of some 175,000 guards, at a cost of an additional $1.3 billion.

Corporate executive fears regarding the consequences of these losses have led to a promotion of the industrial security business among investigative firms. Pinkerton’s Inc., Burns International Detective Agency, Wackenhut Corporation of Coral Gables, and Norman Jaspan Associates of New York are often mentioned as the prominent names in this field. Their assignments range from supplying guards, alarm systems and police dogs, to sending in undercover agents to detect theft, to conducting de-bugging sweeps of corporate offices and conference rooms.³

The art of industrial espionage has been legendized by the mass media, particularly by television and the movie industry. Popular works on invasions of privacy, such as Brenton’s The Privacy Invaders, also tend to exaggerate the extent of this practice today. Nevertheless, it is still admittedly carried on, and corporations with sensitive trade secrets do

¹Metropolitan Bureau of Investigation, Inc., Accident, Criminal, Civil Investigative Service, p. 3.
²“How to Steal $4 Billion,” *Newsweek*, 69 (May 1, 1967), 76-78.
³Ibid., pp. 76-78.
their utmost to keep them so. Ford Motor Company has six tightly-policed styling studios, and only Henry Ford, the President, and the Vice-President in charge of styling see all six. Every slip of paper thrown into the waste-basket is guarded until burning.¹

Besides bugging the rival firm’s offices or design rooms, unscrupulous companies use a variety of other means to steal information on production. Occasionally they will resort to a dummy merger proposal, whereby they have the opportunity to examine the other company’s books, after which the merger is "mysteriously" called off. Undercover agents of rival companies sometimes exchange trade secrets on a third firm which they have infiltrated. Then, of course, there is the veteran executive or researcher who is lured by his present firm’s rival, and brings quite useful information to his new employer.²

Surveillance techniques are not only used by some firms to spy on their competitors, but also upon their own executives and employees. In 1965, a survey of industrial security officers was conducted by William Shaw, an editor of the law-enforcement journal Law and Order.³ Having received answers from eighty-seven industrial, business-office, retail store, and laboratory organizations, Shaw found that twenty-three of the firms, just over one-fourth, eavesdropped at some time on their employees. Those who did so placed miniature transistors in conference rooms, hid mikes

¹Ibid., pp. 76-78.
²Ibid., pp. 76-78.
in rest rooms and lounge areas, or wiretapped selected phone extensions. Reasons given for the use of surveillance included checking on employee opinions of management, discovering who was loitering in the bathrooms during work hours, or listening into sales pitches by employees to customers. ¹

While wiretapping and eavesdropping of labor union activities was a frequent practice prior to the bargaining-in-good-faith provisions of the Wagner Act, since World War II it has become less widespread. However, several incidents of bugged union meetings have occurred in recent times. In 1965, the telephone company was accused of tapping the home phone of a Communications Workers Union member in West Virginia. Again in the same year, a private detective was indicted for tapping the phones of the General Freight Co., in Whittier, California, in order to overhear discussions between employees and union representatives. ²

Coming to grips with physical surveillance

The use of electronic surveillance equipment by private eyes, bugging experts, and industry represents a serious intrusion upon the individual's right to privacy. The investigator who installs a bug in the home of the suspected cheating wife, the expert who wiretaps the phone of a labor official, and the executive who orders monitors in the rest rooms of his employees, all leave the individual with few places in which to express his thoughts, feelings or desires in private. And while there may be a legitimate place in industry for undercover agents who are assigned to discover thefts by employees, the agent who infiltrates a rival firm and bugs its executive offices is not only

¹Westin, Privacy and Freedom, p. 106.
²Ibid., p. 108.
violating eavesdropping statutes but committing a serious crime in stealing trade secrets. With predictions that technology will be producing in the near future devices so tiny that they can be seen only under a microscope, and infrared and laser beams that can monitor what you are saying and doing over considerable distances, the need to stop the widespread use of electronic surveillance becomes ever more apparent.

The provisions of the omnibus crime bill which prohibit the use, manufacture, or distribution of bugging devices, represents an important legal step on the part of the Federal government to safeguard a basic individual freedom. However, it appears obvious that the government's capability to effectively enforce these laws is far from satisfactory, since the various stages of surveillance, from transportation of the devices to the bugging itself, are often conducted within the same state, rather than interstate. Moreover, while it is not within the scope of this paper to deal with surveillance by law enforcement officials, it should be noted that difficulty in enforcement is likely to arise when a Justice Department charged with banning private surveillance is permitted with a court order to eavesdrop itself.

The federal law then, while a welcome statute, is simply not enough. It is incumbent upon all fifty states to have laws which prohibit surveillance by private individuals. As has been already noted, many states have some type of ban against wiretapping and/or eavesdropping. A common denominator among these state statutes is a most desirable goal, in order that Federal and state law enforcement officials many carry out a more effective attack against violators. Thus, those states which have yet to enact such laws and those who have inadequate provisions should pass legislation which has the effect of
1) prohibiting the use of wiretapping and other surveillance techniques by private persons, with severe penalties for violators; 2) outlawing the manufacture, distribution, advertisement, or mailing of any device whose design renders it particularly useful for the purposes of eavesdropping; and 3) permitting victims of illegal surveillance legal redress in the courts, not only against the eavesdropper, but also against the individual or party who has procured his services.

However, like the Federal law, these anti-surveillance state laws will not be a cure-all. The question of enforcement must again be raised, since state and local law enforcement officers are also permitted to eavesdrop with a court order by virtue of the omnibus crime bill. Moreover, since many private eyes and bugging experts are former law officers, the possibility that present-day officials may simply turn the other way when their former colleagues illegally snoop has to be taken into account.

The enactment of legal sanctions against eavesdropping is crucial, but it alone will not put an end to physical surveillance. At the core of the entire problem regarding privacy has been the lack of public interest in the issue up to this time, thus allowing the art of snooping to progress to such a point until now it seriously threatens our fundamental freedoms. If the civil-rights and anti-war protests of the 1960's has taught Americans one thing, it is that often, only after a general public feeling of wrongdoing has been aroused and a public outcry follows, do issues of major importance receive just attention, public legislation, and proper enforcement.

There is then an urgent need today for civil liberty groups, bar associations, public interest organizations, and the press to educate the public as to the serious threat to privacy engendered by wiretapping and
eavesdropping. The television and film industries can also be helpful in this regard, by voluntarily limiting the number of programs and films which glorify the electronic snooper, and instead, in accord with the industries' current search for relevance, conveying to the public the illegal and unethical nature of eavesdropping.

With the current debate over the right of the Justice Department to surveil upon certain individuals, there are hopeful signs that a public consciousness is developing as to the dangers of wiretapping and eavesdropping. Perhaps the public can be aroused to see the equal dangers in private surveillance. Until such time, it is unlikely that Federal and state laws which forbid private eavesdropping can have much substance.

C. The Polygraph ("Lie Detector")

The traditional conception of the polygraph as a "lie detector" machine has led to many false notions regarding its purpose and use. This term serves only as a misnomer, for it connotes in the public eye the image of a unit which rings a bell, flashes a light, or in some such manner quickly indicates when the subject is telling a lie. Excluded from this popular view is the fact that the polygraph only measures physiological changes within the individual being tested, and that it is the examiner himself who must decide, on the basis of these recordings, whether or not his subject is lying. Moreover, while the machine does provide a means by which to detect deception, it also helps to identify and protect the innocent. With the increasing employment of the polygraph in private industry today, it is essential that the public understand the methods involved in such testing, so that we may deal rationally with the problems posed by the use of this device.
Principle and technique

The fundamental principle underlying the use of the polygraph is that certain changes in internal body functions, such as rate of respiration, blood pressure, and pulse, take place when an individual tells a lie. In order to record these changes, the polygraph makes use of several instruments which are capable of measuring these physiological phenomena. The two most basic components of any polygraph are the pneumograph, a ten-inch, corrugated rubber tube which, fastened around the subject's chest, measures respiration; and the blood pressure-pulse cuff, which records circulatory responses and is placed around the arm or wrist. The functions of respiration, blood pressure, and pulse are most often the best indicators of the subject's deception or truth, and thus these instruments are indispensable to the polygraph tester. Additional units are frequently used to supplement these two. A galvanometer which records the galvanic skin reflex (GSR) is attached to the subject's fingers by means of electrodes charged with a minimal current of electricity. ¹ Though the exact nature of the GSR is still under investigation, it is believed to measure skin resistance associated with the sweating of the palms as a result of tension. ² Another instrument, built into the subject's seat, measures muscular activity which has gone undetected by the examiner and would otherwise adversely affect his diagnosis, particularly regarding the resultant changes in blood pressure.

The polygraph examination is usually conducted in a quiet room,

¹John E. Reid and Fred E. Inbau, Truth and Deception: The Polygraph ("Lie-Detector") Technique, pp. 3-4, 219-220.

simply furnished so as not to cause any distractions.\footnote{The discussion which follows is a brief summary of the examination technique described in Reid, et al., \textit{op. cit.}, pp. 5-237. This section of the book is most informative in its elaboration upon polygraph testing, and is supplemented by figures showing both deceptive and truthful responses of anonymous subjects.} Often, there is an adjoining room with a two-way mirror which allows observers to witness the test without the subject's knowledge. A concealed microphone in the exam room transmits sound to the observatory.

Before the examination begins, a pretest interview takes place in which the examiner conditions the subject for the test and discusses with him the questions he will ask. This interview is used to allay the fears or anger of a truthful subject who is asked to take a polygraph test, while stimulating the apprehensions of the liar who fears he will be detected.

The examiner then proceeds with the first test, a short series of both relevant and irrelevant questions, and also the crucial control question. In most cases, the control question is a broad one dealing with the same type of wrongdoing as the one under investigation, to which the subject is likely to give a false or dubious answer. For example, if the crime under investigation regards a theft, the examiner will ask whether or not the subject has ever stolen anything before in his life, or some variation thereof. The theory behind the control question is that the truthful person will usually register a greater response to this question than to the ones concerning the actual crime, while the responses of the liar will be just the opposite.

Several other tests follow to determine the subject's truthfulness or deception. In the card test, the examiner plays a "card trick" by successfully identifying the subject's choice despite the latter's deliberate
response of "no" to each of the cards held up. This test is used to demonstrate, for the benefit of the subject, the efficacy of the machine, and thereby either stimulate or allay his apprehensions. After this, the first test is repeated and is followed, if deemed necessary, by a rearrangement of the questions, a "yes" test in which the subject answers affirmatively to all questions, and possibly a reexamination at a later date.

As mentioned before, the most reliable indices of deception are the respiration and blood-pressure and pulse recordings. Immediately after a relevant test question is asked, any blocks or stoppages, suppressions, or cyclical changes in breathing are generally indicative of the subject's deceit. With respect to circulatory responses, sudden increases in blood pressure, or even a gradual increase leading up to the most relevant question, followed by a decrease at the next question, serve as signs of probable deception.

Sometimes the subject who is lying will attempt to avoid detection by controlling his breathing, by forced muscular movements, or by psychological evasion. Short sample tracings of the subject's physiological functions before and after the test can help to combat these attempted distortions. As for psychological evasion, the subject's forced or natural indifference to his crime can often be overcome by the various stimulating questions used in the tests.

In protecting the innocent, the nervousness which a truthful subject may experience in confronting the polygraph is given serious consideration by the experienced examiner. Moreover, to safeguard against errors due to unusual physical or mental conditions, sample tracings prior to and after the test are again useful.
The use of the polygraph in private industry

Amidst a period of rising crime, industry is today suffering from an increase in theft by its own employees. The Insurance Information Institute reports that embezzlement and theft by employees in retail sales, warehousing, and delivery services has risen to $3 billion a year—approximately $10 million a day. These figures are greater than those for conventional robbery and burglary combined. Moreover, the Institute forecasts that the annual figure will double to $6 billion in the next decade.¹

Hopeful of combating this rising crime wave to some degree, retail outlets, department stores, banks, theaters, hotels and many other enterprises are increasingly contracting polygraph firms to test their employees. Today there are some four to five thousand private polygraph practitioners in the nation testing about 200,000 job applicants and employees annually at an average rate of $50 an hour for each examination.²

Firms such as Dale System, Incorporated, one of the major polygraph-testing firms in New York,³ cite many circumstances in which the use of the instrument has helped to prevent or detect employee theft. In one typical case, a major chain of women's wear retail stores believed that it was suffering from inventory losses in excess of $100,000, but was unable to locate the cause. An investigation by Dale System having revealed


²Ibid., p. 45.

³On October 25, 1971, I had an interview with a staff member of Dale in the company's New York office. I was fortunate that day in being permitted to briefly witness a polygraph examination in progress.
that there had been no inventory theft, polygraph tests were then recommended for all department heads and executive personnel. This step disclosed that one man, the chain comptroller, had been using company money to pay bills for a woman's clothing store operated by his brother in a nearby city. In addition, it was discovered that he had performed the same crime for seven years with a prior employer and had left, undetected, to assume his new position as comptroller.¹

The Council of Polygraph Examiners publicized figures in 1965 which maintained that 70% of all persons tested for positions of trust passed polygraph tests and secured jobs, while 30% were rejected, nine-tenths of them as a result of "their own admissions of serious criminal behavior" following the examination.² Unfortunately, there appears to be a lack of similar figures for those who, already in positions of employment, undergo polygraph tests. Part of the difficulty in compiling such statistics is that one cannot determine the volume of theft which may have been prevented by an employee's awareness that a polygraph examination might detect his crime. Therefore, it is not possible at this time to form a definite conclusion as to whether corporate investment in polygraph testing is paying off in the long run.³

The polygraph can serve three specific purposes in employer-employee relationships. First, it can be used in pre-employment screening, so as to help determine whether an applicant has been truthful regarding his merits, is a potential thief, or intends to remain at his job. Sec-

³For a further discussion of this question and also of my unsuccessful attempt at obtaining the figures mentioned above, see the Appendix.
only, by means of periodic testing, the polygraph can provide a deterrent to theft and also check upon employees advancing to positions of trust. Finally, the instrument can be utilized to investigate a specific loss. Examiners constantly stress, however, that while the polygraph ascertains the guilty, it more importantly exonerates the honest employee who may have been unjustly suspected of a crime. Dale refers to two cases in its files where innocent workers, falsely accused, were acquitted by the polygraph. In one instance, a men’s store manager charged a young salesman with stealing. Polygraph testing showed that the guilt rested with the manager rather than with the employee. In the second case, a supplier of a utility company forged evidence that a buyer had demanded a payoff from him. The company’s management would have discharged the buyer had he not taken a polygraph test which pointed to the guilt of the supplier.¹

This last significant aspect of polygraph testing, the protection of innocent employees, is still not emphasized often enough (as shown by the use of the word “lie-detector”), primarily because the supposedly voluntary nature of the examination is often not voluntary at all. Lack of proper enforcement in this area leads to the erroneous belief that employers subject workers to polygraph tests with the sole intent of discovering their guilt. The polygraph examiner usually requires his subject to sign an affidavit to the effect that he is taking the test of his own volition. However, in many cases such an affidavit proves to be a sham. Many companies, as a precondition for employment, require the applicant to sign a waiver permitting the employer to require polygraph testing both

¹Dale System, op. cit., p. 3.
prior to and during employment, with the further stipulation that refusal
to take a test may comprise just grounds for dismissal. To curtail such
abuses, states should institute laws which prevent discrimination in
hiring and dismissal on the basis of compliance with an employer's request
to take a polygraph examination. An employer would not be permitted to
fire an employee for refusing to take a test unless he could provide suffi-
cient evidence pointing to the likelihood of wrongdoing on the part of his
worker. The same would hold true in the case of a job applicant who refused
to submit to a polygraph exam.

Nevertheless, legal enforcement of the voluntary nature of the test
might still induce innocent workers unjustly accused of a crime to resort
to the polygraph. Presently, the requirement of the polygraph test waiver
as a precondition for employment creates the danger that a harmful atmos-
phere of suspicion may arise in the employer-employee relationship; employers
will not trust their workers, and the latter in turn will resent their bosses.
Enactment of the anti-discrimination laws mentioned above would hopefully
restrain such a development. Yet, this legal remedy would not prevent
such a development altogether, for already today, through no fault of the
polygraph, one might detect a trend in which employers are becoming less
trustful of their employees. In response to those who fear that the con-
tinued existence of the polygraph will have a disastrous effect upon the
sense of trust between management and worker, one might question whether,
as a result of the rise in crime today, employers can help but be more
suspicious of their employees than formerly may have been the case. Suf-
fering presently from a considerable amount of loss due to theft, some
companies can simply not afford to treat all their employees with com-
plete trust and confidence. Therefore, at a time when traditional notions of trust may be breaking down, the polygraph provides the honest employee with the opportunity to prove that he is an honest, reliable worker.

One group, however, which has been particularly wary of the use of the polygraph has been union labor, primarily the AFL-CIO. Concerned over the personal nature of some test questions, and the repercussions for those who refuse to submit to the polygraph, labor unions have lobbied for laws banning the use of this instrument. While many of their grievances are justified, there are legal steps which could be taken short of altogether prohibiting polygraph testing in industry. I have already mentioned the need for anti-discrimination statutes which protect those who do not wish to take the test. Also, as will be discussed in the next section, the enactment of state laws requiring examiners to be licensed, and the strengthening of the profession's code of ethics, could prevent an inquiry into subjects of a personal nature, or at least the disclosure of such details to the employer.

Unfortunately, twelve states and three cities, acting under labor pressure, have enacted laws prohibiting or severely limiting the use of polygraphs upon present or prospective employees. On the Federal level, Senator Ervin has introduced a bill which would forbid polygraph testing in employee screening for hiring, firing or promotion, in both government and in private employment affected by interstate commerce. The effect

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1"Unions act on threats to privacy," op. cit., p. 88.

2Franklin, op. cit., p. 45.
of such legislation is to curtail a practice which has proved helpful in revealing both innocence and guilt in cases of employee theft. Prohibited from polygraph testing, employers are likely to resort to other means, such as electronic bugging or private investigation, that will result in severe invasions of privacy.

Accuracy and the quality of examiners

Due to the lack of statistics concerning polygraph testing, it is difficult to give a concrete answer as to the accuracy of the instrument. Most examiners claim an accuracy rating of at least 90%, but doubts about the validity of the technique still generally prohibit the use in the courtroom of evidence obtained from polygraph tests. But while accuracy is next to impossible to measure, it can doubtlessly be improved if there are qualified examiners to administer the tests. And even polygraph examiners admit that, due to the absence of legal and ethical standards, there are many individuals who operate polygraphs today without the proper qualifications.

At the present time, only Illinois, Kentucky and New Mexico have laws which require examiners to be licensed. Of the three, Illinois sets down the most stringent qualifications, requiring that the individual be free of a criminal record, pass an examination supervised by a special state committee, possess a college degree, and complete at least six months of internship training in the use of the polygraph. Since the lack of qualified examiners is one of the

1 For a legal history of court decisions regarding the admission of evidence secured from polygraph tests, see Reid et al., op. cit., pp. 237-264.

2 Smith, op. cit., p. 29.

major legitimate criticisms directed at the polygraph industry today, the need for state legislatures to follow the example of Illinois is quite evident.

A related criticism of polygraph testing points out that employers have abused the practice by having examiners question subjects about very personal items regarding sexual activities, marital life, and other personal information. To prevent such practices, the Council of Polygraph Examiners, which has sought state licensing laws, should consider establishing its own standards to guide the examiner with respect to inquiry into, and disclosure of, confidential information.

To further protect confidentiality, the Council should restrict the number of individuals who are allowed to witness a polygraph examination by means of a two-way mirror set-up. During the examination which I briefly witnessed at Dale System, two men from the company whose employee was being tested were able to see and hear everything by way of a mirror and a hidden microphone. This type of practice obviously prevents the polygraph test from retaining its confidential nature. The profession should stipulate that only qualified examiners and interns undergoing their period of training can be allowed to observe polygraph tests. With stricter qualifications and standards, the profession might help insure against the invasion of the individual's privacy by the polygraph examination.

D. Personality Tests

The growing popularity of personality tests today is due to the progress we have made both in industrialization and in the psychological

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1"Unions act on threats to privacy," op. cit., pp. 87-88.
sciences. As the organization of our industrial society becomes ever more complex, it requires individuals who are specialists, who possess the characteristics and interests needed to perform in certain ready-made roles. Coupled with this trend has been the expansion of the behavioral sciences from the confines of the mental clinic into everyday life, as psychologists study the traits of the normal individual in his daily routine. The result has been to use personality tests in industry and in schools, as a means of determining an individual's interests and his qualifications for a particular speciality. The personal nature of many questions used in these tests has led to a debate between those who defend the freedom of scientific inquiry and those who place a greater value upon the individual's right to privacy.

Types of tests

Personality tests were first used on an extensive basis in the U.S. Army during World War I. In order to detect soldiers who were likely to crack down in combat, the Woodworth Personal Data Sheet was introduced. It contained sensitive questions regarding such items as bed-wetting and day-dreaming, which might give evidence of mental disorders.¹ Soon after,

in 1921, a Swiss psychiatrist developed the famous Rorschach test, a series of ten inkblots open to various interpretations and used primarily to treat patients in clinics and hospitals.\footnote{Ibid., pp. 633-634.}

It was in the 1930's that personality tests began to move from the university, the clinic, and the army, into the area of personnel selection in industry.\footnote{Westin, \textit{Privacy and Freedom}, p. 135.} The Bernreuter Personality Inventory appeared in 1931, measuring "Neurotic tendency (i.e., adjustment), Self-sufficiency, Introversion, and Dominance."\footnote{Cronbach, \textit{op. cit.}, pp. 117, 522.} Contemporaneous to the Bernreuter test was the Strong Vocational Interest Blank, developed by a Stanford University psychologist who analyzed potential employees with a 400-question inventory of their hobbies, biases, economic preferences, and political leanings.\footnote{Martin L. Gross, \textit{The Brain Watchers}, p. 31.}

The expanded use of psychological tests in industry after World War II was a direct result of the publication in 1942 of the Minnesota Multiphasic Personality Inventory (MMPI). Produced by a psychologist-psychiatrist team at the University of Minnesota, it was quickly accepted and remains today the most widely used, and consequently the most controversial, of personality examinations.\footnote{Cronbach, \textit{op. cit.}, p. 525.} By comparing the responses of 850 psychiatric patients at the University Hospital with those of 700 visitors, an inventory was made comprising the questions which distinguished the two groups. On the basis of his answers, the examinee was graded in nine categories of mental and
nervous disorders. 1

The MMPI is a long, 500-item test, and the sensitive nature of many of the questions, to which one answers simply true/false, points out the most serious problem involved in the use of personality tests today:

I believe in the second coming of Christ.
I am seldom troubled by constipation.
Someone has control over my mind.
I am afraid when I look down from a high place. 2

Often, the answers to the MMPI are graded by computer, so that the tester never sees the individual who may be labeled a schizophrenic or neurotic on the basis of the results.

The tests described above are some of the more popular personality inventories used today in industry and education. Many others are produced en masse and sold to interested firms. Martin Gross, in his book The Brain Wasters, makes mention of the "psychological rain forest" on New York's East Side, where several large firms mail out tests to industrial clients and also produce individual profiles from the computerized results of potential and present employees. 3 And more firms in other parts of the country are making a profitable business from this expanding trade. 4

Testing personality in industry and education

In preparing his book Privacy and Freedom, Alan Westin sent out a

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1 Gross, op. cit., p. 107. The nine scales are: schizophrenia, psychopathic deviates, hypochondriasis, hysteria, depression, paranoia, psychasthenia (phobias), hypomania (mild insanity), and masculinity-femininity.

2 For a table of these and other MMPI questions, see Cronbach, op. cit., p. 528.


4 A list of such firms may be found in Cronbach, op. cit., p. 695.
questionnaire to some three-hundred corporations concerning their use of personality tests. He received replies from over two hundred firms, and the information he secured offers a good insight into the use of these tests by industry today.\(^1\)

Of the firms which answered, 46\% stated that they did use personality tests at some time. Westin could make no generalizations about the users; they ranged from Delta Airlines and Hershey Chocolate to Tidewater Oil and Warner Brothers. Most tested less than 20\% of their employees, but in doing so, sixty firms used their own staffs for evaluating the results, while only fourteen brought in professional psychologists. As for the preservation of the results, half of the corporations kept them in general personnel files, one-third in special dossiers or in those kept by the psychologist, and only four had the results destroyed.\(^2\)

The fact that many firms have their own people, rather than outside specialists, interpreting the results, which are then very often placed in generally accessible files, has led to much criticism of the manner in which personality tests are administered. In addition, several authorities in the field of psychology have questioned the very validity of these tests. Lee Cronbach, the author of *Essentials of Psychological Testing*, points out that most studies on this subject have shown that personality tests are poor indicators of employee performance. He has this to say of their shortcomings:

> Inventories can inquire only about one's general style, not about what he does in particular situations. Regardless of what a person is prone to do when choosing

\(^1\)The results of the survey are discussed in Westin, *Privacy and Freedom*, pp. 136-138.

\(^2\)Ibid., pp. 136-138.
freely, he adapts to demands...Personality, as commonly measured, probably has much to do with the sort of work a person seeks, but little to do with his ability to perform a role when he is thrust into it.¹

Finally, one must question the theory behind a series of tests which ask that the applicant, who is often vying for a position demanding creativity and personal initiative, give answers that conform with the thinking of the average, "normal," person.

Many of the same criticisms are voiced regarding the use of personality tests in the public schools. Elementary, junior high, and high school students have been exposed to programs such as Project Talent, begun in 1960 and financed by the federal Office of Education. Besides being tested in academic subjects, the one million high school students involved were asked to complete personal information, activity, and interest inventories, with the computerized results sent back to school guidance counselors.²

One of the more vociferous complaints regarding personality tests in the schools is that they are most always administered without parental consent. In 1967, parents reacted with an outcry when their ninth-graders in a Bronx school were subjected to the MMPI without any prior notice or request for permission.³ In many cases, the question of parental consent has become the focus of the debate over personality tests in education.

The use of these tests can be a helpful tool for diagnosing ob-

¹Cronbach, op. cit., pp. 547-548.
³Westin, McCall's, pp. 58, 118.
viously disturbed children on an individual counselor-to-child basis. But when they are used to hunt out the emotionally unbalanced and are evaluated by guidance counselors and teachers who are often untrained for such a task, the results can be most damaging to the student. The great risk is that these tests, which have generally been disappointing as predictors of academic performance, will be used to direct a student toward interests which do not coincide with his talents, or because of his poor test performance, to place him in an inferior section where he is likely to receive less attention.

**Future uses and restrictions**

In an effort to placate the critics and increase the effectiveness of personality tests, researchers have done work in the fields of drugs and brain signals. Truth drugs such as scopolamine, sodium pentathol, and LSD-25 sometimes enable the individual to speak freely of things he usually is unable to disclose, but lack of reliability, in addition to the question of privacy, has deterred their extensive use. A potential development of the future is the interpretation of brain waves to read the individual's thoughts. Through computer analysis of brain signals, scientists have already discovered a way to screen out extraneous signals and determine what color a person is viewing.²

However, the factor of testing efficacy overlooks a more significant question: should psychologists, employers, or counsellors have the right to delve into our private thoughts at all? A more dangerous threat to our

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¹ Cronbach, op. cit., p. 549.

² Westin, Privacy and Freedom, pp. 154-155.
privacy than the future reading of brain signals seems to be the attitude expressed by those who look upon such developments as a necessary cure for humanity. Professor Starke Hathaway, one of the co-authors of the MMPI, wrote several years ago:

Personally I favor a more fundamentally aggressive position that asserts our sincere aims and desires to make genuine contributions toward happier personal and public lives. Our integrity and sincerity accepted, we should then be expected to invade personal psychological privacy as surely as physicians are expected to examine individual bodies and their intimate contents.\(^1\)

Such a statement implies that in order to achieve a greater degree of progress and happiness, we should be willing to sacrifice the individual freedoms which are the very foundation of our society. The reasoning follows that, in order to further industrial development, we should allow employers to select personnel who display on psychological tests the traits which one needs to succeed in the available positions.

In answer to this, Professor Arthur Miller states: "The elimination of economic waste in the allocation of the nation's human resources obviously is a goal of enormous social significance. But that does not mean we must pay any price to achieve it."\(^2\) Personality tests which question our innermost thoughts should be looked upon as a serious invasion of privacy. Therefore, states must enact laws which prohibit employers to use for the purpose of screening any test which includes questions in reference to such items as the applicants' religious beliefs, sexual desires, family relationships, or intimate feelings. Miller

\(^1\)Ibid., pp. 268-269.

\(^2\)Miller, op. cit., p. 98.
would permit these tests to be given to those who seek positions which affect
the well-being of many others, such as air traffic controllers and commercial
pilots.\(^1\) The problem here is drawing the line between those jobs which
are and are not in the public interest, one which might better be solved by
generally outlawing all employee personality tests and having employers
make conventional reference check-ups on these particular applicants.

With regard to testing in public schools, this method only has a
place in the case where an obviously disturbed child can be helped by a
qualified guidance counselor who possesses adequate training, such as a
master's degree, in the psychological sciences. At all times, parental
consent should be obtained before proceeding with personality tests. The
child's willingness to take the test, despite the opposition of his or her
parent, should not be deemed a justification for administering a personality
inventory. Any public school student who might be given such a test would
in all probability be a minor. His age, in addition to his emotional in-
stability, would certainly make him unqualified to comprehend the sensitive
nature of the examination. Thus, the willingness of the child notwithstanding,
parental refusal should constitute sufficient grounds for prohibiting the testing
of the student.

To those psychologists who would interpret the banning of these tests
as an infringement upon their freedom of scientific investigation, it must
be pointed out that such laws would not preclude the use of personality
inventories which do not intrude upon the individual's privacy. The study
of psychology has provided us with great insight into the workings of

\(^1\text{Ibid.}, \text{p. 98.}\)
the human psyche, but it cannot be allowed to invade the freedom of the individual in the name of future well-being. It is then incumbent upon the psychological profession to devote more time to the development of experiments and tests which, while exploring the individual's behavior, also respects his right to privacy.

E. Conclusion

The widespread use of physical and psychological surveillance techniques today is inimical to the functioning of a democratic society.
which values the inherent rights of its citizens. The exposure of our children to comics, television programs and movies which present the art of snooping in a favorable light, and to personality tests which delve into their innermost thoughts, is a particularly dangerous development.

For, as Alan Westin notes, these children are the ones who will constitute a considerable segment of the American electorate by the "ominous" year of 1984.

...the mass media's enthusiasm for spying techniques creates a readiness in children to adopt such methods. And it is far from comforting to think that a generation raised on the thrills of eavesdropping...will be the voter's called on to set the balance between personal privacy and...surveillance in the 1980's...

Will children weaned on school personality tests be likely to say no to the corporate personnel officer who slides a personality-test packet across to him when he applies for a job?...Will the young adults of 1984 even think there is any issue of privacy in answering the personal questions on such tests when applying for jobs with private industry or the government?¹

This paper has examined some of the primary examples of private surveillance in American society today, and has offered some suggestions as to how our rights can be protected against unnecessary physical and psychological intrusions. A brief summary of the findings and recommendations now follows.

Physical surveillance

Manufacturers of surveillance devices and companies producing less sophisticated gadgets offer their goods and services to both the bugging expert and the amateur snooper. Private eyes, corporate spies, and industry

¹Westin, McCall's, pp. 58, 118.
frequently eavesdrop upon unsuspecting employees and other individuals, permitting their targets few places in which to express their thoughts or conduct their work in private. There is an urgent need for all states to adopt anti-
eavesdropping statutes which outlaw this unethical practice and forbid the manufacture, mailing, and advertising of devices which are likely to be employed for surveillance purposes. But Federal and state laws in this direction will not be properly enforced until the general public understands the serious danger of private eavesdropping and voices its outrage at this unchecked practice. In order to motivate a moral consciousness regarding this issue, civil liberties and public interest groups, and also the mass media, must bring the problem to the attention of the public.

**Psychological surveillance**

Here we must make a distinction between the purposes of polygraph examinations and of personality tests. The use of the polygraph in industry does not represent a serious threat to the privacy of the prospective or present employee. It is designed primarily to determine whether an individual has committed a theft or partaken in past acts of a criminal nature which make him a risk for prospective or continued employment. The questions on the test are merely answered either "Yes" or "No", and the results of polygraph tests have been particularly helpful to industry in ascertaining the guilty, as well as in confirming the innocent. Those abuses which have occurred in the use of the polygraph can be remedied by state legislation which sets minimum qualifications for examiners, and also by the establishment of a code of ethics for the profession. In addition, state legislation should be enacted to prevent an employer from dismissing or failing to hire
a worker because of his refusal to take a polygraph test.

Personality tests, on the other hand, do constitute a serious infringement upon the individual's privacy. The sensitivity of questions relating to family background, sexual activities, and political and religious beliefs cannot be justified for the purposes of personnel screening or academic evaluation. Also to be taken into account is the fact that unqualified staffs and counselors often interpret the answers to these tests, and that the results have not been generally indicative of a worker's or student's performance. The use in industry and education of personality tests which ask such intimate questions as the ones mentioned above should be prohibited by state legislation. The only exception should be made for qualified guidance counselors working with obviously disturbed children. At all times, parental consent should be required before conducting such a test.

Private eavesdropping, besides posing a serious threat to the right of privacy, also brings up the issue of conformity in a democratic society. De Toqueville, in his political work Democracy in America, warned Americans as to the consequences of the tyranny of majority opinion in our nation, capable of suppressing independent thought and freedom of discussion. ¹ The widespread use of physical and psychological surveillance can give rise to the same dangerous result. While we are a far cry from 1984, the growing use today of electronic bugging or personality tests increases the likelihood that victims of such surveillance will be more likely to conform their ideas, practices and routines to those of the average, "normal" individual. The time

¹Alexis de Toqueville, Democracy in America (edited and abridged by Richard D. Heffner), pp. 114-117.
has come for increased awareness of the dangerous consequences of private
eavesdropping, an awareness which should be translated into a general public
consciousness and also effective legislation.

Robert A. Wolf '73
VI. APPENDIX

Subjects of Polygraph Examinations

Having already had an interview with a polygraph examiner at Dale System, Incorporated, I recently attempted, for the sake of fairness, to secure some opinions on the use of the instrument from those who have taken polygraph tests. For three days, December 7-9, I ran a classified ad in the Daily Princetonian asking for responses from anyone who had been subjected to a polygraph examination. In all, I received replies from five students, and a brief summary of their experiences with the polygraph follows.

Two students underwent tests while being in the employ of McDonald's, the famous hamburger chain. From my conversations with them, it would appear that McDonald's requires periodic testing of its employees. One student had no trouble in passing his examination, but the second was fired from his job on the basis of his test results. He admitted to having given away for free some five dollars worth of food, but felt he had been unjustly dismissed since several workers whom he believed to have offered greater amounts of food free of charge were retained. His bitterness on account of this experience was directed more at his boss than at the examination, especially since he had freely admitted his share of guilt.

In a third case, a girl applying for a secretarial position was requested to take a test. In order to secure the job, she purposely lied on the exam as to her age and her intent to remain at the position. Since the girl was subsequently hired, she considered the polygraph test a "farce," because, in her opinion, it had failed to reveal both the fact that she
was underage and that she only intended to stay at the job for a short period of time.

Another student was required to take a test prior to being employed as a security guard. He saw an obvious need for testing those who applied for positions in this responsible line of work.

A fifth student was asked to take a test while working in a cigar warehouse. He stated that employees there were subjected to a polygraph examination once every six months. None of the five students interviewed were asked any questions of a personal nature, but this last individual maintained that several fellow workers at the warehouse were asked questions on the exam which would be considered quite personal. He therefore felt that the polygraph constituted an intrusion upon privacy, although he also related that an employee at the warehouse who had committed a substantial theft was found out during a polygraph examination.

It would be foolhardy to make many conclusions regarding the polygraph on the basis of having spoken with merely five of the some 200,000 individuals who annually take polygraph tests. None of the five were asked personal questions, yet it is common knowledge, even in the polygraph profession, that examiners often make sensitive inquiries. As far as accuracy is concerned, the experience of the secretary may have been just as much the result of poor judgment by an unqualified examiner or of relaxation of standards by the employer as the consequence of an inherent shortcoming in the polygraph itself. In the case of the student fired by McDonald's, the polygraph accurately reported the truth. One might take sides with the employer's dismissal of a worker who had shortchanged him of a mere five dollars, but in this day and age, whether unfortunate or not,
that is an employer's prerogative.

One item which did interest me in evaluating these interviews was that in all five cases, the individual was required by the employer to take a test--this despite the fact that several of the students were asked by the examiner to sign a "voluntary" affidavit prior to the test. Although none of the students refused to take the test, several admitted that they were not aware of any procedure for those who did so refuse. These interviews further pointed to the need for laws which prohibit discrimination in hiring and dismissal of employees who refuse to take a polygraph examination.

Statistics Regarding the Polygraph and Employee Theft

A factor which proved an obstacle to my research on the polygraph was the lack of statistics concerning the use of the instrument in combatting employee theft. Except for the figures of the Council of Polygraph Examiners on job applicants who were tested for positions of trust (see page 22), I was unable to find any useful statistics on this subject. Therefore, I wrote a letter to Dale System, Incorporated on December 9, 1971, asking them if any such figures for their company or for polygraph firms as a whole were available, and if the money being invested in polygraph testing was producing dividends by uncovering or preventing employee theft. Dale's reply, which appears as the last page of this appendix, was that no such figures have either been formulated or published.

As has been already mentioned in this paper, one of the problems in obtaining these statistics is that it is very difficult to measure the amount of theft which has been prevented by the deterring effect of the polygraph. In addition, while polygraph testing does reveal crime, examiners often do not check up on the amount of losses which a company eventually
recovers. Nevertheless, though it would be next to impossible to ascertain how much theft is being prevented by the polygraph, it might prove beneficial for the Council of Polygraph Examiners to make a study of the investment being made by private industry in polygraph testing today. This type of study would hopefully shed light on some of the abuses in the profession and would recommend legal steps and other measures for rectifying the situation.
December 13, 1971

Mr. Robert Wolf
311 Cuyler Hall
Princeton University
Princeton, New Jersey 08540

Dear Mr. Wolf:

Thank you for your letter dated December 9, 1971 with reference to your paper on polygraph services.

Unfortunately there are no published figures available nor do we have any analysis of the break-down of such figures. We do however thank you for your concern and if there is anything further we can do, please do not hesitate to contact us.

Very truly yours,

DALE SYSTEM, INC.

Harvey Yaffe
Vice President
VII. BIBLIOGRAPHY

Bibliographies Prepared by Other Writers


Books and Pamphlets

Brenton, Myron. The Privacy Invaders. New York, Coward-McCann, 1964. Brenton's book is considered one of the more popular exposés on present invasions of privacy. However, the author's few illuminating facts and insights are overshadowed by his obvious exaggerations and sensationalism.


Cronbach, Lee J. Essentials of Psychological Testing, 3rd ed. (under the editorship of Gardner Murphy and Wayne H. Holtzman). New York, Harper and Row, 1970. This is a most comprehensive textbook dealing with theory and techniques of psychological testing. A basic familiarity with the terms used in the behavioral sciences is suggested before reading this volume.

Dale System, Incorporated. Polygraph. New York, 1970. This brief pamphlet is an excellent summary of the interview which I had with a staff member of Dale in October 1971. It discusses the principal uses and success of the polygraph in industry today.


Gross, Martin L. The Brain Watchers. New York, Random House, 1962. Brain Watchers was the first book of the 1960's to expose the dangers of psychological testing. However, like Brenton, its author indulges too often in generalization and sensational items.


Security against loss in industry! Baltimore, Jerome Rosenbloom Advertising, 1970. This pamphlet and the one above describe the activities of one of the better known detective agencies with offices in all parts of the country.


Reid, John E. and Inbau, Fred E. Truth and Deception: The Polygraph ("Lie-Detector") Technique. Baltimore, Williams and Wilkins, 1966. This book is probably the finest source available on polygraph testing and technique.


Periodicals


"How to Steal $4 Billion." Newsweek. 69: 76-78. May 1, 1967.

Though quite brief, this article points out the dangerous consequences of exposing our children to surveillance techniques in comics, on television, and in the movie theater.


Government Publications


Interviews
