

UNDERSTANDING THE ROLE OF LIE DETECTORS IN CRIMINAL JUSTICE/ CRIMINAL ADMINISTRATION

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ABSTRACT

There is no end in sight to the current debates and conflicts surrounding the application of machine learning, particularly in criminal justice contexts. However, it would be helpful for developers, practitioners, and regulators to consider the comparable justifications put forth when polygraph machines were initially introduced in the United States 100 years ago¹. While machine learning and polygraph devices function in very different ways, at their core, they both aim to anticipate something about a person based on how others have acted. This article discusses the use of polygraphs in criminal investigations throughout history from a historical viewpoint, drawing comparisons to the topic at hand. It could be argued that the promotion of lie detectors helped to advance a legal realist reform movement, which is still present in discussions about the use of machine learning in situations where 'public good' objectives are at stake. This raises issues for the fundamental principles of the rule of law to be best upheld.

Keywords: Criminal Justice, Criminal Investigations, Polygraph Machines.

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INTRODUCTION

A lie detector test uses a gadget to track the physiological changes a participant experiences when they reply to questions or statements. In the US, polygraphs are the most often utilized lie detector exams². When a subject reacts to a question or statement, an instrument called a polygraph measures any unintentional physiological changes in the person's body. According to the premise behind the lie detector test, when the subject is telling the truth versus when the subject is lying, these physiological reactions will differ. When you make a falsehood or honestly respond to inquiries about events that occurred in the past, these sensors that capture signals from different regions of your body (such as your blood pressure) allow someone to

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¹ Marion Oswald March 04 , 2020) Technologies in the twilight zone: early lie detectors, machine learning and reformist legal realism, tandfonline, <https://www.tandfonline.com/doi/full/10.1080/13600869.2020.1733758>

² June 2020, Lie Detector test, Cornell Law School,

https://www.law.cornell.edu/wex/lie_detector_test#:~:text=Polygraphs%20measure%20physiological%20arousal%20factors,versus%20when%20the%20subject%20lies

notice changes in your physiology (like whether or not you were at home last night). As a result, the phrase "lie detector test" is somewhat misleading because the test does not assess the veracity of the response or statement; rather, it assesses the subject's level of fear, stress, and anxiety as they respond.

A polygraph is a tool in which many sensors attached to a person measure his/her physiological responses in response to stimuli such as words or questions. The measurements are then analyzed by computer software to determine whether or not the person being tested has told lies during questioning. Polygraphs are commonly used by law enforcement agencies for some types of criminal investigations, including child abuse cases, drug trafficking cases, and murder investigations; however, they have also been used in many other situations, such as perjury hearings conducted by Congress or federal courts.

The most common polygraph method involves measuring blood flow through arteries under pressure (also known as arterial pressure). Other methods involve measuring electrical activity in muscles (electrocardiography), sweating (tomography). A lie detection may be conducted with the help of one or more sensors that record the vital signs, including breathing rate, pulse, blood pressure and perspiration.

The sensors usually record:

- The person's breathing rate
- The person's pulse
- The person's blood pressure
- The person's perspiration

Polygraphs are commonly used in law enforcement and corporate investigations to determine whether a subject is guilty of a crime. During the course of the polygraph test, a subject's vital signs are monitored by means of a moving paper sensor attached to the wrists and ankles³. The examiner can look at the graphs both during and after the test to determine whether any vital signs on any of these questions dramatically altered. Generally speaking, a considerable shift (like a faster heart rate or higher blood pressure) suggests that someone might be lying.

³ April 2021, How does a lie detector (Polygraph) work? <https://science.howstuffworks.com/question123.htm>

A polygraph test can accurately detect if a person is lying, but because the examiner's interpretation is subjective and because different people react differently to lying, a polygraph test is not perfect and can be fooled. The tool evaluates variations in a person's blood pressure, pulse rate, and sweat that occur when a question about their actions or attitudes is asked during a period of time when the subject has been asked to lie. The subject answers truthfully before the questioning begins and then again after it ends.

The examination begins with a baseline measurement, which takes place before any questions are asked. The examiner then asks questions designed to elicit certain responses from the subject. These questions are recorded as physiological responses on a graph or chart called a "scalp diagram."

If there are no changes in these measurements during a period of questioning time (usually 30 minutes), this indicates that there were no lies told by that particular person at that time. If there are changes in those measurements during questioning time (usually 30 minutes), this indicates that either they lied or they could not keep track of their own physiological responses so accurately at all times (which might indicate some sort of nervous system disorder).

In fact, the accuracy of a polygraph depends on the skill of an examiner and the subject's willingness to cooperate. A well-trained examiner can detect lying with high accuracy, but this is not always the case. Because the interpretation of a polygraph test is subjective, different people may react differently to lying. This can lead to errors in interpretation and therefore inaccurate results.

In order to protect the innocent, many countries have introduced the rule of presumption of innocence. The first self-incrimination privilege was introduced in 1795 when the principle of *Nemo tenet seipsum proditor* was established. This principle means that no one is bound to accuse himself⁴. This rule was introduced in order to protect from self-incrimination. The presumption of innocence is a legal term that refers to an accused person to be presumed innocent until proven guilty. When this principle was first established, it was not only used in court proceedings but also in everyday life. In order for someone to be considered innocent, they needed to prove their innocence by showing that they were not guilty of committing a crime or other wrongdoing.

⁴ Self Incrimination, JUSTICIA US LAW, <https://law.justia.com/constitution/us/amendment-05/07-self-incrimination.html>

This concept was later modified when courts began using scientific methods such as polygraphs and lie detector tests as evidence for guilt or innocence. These methods use physiological responses such as breathing or blood pressure changes to determine whether someone is telling the truth or not. This principle has been criticized by many people over the years because it limits a person's freedom and can lead to false accusations.

The first lie detector test was invented in 1879 by a German physician, Gustav Theodor Fechner, who developed a method for detecting deception based on measuring changes in body temperature. In 1921, Arthur Conan Doyle published *The Hound of the Baskervilles*, in which Sherlock Holmes uses a polygraph machine to determine whether or not Sir Henry Baskerville is guilty of murder. In 1925, Wilhelm. Marr invented the electroencephalograph machine, which measures brain electrical activity by attaching electrodes to an individual's scalp and recording electrical signals generated by neurons in response to external stimulus⁵. It was used by psychiatrists during World War II as an objective way of identifying traumas such as rape or child abuse without relying solely on memory recall by victims.

The use of lie-detector tests to prove a person's guilt is not only unethical but also unconstitutional. Any accused person in a criminal case where the burden of proof rests with the prosecution is protected from self-incrimination in India under {Article 20(3)} of the Indian Constitution⁶ and {Section 161(2)} of the Code of Criminal Procedure⁷. It is therefore obvious that if you respond to a question using a tool like a polygraph test and later make statements that contradict those made under questioning, you are violating your right not to be subjected to self-incrimination.

This doesn't use any force. However, this does not mean that it doesn't have its own set of ethical considerations. Since polygraphs are considered scientific devices, they must meet certain standards before they can be used in courts and other judicial proceedings. In any criminal matter in which the burden of proof rests with the prosecution, Article 20(3) upholds the presumption of innocence of the subject. Hence, it can be determined that the use of this machine would cause a violation of this principle by causing self-incrimination guaranteed by A. 20(3)⁸.

⁵ Paul L. Nunez and Ramesh Srinivasan ,Electric fields of the brain, <https://brainmaster.com/software/pubs/brain/Nunez%202ed.pdf>

⁶ The Constitution of India, article 20(3)

⁷ The Code of Criminal Procedure, 1860, section 161(2)

⁸ The Constitution of India, article 20(3)

FIDELITY OF THE POLYGRAPH

Although this technique has several advantages, is it accurate and precise? The polygraph test's precision and accuracy are questionable. Let's investigate why.

The main problem derives from the idea behind the polygraph test, which is that changes in physical functions might occur for causes other than lying. For instance, physical or mental issues like worry, tension, fear, trembling, depression, or other emotions might have an impact on body functioning and result in an incorrect reading of the polygraph test. Thus, it becomes evident that there may be reading anomalies caused by the aforementioned issues as opposed to lying. Other elements, such as the setting in which the test was administered, the questions asked by the investigating officers, and the tone in which they were delivered, all significantly influence how the polygraph test results are interpreted.

Polygraphic test findings can be manipulated by those with the capacity to suppress the arousal response; this capacity is acquired via the practice of relaxation techniques like yoga or meditation. Therefore, the polygraph's accuracy is questionable; while it may occasionally be useful, it also has the potential to give agencies false information. As a result, these tests cannot be used as evidence in a courtroom.

POSITIVE IMPACT OF THIS TEST

The polygraph established a new standard for the use of truth-verification technology during police interrogation procedures and opened the door for subsequent advancements. The polygraph community has devoted members and a strong lobby; however, there is still a controversy surrounding its reliability. However, many of the examiners trained to utilize this technology are reluctant to invest in newer technologies.

The basic principle behind polygraph testing is simple: it measures changes in breathing rate and blood pressure associated with different types of deception that might occur during an interview with someone suspected of lying. If a subject passes a test (the instrument measures his or her level of stress), then he or she has passed a lie-detector test and can be ruled out as a suspect in any case involving possible deception during questioning. Nineteen states permit polygraph testimony under specific rules that apply only to those states, and polygraph evidence has been entered into evidence in court successfully.

This technology has been used for pre-employment screening in the private as well as public sectors. One of its key benefits is the ability to utilize the polygraph to coerce confessions from test subjects when they feel their lying has been discovered. Today's polygraph examiners can now access information regarding the test that was never before accessible and, in some cases, prohibited from public distribution thanks to the Internet. These people have begun to turn the tables on the polygraph by recognising its various weaknesses, which are detailed on websites like anti-polygraph.com.

HISTORICAL BACKGROUND OF LIE DETECTORS

In the early 1900s, a British doctor named Henry Murray invented what he called the "lie detector." Using sensors to detect changes in blood pressure and respiration, Murray's invention could determine whether or not a person was lying.

In 1923, US Army Colonel William S. Donovan used the lie detector to determine whether or not Japanese soldiers had been involved in a plot to attack Pearl Harbor. The test was successful, and it helped lead to the end of World War II⁹.

In 1950s America, polygraphs were introduced as a way for employees to be screened before they were hired at companies like IBM and AT&T¹⁰. The polygraph quickly gained popularity throughout industries like law enforcement, government agencies and private employers who needed to weed out employees who might be compromised by external influences like bribes or blackmailing tactics from inside their organization.

In recent years, researchers have been trying to improve upon this technology by developing new methods that can detect even more subtle signals like micro-expressions—small facial expressions that reveal hidden emotions such as fear or surprise—or gesture-based cues that can help identify lies more accurately than traditional questionnaires.

The polygraph is incorrectly referred to as a "lie detector" in common usage. Although it is possible to measure the psycho-physiological reactions induced by stress from lying, there is no reliable scientific approach for lying detection. This concept served as the foundation for

⁹Robert B. Stinnet, „Day Of Deceit The Truth About FDR And Pearl Harbor,<https://ia802802.us.archive.org/24/items/dayofdeceit/Day%20of%20deceit.pdf>

¹⁰ John Baesler, „July 2019, Why Lie Detector tests can't be trusted,<https://www.smithsonianmag.com/innovation/why-lie-detector-tests-cant-be-trusted-180972724/>

both the polygraph and later, more advanced truth-verification technology, including the machine Voice Stress Analyzer.

In 1921, the polygraph was invented by John A. Larson, an American psychologist and inventor who worked at Harvard University's Psychological Clinic. He had a fascination with how people gave different answers to different questions—he believed that it was possible to use physiological measures (such as blood pressure) to detect deception. His research was published in 1929 and became popular with law enforcement officials around the world¹¹.

An instrument called a plethysmograph was used by Italian physiologist Angelo Mosso in 1878 to assess people's respiratory and circulatory responses as they were being questioned. Other researchers improved on his work. The first modern lie detector was invented in 1939 by Leonard Keeler, who patented the polygraph. The polygraph is a device that records an individual's pulse, blood pressure & respiration rate when they are questioned¹². It then compares the results to those of another person who is not being questioned. If there are differences between the two sets of readings, then it can be said with certainty that one individual is lying while the other is telling the truth.

However, there are many factors involved in determining whether or not someone is lying: their physiology can vary depending on their state of mind; their emotional state can also affect how they respond to questions; as well as their physical health can also be affected by medications or illnesses; finally, some people might even have an intuition about what will happen if they tell lies—this intuition could be mistaken for truth-telling by technicians trained in lie detection techniques.

The first polygraph was created in 1921 by Canadian psychologist John A. Larson when he was employed by the Berkeley (California) Police Department. He gave the tool the name "polygraph," which is a Greek word that means "many writing" in English. The polygraph measured and recorded arterial pressure, respiration, and pulse. To track the galvanic skin response, Leonard Keeler inserted sensors into the device in 1938¹³.

¹¹ July 2019, A brief history of the Lie Detector, <https://spectrum.ieee.org/amp/a-brief-history-of-the-lie-detector-2650278847>

¹² Brief history of the Polygraph, <http://www.kellypolygraphe.com/polygraph-history.php#:~:text=In%201939%2C%20Leonarde%20Keeler%20patented,the%20father%20of%20the%20polygraph.>

¹³ July 2015, A review of the polygraph: history, methodology and current status, <https://www.tandfonline.com/doi/full/10.1080/23744006.2015.1060080#:~:text=The%20first%20polygraph%20was%20created,1932%3B%20McCormick%2C%201927>

The polygraph model measures these responses using sensors that are attached to the body. Blood pressure cuffs are used to measure heart rate and arterial pneumography veins are used to measure breathing, and galvanometers are linked to the fingertips to determine perspiration.

These devices have been used for decades by law enforcement and intelligence agencies to detect deception in a subject. The device has been found to be very effective in catching criminals. However, it has also been found that its accuracy can be compromised by many factors such as the lies being told by the person lying or his level of stress at the time of testing.

In the late 1940s, Chicago attorney John E. Reid made improvements to the polygraph test. Reid went on to develop the Reid Technique, a style of inquiry and interviewing widely used by law enforcement whether or not a polygraph test is performed.

The Reid Technique is based on three principles:

- A subject must be able to provide complete and accurate information;
- A subject must be able to provide correct information about his/her own actions; and
- Subjects who lie during an investigation cannot be accurately detected by standard polygraph techniques.

Although it uses the same ideas and detectors as the analog polygraph, the current polygraph assesses data through an algorithm and outputs its findings on a computer application.

LEGAL PROVISIONS

CODE OF CRIMINAL PROCEDURE

In accordance with Section 53(1) of the Code of Criminal Procedure, upon police request, any medical professional may examine an accused person. In accordance with the provisions of section 53 (1) of the Code of Criminal Procedure, it is permissible for an authorised physician to act at the request of an officer of the law to not below the position of sub-inspector, and also for any person acting in good faith with his assistance and under his direction, to conduct this type of examination on a person who has been detained on suspicion of committing an offence when there are reasonable grounds to believe that the examination of the person will provide evidence. The important thing to keep in mind is that this portion gives forensic science access to criminal investigations.

This means that when there is a need for some kind of scientific investigation or examination like a lie detector test or polygraphs or sensors etc., then it has to be done by using section 53(1).

In accordance with Section 161(2) of the Code of Criminal Procedure, citizens have the right to avoid self-incrimination (Cr.P.C.). According to section 161(2) of the Criminal Procedure Code, "every person is required to answer truthfully any questions posed to him by a police officer, except that the inquiry whose response would have a tendency to subject that person to a criminal accusation, penalty, or forfeiture." The accused is given the right to remain silent, and any forced statement extraction is not permitted.

Police officers often use lie detector tests (polygraphs), sensors and voice stress analysis in their investigations. The use of these devices has been challenged in court by several individuals who have claimed that they are unreliable and violate their constitutional rights against self-incrimination.

THE INDIAN EVIDENCE ACT 1872

The remarks obtained during a polygraph examination or any other drug test cannot be used as evidence because they are not protected by any of the aforementioned requirements and are not discussed during the examination.

According to the provision under sec. 45 of the Indian Evidence Act of 1872, only certain types of evidence are permitted to be used in criminal proceedings. According to the clause, "All statements which the court authorises or requires to be made before it by witnesses in respect to questions of fact under investigation must be taken to be evidence." Thus, all statements obtained through this test or any other drug tester tool are admissible as evidence in a criminal trial.

In order for these kinds of tests to be considered "evidence", they must meet certain criteria:

1. Statements must be made voluntarily and not under coercion or threat of coercion.
2. The statement must relate to matters of fact, not opinions or subjective beliefs (i.e., you cannot use this kind of evidence if it relates only to your feelings about something).

3. The statement must relate only to what happened at the time it was made, not what happened earlier or later (i.e. if you were forced into giving a statement about what happened).

GUIDELINES OF NATIONAL HUMAN RIGHTS COMMISSION

(1) The capacity of lay people to distinguish lies from the truth "is just slightly better than tossing a coin," according to classic studies on lie detection.

(2) compiled the results of over 1,300 estimates of the relationship between behaviour and deception. The researchers reached the conclusion that more evidence is needed to definitively assess the possibility that someone is lying and that depending just on non-verbal behavior to tell the difference between lies and the truth is insufficient. The exhaustive meta-analysis by Bond and DePaulo on the efficiency of deception detection.

(3) People correctly identify 47% of deception & 61% of reality as non-deceptive, attaining an average rate of 54% accurate lie-truth discrimination, according to a study that aggregated results from 206 articles and 24,483 judges. This fraction barely increases for trained lie-catchers: Vrij

(4) studied studies on dishonesty detection that gave law enforcement officers a detection accuracy of 55.91%; nevertheless, experts' opinions may be biased by overconfidence in their findings.

(5) Lastly, there indicated no guarantee of reliability in detection even when people felt overconfident in their evaluation, as evidenced by a relationship of 0.04 among evaluations of accuracy and confidence in lie detection.

A set of guidelines for the polygraph or lie detector exam was released by NHRC on November 12, 1997, in response to an upsurge in complaints about the administration of a specific medicine into the subject's body during this test.

Only with the accused's consent does it employ the lie detector test. They shouldn't do the test if the subject objects.

A lawyer will assist the accused after he consents to the test, and either the lawyer or the police officer must inform him of all test ramifications, including any legal, physical, and emotional ones.

Only the accused's consent granted in front of any court judge can be recorded, After which, it would be considered an illegal and unconstitutional procedure under our law system because this kind of test is not allowed by any court order or law anywhere in India regardless of whether you want to take it or not, because it violates our constitution as well as our laws.

Legal representation for the accused who has agreed to this while the hearing before the Judicial Magistrate.

- Said assertions won't be a confession; rather, they will have the same legal standing as any other statement made in front of the police. Before the test, the subject will be informed of this.
- Each component of the incarceration, including the length of the imprisonment, must be considered by the magistrate. The responsibility of recording the lie-detecting assessment, which should be conducted in front of a lawyer, should be given to an impartial agency.
- There should be documentation of the information's medical and factual narration.

CASE LAWS

Smt Selvi & Ors. V. State of Karnataka¹⁴

Facts:

Concerns regarding occurrences whereby those suspected, witnesses, and accused individuals were subjected to neuroscientific tests beyond their knowledge or consent led to the Supreme Court in this case to issue a special leave petition. The Court considered whether it was constitutional to use neuroscientific procedures to gather evidence, such as polygraph testing, BEAP or "brain mapping," and narco-analysis. The polygraph test keeps track of physiological responses like respiration, arterial pressure, heart rate, and galvanic skin resistance in order to find lying or deception. Sodium pentathol is intravenously injected during narcoanalysis tests. This drug creates a hypnotic state in the individual, which reduces inhibition. In order to determine if a subject is familiar with a certain piece of information, the BEAP analyses brain activity in reaction to particular stimuli.

¹⁴ Smt Selvi & Ors. V. State of Karnataka,(2010) 7 SCC 263

Judgement: The invention of the challenged techniques, their specific applications, their employment in the justice system, the foreign legal precedence pertaining to their use, and the limitations of the techniques were all extensively examined by the Court in the beginning.

After considering the protection against self-incrimination, the court came to the conclusion that requiring a witness to agree to neuroscientific testing constituted testimonial compulsion and violated Article 20's ban against self-incrimination (3). The Court determined that in order for such neuro-scientific testing to be conducted freely, the conditions of Article 20(3) as well as the need for "substantive due process" must be satisfied. According to the court, the purpose of the privilege against self-incrimination is to guarantee that the testimony used in a trial is reliable because inadvertent statements are more probable to be false and endanger a person's integrity and dignity.

The Court claims that "most jurisdictions, in addition to worldwide human rights agreements," have identified the connection between the "right against self-incrimination" and the "right to a fair trial." The court held that the privilege against self-incrimination ought to be determined with adequate regard for how different elements of the right to individual freedom under Article 21—like the right to an impartial trial and significant due process—interact with one another in India while taking Article 20(3) into account.

The Court also upheld the ruling in *M.P. Sharma v. Satish Chandra*¹⁵, which held that Article 20(3)'s ban on testimonial coercion applied to anyone who had an accusation made against them that might lead to legal action. It was made clear that the right against self-incrimination applies equally to those who have been accused, those who have been questioned as those suspected in criminal cases, and those who witnessed who are concerned that their answers may put them at risk of being charged with a crime in a case that is currently under investigation or even in a case that is unrelated to the one that is under investigation.

The court further stressed that the *M.P. Sharma* case showed that bearing witness applied to all voluntary conduct, not only circumstances involving spoken evidence. The Court also considered the criteria established by *State of Bombay vs. Kathi Kalu Oghad & Others*¹⁶, which stated that "imparting information with respect to pertinent facts by through oral statements or statements in writing, by an individual that has a personal understanding of the information to

¹⁵ MP Sharma V. Satish Chandra(1954) SCR 107

¹⁶ State of Bombay V. Kathi Kalu Oghad and others(1962) 3 SCR 10

be expressed to a court or to a person holding an inquiry or investigation," could impact the right under Article 20. (3). In the end, the court decided that the results of the non-consensual use of neuroscientific methods would count as testimonial evidence for the intent to exercise a right within Article 20(3).

While legal requirements regarding proof might be used to breach someone's bodily privacy, the Court found that they weren't admissible as a defense for directing somebody to "impart private data about an important fact." In order to determine how to interpret the ban on self-incrimination as a component of "individual liberty" under Article 21, the Court took into account how rights interact. As a result, it was recognised that the provisions of A 20(3) & liberty of privacy would also be at odds, especially with respect to an individual's freedom to decide whether to speak up or remain silent. The Court ruled that using such techniques against a person's will would violate their right to secrecy.

The Court traced the evolution of the right to privacy starting with the instance of MP Sharma, noting that the Indian Constitution failed to explicitly establish a "right to confidentiality" in a way akin to the Fourth Amendment of the Constitution of the United States. This was done so as to confirm the constitutionality of warrants for searches that were given for documents in a case of misuse and embezzlement. Similar arguments were made in the case of *Kharak Singh v. State of Uttar Pradesh*¹⁷, where the Court discussed the legitimacy of police regulations enabling the police to keep a list of "history-sheeters" and conduct surveillance on them.

According to Justice S. Rao's minority opinion, "personal liberty" is defined as "a freedom that allows a human being to be unhindered by limitations or intrusions on his or her property, whether or not those restrictions or intrusions are imposed directly or indirectly." He additionally stated that the right to privacy "is a vital component of personal liberty." With the exemption of the rules that allowed for domiciliary visits, the majority decision claimed that these rules did not infringe on personal liberty. The Court looked at additional important instances that helped shape the right to privacy, such as *Govind v. State of Madhya Pradesh*.¹⁸ *R. Raj Gopal v. State of Tamil Nadu*, *Govind V. State of Madhya Pradesh*,¹⁹ and *People's Union for Civil Liberties v. Union of India*²⁰.

¹⁷ *Kharak Singh V. State of Uttar Pradesh* AIR 1963 SC 1295

¹⁸ *Govind V. State of Madhya Pradesh*(1975)2 SCC 148

¹⁹ *R. Raj Gopal V. State of Tamil Nadu*(1994)6 SCC 632

²⁰ *People's Union for Civil Liberties V. Union of India* AIR 1997 SC 568

As it considered the right to privacy, the Court brought up *Sharda v. Dharampal*²¹ issue. In this case, the civil court was allowed to impose a medical test that was deemed necessary to ascertain one party's mental state. The *Sharda v. Dharampal* case established that an individual's entitlement to privacy could be limited in the face of conflicting interests in addition to examining the aforementioned precedents. The Court did not examine Article 20(3) of the Constitution because *Sharda v. Dharampal* was a civil case; instead, it concentrated on the difference between testimony acts and physical evidence to set this apart from contemporary circumstances.

The Court concluded that while the fundamental goal of the idea of privacy was to shield one's body and geographic locations from invasive state acts, the right to privacy ought to take into consideration how Article 20 may be impacted (3). It was decided that subjecting an individual to the disputed practices was an infringement on the individual's right to privacy. Furthermore, it was determined that having such tests performed against the subject's will would violate Article 21's protection of the right to freedom because it amounted to inhumane and humiliating treatment, regardless of whether no charges of misconduct were brought against the person.

Since the accused must provide their agreement in front of a magistrate of the court while they are being represented by counsel, the Court decided that no examinations may be performed without it. The statement would be regarded as a statement given to the police rather than a confession. The test would be conducted by an outside organization with a lawyer there and every detail would be carefully documented.

*Vinod Mittal V. State of Himachal Pradesh*²²

Learned The petitioner in the current instance gave approval for these tests in his reply, and the Special Judge observed that when the accused does not object, the Court has the power to require him to respond to this test and furnish voice samples.

The Special Judge accepted the Investigating Agency's plea. The assertions stated in the reply could in no way be understood as the petitioner's unconditional approval of the testing, even if it turned out that the person submitting the petition had provided his or her consent to undergo the test recommended by the investigative agency.

²¹ *Sharda V. Dharampal* (2003) 4 SCC 493

²² *Vinod Mittal V. State of Himachal Pradesh*, 2020 SCC HP 764

On behalf of the petitioner, it is argued that no provision of Cr.P.C. allows the administration of the tests and that the legal admissibility of the tests, as claimed in the reply, was a requirement of the petitioner's readiness and willingness to submit to them. Therefore, the petitioner's conditioned consent is not valid as consent to take part in these tests because they are not permitted by law. In addition to the protections granted by Article 20(3) of the Constitution, it is asserted that the impugned order infringes on the petitioner's constitutionally guaranteed right to privacy.

A three-judge Supreme Court bench ruled in *Gobind v. The State of Madhya Pradesh* case that part III of our Constitution specifically safeguards individual autonomy, which is arguably the main issue of any form of limited government. The broad meaning of "privacy" raises serious questions about whether it is appropriate for judges to rely on a right that isn't explicitly protected by the Constitution. This will increase the likelihood that what is spoken in private may be overheard in public. The concepts of liberty and privacy naturally relate to one another because privacy primarily concerns the person. Although privacy advocates frequently attempt to precisely define the nature and boundaries of this right, it is difficult to do so. Privacy must be viewed in the context of other rights and principles.

It is stated in this judgment that the listing of citizens' freedoms and rights in the Constitution ensures that a person, his personality, and the things bearing his imprint should be free from interference by the authorities unless a legitimate cause for such interference exists. Furthermore, it should be underlined in this situation that no basic right is inalienable and that the privilege of privacy constantly needs to develop on a case-by-case basis.

In *Selvi and others v. State of Karnataka*, the Apex Court came to the conclusion that the protection of Article 20(3) reached to the compelled testimony that was obtained from them, making it suitable for the stage of investigation, and was not just limited to the trial stage in terms of the court's ability to compel testimony.

The results of tests like narco analysis, polygraph tests (lie-detector test), and BEAP (Brain Electrical Activation Profile) tests ought to be considered about testimony acts for the reason of claiming the right against self-incrimination, as was noted in the aforementioned *Selvi* case. Therefore, it would be wise to state that the phrase "and such other tests" that appears in the explanation of Section 53 of the Cr.PC ought to be interpreted so as to confine its meaning to include only those tests.

It is further noted in the aforementioned decision that, despite the absence of a statutory basis, it is probable to hold that criminal tribunals should be allowed to direct the challenged test with the subject's permission, particularly in light of the fact that there is no statutory prohibition against them either. Furthermore, it is noted that forcing a person to give testimony about their own case or engage in the procedures of a legal proceeding violates their right to privacy, which is protected under law. It also does not comply with any legal prohibitions and almost certainly violates constitutional protections against self-incrimination.

Last but not least, in Selvi's case, the Apex Court reached the following conclusion:

"In our opinion, the requirement that the contested methodology be used is a violation of the "right against self-incrimination." This is done so that that previous right, which is its essential rationale, will guarantee the reliability and voluntaries of assertions that are acknowledged as evidence. When read in conjunction with Section 161(2) of the Code of Criminal Procedure, 1973, Article 20(3)'s protective scope has been acknowledged by this Court to include the investigative phase of criminal proceedings. As a result, it now protects suspects, witnesses, and accused people who are interrogated during an investigation. The results of the test cannot be admitted into evidence if they were obtained under duress. Article 20(3) protects a person's choice of speaking or staying silent regardless of whether the subsequent testimony proves to be corroborative or exonerating.

Article 20(3) forbids the compelled "conveyance of private information that is pertinent to the information in issue". Each of the disputed tests' results has a "testimonial" character and cannot be taken as concrete evidence. Additionally, we think that compelling someone to go through any of the disputed processes violates the law's stipulation of "substantive due procedure," which is necessary to limit someone's freedom. This breach will occur whether these processes are required forcibly during an investigation or for any other purpose, since the test findings may subject an individual to undesirable consequences that are not criminal in nature.

It is not possible to interpret the statutory provisions, such as the Explanation to Sections 53, 53-A, and 54 of the Code of Criminal Procedure, 1973, that enable medical examinations during an investigation in criminal cases, to encompass the disputed techniques. Such an expansive interpretation is not conceivable given the concept of "ejusdem genericis" and the variables that affect how laws are construed in relation to scientific advancement. We've also covered how requiring any of these techniques goes against one's right to private ideas. It would

also qualify as "cruel, barbaric, or degrading treatment" under the vocabulary of evolving international human rights laws. Furthermore, relying excessively on the results of these techniques is against one's "right to a reasonable trial." Under the guise of a strong public interest, constitutional rights like "the protection against self-harm" can't be undermined.

We contend that nobody should be forced to employ any of the processes mentioned above, either as part of an investigation into a crime or otherwise, in light of our results. That would constitute an unwarranted interference with someone's right to privacy. We do, however, provide room for the contested procedures to be applied voluntarily within the structure of criminal justice, provided that the necessary safeguards are in place. If the subject has given permission to carry out any of these examinations, the outcomes of those tests by themselves cannot be admitted as evidence since the subject cannot exercise cognitive control over their responses while the exam is being delivered. However, any data or content that is subsequently discovered using the findings of voluntarily administered tests may be entered according to Section 27 of the Evidence Act of 1872.

Case laws are as important as the laws in the bare acts. When people make cases against each other, they seek justice and that can be done only by a judge that makes the judgments.

The written judgments of appellate courts on a legal issue are referred to as case law in this context. Judges are required to defer to the rulings of their predecessors and superiors when making decisions regarding legal issues. For the element of predictability in legal interactions to remain, the stare decise principle must be followed. Courts try not to contradict one another, and they are never able to do so with respect to another court that is higher up in the hierarchy of that jurisdiction. Written rulings specify which precedents are being followed and explain why this case should apply those specific precedents. The earlier cases are called "precedents".

When a lawyer makes a case before the appellate court, he is essentially arguing which precedents and lines of reasoning should be applied to the circumstances at hand. It is crucial to keep in mind that this theory of case law excludes jury and judge decisions based on the facts from consideration. Trial court judgments are generally not publicised in US jurisdictions, though there are some exceptions. Additionally, it's critical to keep in mind that a ruling is not a summary of a trial. In addition to establishing standards in situations where there is no applicable legislation, judicial decisions may also entail concerns of constitutional and legal

interpretation. Particularly in the fields of private law responsibilities (contracts and torts), personal and real property, there are significant aspects of American law that are still mostly unregulated. This ability to establish laws is crucial for resolving legal issues in emerging areas of the law, like surrogate parenting, before the legislature has the time to pass a statute that would apply to the circumstance. Every case that has been published contains an opinion as well as any possible concurring or dissenting views. The opinion is contained in the written justifications for the court's decision, and those justifications have precedential weight. Judges who write concurring opinions do so because they share the majority's conclusion about the case, but their reasoning differs from that of the majority. Judges who dissented from the majority ruling and felt it was crucial to record their positions do so in dissenting opinions. When a lawyer uses them in conjunction with other precedent that follows a similar line of reasoning, concurring and dissenting opinions can be persuading. Across all legal systems, the concept of legislation is quite simple to grasp. However, case law is especially significant in the United States because of our Common Law tradition.

CONCLUSION

It's still unclear if lie detector testing is constitutional. The only prerequisite is that the suspect, the accused, or the witness being tested must voluntarily cooperate in order for the Lie Detector Test to be administered. The decision to use this test is up to the investigative authorities, according to the Supreme Court. However, from a scientific perspective, the results of this test are still not considered as being legitimate and reliable.

The Polygraph test of the Lie-Detector test verifies the subject's statement by observing the physiological changes in the test subject's body. Since the findings of this test could be altered by the defendant if he has the capacity to control his emotions and physiological changes, they lack scientific value.

The right to "personal liberty" as described in Article 21 of the Indian Constitution, as well as the freedom from self-incrimination guaranteed by Article 20(3) of the Indian Constitution and Section 161(2) of the Code of Criminal Procedure, appear to be violated by lie detectors.

As long as humans have been fooling one another, people have tried to develop techniques for recognising lies and determining the truth. Methods for the psycho-physiological detection of dishonesty were developed in the 20th century, most notably polygraph testing. Modern

science was introduced to lie detection using these techniques. The polygraph equipment measures a number of physiological processes as well as changes in those processes.

Examiners can determine whether a subject is telling the truth or lying by analyzing charts of those measurements in response to questions on a polygraph test. The examiner may also make observations during the examination.

