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The Admissibility of Polygraph Test: Balancing Rights and Investigation in Jurisprudence

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Abstract
This research explores the legal and constitutional status of the polygraph test (PT) within the criminal justice system of Pakistan. It examines whether the results of PT can be treated as independent admissible evidence in court and whether its use violates fundamental rights, particularly the protection against self-incrimination and the right to dignity and privacy. For this purpose, this study adopts a qualitative doctrinal methodology which is supported through comparative analysis of jurisprudential observations from India, the United States, and the United Kingdom, along with a review of scientific and forensic literature. This study finds that that although PT may assist investigations, yet it lacks sufficient scientific reliability and legal recognition to serve as substantive piece of evidence. Courts in Pakistan have consistently rejected its admissibility. This study highlights its constitutional and evidentiary concerns. It concludes that integration of PT in criminal justice system must be accompanied by legal reforms, judicial-review, and procedural safeguards. This study while relying on Aharon Barak's doctrine of proportionality proposes a balanced framework to reconcile investigative utility with constitutional rights.

Keywords
Polygraph Test, Lie Detector, Self-Incrimination, Right to Dignity, Forensic Science, Proportionality Doctrine, Criminal Justice System

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1. Introduction

The polygraph test (PT), which is commonly known as a lie detector test, is an instrument-based analysis which is designed to measure and record physiological changes in a person during which they answer a series of questions. The name "lie detector" is to some extent misrepresentative. The modern PT emerged in the early 1920s as a device capable of checking multiple physiological responses. By the 1930s, instruments designed to measure respiration, cardiovascular activity, and perspiration—precursors to contemporary polygraphs—had been introduced (Grubin & and Madsen, 2005). However, since its inception, the application of PT as a "lie detector" has remained argumentative, with proponents and opponent's discussion about its validity, reliability and admissibility, as an evidence (Saxe et al., 1985).

J. Gordon in his work observed that there were many methods for determination of truth in history such as "trial by combat." Although combat had no link to honesty but there was a belief that divine power would ensure victory for the party who is true. The next step in the pursuit of truth came with "trial by ordeal"; this was on the basis of the belief that God would protect the innocent and prevent harm. Afterward, society introduced "trial by torture". It was based on the idea that an innocent person would endure extreme pain rather than dishonor. As the search for fairness continued, this method lost support and then come the "trial by jury." Though the jury system is just and humane alternative, yet its limited ability to detect deception in complex cases exposed its limitations (Gordon, 2016, p. 3-6).

As a consequence, a view emerged that scientific methods such as PT can be used as a tool for extraction of required information from accused persons to support in proceeding criminal investigations (U. Kavishriyazhini M.a., 2025). Although these are classified as scientific in nature, yet these methods lack absolute reliability, therefore, it raises concerns about their value as legal evidence during trial proceedings. There is an additional concern which relates to obtained information through PT as it is argued that these tests breaches the right against self-incrimination (Kamath, 2012). On the other hand, Doug Williams argues that the PT does not work reliably. Science shows it cannot tell if a person lies or tells the truth. Yet, courts, employers, and law enforcement still use it. Each year, U.S. authorities force two million people to take polygraph tests. Even honest people often fail these tests. To help people avoid harm from polygraph tests, Williams wrote a special work "How to Sting the Polygraph". The book teaches easy methods to pass the test (Williams, 2020).

Furthermore, application of scientific methods for identification of physical signs of lying can be traced in early work of Defoe's 1730 essays on the topic of street crime prevention. In that essay, he noted that *"guilt carries fear always about with it; there is a tremor in the blood of the thief"* (Segrave, 2003, p. 3) Defoe proposed a method which involves the accused's wrists and pulse to disclose falsehoods and truth. However, the development of lie detection techniques within physiology, psychology, and similar other fields occurred around the 1800s and early 1900s (Balmer, 2018, p. 6). It consists mainly of instruments commonly found in medical clinics. However, what gives it the function of a 'lie detector' is the specific procedure that is followed during the test. There are control questions which are applied as a method for questioning persons (Ben-Shakhar & Elaad, 2003).

Nevertheless, PT basically is a forensic device that measures a range of physiological responses, including blood pressure, heart rate, respiration, and electrodermal activity—i.e., changes in the electrical conductivity of the skin. These responses are connected with truth or lie (Synnott et al., 2015). The PT does not directly detect lies; instead, it detects physical signs of stress or anxiety in body that might be connected with lying. On the other hand, these physiological changes can also be caused by other emotions, such as nervousness or fear, not just deception. However, the term "lie detector" became popular because of its usage in criminal justice system (CJS) by investigation agencies (IAs), where the PT is usually represented as a tool for discovery the truth in criminal investigations and trials.

PT nowadays is being used by IAs worldwide. Its use is grounded in the assumption that deceptive answers produce physiological reactions which are different from those connected with truthful responses. This assumption has led to the application of PT in CJS: to narrow down accused or measure trustworthiness and reliability. However, the core assumption remains contested—both in terms of its admissibility as direct evidence and whether such tests violate the right against self-incrimination (Gallai, 1999; Saxe et al., 1985). The legal admissibility of PT results is a matter of ongoing debate in many jurisdictions (Honts & Perry, 1992; Saxe et al., 1999). The issue is not merely procedural but implicates foundational concerns within legal systems. On one hand, PT is perceived as useful tools in investigations (Rajan, 2019a). On the other, it also poses serious challenges to fundamental legal protections, particularly those which are afforded to the accused (Böse, 2014; Meijer & van Koppen, 2017; Wicker, 1951). Therefore, the main tension revolves around efforts how to balance investigation efficiency with the protection of constitutional and jurisprudential principles such as due process, the right against self-incrimination, and the integrity of the judicial process. This paper examines whether the results of polygraph tests can be treated as admissible evidence and whether

their use violates the constitutional rights such as against self-incrimination within the CJS of Pakistan. It further attempts to strike a balance between the requirements of criminal investigation and the acceptability of scientific investigation methods such PT in CJS.

This paper examines the issue of admissibility PT in the legal context of Pakistan. The legal system of Pakistan is shaped by its unique socio-legal dynamics and a constitutional framework that through its independent provisions protects fundamental rights (Mairaj et al., 2024; Sultan et al., 2024). In this paper, the discussion on the admissibility of scientific and forensic evidence, in the form of PT, is situated within this specific legal and institutional structure. Although forensic agencies in Pakistan, such as the Punjab Forensic Science Agency (PFSA), utilize polygraph tests during investigations (Abbas et al., 2024), upon request of local investigation agencies, however, the judicial and public acceptance of such evidence remains limited and undefined (Shah, 2025).

1.1 Research Questions and Methodology

This study is guided by the following key research questions:

1. What is the current legal status and evidentiary value of PTs in CJS of Pakistan?
2. How have Pakistani courts interpreted and applied the results of PTs in criminal investigations and prosecutions?
3. What are the major constitutional and jurisprudential arguments for and against the admissibility of PT as evidence, particularly in light of the right against self-incrimination, privacy, and human dignity?
4. To what extent does the use of PT in Pakistan align with international standards and what are comparative legal practices regarding this scientific evidence?
5. How can the CJS in Pakistan strike a principled balance between the investigative utility of PT and the protection of fundamental rights?

To answer these questions, this research adopts a qualitative, doctrinal legal research methodology, which is supplemented by comparative insights. The doctrinal legal analysis is employed for the reason that the core of this study involves an in-depth analysis of constitutional provisions, statutory laws, and case law from Pakistani courts, particularly judgments from the Supreme Court of Pakistan and High Courts, in order to evaluate how PT evidence has been treated. Key constitutional rights such as Article 13 (protection against self-incrimination), Article 14 (inviolability of dignity of man), and Article 10-A (fair trial) are analyzed for PT use.

Furthermore, for the comparative jurisprudence this research explores, however briefly, the legal treatment of PT as an evidence in selected jurisdictions such as the United States, India, and United Kingdom, to understand standards of admissibility, and relevant safeguards. Focus is made on both admissibility standards and constitutional challenges. This study also has reviewed relevant psychological, forensic, and criminological literature within the context of the subject. Research from scientific journals and expert opinions from academic publications has been utilized to cover the topic.

One major limitation of this research is the unavailability of secondary data from official sources such as the Punjab Forensic Science Agency (PFSA), investigation agencies, or courts regarding the operational use of PT in Pakistan for the reason that no such comprehensive data collection is available at relevant forums. Despite this limitation, an effort has been made to evaluate whether and how PT results could be positively used in the CJS of Pakistan without compromising constitutional protections. In the end, this study proposes

legal reforms with an aim to ensure a fair balance between investigative efficiency and the protection of fundamental rights.

2. The Science and Applications of Polygraph Test

The scientific principles behind PT is that it is a physiological measurement which is designed to detect deception through monitoring the involuntary responses of the body to specific stimuli, particularly during questions. It operates on the premise that psychological states in humans such as fear, anxiety, or stress, which are often associated with lie, activate the measurable changes in autonomic nervous system activities. Then the record is collected through three primary channels: cardiovascular activity (blood pressure and heart rate), respiratory rate, and electrodermal activity (changes in skin conductivity due to perspiration). For this purpose, these indicators are captured through non-invasive sensors which are placed on the body of the person under examination. The basic theory is that deceptive answers produce more physiological arousal than truthful ones, and this produce discernible patterns, which are used in the analysis (Ansley, 1997; Honts & and Amato, 2001; Iacono, 2007; Rajan, 2019b).

However, it is important to understand that the PT does not detect lies directly; instead, it interprets the physiological responses that may, or may not, correlate with deception. As these responses can also be influenced by other factors: such as nervousness, fear, embarrassment, or individual owns psychological characteristics, therefore, it may complicate the inference of intentional deception. For this reason, that the PT represents a connection of psychology, physiology, and forensic science, its scientific validity and practical reliability as an evidence in court of law remain subjects of debate within both academic and legal communities (Ashfaq, 2025).

According to the Nelson (2015), a standard PT is conducted in three distinct phases: 1) the pretest interview, 2) the in-test data collection, and 3) the test data analysis. Each phase plays its own role in the determination of both the accuracy and usefulness of the test results. During the pretest interview, the examiner explains the procedure, obtains the consent of the person, and then formulates the questions which are required to be asked in the actual test. He also establishes psychological baseline for comparison purposes. Then the next phase comes which involves administration of the prepared questions at the same time recording of physiological responses through the usage of polygraph instruments. Finally, in the last analysis phase, the examiner interprets the recorded data to evaluate and assess whether the physiological responses indicate deception or not (Council et al., 2003, p. 13-18). The validity of these phases for PT depends on their standards. Therefore, it is essential that the methods and assumptions during each stage of the PT are based on widely accepted scientific knowledge, it should be supported by and validated through international standards. Any deviation from the established protocols may undermine the reliability of the PT results as forensic evidence and it would be against fair-trial principle.

The questions asked during a PT are required to be carefully structured; they fall into three categories (Iacono, 2008): relevant, irrelevant, and control (or comparison) questions. Relevant questions pertain directly to the matter under investigation (e.g., “Did you take the missing item?”). Irrelevant questions are neutral and unrelated to the investigation. They are designed to establish baseline physiological responses (e.g., “Is your name Ali?”). On the other hand, control questions are designed to provoke a physiological response from truthful subjects through dealing with general misdeeds or moral behaviour (e.g., “Have you ever lied to someone in a position of authority?”). These questions help to make a distinction deceptive responses from normal nervousness or anxiety (Council et al., 2003, p. 254, 256, 261-262, 266). The comparative analysis

of physiological responses to these question forms the basis for the interpretation whether a subject is being deceptive during answering relevant questions. This question structure, known as the Control Question Technique (CQT); despite of its critical status regarding validation (Meijer, 2024; Saxe, 1991), it remains one of the most commonly used formats in the science of forensic polygraphy (Honts & Reavy, 2015; Jayne, 1986).

Today, despite ongoing scholarly debates about their validity, admissibility and ethical implications, PT has its application beyond their primary role in criminal investigations. It is used in different contexts worldwide. It serves several distinct functions beyond traditional investigation frameworks. One major application of PT is in pre-employment and security screening (Barrett, 2001). Although PT face criticism in such application (Rutbeck-Goldman, 2017), it is still being used for those roles which require high levels of trust or access to sensitive information within government departments. It is also being used in offenders management programmes, especially in sex-offenders cases (English et al., 2000; Heil & English, 2009; Meijer et al., 2008). Scholars argue that it should be used in appointment of judiciary as well (Abdimalikovich, 2025).

3. The Legal Landscape of Polygraph Tests

The admissibility and legal recognition of PT in Pakistan can be understood through the dual lenses of the Qanun-e-Shahadat Order, 1984 (QSO), which is the primary law that is governing evidence, and the Constitution of Pakistan, 1973, that guarantees fundamental rights to every person. Together, these legal frameworks cover the procedural and substantive limitations within which scientific evidence becomes admissible in the CJS.

The main provision which is relevant to PT under the QSO is Article 59, besides 164, which allows for the admissibility of expert opinion and scientific evidence (S. A. Cheema & Khan, 2022). These provisions may provide a gateway for PT. These provisions are discretionary in nature and they are contingent upon judicial satisfaction of reliability, authenticity, and fairness. Despite these provisions, PT as an evidence has not gained much legal attraction, and this is because primarily it fails to satisfy the evidentiary principles of relevance, objectivity, and verifiability, all of which are foundational to admissibility.

The Punjab Forensic Science Agency (PFSA) is designated to conducted PT in Punjab. The Government has appointed experts in PFSA to conduct examination of a forensic materials submitted by investigation agencies. Those who conduct such examination is deemed as an expert, for the purpose of procedural laws, and for the purpose of Article 59 of the QSO. Furthermore, the court, tribunal or any authority has been empowered to send to PFSA any forensic material, including request for PT, related to investigation, for examination and expert opinion (Abbas et al., 2024; Rasool & Rasool, 2022). Thereafter, the PFSA refer expert opinion to that Court, tribunal or requesting authority (The Punjab Forensic Science Agency Act, 2007, ss. 9-10).

Moreover, the application of PT also raises substantial constitutional concerns, particularly with regard to the right against self-incrimination (Inbau, 1998; Jain, 2022; Jaiswal, 2012; Sahoo, 2022) and the right to dignity (Böse, 2014; Salimi & Goldoost Jooybari, 2022) and privacy (Brenkert, 1981; Hermann III, 1971; Nemeth, 1983; Terry, 1976). Scholars are of the view that these constitutional protection places an unblemished limitation on the use of involuntary PT in CJSs. If an accused is compelled to undergo a PT without consent, it may be argued that the consequential responses—though physiological in nature—are indirectly testimonial in nature, and therefore fall within the protection offered by the right against self-incrimination (Bhardwaj et al., 2025; Veas, 2025). Pakistani courts have not formally ruled on this point, but global

jurisprudence, including in India (Bhardwaj et al., 2025), has recognized PT as a form of testimonial compulsion. As such, any compelled use of PT could be considered unconstitutional, in the absence of special legislation on this subject or independent judicial guidelines.

Moreover, as PT involves the monitoring of personal physiological responses, such as heart rate, breathing patterns, and perspiration, therefore, it is argued that making anyone to such examination without informed and voluntary consent may constitute an invasion of bodily integrity and mental autonomy, and thus it violates the constitutional guarantee of human dignity and privacy (Nemeth, 1983). Therefore, in the absence of a comprehensive legislation or rules that cover the scope, safeguards, and consent protocols for such tests, their administration—particularly under custodial prisoners—may raise serious constitutional questions.

4. Comparative Judicial Observations on Polygraph Test

There are few cases available on PT in CJS of Pakistan which are reported and can be cited as case laws, it includes *Ghulam Abbas v. the State,* (2013); *Husnain Mustafa v. the State,* (2019); *Muhammad Asif v. the State,* (2008) and *Usama Ali v. the State,* (2025)**.** In these cases, the Courts critically evaluated the evidentiary value of a PT and observed that this test on its own has no evidentiary value in the eyes of law under the QSO. At most, it can serve as an aid to the investigation but cannot be treated as proof of guilt or innocence. They settled the principle and that is PT is not a conclusive proof of guilt or innocence and it has no evidentiary value unless supported by other independent evidence.

The Courts have expressed serious reservations about the scientific reliability and legal admissibility of PT results. They emphasized that courts must be guided by legally admissible evidence rather than investigative tools with questionable accuracy. These cases made it clear that PT as an evidence, in isolation, fails to meet the standards of due process; therefore, it must be corroborated by legally admissible and credible evidence. In all these four cases, the principle has emerged: courts reject the admissibility of PT as substantive legal evidence. These judgments collectively raise a caution and emphasize that no accused could be convicted on the basis of a PT because it lacks both legal recognition and scientific certainty.

On the other hand, Indian jurisprudence has taken a conclusive stance against the involuntary use of PT. They relied on constitutional grounds. The leading case on this subject is Selvi case (2010), wherein the Supreme Court held that the involuntary administration of PT violates the provisions of the Indian Constitution: the right against self-incrimination and the right to personal liberty and privacy. The Court held that the results of such tests cannot be admitted as evidence in a court of law unless the person has given informed, voluntary consent. Despite that the results alone cannot be treated as conclusive proof of guilt (Sahu, 2021). The judgment recognized that polygraph tests involve the monitoring of physiological responses which may amount to a testimonial response, thereby it infringes upon mental privacy and autonomy. Indian courts have since followed this precedent, and they are treating polygraph evidence with caution (Kamath, 2012; Subramaniam, 2020).

In the United States, on the admissibility of PT several landmark judgments have been issued that has shaped its legal standing. However, three are the most important to discuss: one, Frye's case (1923); second, Daubert's case (1993); third, Scheffer's case (1998). The Frye's case was the foundational one wherein the Court ruled that results from a "systolic blood pressure deception test" (which was similar to the polygraph) were inadmissible because the technology had not gained such recognition among physiological and psychological field which would validate the courts to admit expert evidence deduced from such test. The *Frye* standard required that any scientific evidence which is required admission into court as an evidence

must be “generally accepted” in the relevant scientific field. However, the next case: Daubert changed this standard. In this case, the Court held that the Federal Rules of Evidence, i.e. Rule 702, has superseded the Frye’s standard. This case provided a more flexible role for the judges, to assess when an expert's testimony could be considered relevant and reliable. Factors which are required to be considered includes whether the theory or technique can be (and has been) tested; whether it has been subjected to peer review and publication; the known or potential rate of error; the existence and maintenance of standards to control its operation; it widespread acceptance within the relevant scientific community. Lastly, the in the Scheffer’s case, the Court discussed PT in the context whether a military rule of evidence that made a *per se* exclusion of PT evidence if offered by a criminal offender did violate his, Sixth Amendment, right to present a defence. However, the Supreme Court, in an 8-1 decision, upheld the *per se* exclusion. The Court made several reasons for upholding the prohibition, this includes the lack of scientific consensus on the reliability of PT. In summary, Frye set the preliminary bar of ‘general acceptance,’ on PT, Daubert loosened it, however, the Scheffer again re-established more strong barrier to PT. The prevailing trend in most American courts is to view PT as an evidence with skepticism.

In England and Wales, the legal approach to PT deviates from that in the above referred one of the United States. There is a consistent judicial stance on the exclusion of PT in CJS, and there are not much landmark judgments on its admissibility. The prevailing common law position unequivocally holds that PT as reliable evidence is inadmissible in criminal trials. The reason is its scientific reliability and its potential to unduly influence the jury (Grubin & and Madsen, 2005). Despite this firm exclusionary rule in CJS, PT has found its limited statutory application within the English CJS in the form of the Offender Management Act 2007, alongside subsequent legislation like the Domestic Abuse Act 2021 (Kotsoglou & Oswald, 2021). These legislations unambiguously permit the obligatory use of PT as a condition of licence for certain specific categories of offenders. It includes convicted sexual offenders (Meijer et al., 2008), domestic abuse perpetrators, and those who are involved in counter-terrorism cases. It is also important to note here that any disclosures made during these PT are inadmissible as an independent evidence in criminal proceedings. Therefore, this statutory permission provides a pragmatic, non-evidentiary function to PT where it can serve as a risk management and as a supervision tool in probation services. It is helpful in the refinement of offender management plans and public protection (Elliott & Vollm, 2018), though not in the determination of guilt in a court of law.

5. Balancing Rights and Investigation for the use of Polygraph Test

The use of PT in CJSs leads us towards an intricate point of intersection where investigative needs of the investigating agencies and the constitutional rights of accused persons stands against each other. Though its use is considered to be beneficial by some authors (Iacono, 2008; Rajan, 2019b; Rosky, 2013) during the stage of investigation, however, its evidentiary value in courts of law still remains under debate (Dow et al., 2024; Konieczny, 2010; Wicker, 1951). Therefore, this part of our study discusses both the arguments which are in favour and against PT and it also proposes that a jurisprudential balance is required to be adopted in its usage, with introduction of necessary safeguards/protocols and procedural regulation.

One major argument in support of PT is that it serves as an effective investigative tool (ETEMI & HALILI, 2020) in corroboration of evidence. Its utility lies in the fact that it may assist the investigating officer to narrow down the list of accused persons in complex cases (Kovalenka & Saldziunas, 2013). In Pakistan, forensic agencies such as the PFSA, which is conducting PTs on the request of investigation agencies, are

providing help in evaluating the credibility of accused persons and witnesses, especially in those cases wherein conflict versions or limited direct evidence is available. Furthermore, the PT is also viewed as useful for the purpose of corroboration of existing evidence. It also evaluates the consistency in the statements made by the accused or witnesses before the courts. Although PT alone cannot be treated as conclusive proof, yet in some jurisdictions, they have been employed in the investigation frameworks to evaluate behavioural patterns and doing risk assessments, such as above referred offender management programmes (English et al., 2000; Meijer et al., 2008).

Notwithstanding the above discussed utility of PT, it has several concerns about its admissibility in trial proceedings as independent evidence. The foremost issue lies in its scientific unreliability of the test. It is widely accepted in scientific literature that physiological responses such as heart rate, blood pressure, and perspiration—though able to be gauged—are not absolutely connected to deception (Ambach & Gamer, 2018; Honts & and Amato, 2001; Podlesny & Raskin, 1977). These responses can be triggered by multiple psychological and emotional factors, such as anxiety, fear, confusion, or even cultural traits, and therefore cannot be held as conclusive indicators of truth or falsehood (Ben-Shakhar & Elaad, 2003). Secondly, the constitutional safety against self-incrimination, as embodied under Article 13(b) of the Constitution of Pakistan, which prohibits compelling an accused to be a witness against himself. If a person is subjected to PT without free and informed consent, it could be argued that the resultant data is falls within the scope of prohibited compulsion. This view is further supported by comparative jurisprudence, such as the Indian Court (Jaiswal, 2012; Subramaniam, 2020). Thirdly, the administration of PT may also amount to an infringement of the right to dignity and privacy, as guaranteed under Article 14 of the Constitution. Since PT involves close physical monitoring of bodily responses, and to bound accused for such examination, particularly in custodial matters, could constitute a breach of bodily integrity and mental autonomy (Nemeth, 1983; Terry, 1976). Therefore, it raises legitimate constitutional and ethical concerns.

In light of the above concerns, it becomes imperative to propose the doctrine of proportionality and balancing to be useful as a jurisprudential method to resolve the above referred tension between accused person's rights and investigation agencies progress (Z. I. Cheema & Azeem, 2024; Sultan et al., 2024). According to Barak (2010), constitutional rights are not absolute and may be limited, provided that such limitation is reasonable, and the same is justified by a legitimate state interest, besides proportionate in its impact. The principle of proportionality requires a three-step test: whether the measure serves a legitimate aim, whether there is a rational connection between the measure and the aim, and whether a less restrictive alternative is available (Barak, 2007, 2017; Doron, 2012). When we apply this to PT, it can be argued that its limited use as an investigative technique may be constitutionally permissible, provided that such usage is governed by procedural safeguards, free and informed consent, and is not used as an independent evidence in trial without further corroboration. This approach creates a normative balance between the rights of the accused and the interests of effective investigation, and thus, it ensures that PT does not become a tool of coercion but remains an auxiliary aid to lawful investigation.

6. Conclusion and Recommendations

This study has examined the complex and controversial role of the PT in CJS of Pakistan through doctrinal and comparative analysis. The study shows that although PT holds its value in investigation, particularly before law enforcement agencies to narrow down suspects or to assess their credibility, yet it suffers from serious limitations in terms of scientific validity, legal admissibility, and constitutional conformity. The

current legal framework of Pakistan does not provide any conclusive way forward for the recognition of PT as admissible evidence, and the courts worldwide have repeatedly held that such tests lack evidentiary value unless corroborated by independent and admissible material. Furthermore, compelled administration of PT raises substantial concerns regarding the right against self-incrimination and the right to dignity and privacy. Furthermore, in comparative jurisdictions—such as India, the United States, and the United Kingdom—the status of PT shows a discrepancy, but a consistent pattern also emerges: courts treat PT results with caution, if not absolute exclusion, especially as standalone and independent evidence in criminal trials. In Pakistan, judicial observations similarly highlight the dangers of relying and admitting scientifically contested and ethically problematic evidence into a system where procedural and rights-based guarantees are required to be upheld.

In view of these findings, the following recommendations are proposed:

1. Legislative Framework for Polygraph Use

A specific legal framework is required to be enacted to define the procedural scope, admissibility limitations, and evidentiary weight of PT in Pakistan.

2. Amendments to Qanun-e-Shahadat Order, 1984

Articles 59 and 164 of the QSO should be revised to expressly address the conditions under which scientific tests like PT may be treated as expert evidence.

3. Judicial Interpretation and Oversight

The superior judiciary also owes a duty develop jurisprudential consensus and guidelines for lower courts regarding the interpretation and permissible use of PT.

4. Mandatory Informed Consent Protocols

The use of PT must be conditional: prior, informed, and written consent of the accused or examinee, must be held mandatory.

5. Prohibition of PT as Sole Evidence

PT results must not be admitted as conclusive or primary evidence. Courts may be directed to treat such data as merely corroborative and only when supported by independent admissible evidence.

6. Institutional SOPs and Accreditation

Forensic institutions such as PFSA must develop its own standardized operating procedures, quality assurance mechanisms, and examiner accreditation in order to ensure scientific integrity and procedural transparency.

7. Training of Legal and Investigative Professionals

Capacity-building workshops may be organized for judges, prosecutors, investigators, on the scientific, legal, and ethical implications of PT.

8. Establishment of an Independent Oversight Body

An independent regulatory authority to monitor the use of PT and other forensic tools, in order to avoid the abuse or misuse of PT, and to recommend best practices.

9. Exclusion in Custodial matters

PT should not be allowed in-custody unless under judicial order and with legal safeguards to avoid coercion, intimidation, or psychological manipulation.

10. Application of the Doctrine of Proportionality

Courts may apply and adopt Aharon Barak's proportionality doctrine to evaluate whether the use of PT justifiably limiting constitutional rights in each case, and if so, whether such limitation is reasonable, necessary, and proportionate.

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