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# EVALUATING THE CONSTITUTIONAL INTERSECTION OF PSYCHOLOGICAL PROFILING AND THE EMERGING NEED FOR NEURO-RIGHTS IN INDIA

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## I. ABSTRACT

*Cerebral Perceptivity is a crucial asset in the criminal justice system, easing crime prevention, improving investigative processes, guiding informed legal decisions, and ensuring effective rehabilitation of offenders. These roles are linked to litigation, as psychological assessments and expert opinions stemming from this perceptivity are often presented as evidence in court, affecting both prosecution and defence tactics. However, the use of psychological principles in this context faces various challenges that vary by country. For example, in Japan, the strong emphasis on obtaining confessions has sometimes led to the alarming issue of false admissions – problems that become pivotal in cases involving coerced confessions and wrongful convictions. Additionally, the absence of stringent regulations surrounding identification procedures can result in wrongful identifications, often contested in court where the credibility of eyewitness accounts is scrutinized. The needs of vulnerable individuals are often overlooked due to inadequate protective measures, raising serious concerns in litigation involving minors or mentally ill defendants. Lay judges often struggle to deliver fair and correct verdicts, a challenge that is especially pertinent in jury trials where psychological evaluations of defendants or witnesses can influence the final decision. Forensic Psychology encompasses the application of cerebral services within the legal framework and is becoming increasingly significant in shaping litigation strategies and evidentiary standards. This field, which merges law, forensic science, and psychology, is vital to the functioning of the legal system. Utilizing psychological principles in criminal investigations, forensic psychology enhances our comprehension of the interplay between human behaviour and legal standards insights often presented in court to bolster claims, defences, or sentencing arguments. By examining pertinent case studies and offering methodological critiques, the paper promotes the improvement of techniques vital for reaching justice and reducing recidivism. The analysis also*

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*focuses on the admissibility of psychological tests as evidence under the Bharatiya Sakshya Adhiniyam, 2023, critically evaluating the reliability of such evidence in revealing the truth a matter increasingly debated in Indian litigation concerning expert evidence and constitutional fairness.*

## II. KEYWORDS

Forensic Psychology, Cerebral Perceptivity, Forensic Science, Recidivism, Bhartiya Sakshya Adhiniyam.

## III. INTRODUCTION

At the heart of the justice system lies a complex challenge: understanding human behaviour. Forensic psychology has emerged as a critical discipline that bridges the intricacies of the human mind and the demands of the legal system. In India, crime remains one of the most significant social concerns, affecting individuals, institutions, and government agencies. To address increasingly complex forms of criminal conduct, investigative authorities have adopted a range of scientific techniques, including forensic odontology, criminal profiling, and forensic psychology.

Psychology is the scientific study of behaviour and mental processes in humans and animals. The term "forensic" is derived from the Latin word *forensis*, meaning "of the forum," referring to matters connected with courts and legal proceedings. Forensic science involves the application of scientific methods and principles to assist in the administration of justice. Forensic psychology, in particular, examines the intersection of psychological principles and the legal system. According to the American Psychological Association, forensic psychology is the application of clinical and scientific psychological knowledge to legal and judicial matters.<sup>2</sup>

Forensic psychology is crucial in civil cases, including child custody disputes, personal injury claims, and workplace harassment issues. It is essential for forensic psychologists to have a strong understanding of both clinical psychology and legal standards, ensuring that their evaluations, testimonies, and reports adhere to

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<sup>2</sup> Am. Psychol. Ass'n, Specialty Guidelines for Forensic Psychology (2013), <https://www.apa.org/practice/guidelines/forensic-psychology> (last visited Dec.29, 2026).

evidentiary requirements and ethical guidelines. Their skill in conveying complex psychological concepts in a manner that is legally comprehensible is essential. Forensic Psychology plays a critical role at the intersection of constitutional law and criminal law. In constitutional law, particularly concerning the rights of the accused, forensic psychology is crucial in assessing issues like competency to stand trial. The discipline is fundamentally anchored in ethical standards, compelling professionals to uphold impartiality, safeguard confidentiality as allowed by law, and avoid dual relationships that could jeopardize objectivity.

Furthermore, forensic psychology prioritizes objectivity, impartiality, and scientific rigor, as its findings can greatly impact judicial decisions. In summary, this field exists at the crossroads of mental health and law, offering valuable insights that enhance fairer and more informed legal decision-making.

The Constitution of India guarantees the right to a fair trial, which includes the accused person's ability to understand the charges and effectively assist in their defence. Forensic psychologists conduct evaluations to determine whether a defendant is mentally competent to stand trial, thereby ensuring that constitutional protections are meaningfully preserved. From a constitutional perspective, forensic psychology serves as an essential link between psychological science and the fundamental rights embodied in the Constitution. The requirement of a fair trial is not merely procedural; it also demands that the accused possess the cognitive capacity to participate in the proceedings. In *Md. Hussain @ Julfikar Ali v. State (Govt. of NCT of Delhi)*, the Supreme Court reaffirmed that a criminal trial conducted without affording the accused a genuine opportunity to understand and participate in the proceedings violates the guarantee of a fair trial under Article 21. Modern forensic psychology reinforces this principle by ensuring that competency-to-stand-trial evaluations function not only as clinical assessments but also as critical safeguards of due process.

This intersection is particularly significant in upholding the right to a fair trial, as forensic assessments of competency to stand trial relate to the constitutional assurance that an accused person must be able to understand the proceedings and aid in their

defence. Moreover, the principles of due process are reinforced through the contributions of forensic psychology in evaluating the credibility of confessions and witness testimonies, thereby protecting against possible wrongful convictions. In the context of sentencing, psychological risk assessments correspond with the constitutional focus on fair and proportional punishment. Even in specialized fields such as juvenile justice, forensic psychology's insights into developmental factors align with the constitutional priority of considering the best interests of the child. Additionally, in cases involving confessions, forensic psychology can shed light on the voluntariness and reliability of statements, which is a key aspect of due process.

It is particularly significant in insanity defences, where psychologists assess if a defendant's mental condition during the crime aligns with the legal standards for insanity, which can greatly affect their criminal responsibility. Additionally, sentencing processes take psychological factors into account, as forensic psychologists perform risk assessments to evaluate the chances of reoffending, thereby influencing choices about imprisonment and rehabilitation initiatives. Beyond the courtroom, their ability is indispensable in evaluating the reliability of "Eyewitness Testimony", recognising inherent fallibility of human memory and perception. A Forensic Psychologist, engages in numerous of the cerebral practices and duties in legal setting including applying proposition to felonious examinations, understanding cerebral problems associated with felonious gestae and evidence and treatment of culprits. However, the immense value of forensic psychology is often underestimated, facing unique challenges that underscores its demanding nature.

This paper intends to probe the complex dynamics of forensic psychology within the legal frame, examining its influence on the felonious justice system and its donation to understanding mortal gestae in legal surrounds. The analysis of ethical considerations, cerebral evaluations, and their goods on substantiation evidence will illuminate the essential complications of this discipline.

### **A. Statement of Problem**

In the ever-changing realm of criminal justice, traditional investigative methods are increasingly being enhanced and, in numerous instances, reshaped using forensic psychology. Despite its rising significance, there is still a notable gap in the comprehensive understanding of the specific psychological strategies employed during investigations and how these techniques tangibly impact law enforcement practices. The incorporation of psychological profiling, behavioural analysis, cognitive interviewing, and risk assessment tools has provided law enforcement agencies with innovative pathways for naming suspects, assessing witness reliability, and understanding offender behaviour.

Nevertheless, the effectiveness, ethical considerations, and practical constraints of these methods in real-time investigations and court settings are still topics of discussion and inconsistent application across different jurisdictions. This situation prompts essential inquiries regarding the reliability, standardization, and legal admissibility of psychological contributions in investigative procedures. Therefore, there is an urgent necessity to investigate how various investigative strategies grounded in forensic psychology affect modern law enforcement results and to what degree they uphold the principles of justice, due process, and effective policing.

### **B. Research Objectives**

The main goal of this research is to examine how well the Indian constitutional framework protects the cognitive core from the invasive powers of contemporary psychological profiling. It aims to assess whether the current interpretations of liberty and privacy under Articles 19 and 21 of the Constitution of India are sufficiently broad to encompass mental integrity. By exploring the convergence of neuro-technology and governmental surveillance, the study seeks to identify the legal gaps through which neural data shifts from being a biological byproduct to a commercial or forensic resource without the subject's explicit consent.

Additionally, this research proposes a conceptual framework for incorporating neuro-rights into the Indian legal system. This includes evaluating the need for dedicated

legislation that goes beyond existing data protection laws to specifically address issues of cognitive liberty and psychological continuity.

### C. Research Questions

1. Do Articles 20(3) and 21 of the Constitution of India, as currently interpreted, extend protection against the non-consensual extraction and use of neural data in criminal investigations?
2. Is the privacy framework recognized in Justice K.S. Puttaswamy (Retd.) v. Union of India sufficient to safeguard mental privacy and cognitive liberty, or is a distinct neuro-rights framework required?
3. To what extent does the decision in Selvi v. State of Karnataka restrict the admissibility and investigative use of neuro-technological techniques such as narco-analysis, brain mapping, and BEOS profiling?
4. Should India enact specific legislation to protect mental integrity, psychological continuity, and cognitive liberty beyond the protections currently available under constitutional and data protection law?

### D. Hypothesis

The incorporation of forensic psychology into investigative methods greatly improves the efficiency of modern law enforcement practices by offering profound insights into criminal behaviour, enhancing suspect profiling, and ensuring more precise evaluations of witness credibility and offender mental states. By using psychological principles and empirical techniques, forensic psychologists play a crucial role in finding motives, forecasting criminal patterns, and assessing risk, thus aiding law enforcement agencies in making well-informed decisions throughout investigations. Moreover, the application of psychological assessments in interrogations, lie detection, and threat evaluations is predicted to minimize investigative mistakes and safeguard the rights of both suspects and victims.

This theory suggests that the systematic integration of forensic psychology not only bolsters investigative precision but also aligns investigative procedures with legal standards of fairness and due process, ultimately leading to more effective and constitutionally compliant law enforcement.

## **E. Research Methodology**

The research methodology used for this research is Doctrinal. Primary and Secondary sources have been used to gather the information for doctrinal research. Doctrinal research is commonly known as the conventional or theoretical method of legal inquiry. This approach entails examining established legal principles, doctrines, statutes, and case law to gain an in-depth understanding of a particular legal issue.

The phrase 'Doctrinal Research' derives from the term 'doctrine,' which signifies established legal principles or theories. In the context of legal studies, doctrinal research involves the analysis of legal texts, court decisions, and academic publications to systematically organize, interpret, and evaluate the legal framework surrounding a specific subject.

## **F. Review of Literature**

### **1. Conceptual Framework**

The advancement of investigative methods in India has moved from conventional behavioural observation to advanced "Deception Detection Tests" (DDTs), such as narco-analysis and Brain Electrical Activation Profile (BEAP), reflecting a transition toward techniques intended to probe cognitive responses. It is important to distinguish BEAP, the term used by the Supreme Court in *Selvi v. State of Karnataka*, from Brain Electrical Oscillation Signature (BEOS) profiling, a separate electroencephalography-based technique developed by Dr. C. R. Mukundan at the National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru.

This technological progress has led to the emergence of neuro-rights, a developing human rights framework aimed at protecting the cognitive domain from unwarranted governmental interference. While psychological profiling seeks to interpret behavioural and mental patterns for forensic purposes, neuro-rights operate as a constitutional safeguard to ensure that the pursuit of criminal justice does not intrude upon an individual's mental privacy and cognitive integrity.

### **2. Article 20(3) & Article 21**

The convergence of neurotechnology and fundamental rights centres on the evolving interpretations of Article 20(3) and Article 21 of the Constitution of India. The discussion under Article 20(3) examines whether brainwaves or subconscious responses obtained through neuro-forensic profiling may constitute testimonial evidence. At the same time, the decision in Justice K.S. Puttaswamy (Retd.) v. Union of India expanded the constitutional understanding of privacy beyond physical and informational domains to include mental privacy, thereby recognizing mental autonomy as an essential component of personal liberty.

The central contention posits that even “non-invasive” brain scans might be a type of “mental coercion”, arguing that the compelled extraction of the cognitive data is equally detrimental to human dignity and the right to remain silent as traditional forms of physical torture.

### 3. Selvi vs. State of Karnataka<sup>3</sup>

The pivotal decision in *Selvi v. State of Karnataka* (2010) stands as the key judicial limitation on neuro-forensics, asserting that the non-consensual application of tests such as narco-analysis or brain mapping infringes upon the constitutional right against self-incrimination.

At the heart of this legal principle is the "consent threshold," which requires that these methods be employed solely on a voluntary basis. However, a notable "discovery clause" stays although the primary neurological findings are not admissible in court, any physical evidence obtained because of these findings now regulated by Section 23 of the Bharatiya Sakshya Adhinyam, 2023<sup>4</sup> is still permissible.

Experts point out a significant flaw in this legal structure, emphasizing that while the law safeguards the "testimonial output," it neglects to consider the invasive "process" of cognitive intrusion itself. This gap highlights the pressing necessity for a

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<sup>3</sup> *Selvi v. State of Karnataka*, (2010) 7 S.C.C. 263.

<sup>4</sup> *Analysing Section 23 of the Bharatiya Sakshya Adhinyam: Balancing Admissibility and Constitutional Safeguards*, THE LEGAL QUORUM <https://thelegalquorum.com/analysing-section-23-of-the-bharatiya-sakshya-adhinyam-balancing-admissibility-and-constitutional-safeguards/>. (last visited Jan. 15, 2026),

comprehensive neuro-rights framework aimed at safeguarding mental integrity at the point of access, rather than simply overseeing the evidence that appears from it.

#### **IV. THE INCEPTION OF FORENSIC PSYCHOLOGY**

Forensic Psychology is an engaging and multidisciplinary field that applies psychological principles, theories, and scientific methods to tackle various aspects of the legal and criminal justice systems. It connects psychology and law by tackling problems and challenges that conventional psychology cannot resolve on its own, including competency to stand trial, criminal responsibility, and risk assessment.

The origins of this discipline can be traced back to the late 19th and early 20th centuries, when pioneering psychologists like Hugo Munsterberg and William Stern began exploring how psychological research could be applied to legal issues. This inquiry resulted in the formation of forensic psychology as a distinct field focused on understanding criminal behaviours, evaluating the mental state and competency of individuals in legal contexts, and offering expert testimony to aid judges and juries in grasping psychological concepts and behaviours.

Today, forensic psychologists work in various settings including prisons, mental health facilities, law enforcement agencies, and courtrooms where they conduct psychological assessments, develop criminal profiles, assess witness credibility, create treatment and rehabilitation programs for offenders, and assist victims, all while navigating complex ethical issues that require objectivity, confidentiality, and integrity. The field has evolved to encompass both research and practice in areas such as risk assessment, the insanity defence, child custody evaluations, and the development of actuarial tools like the Psychopathy Checklist-Revised (PCL-R) for predicting recidivism.

Modern forensic psychologists utilize a wide range of theoretical frameworks including the nature versus nurture debate, learning theories, and the exploration of psychopathology to inform their work, ultimately improving the administration of justice, enhancing public safety, and deepening our understanding of human behaviour within the legal context.

According to the *American Psychological Association*, forensic psychology can be succinctly described as the careful use of clinical psychology knowledge within the legal system.<sup>5</sup> This definition underscores the vital role of clinical psychology in forensic practice, emphasizing how the principles, assessments, and interventions from clinical psychology are tailored to address the unique needs and complexities of legal settings.

Beyond this definition, forensic psychology extends its reach significantly, encompassing a wide array of psychological specializations. It incorporates various branches of psychology, including social psychology, developmental psychology, cognitive psychology, and others, all skilfully tailored to address the myriad challenges posed by legal institutions and individuals entangled in legal matters. Christopher Cronin, a highly regarded authority in the field, provides a more comprehensive perspective by defining forensic psychology as the strategic use of these diverse psychological specializations within legal frameworks.

This involves collaboration with legal entities such as courts, law enforcement agencies, and correctional facilities, along with engagement with individuals involved in the legal system—victims, suspects, witnesses, and inmates. Forensic psychology serves as a bridge between the empirical insights of psychology and the practical demands of the legal realm. It is crucial in various applications, including evaluating criminal responsibility, assessing witness credibility, treating offenders, and developing effective intervention strategies within legal environments.

## V. THE GENESIS OF FORENSIC PSYCHOLOGY

The evolution of psychological profiling and the eventual need for neuro-rights find their roots in the transition of psychology from philosophy to an empirical science. This era marked the first attempt by the state and academia to "quantify" the human mind for legal purposes.

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<sup>5</sup>Am. Psychol. Ass'n, *Specialty Guidelines for Forensic Psychology* (2013), <https://www.apa.org/practice/guidelines/forensic-psychology> (last visited Jan. 15, 2026).

### A. Initial Foundations (Late 1800s - Early 1900s)

The evolution of psychology from a philosophical exploration to a robust empirical science during the late 19th and early 20th centuries proved crucial foundations for contemporary forensic evaluations and the ongoing conversation surrounding neuro-rights. This pivotal period, started by Wilhelm Wundt's creation of the first psychological laboratory, redirected attention to quantifiable cognitive functions. This shift was later embraced by James McKeen Cattell and William Stern, who highlighted the inherent unreliability of human memory and the distorting impact of emotional states within the legal context.

Albert von Schrenck-Notzing's theories on Memory Distortion<sup>6</sup>, along with Hugo Munsterberg's Advocacy for Psychological Evidence in Legal Settings<sup>7</sup>, significantly propelled the concept of the "scientific juror." This notion suggests that the intricate functions of the human mind can be systematically interpreted to help the pursuit of justice. During this period, the "diagnostic association" method appeared, serving as a precursor to modern profiling, aimed at connecting mental processes with criminal intent. By striving to standardize the assessment of truth and deception through physiological indicators like blood pressure and reaction times these pioneering psychologists unintentionally established the foundation for the current constitutional tension: if the mind can be "read" akin to a physical document, the line between an individual's private thoughts and the state's investigative authority starts to blur. As a result, this shift from subjective observation to biological measurement marks the historical origin of the ongoing challenge to define and safeguard neuro-rights against increasingly intrusive forensic technologies.

### B. Mid-20th Century Growth

1. **World War II:** Increased the demand for applied psychologists, particularly in the military, who aided in criminal investigations. This experience during

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<sup>6</sup> *Uncovering the Phenomenon of Retroactive Memory Falsification: Insights from the Work of Albert von Schrenck-Notzing*, Senioritis, <https://senioritis.io/social-science/psychology/uncovering-the-phenomenon-of-retroactive-memory-falsification-insights-from-the-work-of-albert-von-schrenck-notzing/> (last visited Jan. 19, 2026).

<sup>7</sup> Sjors Ligthart, *Neuro-Rights: A Philosophical and Legal Framework* (2024), <https://academic.oup.com/book/34894> (last visited Jan. 19, 2026).

the war also led to a greater acceptance of psychological evidence within the judicial system.

2. **Legal Cases:** Landmark cases like *Brown v. Board of Education* (1954)<sup>8</sup>, where psychologists testified about the effects of segregation, and *Jenkins v. United States* (1962)<sup>9</sup>, which validated the authority of psychologists in mental health matters, have greatly strengthened the role of forensic psychology in the legal system.

### C. Modern Forensic Psychology

In 2001, the American Psychological Association (APA) officially acknowledged forensic psychology as a distinct specialty within the field of psychology. The discipline has seen a rise in specialization, marked by the formation of organizations like the American Academy of Forensic Psychology (AAFP). Innovative technologies, including digital forensics and neuroimaging, are now being integrated into forensic psychology practices. Forensic psychologists are playing a more prominent role in advocating for reforms in the criminal justice system, driven by insights from psychological research.

This historical progression underscores the transformation of forensic psychology from its early research on memory and testimony to its extensive applications in today's legal system.

## VI. TECHNIQUES OF FORENSIC PSYCHOLOGY IN THE REALM OF INVESTIGATIONS

### A. The Art of Criminal Profiling

Criminal profiling stands for a unique discipline within forensic psychology, focusing on reconstructing the probable psychological, behavioural, and demographic traits of an unidentified offender. It is key to unravelling the complexities of criminal minds. It enhances the ability to predict and prevent criminal activities. This is achieved

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<sup>8</sup> *Brown v. Board of Education of Topeka*, Brit. Acad. <https://www.britannica.com/event/Brown-v-Board-of-Education-of-Topeka>.

(last visited Jan. 19, 2026)

<sup>9</sup> *Jenkins v. United States*, 307 F.2d 637 (D.C. Cir. 1962).

through a detailed examination of crime scene evidence, victimology, and the behavioural patterns displayed during the crime. By employing techniques such as deductive and inductive reasoning, geographical and psychological analysis, and behavioural assessment, profilers merge scientific investigation with investigative intuition. This allows them to hypothesize characteristics such as the offender's gender, occupation, emotional state, and potential mental health issues. The profiling process encompasses various stages, including the analysis of antecedents, the methods and manner of the crime, and the behaviour following the offense. This approach is particularly vital in intricate cases like homicides and sexual assaults, where conventional forensic evidence may be insufficient.

In the context of legal proceedings, profiling aids law enforcement in refining suspect lists and prioritizing leads. However, its function in court is generally supplementary, aimed at guiding investigation strategies rather than serving as direct evidence of guilt. This is due to the inherent subjectivity and variability in interpretation, which means that the reliability and admissibility of profiling are subject to careful examination in legal contexts.

### **B. Conducting Psychological Autopsy**

A Psychological Autopsy is a unique investigative method within forensic psychology aimed at reconstructing the mental state and life circumstances of a deceased person – particularly in cases of ambiguous or unclear deaths like suspected suicides, unexplained fatalities, or situations where the cause of death is contested. This method entails a thorough examination of medical and psychiatric records, forensic evidence, personal documents (such as notes and diaries), and detailed interviews with family, friends, and others who had close interactions with the deceased. The goal is to gain an insight into their mindset and clarify intent, differentiate between homicide, suicide, accidental, or natural death, and understand the psychosocial factors that led to the fatal incident. In investigative contexts, psychological autopsies offer vital insights that can either support or contradict the conclusions of conventional forensic analysis, often aiding law enforcement in understanding motives or ruling out foul play. In legal matters, psychological autopsy reports and expert testimonies are

occasionally used in both civil and criminal cases to address issues of intent or mental capacity—such as in disputed wills, insurance claims, or assessing self-defence arguments. However, their acceptance varies by jurisdiction, as courts evaluate the scientific validity and methodological soundness of such evidence, sometimes raising concerns about subjectivity and bias, while still acknowledging its informative significance when backed by corroborative facts.

### **C. Risk Assessment and Threat Analysis**

Risk Assessment and Threat Analysis serve as the proactive counterpart to psychological autopsy. Risk Assessment and Threat Analysis serve as structured investigative frameworks in forensic psychology, aimed at gauging the probability that a person may engage in harmful, violent, or criminal actions in the future.

Unlike conventional reactive policing, these approaches utilize a combination of actuarial data (statistical indicators) and structured professional judgment to measure potential threats. Risk Assessment generally emphasizes the individual's long-term tendencies, examining "static factors" such as earlier criminal records and "dynamic factors" like

substance abuse, emotional control, and social surroundings. Conversely, Threat Analysis tends to be situational and behaviour-oriented, concentrating on the "path to violence" identifying specific indicators, such as the procurement of weapons or the expression of intent, that imply an individual is transitioning from a generalized risk to a specific, imminent act of violence.

For example, in the context of "threat assessment" for public figures or organizations, forensic psychologists scrutinize "leakage" the unintentional or deliberate communication of a planned attack to act before a crime occurs. As these evaluations increasingly adopt machine learning and algorithmic profiling, the intersection with Neuro-Rights becomes vital; the challenge is to ensure that the state's commitment to public safety does not result in a "pre-crime" society.

#### **D. Ways to Enhance Interviewing and Investigation Skills**

Improving interviewing and investigative skills at the intersection of forensic psychology and law requires the use of scientifically validated cognitive techniques designed to maximize information retrieval while minimizing psychological pressure. At the core of this approach is the Cognitive Interview (CI), which employs mnemonic techniques such as context reinstatement and reporting everything to assist witnesses in recalling memories without the distorting effects of leading questions. Contemporary investigations also emphasize rapport-based interviewing, moving away from accusatory methods such as the Reid Technique toward the PEACE model: Preparation and Planning; Engage and Explain; Account, Clarify and Challenge; Closure; and Evaluation.

In this framework, investigators first prepare the interview strategy, then establish rapport and explain the process, obtain and test the interviewee's account, conclude the interview appropriately, and finally evaluate both the information obtained and the interviewer's performance. This model prioritizes information gathering through active listening and open-ended questioning, which significantly reduces the risk of false confessions and cognitive bias. Additionally, the use of Behavioural Sequence Analysis and the careful interpretation of non-verbal behaviour enable investigators to identify interaction patterns rather than relying on discredited assumptions that simple cues, such as eye movement, reliably indicate deception.

To further enhance these skills, professionals are increasingly trained in cultural intelligence and neurodiversity awareness, ensuring that investigative assessments account for socio-cultural and cognitive differences. When applied ethically, these techniques protect the subject's mental integrity and ensure that the investigative process remains a search for truth rather than a form of psychological manipulation, consistent with constitutional guarantees of due process and mental privacy.

#### **E. Thorough Examination of Cognitive and Behavioural Aspects**

A Comprehensive Analysis of Cognitive and Behavioural Dimensions is a complex diagnostic procedure aimed at mapping the functional and psychological framework of an individual. In the fields of forensic and neuropsychology, this entails a

methodical evaluation of cognitive abilities – such as memory, executive function, and attention alongside behavioural tendencies, personality characteristics, and emotional management. Unlike conventional character evaluations, this analysis increasingly employs innovative neuro-technological instruments, including functional Magnetic Resonance Imaging (fMRI) and Electroencephalography (EEG), to uncover the neural underpinnings of behaviour.

In legal and constitutional contexts, these assessments are crucial for figuring out "mens rea" (guilty mind) and evaluating the voluntariness of actions as outlined in Articles 19 and 21 of the Indian Constitution. In criminal proceedings, such evaluations can be instrumental in figuring out an accused individual's competency to stand trial or in supporting claims of temporary insanity and reduced capacity. Beyond the judicial system, this profiling is increasingly applied in "predictive policing" and commercial industries to forecast human behaviour, which raises prominent issues about Cognitive Liberty. While these assessments offer profound insights that can lead to a more rehabilitative approach rather than a punitive one, they also carry a significant risk of "neurological overreach." If performed without rigorous "neuro-rights" safeguards, these extensive evaluations could convert a person's private thoughts and biological tendencies into incriminating evidence, potentially violating the fundamental right against self-incrimination and the integrity of the mental workspace.

## **VII. CONTRIBUTION TO LAW ENFORCEMENT**

### **A. Advanced Investigation Methodologies**

Forensic psychology transforms law enforcement into a model of Intelligence-Led Policing by substituting coercive interrogation with scientifically validated techniques such as Cognitive Interviewing. By employing "context reinstatement," investigators can significantly improve memory retrieval in witnesses while reducing the chances of memory contamination. Additionally, psychologists offer real-time Behavioural Investigative Advice, customizing interrogation methods and hostage negotiations to align with the unique personality traits and mental states of suspects, thus enhancing both the effectiveness and ethical standards of the investigative process.

In the Indian context, these sophisticated methodologies penetrate the "Inner Sanctum" through neuro-technological innovations like Brain Electrical Oscillation Signature (BEOS) profiling and Polygraphy.

These methods assess physiological indicators, including the P300 wave, to differentiate between "guilty knowledge" the experiential memory of a crime – and "innocent awareness" acquired from secondary sources.

While these advanced tools provide an innovative approach to revealing the truth, they also highlight a critical constitutional issue where the state's investigative authority intersects with the growing demand for Neuro-Rights and the safeguarding of cognitive privacy.

### **B. Jury Selection and Courtroom Behaviour Analysis**

Forensic psychology significantly improves courtroom effectiveness by unravelling the cognitive processes involved in legal proceedings, enabling legal teams to strategically connect with the decision-maker's 'inner sanctum'. Through methods like Scientific Jury Selection and real-time Behavioural Analysis, psychologists uncover hidden biases and observe non-verbal signals, including micro-expressions, to assess the credibility of witnesses. This insight allows lawyers to tailor their narrative strategies to resonate with the cognitive frameworks of the judge or jury, ensuring that evidence is presented in the most impactful way.

In addition to strategic advantages, psychologists play a crucial role in Witness Preparation, helping to alleviate anxiety and boost perceived credibility while addressing common cognitive biases such as 'Hindsight Bias.' This integration of psychological science into judicial processes safeguards the integrity of trials against subconscious biases and the intricate nature of human behaviour.

### **C. Support from victims and Trauma Assessment**

Forensic psychology offers an essential scientific framework for assessing trauma, ensuring that interactions between law enforcement and victims are both informed by psychological principles and legally robust. By employing evidence-based methods to

analyse how trauma affects memory and behaviour, psychologists aid investigators in understanding why a victim may show "fragmented recall" or experience "tonic immobility" (freezing) during a crime. This evaluation is crucial for substantiating witness accounts that might otherwise seem inconsistent, guaranteeing that the victim's "inner sanctum" is accurately represented in the judicial record without inflicting additional secondary victimization.

Moreover, psychologists provide direct aid to victims by applying trauma-informed interview techniques that focus on emotional stabilization. This strategy not only supports the victim's healing process but also enhances the reliability of the evidence collected, as a regulated mental state fosters more exact information retrieval. In the context of Indian law, these contributions are vital for evaluating "Victim Impact Statements" and determining the psychological damages required for sentencing or compensation. By connecting clinical trauma with legal testimony, forensic psychology upholds the constitutional right to dignity under Article 21 throughout the law enforcement process.

#### **D. Criminal Rehabilitation**

Forensic psychology revolutionizes the "Inner Sanctum" by shifting its focus from mere punishment to genuine reformation, employing Risk-Need-Responsivity (RNR) models to customize rehabilitation programs. Psychologists conduct thorough assessments to pinpoint "criminogenic needs"—the psychological triggers, such as substance abuse or cognitive distortions, which lead to criminal actions. By tackling these underlying issues through Cognitive Behavioural Therapy (CBT) and anger management, forensic psychologists aid offenders in reshaping their thought processes, which significantly lowers recidivism rates and ensures that law enforcement efforts contribute to lasting public safety instead of a continuous cycle of incarceration.

In the context of the Indian constitution, this emphasis on rehabilitation resonates with the "reformatory theory" of justice, which recognizes the prisoner as a person with inherent rights, even while incarcerated. This psychological evaluation guarantees that the state's authority to detain is applied judiciously, balancing the individual's

right to freedom under Article 21 with the community's need for safety. By offering a scientific framework, forensic psychology ensures that the role of law enforcement goes beyond mere arrests to encompass the successful reintegration of individuals into society.

### **E. Policy Formation and Legal Reforms**

Forensic Psychology plays a crucial role in shaping policy by supplying empirical evidence that transforms the state's engagement with the private lives of its citizens. Through the examination of recidivism trends, the success of rehabilitation efforts, and the psychological effects of solitary confinement, psychologists aid lawmakers in crafting laws that are based on evidence rather than solely on punitive measures. In India, this involves promoting tailored protocols for at-risk witnesses and neuro-divergent individuals, ensuring that legal structures such as the POCSO Act and mental health policies reflect developmental and cognitive realities.

Moreover, forensic psychology propels legal changes by questioning outdated standards of evidence and incorporating the idea of "Neuro-Rights" into constitutional discussions. By underscoring the weaknesses of conventional techniques like coercive interrogations and unscientific profiling, psychologists advocate for recognizing "cognitive liberty" as a fundamental right. This input is essential for advancing the protections of the Indian Constitution's "inner sanctum," leading to reforms that require the ethical application of neuro-technology and safeguarding the digital or neural mapping of a person's mind from governmental intrusion under Article 21.

## **VIII. BARRIERS IN THE PRACTICE OF FORENSIC PSYCHOLOGY**

### **A. The Challenge of Bias**

Bias stands as a major obstacle to achieving objectivity in forensic psychology. Cognitive Bias, exemplified by "Confirmation Bias," manifests when an evaluator unconsciously looks for evidence that confirms their pre-existing beliefs (for instance, that a defendant is either malingering or guilty).

Contextual Bias occurs when a psychologist is swayed by irrelevant information from law enforcement, such as the horrific details of a crime. These biases jeopardize the

"Mental Integrity" of the legal system, as the expert's subjective viewpoint can distort the right understanding of the subject's mental state, which may ultimately result in an injustice.

### **B. Dual Role**

The "Dual Role" conflict arises when the lines between clinical therapy and forensic evaluation become indistinct. A clinician's foremost responsibility is to establish a "Therapeutic Alliance" (supporting the patient), while a forensic expert's obligation lies with the court (pursuing objective truth). When a psychologist tries to fulfil both roles, it leads to an ethical dilemma known as "role contamination." The individual may show personal thoughts to a therapist believing in confidentiality, only to find those thoughts used as evidence in a forensic report. This represents a clear violation of the "Inner Sanctum," as it takes advantage of the individual's trust to undermine their right against self-incrimination.

### **C. Limited Tools, Methodological Constraints, and Data Protection Gaps**

Despite advances in neuro-technology, forensic psychologists often work with tools that are either methodologically limited or culturally unsuited to the Indian context. Many psychometric instruments used in India were developed in Western settings and may not adequately account for local linguistic, social, and cultural variations, thereby increasing the risk of inaccurate assessments. In addition, techniques such as BEOS profiling and functional Magnetic Resonance Imaging (fMRI) are expensive, lack universally accepted protocols, and remain the subject of continuing scientific and legal debate regarding their reliability and admissibility. These limitations create a fundamental tension between the legal system's search for certainty and science's ability to provide only probabilistic conclusions.

A further and increasingly significant barrier is the inadequacy of existing data protection law to address the unique risks posed by neural and cognitive data. The Digital Personal Data Protection Act, 2023 (DPDP Act) defines "personal data" broadly under Section 2(t) as any data about an individual who is identifiable by or in relation to such data. Neural recordings, electroencephalographic outputs, and other brain-derived information would likely fall within this definition because they relate to

identifiable individuals. Section 6 of the Act also requires consent that is free, specific, informed, unconditional, and unambiguous. However, the DPDP Act is primarily designed to regulate informational privacy and data processing by data fiduciaries; it does not directly address the constitutional concerns arising from the compelled extraction of neural information from the human brain.

The Digital Personal Data Protection Rules, 2025 provide procedural guidance regarding notice, consent, and data security, but they do not establish special safeguards for neuro-data or recognize cognitive liberty, mental privacy, and psychological continuity as distinct rights. As a result, the current data protection framework regulates the handling of neural data after collection but does not adequately protect individuals against the initial intrusion involved in extracting such data through forensic technologies. This legislative gap strengthens the case for a dedicated neuro-rights framework that safeguards mental integrity at the point of access, rather than merely governing subsequent data processing.

## **IX. INTEGRATION WITH TECHNOLOGY AND THE FUTURE OF FORENSIC PSYCHOLOGY**

The future of forensic psychology is undergoing a significant transformation, shifting from behavioural observation to direct technological interaction with the brain, which fundamentally challenges the very essence of human thought. The incorporation of Artificial Intelligence and Machine Learning has led to the development of "predictive profiling," where algorithms scrutinize extensive datasets to assess recidivism risks and tendencies for violence with a precision that could potentially overshadow human intuition. Nonetheless, this advancement raises critical "Black Box" issues concerning transparency and the Right to a Fair Trial, as proprietary algorithms often remain hidden from scrutiny. At the same time, the rise of Brain-Computer Interfaces (BCIs) and neuro-monitoring technologies marks the ultimate boundary of cognitive intrusion, enabling the real-time extraction of neural data and "deception markers" directly from the brain's cortex. This technological progression effectively makes the traditional "Right to Silence" irrelevant, as intentions can be extracted before they are even expressed.

Additionally, the application of Virtual Reality (VR) for "context reinstatement" in witness testimonies poses the danger of unintentional memory implantation, blurring the distinction between exact recollection and psychological manipulation. Together, these innovations demand a profound constitutional evolution in India, advancing beyond the Puttaswamy mandate of informational privacy towards a unique framework of Neuro-Rights that safeguards "Cognitive Liberty" from the invasive reach of state-sponsored neuro-forensics.

## X. SUGGESTIONS AND RECOMMENDATIONS

- 1. Enact Standalone Neuro-Rights Legislation:** Parliament should enact a dedicated Neuro-Rights statute that expressly protects cognitive liberty, mental privacy, psychological continuity, and mental integrity. Such legislation should operate independently of the Digital Personal Data Protection Act, 2023, which does not specifically address neural data or the constitutional implications of cognitive intrusion.
- 2. Mandate Informed and Written Consent:** The use of neuro-forensic techniques such as narco-analysis, brain mapping, BEOS profiling, and functional neuroimaging should be permitted only upon the subject's prior, informed, and written consent, consistent with the constitutional principles recognized in *Selvi v. State of Karnataka*. The consent process should include legal counsel and an explanation of the scientific limitations and legal consequences of the procedure.
- 3. Frame Judicial Guidelines for Admissibility:** The Supreme Court of India or the Legislature should formulate detailed standards governing the admissibility of neuro-forensic evidence under the *Bharatiya Sakshya Adhinyam, 2023*. These standards should require proof of scientific validity, reliability, relevance, and compliance with constitutional safeguards under Articles 20(3) and 21.
- 4. Establish an Independent Regulatory Authority:** An autonomous statutory body comprising legal experts, neuroscientists, psychologists, and ethicists should be constituted to regulate the development and use of forensic

neurotechnology. The authority should license laboratories, monitor compliance, investigate misuse, and issue ethical and technical standards.

- 5. Develop Training and Ethical Protocols:** Specialized training should be provided to judges, prosecutors, investigators, and forensic psychologists regarding the scientific limitations and constitutional implications of psychological profiling and neurotechnology. Uniform ethical protocols should also be adopted to prevent coercion, bias, and misuse of cognitive data.

## **XI. CONCLUSION**

The journey of forensic psychology has progressed from the basic laboratories of Wilhelm Wundt to the advanced neuro-imaging techniques of today, placing the Indian legal system at a pivotal point. Although innovative investigative techniques such as BEOS and cognitive profiling have improved law enforcement efficiency and judicial accuracy, they have also blurred the boundaries of the individual's mental privacy. The existing constitutional framework, which largely depends on the privacy principles recognized in Justice K.S. Puttaswamy (Retd.) v. Union of India and the protection against self-incrimination affirmed in *Selvi v. State of Karnataka*, is becoming increasingly inadequate in the face of technologies that do not merely request information but extract it directly from neural processes. As forensic psychology converges with artificial intelligence and brain-computer interfaces, the traditional right to silence faces unprecedented challenges.

To preserve the integrity of the human mind, India must move from a reactive legal approach to a proactive human rights framework in forensic science. The recognition of neuro-rights represents an essential constitutional development aimed at protecting cognitive liberty, mental privacy, and psychological continuity. By incorporating these protections within Article 21 and supplementing them with targeted legislation and judicial safeguards, India can ensure that the individual's mental sphere remains protected from unwarranted state intrusion. Ultimately, the future of justice in India depends on maintaining a careful balance between using forensic psychology to enhance public safety and preserving every individual's fundamental right to control their own thoughts.

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