



# Forensic Psychology Applications In India: A Comprehensive Analysis

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**Abstract:** Forensic psychology has gained recognition as an essential discipline in criminal investigations and the judicial process. In India, the field has seen significant advancements, yet it remains underutilized in comparison to its global counterparts. This article explores the history, development, and application of forensic psychology in India. It examines its role in criminal investigations, judicial proceedings, and rehabilitation programs. Through case studies such as the Hathras gang rape and the Noida double murder case, the potential and limitations of forensic psychology techniques like narco-analysis, polygraph tests, and brain mapping are highlighted. The study underscores the need for increased awareness, specialized training, and integration of forensic psychology into India's legal and law enforcement systems.

**Index Terms** - Forensic psychology, criminal investigation, India, narco-analysis, brain mapping, rehabilitation

## I.INTRODUCTION

Forensic psychology bridges the gap between psychological principles and the legal system, providing insights into criminal behaviour and aiding in legal judgments. Derived from the Latin term "forensis," meaning "forum," forensic science has evolved from a platform for debate to a sophisticated field involving advanced methodologies for justice administration.

In India, forensic psychology remains an emerging discipline, often overshadowed by clinical psychology in law enforcement. However, its potential in assessing criminal intent, aiding investigations, and rehabilitating offenders is immense. This article explores the historical development, current applications, and challenges of forensic psychology in India while advocating for its expanded role in the country's justice system.

## 2. Review of Literature

The literature reveals a growing body of work emphasizing the importance of forensic psychology in criminal investigations.

### 2.1 Historical Context

Wilhelm Wundt's establishment of the first psychology lab in 1879 marked the beginning of forensic psychology. Over time, the field evolved to include techniques such as polygraphs and narco-analysis. In India, forensic psychology gained momentum with the establishment of the Central Bureau of Investigation's (CBI) lie detection unit in 1968.

### 2.2 Advancements in Techniques

Shelke (2007) highlighted the dual aspects of forensic psychology—its utility and its ethical concerns. Similarly, Puranik et al. (2009) emphasized the role of Brain Electrical Oscillation Signature (BEOS) profiling in criminal investigations. However, these advancements face scrutiny regarding reliability and admissibility in court.

### 2.3 Practical Applications

Kacker and Pandya (2020) stressed the importance of integrating forensic psychology into crime prevention and rehabilitation. Case studies such as the Noida double murder and the Hathras gang rape illustrate the practical challenges and opportunities for forensic psychologists in India.

## 3. Methodology

This study employs a secondary data analysis approach, drawing from published research articles, case studies, and judicial reports. Data was collected through content analysis of academic journals, online databases, and forensic psychology literature. Ethical considerations included ensuring accurate representation of secondary data and adhering to APA guidelines for citation and reporting.

## 4. Results and Discussion

### Case Studies and Analysis

#### 4.1 Hathras Gang Rape (2020)

The Hathras gang rape exposed deep-seated issues of caste-based violence and gender discrimination. Forensic psychological techniques such as polygraph tests and Brain Electrical Oscillation Signature Profiling (BEOS) were employed. However, biases in law enforcement and societal stigma influenced the investigation and trial process. Psychological Theory Application: Bandura's Social Learning Theory provides a framework for understanding the perpetrators' behaviour. Observational learning, reinforced by societal norms that devalue women and marginalized groups, may have contributed to their actions. Additionally, Sykes and Matza's Techniques of Neutralization explain how perpetrators justify their crimes by denying victimization or transferring blame onto the victim.

#### 4.2 Noida Double Murder Case (2008)

The Aarushi Talwar case highlighted both the potential and limitations of forensic psychology. Despite the application of narco-analysis and polygraph tests, the findings were deemed inconclusive due to gaps in protocol and reliability concerns. The case became a media spectacle, further complicating the judicial process. Psychological Theory Application: Freud's Psychoanalytic Theory offers insight into the complex familial dynamics potentially underlying the case. The theory posits that unresolved intrapsychic conflicts and unconscious motives could influence actions, especially within close familial relationships. This perspective sheds light on possible motives and dynamics that may not be immediately apparent through traditional investigative techniques.

#### 4.3 Mahesh vs. State of Karnataka (2014)

This case involved the mysterious disappearance of a young woman, with forensic psychology techniques like polygraph tests used to investigate the accused. Although helpful, the tests' findings were limited in court due to procedural constraints. Psychological Theory Application: The Routine Activity Theory by Cohen and Felson could explain the victimization in this case. The absence of capable guardians and the presence of motivated offenders in routine environments created an opportunity for the crime.

#### 4.4 Abhijeet Ghosh vs. State of NCT Delhi (2017)

This case involved allegations of murder amid a financial dispute. Forensic psychology tools such as lie detector tests were employed, and their findings indicated the petitioner's innocence. However, the legal system hesitated to fully integrate these results into its deliberations. Psychological Theory Application: The General Strain Theory by Agnew provides a lens to understand the accused's behaviour. Strains such as financial disputes or personal grievances can lead to criminal actions when individuals perceive no legitimate means to resolve their frustration.

#### **4.5 Psychological Theories Explaining Causal Factors in Criminal Behaviour:**

##### **Strain Theory**

Merton's Strain Theory posits that societal structures often impose unattainable goals on individuals, leading to frustration and deviance. In many Indian criminal cases, socio-economic pressures or caste dynamics serve as sources of strain, pushing individuals toward criminal behaviour.

##### **Social Disorganization Theory**

This theory suggests that crime is a product of community breakdown, particularly in areas marked by poverty, instability, and weak social networks. In India, marginalized communities often lack access to resources, creating environments conducive to criminal behaviour.

##### **Frustration-Aggression Hypothesis**

Dollard's hypothesis posits that aggression is often a result of blocked goals or frustrations. This theory can explain impulsive crimes, particularly in cases involving interpersonal violence, as seen in the Hathras gang rape and the Noida double murder.

##### **Neutralization Techniques**

Sykes and Matza describe how criminals justify their actions through rationalizations such as denial of injury or blaming the victim. These techniques are evident in cases like Hathras, where perpetrators' attitudes reflect societal biases that de-humanize marginalized groups.

##### **Psychopathy and Antisocial Personality Disorder**

In cases involving planned and repetitive crimes, traits associated with psychopathy, such as a lack of empathy and manipulateness, are often observed. Hare's Psychopathy Checklist can provide insights into such behaviours.

#### **4.6 Challenges in Forensic Psychology Applications**

##### **Ethical Concerns**

While techniques like narco-analysis and polygraph tests provide valuable leads, their involuntary administration raises ethical issues. Courts, including the Supreme Court of India, have often questioned the admissibility of evidence obtained through such methods due to potential rights violations.

**Lack of Standardization and Training** Indian law enforcement lacks sufficient training in applying forensic psychology techniques effectively. This leads to procedural errors and reduces the reliability of results in legal contexts.

## Judicial Hesitancy

Courts are often reluctant to fully accept findings from forensic psychological techniques due to concerns about reliability and lack of corroborative evidence.

By incorporating psychological theories, the analysis not only explains the causal factors of criminal behaviour but also emphasizes the importance of systemic reforms to fully utilize forensic psychology in India's justice system.

## Conclusion

Forensic psychology in India holds significant promise but requires concerted efforts to overcome challenges related to training, awareness, and ethical practices. By integrating forensic psychology into mainstream criminal investigations and judicial processes, India can enhance its capacity to deliver justice effectively. Future research should focus on developing reliable methods and exploring interdisciplinary approaches to strengthen the role of forensic psychology in the justice system.

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