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CRIMINAL PROFILING & STATISTICAL ANALYSIS IN INDIAN CRIMINAL JUSTICE SYSTEM

~Aaysha Khan

Criminal Profiling, also known as offender profiling, is an investigative strategy used by law enforcement agencies to identify suspects and has been used by investigators to link cases that may have been committed by the same perpetrator.

It is a tool in behavioural investigations that can analyse the crime scene, victimology and the manner of crime, to create a psychological, behavioural and demographic (geographical) profile. It can infer characteristics such as offender's age, race, employment status, and psychological state as well as predict future behaviour to a degree.

The earliest known case of criminal profiling is the Jack the Ripper case; the authorities attempted to deduce the personality and characteristics of the unknown offender based on the crimes and to understand the motives behind the criminal action.

There are multiple approaches to offender profiling, including the FBI's typological method, Inductive Reasoning, Deductive Reasoning, geographical profiling and investigative psychology, Behavioural Analysis. Criminal Profiling employs several methods to build a comprehensive profile of the offender: - Inductive Reasoning, Deductive Reasoning. Profiling is mostly used to solve cases involving serial killers, sexual offenders and arson. They can be used to narrow down suspects, understanding motive and predicting future crimes.

Criminal Profiling has been previously used in cases for:

- Patterns recognition of behaviour: profilers studied the methods used by attackers, to differentiate between premeditated attacks with impulse killings.
- Group Dynamics: with cases involving multiple offenders or assailants, the dynamics between the group members helped establish chain of command
- Victimology: Another approach in profiling, helps recognise why a particular victim may have been targeted, by studying the victim's background, social circle and lifestyle.

Significant Features of criminal Profiling include:

- Behavioural Analysis
- Crime Scene Reconstruction
- Victimology
- Modus Operandi (MO)
- Signature
- Use of statistical and geographical Data
- Cultural context

Despite its use in law enforcement, offender profiling remains controversial, with critics arguing that it often lacks empirical validation, and relies heavily on subjective interpretation, also may contribute to cognitive bias. As of 2021, although the practice of offender profiling is widely used, publicized and researched globally, critics question the reliability, validity and utility of criminal profiling. The usage of profiling has been documented in Sweden, Finland, New Zealand, South Africa, Germany, Canada, Ireland, Malaysia, Russia, Zimbabwe and the Netherlands.

Statistical analysis by definition transforms raw data into measurable insights that guide resource allocation, policy research and real time tracking within the Indian criminal justice system. The Indian justice system involves transforming e-court records, National Judicial Data Grid (NJDG) numbers, and case files into metrics to measure pendency, track backlogs, and guide administrative policies. It can help with data compilation for agencies like the National Crime Records Bureau as it publishes the annual compendiums such as prison statistics and arrest demographics.

India is also focusing on the Inter-operable Criminal Justice System (ICJS) that combines Police (CCTNS), e-forensics, e- courts, e prosecution and e- prisons to monitor active case flows. It has also been used in advanced analytics and research such as Exploratory Data Analysis to predict crime hotspots. Modern steps, such as the Gujarat High Court establishing a dedicated Statistical and Data Analysis Unit, aim to use quantitative foresight rather than reactive record-keeping.

INDIAN IMPLEMENTATION

Crimes in India vary by wide range of criminal activities such as theft, homicides, organised crimes and terrorism. Although criminal profiling has gained importance and recognition in India, its application is still limited due to several challenges, including lack of trained professionals, limited database support and lack of institutional support.

According to the National Crime Records Bureau (NCRB), in most recent 2024 published database for crime statistics in India, total of 51,24,205 IPC and BNS cases (15,75,201 cases pending from previous year + 35,44,608 reported during the year + 4,396 cases re-opened for investigation) were under investigation, out of which total of 35,21,488 cases were disposed of by police including 25,40,668 cases which were charge sheeted, resulting in the charge sheeting rate of 72.1%.

Given the rise in violent and organised crime, profiling can assist Indian Law enforcement by providing psychological insights into the motivations, likely background, and future actions of offenders. The potential benefits of profiling include narrowing the suspect list by creating profiles for cases with unknown motives and offenders can help narrow down the suspect pool. According to the data from NCRB shows that 18- 20% of rape cases involve repeat offenders. Here profiling can aid in identifying behavioural patterns and prevention of future crimes. For serial crimes or offences

Anticipating future crimes: by recording and analysing past behaviour, one can predict the repeat offenders from committing more crimes.

Applications of criminal profiling in India can include:

- Heinous crimes - rape, sexual assaults and homicides
- Homicides with unique MO or signatures - torture, mutilation, ritualistic violence
- Child abduction / Molestation
- Arson / Bombing
- Cyber Crime

Challenges of criminal profiling in India

Criminal Profiling requires a special set of skills and training in criminology, forensics and psychology.

India’s Forensic Infrastructure is underdeveloped, there are few institutions that provide expertise in forensic psychology, making case personnel prioritized and limited.

In the US, criminal databases like the FBI's VCAP (Violent Criminal Apprehension Program) are the result of decades of research and categorisation. India lacks a similar database and trained personnel on crime patterns or repeats offenders as well as offender behaviour.

There is also certain judicial scepticism about the effectiveness and proof of criminal profiling as it is considered circumstantial evidence without precedent cases. This limits the extent to which law enforcement can rely on profiling during investigations. Due to limits of mapping the behavioural analysis to concrete physical evidence, profiles are not completely admissible in courts. There is also

the special concern of India's cultural and linguistic diversity that makes profiling challenging, as the methods and profile points developed in foreign countries cannot be applied the same way in Indian context. Due to heavy influence of socio - cultural factors on individual mindset and thus variations, criminal behaviour often does not follow the same pattern. Even taking in context the Indian subcontinent, profiles can vary with context of spoken language, and regions, just as crimes do. Profilers have to take special care to account for unique social dynamics, religious beliefs and cultural practices depending on different Indian regions. Hence, criminal profiling is still being developed and is underutilised in India.

Although rare criminal profiling has been previously used in cases such as:

Nithari killings 2006, a series of brutal murders involving women and children in the village of Nithari near Noida. Behaviour analysis helped in understanding the psychopathic tendencies of the accused, who displayed a compulsion of necrophilia and cannibalism. The profiling helped in his conviction.

Hyderabad Rape and Murder Case 2019, Forensic psychologists were brought in to analyse the mindset of offenders to find patterns of extreme aggression and lack of empathy.

Kolkata Doctor Rape Murder Case 2024, the central bureau of Investigation conducted a psychological profile of the accused. The profiling, led by experts from the central forensics science laboratory (CFSL) and AIIMS Delhi, to understand the accused's motives and psychological state.

There also have been several challenges in Judicial Statistical Analysis

- Data Inflation: Counting procedural steps or multiple bail applications as separate disposals or cases can exaggerate numbers and distort true case backlogs.
- Inconsistent Collection: Varying data-gathering methods across different states and districts prevent uniform national comparisons.
- Administrative Focus: Databases are often built for basic court management rather than empirical legal research, creating hurdles for accurate trend analysis.

Criminal profiling and law in India

In India, the admissibility of criminal profiling is not an accepted evidence case, it has been used to aid in investigation and direct it, the need of physical evidence to map the criminal profile is still ambiguous. Profiling itself raises privacy and ethical concerns, for dangers of bias influence and discrimination. The Indian law needs proper safeguards as to use profiling responsibly and work on right and justified convictions. The framework needs to be updated to adapt the new use of profiling in various criminal investigations. Clear guidelines and regulations are required for ethical and efficient use of profiles.

The behavioural Science Unit (BSU) has been created in the Central Bureau of Investigation (CBI) to assist in psychological profiling of criminals, particularly situations involving organised crime, terrorism and serial killings. The FBI's Behavioural Analysis Unit served as blueprint for the same. Forensic Psychology courses have also developed in institutions and supported by organisations such as the National Institute of Mental Health and Neurosciences (NIMHANS).

Criminal Profiling and law in India include elements and acts such as Indian Penal Code (IPC), Indian Evidence Act and Code of Criminal Procedure (CrPC) transitioning to new legislation such as the BNS (Biometric/National Security related), BNSS (Surveillance and Security - related), and BSA (Biometric Security Act) Acts of 2023.

Originally IPC defines criminal offences and outlines penalties for various crimes. Criminal profiling usually helps based on recognising offenders based on behavioural patterns. In the transition to newer laws such as Section 101 of BNS, profiling may assist in identifying offenders and their psychological state and motives for better outcomes.

Similarly, in the BSA, 2023, sections related to admissibility that corresponds to Indian evidence act, make it easier for profiling - based evidence, such as psychological evidence and behavioural studies, that can be implemented during trials.

Criminal Profiling is a relatively new fiend in India, but it is gaining recognition and importance as it becomes a valuable tool for law enforcement agencies. However, to use profiling ethically and responsibly, the laws need detailed revisions before full implementation. Similarly statistical analysis has become a crucial part of law and judiciary with the development of greater data driven software's and real time tracking; it also gains traction for development.

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