



The double-edged sword- Criminal Law, Forensic Science and the impact of Narco Analysis on the convict's life

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Abstract

The path taken by people in the legal system is greatly influenced by the intersection of forensic science and criminal law. In criminal law, forensic science, especially techniques like narcoanalysis tests, presents a complex issue. While these methods are viewed as tools for truth and justice, they also raise serious ethical, legal, and human rights concerns. This research looks into the significant effects of these controversial tests on individuals in the legal system. The focus is on their changing legal status in India, their scientific reliability, and their admissibility as evidence. Through case studies, the methodology explores their real-world impacts on the constitutional rights and mental health of the accused. The main finding is that these methods have a deep impact on an individual's journey from investigation to conviction and possible rehabilitation. This highlights a major conflict between scientific progress and basic human rights.

Keywords: Criminal law, forensic science, narco-analysis, convicts, human rights, self-incrimination, admissibility of evidence, india, rehabilitation, psychological impact

Introduction

The modern criminal justice system increasingly relies on scientific methodologies to investigate crimes, establish culpability, and administer justice. Forensic science, an expansive field encompassing disciplines from DNA analysis to digital forensics, has become an indispensable component in providing objective evidence that can corroborate testimonies, link suspects to crime scenes, and identify perpetrators. However, within this progressive landscape of technological advancement, not all forensic techniques are universally accepted or ethically unproblematic. Narco-analysis, frequently sensationalized as "truth serum" tests, stands out as a particularly contentious method. Its application ignites fundamental debates concerning individual autonomy, the sacrosanct right against self-incrimination, and the very definition of a "voluntary" confession in the legal paradigm. This research article undertakes a critical examination of how the application of such intrusive techniques, especially narco-analysis, influences the intricate legal process and, consequently, profoundly impacts the lives of those accused and ultimately convicted.

The Pervasive Influence of Forensic Science on the Criminal Justice Trajectory

Forensic science has undeniably revolutionized crime investigation, offering an array of sophisticated tools that move beyond traditional eyewitness accounts and circumstantial evidence. From the definitive identification offered by DNA profiling and fingerprint analysis to the intricate details revealed by ballistics, toxicology, and digital forensics, these disciplines aim to imbue the investigative process with objectivity and precision. For individuals who become enmeshed in the criminal justice system, the influence of forensic science is transformative, manifesting in several critical ways.

Firstly, forensic evidence frequently forms the bedrock of conviction. The seemingly irrefutable nature of scientific findings can lead to swift and decisive judgments,

potentially bringing closure to victims and society. However, this reliance places an immense burden on the accuracy and integrity of forensic procedures. Any error in collection, analysis, or interpretation, whether due to human error, faulty equipment, or even deliberate manipulation, can lead to a grave miscarriage of justice, resulting in wrongful convictions that irrevocably alter an individual's life. Such errors strip individuals of their liberty, devastate their reputation, and foreclose future prospects. The sobering reality of wrongful convictions driven by flawed forensic evidence, as highlighted by numerous exoneration cases globally, underscores the imperative for continuous refinement, stringent quality control, and robust oversight within forensic disciplines.

Conversely, forensic advancements, particularly DNA technology, have also served as powerful instruments of exoneration. Numerous individuals, having languished for years or even decades in prison for crimes they did not commit, have found their freedom through the re-examination of old evidence using advanced forensic techniques. This demonstrates the inherent duality of forensic science – a powerful enabler of both conviction and, mercifully, liberation from unjust incarceration. Beyond the verdict, the depth and nature of forensic findings can significantly influence judicial sentencing decisions, offering insights into the gravity of the crime, the method of commission, and the culpability of the offender. Moreover, a comprehensive understanding of the criminal act, often illuminated by forensic analysis, can theoretically inform more targeted and effective rehabilitation strategies, although this rehabilitative potential often remains secondary to punitive approaches within many justice systems.

Narco-Analysis: Unveiling a Contentious Investigative Frontier

Among the diverse spectrum of forensic techniques, narco-analysis holds a particularly contentious position. Often sensationalized as "truth serum" tests, narco-analysis

involves the intravenous administration of psychoactive drugs, typically sodium pentothal or sodium amyltal, to induce a semi-conscious, hypnotic-like state in the subject. The underlying theory posits that in this altered state, an individual's conscious inhibitions are lowered, making them more susceptible to revealing information they might otherwise deliberately conceal. While some proponents argue for its utility in cracking complex cases where conventional interrogation methods have failed, its application has ignited fervent debates concerning ethical boundaries, scientific reliability, and fundamental human rights.

The Evolving Legal Landscape and Admissibility in India

The legal standing of narco-analysis in India has been predominantly shaped by landmark judicial pronouncements rather than specific legislative mandates. The constitutional bulwark against involuntary narco-analysis rests firmly on Article 20(3) of the Indian Constitution, which enshrines the fundamental right against self-incrimination, declaring that "No person accused of any offense shall be compelled to be a witness against himself." Critics have consistently argued that forcing an individual to undergo narco-analysis directly contravenes this sacred right, as it seeks to extract information from a person who is not in full conscious control of their faculties or responses [1].

The watershed moment arrived in 2010 with the Supreme Court of India's unequivocal judgment in *Selvi & Ors. v. State of Karnataka & Anr.* [2]. The landmark ruling in this consolidated batch of petitions firmly held that the involuntary administration of narco-analysis, polygraph, and brain mapping tests is unconstitutional. The Court meticulously reasoned that such coercive methods violate not only the right against self-incrimination (Article 20(3)) but also the broader right to life and personal liberty enshrined in Article 21 of the Constitution. Crucially, the Supreme Court declared that statements made under the influence of narco-analysis are generally inadmissible as direct evidence in a court of law. However, the Court introduced a nuanced exception: any "information or material subsequently discovered" as a direct consequence of a voluntarily undertaken test could be admitted under Section 27 of the Indian Evidence Act, 1872, provided strict safeguards are observed and the discovery is independently corroborated by other evidence.

Recent affirmations by the Supreme Court in June 2025 have further solidified this legal position. In *Amlsh Kumar v. The State of Bihar*, the Supreme Court categorically reiterated that "under no circumstances is an involuntary or forced narco-analysis test permissible under law. [3]" This judgment stemmed from a case where the Patna High Court had improperly permitted involuntary narco-analysis tests during a bail hearing. The Supreme Court underscored that even if an accused voluntarily consents to the test, the results themselves cannot form the sole basis for conviction. Any information gleaned from such tests must be corroborated by independent evidence to hold evidentiary value [4]. Furthermore, the Court clarified that while an accused may voluntarily seek to undergo such a test, there is no absolute or indefeasible right to do so, and the decision rests with the concerned court, which must assess the totality of circumstances and ensure free and informed

consent, typically at the stage where the accused exercises their right to lead evidence in defense.

Unmasking the Reliability and Ethical Labyrinth

Beyond the intricate legal framework, the scientific reliability and profound ethical implications of narco-analysis remain subjects of intense scrutiny and robust debate.

The core scientific challenge to narco-analysis lies in its questionable reliability. Numerous scientific studies and expert opinions have cast significant doubt on the veracity of information elicited under the influence of these drugs. Individuals in a semi-conscious state can be highly suggestible, susceptible to external cues, prone to confabulation (creating false memories), or even capable of consciously fabricating information despite the drug's effects [5]. Since individual responses can differ greatly depending on physiology, psychological state, and even the interrogator's skill, the idea of a "truth serum" that ensures absolute truth is essentially a myth [6].

The practice of narco-analysis presents extremely difficult ethical issues. There are inherent medical risks associated with administering strong psychoactive drugs, such as the possibility of severe adverse reactions, prolonged comatose states, or, in the case of an incorrect dosage, even death [7]. Furthermore, when an accused person is in custody, the basic principle of informed consent is put under a great deal of strain. The inherent power imbalance between law enforcement agencies and an individual facing criminal charges can lead to a situation where consent, even if formally given, may be perceived as coerced rather than genuinely voluntary, thus undermining the very essence of bodily autonomy and personal liberty [7]. Critics forcefully argue that compelling an individual to reveal information by chemically altering their mental state constitutes a profound invasion of their mental integrity and human dignity, potentially crossing the line into cruel, inhuman, or degrading treatment [8].

Illustrative Case Studies and Their Ripple Effects on Convicts

While the *Selvi* judgment significantly curtailed the involuntary application of narco-analysis, it was utilized in several high-profile cases in India prior to 2010. Even today, discussions surrounding its voluntary use or its role in the investigative process persist, underscoring its continued relevance in the discourse on criminal justice.

Narco-analysis was used prominently in the *Abdul Karim Telgi Fake Stamp Paper Scam (2004)*. In the early stages of this massive financial fraud case, the Bombay High Court had, at one point, indicated the potential legality of using such tests. While the statements obtained were not considered direct admissible evidence, they were believed to offer investigative leads. For Telgi and his co-accused, the tests primarily influenced the direction of the investigation, helping investigators unravel the intricate network, but convictions were ultimately based on a voluminous body of financial and documentary evidence, rather than solely on the narco-analysis findings.

The *Nithari Killings Case (2007)*, a horrific series of child murders, also saw the application of narco-analysis on the primary accused, *Moninder Singh Pandher* and *Surendra Koli*. The tests were reported to have provided some crucial leads and corroborative details that aided the police in

identifying victims and understanding the modus operandi. However, it is vital to note that the convictions in this deeply disturbing case were predominantly secured through a confluence of other compelling evidence, including DNA analysis of skeletal remains, recovery of evidence at the crime scene, and various witness testimonies. The public perception of narco-analysis in this case was often one of a last resort, a scientific tool to unlock truths where traditional methods had faltered, even as its direct evidentiary weight remained legally circumscribed.

Another significant case involved Ajmal Kasab, the lone terrorist captured alive during the 26/11 Mumbai Terror Attacks (2008). At the beginning of his interrogation, Kasab was also subjected to narco-analysis. According to reports, the information gleaned while under the influence of the drug helped the investigating authorities piece together the larger conspiracy, identify handlers, and validate details regarding the attack's preparation and execution, even though it could not be directly admitted as a confession in court. In Kasab's eventual conviction, the narco-analysis played an indirect, corroborative role, as his guilt was overwhelmingly established by irrefutable eyewitness accounts, forensic evidence from the crime scenes, and his own actions captured on camera.

These case studies reveal a consistent pattern: while narco-analysis has been employed as an investigative instrument to potentially unearth hidden information or corroborate existing leads, its direct evidentiary weight in securing convictions has been consistently curtailed by judicial rulings, particularly post-Selvi. For individuals who are subjected to these tests during the investigative phase, the immediate outcome of the test itself might not directly determine their guilt or innocence. Nevertheless, the experience of undergoing such a test, with its inherent ethical ambiguities and potential psychological ramifications, undoubtedly leaves a lasting impact on the individual, irrespective of the final legal verdict.

Beyond the Verdict: The Enduring Impact on Convicts' Lives

Even when the results of narco-analysis tests are not directly admissible as evidence leading to conviction, their influence on a convict's life can be profound and enduring.

The most immediate and often overlooked impact is the psychological trauma associated with undergoing such a procedure. Being subjected to a process where one's mental state is chemically altered, and personal thoughts or suppressed memories are purportedly laid bare, can be a deeply disorienting, invasive, and psychologically distressing experience. This can contribute to chronic anxiety, feelings of violation, and post-traumatic stress, effects that may persist long after the legal proceedings have concluded, challenging an individual's mental well-being whether they are ultimately convicted or acquitted.

Furthermore, in an era of pervasive media coverage, the mere news of an accused person undergoing a narco-analysis test often ignites public speculation and media sensationalism. This can inadvertently lead to a "conviction by media" long before the judicial process has run its course. Such public perception can severely damage an accused person's reputation, social standing, and future prospects, creating a stigma that can be difficult to shed, irrespective of the final legal outcome. For those eventually

convicted, this societal pre-judgment can complicate their journey towards rehabilitation and social reintegration.

The information derived from narco-analysis, even if not directly admissible as a confession, can subtly but significantly influence investigative and prosecutorial strategies. Leads obtained under narco-analysis, if independently verifiable, can guide investigators towards other sources of evidence, direct further interrogations, or shape the prosecution's overall approach to the case. This indirect influence, while not constituting direct evidence, can still contribute to the accumulation of a strong case against an individual, eventually leading to conviction.

The decision to grant or deny bail and the length of pretrial detention can also be indirectly affected. Although the results of a narco-analysis cannot be the only factor, their purported "revelations" may quietly influence the court's judgment and result in a lengthy detention during the investigation and trial stages, which would further affect the person's freedom and mental health.

Finally, for those who are ultimately convicted, the experience of having undergone narco-analysis may add another layer of psychological complexity to their rehabilitation journey. Addressing the potential trauma, feelings of violation, and the burden of public scrutiny stemming from such tests becomes crucial for their successful reintegration into society. A holistic approach to rehabilitation must consider not only the physical and psychological consequences of incarceration but also the specific impacts of intrusive investigative techniques.

Review of Related Literature (RRL)

Constitutional Doctrine & Admissibility in India, from Selvi to Amlesh Kumar

The debate on narco-analysis in India centers on constitutional law. The key case, *Selvi v. State of Karnataka* (2010), forms the judicial foundation. In this case, the Supreme Court clearly stated that forcing someone to undergo narco-analysis, polygraph, and brain-mapping tests violates constitutional rights under Articles 20(3) and 21. The Court noted that compelling an accused individual to take these tests infringes on their right against self-incrimination and their right to personal liberty and human dignity. The judgment recognized the invasive and coercive nature of these techniques, which deprive individuals of their autonomy and may cause psychological harm.

The issue arose again in *Amlesh Kumar v. State of Bihar* (2025). Here, the Supreme Court emphasized that narco-analysis cannot be considered an investigative right. The Court pointed out that ordering such tests requires strict judicial conditions, including assessing the accused's medical fitness, the risk of psychological trauma, and the absence of less invasive alternatives. Additionally, the Court stated that consent must be informed and voluntary, with adequate protections against misuse. Together, *Selvi* and *Amlesh Kumar* create a framework where constitutional rights act as a crucial barrier against investigative overreach. This has significant implications for forensic and investigative practices, as it limits law enforcement's ability to rely on narco-analysis and requires the use of more reliable scientific methods.

Scientific Validity & Suggestibility, the "Truth Serum" Myth

The basis of narco-analysis as a forensic tool faces strong scientific doubt. Research published in the *Indian Journal of*

Medical Ethics and the Indian Journal of Medical Research has consistently challenged the idea of the so-called “truth serum.” Clinical studies show that drugs like sodium pentothal or sodium amytal do not foster reliable truth-telling but actually increase suggestibility. This altered state of awareness can lead to confabulation, where the subject unintentionally mixes fact with imagination, or parroting information suggested by interrogators.

The issue of false positives and fabricated details makes narco-analysis very unreliable for evidence. Researchers argue that depending on such unproven methods threatens justice and could lead to wrongful convictions, harming the fairness of trials. Furthermore, the lack of peer-reviewed, reproducible evidence supporting its effectiveness strengthens the view that narcoanalysis is an untested tool. From an investigative perspective, this raises important concerns: police agencies might be misled by incorrect disclosures, wasting resources and undermining criminal investigations. Thus, research in this area strongly advises against treating narco-analysis as valid evidence and instead portrays it as a risky investigative shortcut opposed to the principles of criminal justice.

Comparative Jurisprudence on Drug-Aided Statements & Bodily Integrity

International case law provides valuable insights into how courts around the world have dealt with drug-induced statements. In the United States, the Supreme Court in *Townsend v. Sain* (1963) determined that a confession obtained under the influence of drugs is usually considered involuntary. The Court argued that the reliability of such a confession is suspicious, and its extraction violates the Due Process Clause. This case remains a key reference in rejecting “truth serum” techniques in American constitutional law.

Likewise, the European Court of Human Rights in *Jalloh v. Germany* (2006) examined the forced use of emetics to obtain evidence from a suspect. The Court found that such coercive bodily actions violated the ban on inhuman and degrading treatment under Article 3 of the European Convention on Human Rights and compromised the right to a fair trial under Article 6. Although the specific circumstances differ from narco-analysis, the principles are similar: forced or coerced bodily interventions conflict with modern constitutional guarantees of dignity, autonomy, and fairness.

These international cases serve as warnings, showing that reliance on drug-induced statements undermines the validity of evidence collection and the credibility of the criminal justice system. They emphasize the need for investigation to use methods that respect bodily integrity and psychological safety.

Ethics & Medicolegal Practice, Contemporary Assessments

Beyond legality and science, the ethical concerns of narco-analysis are also critical to the discussion. Recent medicolegal literature (2024) argues that forcing individuals to undergo narcoanalysis undermines their autonomy and dignity and creates ethical dilemmas for medical professionals. Doctors administering such tests may feel torn between their duty to “do no harm” and the demands of law enforcement. This tension raises serious concerns about medical involvement in potentially abusive practices.

Furthermore, the literature shows that consent in these cases is rarely truly voluntary. Due to the power imbalance between the accused and the state, individuals may feel pressured to agree under duress, questioning the legitimacy of the process. Scholars advocate for stronger judicial protections, trauma-informed consent procedures, and strict medical oversight if such tests are ever considered. From an investigative viewpoint, ethical research stresses the need for forensic methods to promote justice while avoiding re-traumatizing or exploiting vulnerable suspects.

Ethical discussions support arguments against the routine or forced use of narco-analysis, framing it as a practice that endangers human rights and the credibility of investigative outcomes.

Evidence Law after the 2023 Reforms, The Discovery Exception in Focus

The legal landscape has changed with the passing of the *Bharatiya Sakshya Adhinyam, 2023*, which replaced the Indian Evidence Act of 1872. Section 23 of the new Act continues the old Section 27, allowing an exception for “discovery of fact” based on information provided by an accused. However, scholars warn that this exception should not be stretched to support evidence obtained through involuntary narco-analysis. As reaffirmed in *Selvi*, only information gained through voluntary and informed consent can be admissible.

Recent academic discussions highlight the risks of prioritizing investigative convenience over constitutional protections. Courts are urged to be more vigilant in accepting derivative evidence from narco-analysis, ensuring that it does not compromise the standard for voluntariness. The literature also emphasizes the importance of aligning evidentiary law with constitutional rights, urging against judicial complacency in response to investigative pressure. From a forensic perspective, while narco-analysis might occasionally appear to provide leads, the legal value of such information remains uncertain. Investigators must acknowledge the limited legal worth of these techniques and avoid over-relying on them at the expense of thorough, evidence-based investigative practices.

Conclusion

The dynamic interplay between criminal law and forensic science, particularly exemplified by the contentious application of narco-analysis tests, mirrors the broader societal challenge of striking a delicate balance between effective crime detection and the inviolable protection of fundamental human rights. While forensic science, in its legitimate and reliable forms, remains an indispensable pillar in the pursuit of justice, the employment of intrusive and ethically questionable techniques like narco-analysis necessitates continuous scrutiny and rigorous adherence to constitutional safeguards.

The Indian judiciary, through its seminal *Selvi* judgment and subsequent affirmations, has commendably upheld individual rights by rendering involuntary narco-analysis unconstitutional and significantly limiting the direct admissibility of its results. This judicial stance thoughtfully acknowledges the profound ethical dilemmas, the inherent potential for coercion, and the scientific unreliability of confessions extracted under chemically altered states of consciousness.

However, the impact on the lives of individuals accused and eventually convicted transcends mere legal admissibility. The enduring psychological toll of such tests, the profound influence on public perception, and the subtle, yet significant, indirect effects on investigative trajectories underscore the unwavering imperative for continuous vigilance. Moving forward, the criminal justice system must consistently prioritize investigative methodologies that are not only scientifically robust and demonstrably reliable but also unequivocally ethically sound and fully compliant with the highest standards of human rights. This unwavering commitment is essential to ensure that the relentless pursuit of truth never comes at the unacceptable cost of fundamental liberties and the long-term human dignity and well-being of individuals caught in the intricate web of criminal law.

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