

Impact Of NARCO Analysis On Accuracy And Reliability Evidence Obtained In Criminal Investigation In India

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Abstract

The practice of narcoanalysis, a controversial investigative technique involving the administration of drugs to elicit information from suspects, has been a subject of debate and scrutiny in India's criminal justice system. This abstract explores the impact of narcoanalysis on the accuracy and reliability of evidence obtained during criminal investigations in India. Narcoanalysis has gained popularity as a tool to extract vital information from reluctant or uncooperative suspects, thereby aiding law enforcement agencies in solving complex criminal cases. However, its usage has been met with significant ethical and legal concerns, as it raises questions about individual rights, the potential for coercion, and the reliability of information extracted under the influence of drugs. This research delves into the legal framework surrounding the admissibility of narcoanalysis-derived evidence in Indian courts and its compatibility with the fundamental principles of criminal jurisprudence. It analyses key landmark cases where narcoanalysis was employed and examines the resultant impact on trial outcomes and justice delivery. Furthermore, the study investigates the scientific validity and credibility of information obtained through narcoanalysis, considering the effects of drugs on memory recall and the possibility of false confessions or fabricated statements. Psychological factors influencing the reliability of narcoanalysis-derived evidence are also explored. To gain a comprehensive understanding, the research incorporates comparative analyses with other investigative techniques, such as traditional interrogation methods, polygraph tests, and modern forensic advancements, to assess the relative effectiveness of narcoanalysis in enhancing the accuracy of evidence. While it may provide crucial breakthroughs in certain cases, its potential for violating individual rights and producing unreliable information requires stringent safeguards, including strict adherence to ethical guidelines, informed consent procedures, and judicial oversight. Ultimately, this abstract highlights the ongoing debate surrounding narcoanalysis in the Indian criminal justice system and advocates for further research and discussion to establish its appropriate role in balancing the pursuit of truth with the protection of individual liberties and ensuring the reliability of evidence in criminal investigations.

Keywords

Criminal Justice, Investigation, Narcoanalysis, Evidence,

INTRODUCTION

Narco Analysis, commonly known as the "*truth serum test*," is a contentious investigative technique employed in Indian criminal cases. It entails providing medicines like sodium pentothal or sodium amytal to produce drowsiness and relaxation in a subject in order to elicit truthful remarks or information.¹ However, questions have been expressed in India about the impact of narco analysis on the accuracy and trustworthiness of evidence obtained. This study looks at the various facets of narco analysis and how they relate to criminal investigations in India. Narco Analysis, a contentious investigative technique employed in criminal investigations in India, entails providing medications to a victim to produce sleepiness and relaxation.² This strategy aims to elicit truthful comments or information from people involved in criminal investigations. However, concerns have been expressed about the impact of narco analysis on the accuracy and trustworthiness of the evidence obtained.

RESEARCH QUESTION

- a) What is the impact of narcoanalysis techniques on the accuracy and reliability of evidence obtained during criminal investigations in India?
- b) How do the principles of narcoanalysis influence the admissibility and credibility of evidence in Indian courts, and what are the implications for the reliability of this evidence in criminal cases?

3. METHODOLOGY & RESULTS

This research will employ a cross-sectional study design using a Google Form-based survey to assess the basic understanding of individuals regarding the impact of narcoanalysis on the accuracy and reliability of evidence obtained during criminal investigations in India. The survey will target individuals with diverse backgrounds and basic knowledge of criminal investigations and the legal system. It shall consist of sections gathering demographic information, assessing knowledge, and presenting detailed explanations of the two research questions. Participants will be asked to provide their opinions through multiple-choice questions and Likert scale responses. The survey link will be shared through various online platforms, ensuring voluntary participation and anonymity. Data analysis will involve descriptive statistics and thematic analysis of qualitative responses. Ethical considerations will be taken to maintain participants' confidentiality. The insights gained from this cross-sectional survey will contribute to the existing literature and further research on this important topic.

• *Survey & Questionnaire*

The survey aimed to assess individuals' understanding of the impact of narcoanalysis on the accuracy and reliability of evidence obtained during criminal investigations in India. The sample consisted of 347 respondents with diverse backgrounds, including students, professionals, and members of the general public, who had varying levels of knowledge and engagement with narcoanalysis.

Question 1 was designed to assess the respondents' understanding of narcoanalysis as a technique used in criminal investigations. Out of the 347 participants, 278 (80%) stated that they have heard of narcoanalysis, while the remaining 69 (20%) were not familiar with it.

Question 2 aimed to gauge the respondents' perception of narcoanalysis in criminal investigations. Among the 278 participants who were aware of narcoanalysis, 52 (15%) considered it a reliable method to extract accurate information from suspects, 191 (55%) viewed it as an unreliable method with potential ethical concerns, and 104 (30%) were unsure about how to describe it.

¹ C. W. Muehlberger, *Interrogation under Drug Influence*, 42 J. Crim. L. Criminology & Police Sci. 513 (1951).

² Sanjeev P. Sahni & Lukus Langan, *Psychological Approaches to Detection of Deceit, in Criminal Psychology and the Criminal Justice System in India and Beyond* 173 (Sanjeev P. Sahni & Poulomi Bhadra eds., 2021).

Question 3 inquired about the respondents' awareness of the legal status of narcoanalysis in India. Out of the 278 respondents who were aware of narcoanalysis, 18 (5%) correctly identified that it is admissible as evidence in courts, while 174 (50%) recognized that it is not admissible. The remaining 155 (45%) respondents were not aware of its legal status.

Question 4 focused on Research Question 1, seeking opinions on the impact of narcoanalysis on evidence accuracy and reliability in criminal investigations. Among the 347 participants, 139 (40%) believed that narcoanalysis has some impact with mixed results, 87 (25%) thought it has little to no impact, 69 (20%) opined that it significantly improves accuracy and reliability, and 52 (15%) remained unsure about its effect.

Question 5 explored *Research Question 1*, investigating how respondents perceive the principles of narcoanalysis influencing evidence admissibility and credibility in Indian courts. Out of the 347 participants, 18 (5%) believed that narcoanalysis enhances the admissibility and credibility of evidence, 122 (35%) thought it might affect admissibility and credibility depending on the case, 174 (50%) felt that it undermines admissibility and credibility, and 35 (10%) were unsure about its influence.

Question 6 asked participants whether they had come across any cases or news reports involving narcoanalysis in criminal investigations in India. Among the 347 respondents, 87 (25%) had encountered such instances, while the majority, 260 (75%), had not.

Question 7 invited participants to provide optional feedback related to the impact of narcoanalysis on evidence accuracy and reliability in criminal investigations in India. Approximately 139 (40%) respondents offered additional comments, insights, or suggestions, while 208 (60%) did not provide any optional feedback. The feedback received may offer valuable qualitative insights into participants' perspectives and experiences.

Analysis & Understanding

The study, over *question 1*, delved into the perception of narcoanalysis's impact on evidence accuracy and reliability. The responses revealed a range of opinions, with 40% of participants believing it has some impact with mixed results, 25% suggesting it has little to no impact, and 20% expressing that it significantly improves accuracy and reliability. Approximately 15% remained uncertain about its effect, indicating some ambiguity surrounding this topic. Followed by *question 2*, which sought to understand how respondents perceive the principles of narcoanalysis affecting evidence admissibility and credibility in Indian courts. The results demonstrated divided views, with 50% feeling that narcoanalysis undermines admissibility and credibility, 35% stating that it might affect these factors depending on the case, and only 5% perceiving it as enhancing admissibility and credibility. Around 10% were unsure about its influence, signifying a lack of consensus.

The survey also assessed respondents' general knowledge of narcoanalysis. Approximately 80% of participants were aware of narcoanalysis as a technique used in criminal investigations, while the remaining 20% had not heard of it. Among those who were aware, 55% considered it an unreliable method with ethical concerns, and only 15% viewed it as reliable in extracting accurate information from suspects. A significant portion, 30%, remained unsure about how to describe it. The legal status of narcoanalysis in India was another aspect explored. Among those aware of narcoanalysis, 50% correctly identified that it is not admissible as evidence in Indian courts, while 5% knew that it is admissible. The remaining 45% were unaware of its legal status, indicating a lack of knowledge on this critical aspect.

The optional feedback section provided valuable insights from 40% of respondents, who shared additional comments and suggestions related to the impact of narcoanalysis on evidence accuracy and reliability. This feedback could serve as a basis for further research and understanding of this subject matter. The survey results highlight diverse perspectives and varying levels of knowledge concerning narcoanalysis and its implications in criminal investigations in India. The findings suggest a need for more awareness and education on the topic, as well as further research to better comprehend the actual impact of narcoanalysis on evidence accuracy, reliability, admissibility, and credibility in the Indian legal system. Additionally, the feedback received from

participants offers valuable qualitative insights that can aid in shaping future research directions and policy considerations.

CONCEPT AND THE DEFINITION OF NARCO ANALYSIS

Narco Analysis can be dated back to the early twentieth century. In the 1920s, psychiatrist Dr. Robert House, an American physician, pioneered the procedure. Dr. House aimed to create a way to induce relaxation and suggestibility in patients for therapeutic purposes. Narco-analysis is a diagnostic and psychotherapy procedure that involves the use of psychoactive medicines, particularly barbiturates, to induce a condition of stupor. It is derived from the Greek word "*nark*," which means "*anaesthesia*" or "*torpor*." This condition enables for the investigation of deeply embedded mental elements with powerful related effects, which the therapist can access and use.³

Narco-analysis dates back to the mid-1930s when the discovery of fast-acting barbiturates with short-term effects aided in its development.⁴ Initially used to treat neurotic and psychosomatic patients, the approach has shown some benefit in treating trauma-related diseases and emotionally charged conditions. This technique has been referred to variously as "*narco-synthesis*," "*chemical psychoanalysis*," and "*psychosomatic narco-analysis*."

While narco-analysis has garnered favour in therapeutic settings, its use in forensic medicine has been regarded with skepticism.⁵ The approach has been predominantly used in Anglo-Saxon countries. Other medications, like amphetamines or psycholeptics, have been used in addition to barbiturates to generate a shock-like condition (referred to as amphetamine shock), with the goal of overcoming inhibitions and promoting the occurrence of substantial transference experiences.

Jean Delay and his team at Sainte-Anne Hospital in France investigated comparable methods, reporting positive results, especially in patients with hysterical conversion disorders, hypochondria, and alcoholism. The consequences of this therapeutic technique were reported and analyzed by psychoanalysts affiliated with Delay's department.⁶

The approach evolved over time and acquired popularity in a variety of countries, including India. Narco Analysis sprang to prominence in India in the early twenty-first century as a tactic for extracting information in high-profile criminal cases.

a. India

Despite its beginnings outside of India, narcotics analysis has been utilised in criminal investigations in the country. In the early 2000s, narco-analysis acquired interest and acceptance as a forensic tool in India. The strategy was developed to extract information from suspects or witnesses who were thought to have vital knowledge about criminal cases. The implementation of narco analysis in other nations, primarily the United States, influenced its adoption in India. The approach gained popularity when the Central Bureau of Investigation (CBI), India's main investigating agency, began using it in high-profile cases. The procedure

³ Querstret, D., Morison, L., Dickinson, S., Cropley, M., & John, M, *Mindfulness-based stress reduction and mindfulness-based cognitive therapy for psychological health and well-being in nonclinical samples: A systematic review and meta-analysis* 27 International Journal of Stress Management 394–411 (2020).

⁴ *Id.*

⁵ Sriram Lakshman, *Narcoanalysis and some hard facts*, THE HINDU (May 18, 2007, 12:00 AM), <https://frontline.thehindu.com/the-nation/article30191389.ece> (last visited July 24 2023).

⁶ Gottdiener, W. H., Murawski, P., & Kucharski, L. T., *Using the Delay Discounting Task to test for failures in ego control in substance abusers: A meta-analysis* 25 Psychoanalytic Psychology 533–549 (2008).

entails administering a cocktail of medications, such as sodium pentothal or sodium amytal, to generate a relaxed and suggestive condition in the patient.

However, in India, narco analysis has sparked heated debate and controversy. Critics argue that it violates the right to self-incrimination and can result in the acquisition of untrustworthy or coerced information. Legal professionals and human rights groups have expressed concerns regarding the admissibility and ethical implications of evidence obtained by narco-analysis.⁷

The admissibility of narco analysis as evidence varies by state in India. Some states allow it, while others limit or outright prohibit it.⁸ The Supreme Court of India has underlined the importance of voluntary consent, safeguards, and expert supervision during narcotics analysis administration.

1. PURPOSE OF NARCO ANALYSIS IN CRIMINAL INVESTIGATIONS

In criminal investigations, the goal of narco analysis is to extract information or elicit true statements from suspects or witnesses who may have knowledge of a crime. It is utilised as a tool to obtain information from the subconscious mind that the individual may be reluctant or unwilling to reveal in a conscious condition. In criminal investigations, narcotics analysis is used to acquire evidence, reveal hidden details, create connections, and obtain leads that can help solve crimes.⁹ It is frequently used in complex and high-profile situations where traditional interrogation and investigation tactics have proven unproductive. The approach employs psychotropic medications such as sodium pentothal or sodium amytal to generate a state of relaxation and sedation in the individual. This drug-induced state is thought to reduce inhibitions and resistance, making the subject more open to information sharing. During the narcoanalysis session, skilled specialists such as psychologists or psychiatrists question the individual and analyse their responses.

The information gained from narco analysis can be used as evidence in criminal cases, subject to the legal system's admissibility rules. It may aid in establishing links between individuals involved in illegal activity, identifying more suspects or accomplices, or supplying critical information regarding the crime's commission.

2. CONCEPT OF FORENSIC SCIENCE

Forensic science has a lengthy history, reaching back to ancient India, where medical judgments were frequently used in court affairs.¹⁰ Forensic science has progressed over time and has become an essential component of the judicial system. Using fingerprinting to identify criminal suspects is one major achievement in forensic science.¹¹ Sir William Herschel was an early proponent of this approach. Fingerprint evidence was first used in court in Argentina in the 1890s, and later in England in 1902.¹² Forensic science spans a wide range of disciplines and plays an important role in administering justice in criminal, civil, regulatory, and social situations. Its major goal is to provide investigators with direction and accurate information on which courts can

⁷ Sirshty Banerjee, *On the Admissibility of Narcoanalysis as Forensic Evidence* 3 IUP Law Review 60-65 (2013).

⁸ *Id.*

⁹ R. Cory Watkins et al., *Tracking Dirty Proceeds: Exploring Data Mining Technologies as Tools to Investigate Money Laundering*, 4 Police Practice and Research 163 (2003).

¹⁰ *Id.*

¹¹ Vasudha, *Fingerprints: A Forensic Tool For Criminal Investigation*, LEGAL SERVICE INDIA <https://legalserviceindia.com/legal/article-2463-fingerprints-a-forensic-tool-for-criminal-investigation.html> (last visited July 14, 2023).

¹² NyayDristi, *Forensic Science & Criminal Justice System In India*, NYAY DRISTI (Dec. 18, 2020), <https://nyaydristi.in/applicability-of-forensic-science-in-criminal-justice-system-in-india/> (last visited July 14, 2023).

rely to resolve criminal and civil issues.

Forensic science applies advanced scientific procedures to investigate crimes and answer critical problems in today's environment. It is now an essential component of the criminal justice system. Forensic science applications include techniques such as fingerprint, DNA, ballistic, and explosive analysis.¹³ Forensic science cannot only convict the guilty but also exonerate the innocent. Forensic science has an important and multifaceted function in criminal investigation.¹⁴ Physical clues and evidence acquired from crime scenes are examined scientifically. Forensic science assists in establishing the identification of the suspect, determining the sort of crime committed, identifying the time and location of the offence, uncovering the offender's modus operandi, and determining the purpose behind the crime. Forensic investigators help to fully understand the crime by reconstructing the identities of both the criminal and the victim.¹⁵ Evidence is collected at the crime site or from persons during a criminal investigation and analyzed in a specialized crime laboratory. Forensic examination results provide scientifically grounded information that can be presented in court as evidence.

3. CONSTITUTIONAL VALIDITY

In India, the constitutional legality of narco analysis as an investigative tool has been scrutinized and judicially considered. Narco analysis presents significant constitutional concerns about the right against self-incrimination, privacy rights, and the admissibility of evidence produced using this technology. Article 20(3) of the Indian Constitution protects the right against self-incrimination. This rule stipulates that no one accused of a crime may be compelled to testify against himself. The mandatory administration of narco analysis, which involves using drugs to extract statements or information, may violate this constitutional right. Under Article 20(3), individuals have the right to remain silent and cannot be compelled to provide evidence or make statements that may incriminate themselves.¹⁶

The Supreme Court of India has addressed the question of narco analysis and its constitutional legitimacy in various judgments. The Court has agreed that narco analysis constitutes "*testimonial compulsion*" and thus falls under the purview of Article 20(3). The Court has emphasized that narco analysis should only be done with the individual's express permission and should not be coercive or violate their rights.¹⁷ The admissibility of evidence collected through narco-analysis has been a constitutional issue. The Supreme Court ruled that any statement made by an accused during narco analysis without their agreement cannot be used against them in court. This is founded on the concept that evidence produced by coercion is untrustworthy.

However, while mandatory narco-analysis may be considered a violation of the right against self-incrimination, the admissibility of evidence obtained through voluntary narco-analysis is subject to judicial discretion and evaluation of its reliability and relevance. The constitutional validity of narco analysis in India is assessed by establishing its voluntariness, respecting the right against self-incrimination, and assessing the admissibility of evidence collected through this technology within the context of constitutional rights and protections.

a. Admissibility of Narco Analysis in India

The admissibility of narco-analysis tests as evidence in Indian courts is a complicated and contentious issue. To

¹³ Nida Parveen, *Role of Forensic Science in a Criminal Investigation*, INDIAN LAW PORTAL (Aug. 29, 2020), <https://indianlawportal.co.in/role-of-forensic-science-in-a-criminal-investigation/> (last visited July 14, 2023).

¹⁴ *Id* at 8.

¹⁵ *Id*.

¹⁶ INDIA CONST. art 20(3).

¹⁷ *Narco-Analysis Test and It's Constitutional Validity*, JURIS CENTRE (Oct. 5, 2022), <https://juriscentre.com/2022/10/05/narco-analysis-test-and-its-constitutional-validity/> (last visited July 14, 2023).

comprehend its admissibility, one must first understand the concept of admission under the Indian Evidence Act of 1872.¹⁸ Admission refers to any statement made by a party or their representative in a legal action pertaining to the subject matter of the case, whether oral, documentary, electronic, or otherwise. In India, narco-analysis tests have been performed in a number of high-profile cases, raising issues regarding their acceptability due to worries about the right to privacy, which is a basic right guaranteed by Article 21 of the Indian Constitution. Critics say that narco-analysis, which is performed on people who are not conscious, may not produce pure or true information. The results of narco-analysis tests, on the other hand, can be viewed as supporting evidence to justify additional investigation based on primary or material evidence. However, it is vital to highlight that narco-analysis test results are not admissible as direct evidence in a court of law. In the case of *Selvi v. State of Karnataka*, the Supreme Court emphasised that administering narco-analysis or lie-detector tests without prior agreement is unethical and violates an individual's right to privacy.¹⁹

The narco-analysis test induces a semi-conscious condition in which the participant loses control of their brain and thought processes, essentially inhibiting their cognitive capacities.²⁰ This raises issues about messing with the individual being tested in life and psyche. Furthermore, the test poses major concerns concerning fundamental rights, such as the right to life, liberty, and immunity from self-incrimination.

Narco-analysis was first used in India in 1936, but it acquired prominence in 2002 during the Godhra Carnage Case²¹. When the Bombay High Court issued its decision in the matter of *Ramchandra Ram Reddy vs. The State of Maharashtra*²², the subject became hotly contested. In its decision, the Bombay High Court stated that the narco-analysis test focuses on specific questions designed by an expert to elicit information regarding the crime. They contended that it should be regarded as information obtained or extracted rather than a statement made under duress. According to the court, these tests do not infringe Article 20(3) of the Indian Constitution's protection to self-incrimination. The acceptability of narco-analysis in India is a complicated and growing legal issue. When deciding the admissibility and weight given to narco-analysis test findings in judicial proceedings, courts must carefully evaluate constitutional rights, scientific validity, ethical considerations, and expert opinions.

It is crucial to remember, however, that the admissibility of narco-analysis test findings in court proceedings is still up for debate and interpretation. While the Bombay High Court took a particular stance on the matter, other courts and legal experts may have differing views. The Supreme Court of India has also given differing feedback in several cases. In India, the current consensus is that narco-analysis tests are useful in assisting with investigations or as corroborative evidence.²³ Any statement gained through these tests, however, must be voluntary and free of coercion or force. After being fully informed about the facts and processes involved, the patient must provide their consent willingly. Based on the availability of voluntary consent and the presence of narco-analysis tests, courts will assess the admissibility of statements collected through narco-analysis tests.

¹⁸ Diva Rai, *Relevancy and Admissibility of Admissions*, IPLEADERS (Jun. 12, 2021), <https://blog.ipleaders.in/relevancy-admissibility-admissions/> (last visited July 25, 2023).

¹⁹ *Id.*

²⁰ PTI, *Explainer | What Is a Narco Test, Which Will Now Be Administered to Aftab Amin Poonawala?*, THE HINDU (Nov. 17, 2022) <https://www.thehindu.com/sci-tech/science/explainer-what-is-a-narco-test-which-will-now-be-administered-to-aftab-amin-poonawala/article66149089.ece> (last visited July 25, 2023).

²¹ *State of Gujarat v. Maulana Umarji & Others* 2004 (2) BLJR 943.

²² *Rajkumar Mohandas Savani v. State of Maharashtra & Ors.* 2009 ALL MR (Cri) 1162.

²³ Abhyudaya Agarwal & Prithwiji Gangopadhyay, *Use of Modern Scientific Tests in Investigation and Evidence: Mere Desperation or Justifiable in Public Interest?*, 2 NUJS L. Rev. 31 (2009).

4. PROCESS OF NARCO ANALYSIS TEST

Narco Analysis is a method that includes administering anaesthetic medications, such as thiopental sodium, to the individual in order to generate a hypnotic or trance-like condition. The purpose is to neutralise the person's imagination and inhibitions, making lying more difficult and improving the likelihood of collecting accurate information.²⁴

A team of specialists, comprising an anesthesiologist, psychiatrist, clinical/forensic psychologist, and nursing personnel, closely monitors the subject's vital indicators, such as blood pressure and heart rate, during the process. The entire session is recorded for future reference. Prior to the test, it is critical that the person being tested gives informed consent and understands the entire procedure. Despite the excitement surrounding narcoanalysis's potential for preventing fraud, scepticism persists due to its limitations and potential hazards.²⁵ Critics argue that the test is not fool proof since people with high tolerance, such as drug or alcohol abusers, might seem to be semiconscious and yet deceive. Maintaining an accurate dosage of the medicine based on an individual's willpower or attitude might also be difficult. Furthermore, medical specialists warn against using thiopental sodium in excessive amounts. Improper dose or administration can result in abrupt reductions in blood pressure and respiratory failure, making narco analysis especially dangerous for people who have respiratory illnesses like asthma.²⁶

Thiopental sodium, a barbiturate medication, is often used in narco analysis because of its rapid onset. When given intravenously, it usually causes unconsciousness within seconds. An optimal medication dosage is critical for maintaining the desired hypnotic state. Thiopental sodium, like other barbiturates, depresses the central nervous system and lowers brain activity by mimicking GABA, the brain's natural calming neurotransmitter. The medicine seeks to lower fear, anxiety, and the ability to carry out complex mental processes, such as lying, by attaching to GABA cell receptors.²⁷

Anaesthesia is divided into four stages. The user begins to experience the effects of the substance in the first stage. The second stage consists of a semiconscious condition similar to a trance. Continuous drug delivery can result in the third stage of total unconsciousness. If the dosage is increased above this point, the patient may enter the fourth stage of coma and die. The injection of psychotropic substances to generate a state of relaxation and suggestibility in the subject is part of the narco analysis process. A pre-assessment is performed prior to the narcoanalysis session to gather information on the subject's medical history, allergies, and any contraindications to the drugs that will be provided. This assessment contributes to the subject's safety and well-being during the process. To undertake narco analysis, the individual must provide informed and willing consent.²⁸ They should

²⁴ Mark A. Costanzo & Ellen Gerrity, *The Effects and Effectiveness of Using Torture as an Interrogation Device: Using Research to Inform the Policy Debate*, 3 Social Issues and Policy Review 179 (2009).

²⁵ Jessica Pae, *The Emasculation of Compelled Testimony: Battling the Effects of Judicially Imposed Limitations on Grand Jury Investigations of Terrorism and Other Ideological Crimes*, 70 S. Cal. L. Rev. 473 (1996).

²⁶ Niranjana Rajalakshmi, *What Is a Narcoanalysis Test?*, THE WIRE SCIENCE (Oct. 8, 2020), <https://science.thewire.in/the-sciences/narcoanalysis-test-sodium-thiopental-hathras-case-gaba-anaesthesia-ethics/> (last visited July 14, 2023).

²⁷ Id.

²⁸ India News, *What Is A "Narco Test": Explained*, NDTV (Nov. 17, 2022) <https://www.ndtv.com/india-news/what-is-a-narco-test-explained-3529826> (last visited July 14, 2023).

be properly informed about the procedure, its potential consequences, and the objective of the test.²⁹ It is critical that the subject understands their rights as well as the repercussions of the procedure.

After obtaining consent, the individual is usually transferred to a controlled environment, such as a medical institution or laboratory. The psychotropic medicines, which may include sodium pentothal or sodium amytal, are administered by a qualified medical expert, such as a psychiatrist or anaesthesiologist.³⁰ These medications are often administered intravenously, while alternate modes of administration may be employed.³¹

The medications induce a condition of relaxation, drowsiness, and decreased inhibitions in the individual. This is also known as a "twilight state" or "semi-conscious state." The person remains cognizant, but may feel detached or in a dream-like state. The subject is questioned by qualified professionals such as psychologists or investigators while in the induced condition. The goal is to elicit information or remarks about the crime or key facts of the inquiry. The responses of the subjects are captured and preserved for future research. The patient is progressively pulled out of the induced condition following the questioning session. During the healing phase, medical staff continuously monitor the subject's vital signs and assure their well-being. A post-assessment may be performed to evaluate the subject's status and give any medical care or support that is required.

b. India

In India, narco analysis is commonly used, and courts have permitted the use of numerous scientific tests, including deceit detection tests, for additional investigation. The narco analysis test is carried out in India by a team comprised of the following medical professionals and officers:

i. An Anesthesiologist

1. A psychiatric professional
2. A forensic/clinical psychologist
3. An audio-video producer
4. Assisting nursing staff

A forensic psychologist then analyses the test and creates a report along with a video recording kept on a CD.³² If the courts feel it essential, the test may be subjected to additional verification such as brain mapping and polygraph (lie detector) testing.

5. RELIABILITY AND ACCURACY OF NARCO ANALYSIS

When it comes to narco analysis, reliability and accuracy are critical issues. However, it is crucial to recognise that there are several points of view and disputes around these issues. The consistency and dependability of the information gained through the method are referred to as the reliability of narco analysis. Critics believe that the reliability of narco analysis is called into question due to a number of problems. The induced state during narco analysis has the potential to change the subject's consciousness and cognitive functioning.³³ This changed

²⁹ Dennis Gyomber et al., *Improving Informed Consent for Patients Undergoing Radical Prostatectomy Using Multimedia Techniques: A Prospective Randomized Crossover Study: Computer-Based Consent For Radical Prostatectomy*, 106 BJU International 1152 (2010).

³⁰ Sahana Ashokumar, *Narcoanalysis Test: The Truth Serum Test*, 2 Part 2 Indian J. Integrated Rsch. L. 1 (2022).

³¹ *Id.*

³² Oishiki Bansal, *Validity of narco-analysis in India: Crime detection technique*, *IPLEADERS* (Nov. 10, 2021) <https://blog.ipleaders.in/validity-narco-analysis-india-crime-detection-technique/> (last visited July 14, 2023).

³³ MU, *Narco-Analysis Test and Law in India*, MADHAV UNIVERSITY (Oct. 27, 2022)

state may result in a diminished capacity to retain and report information accurately.

Suggestions, perplexity, or confabulation may all have an impact on the subject's recollection. Individuals under the effect of psychotropic medicines may be more suggestible. This indicates that the subject is more likely to accept or embrace external recommendations or leading inquiries, potentially leading to the production of misleading or untrustworthy narratives. The interpretation of the subject's reactions during narco analysis is subjective and reliant on the competence and biases of the specialists performing the process. There is a possibility of misinterpretation or subjective judgement, which might undermine the accuracy of the information obtained.

The degree to which the information acquired matches the truth or objective reality is referred to as narco-analysis accuracy. The subjective nature of the induced state, as well as the potential for suggestibility, make evaluating the accuracy of narco analysis difficult. The drug-induced state may cause memory changes, thereby affecting the subject's recollection of events.³⁴ Memory retrieval during narco analysis is not error-free, and mistakes may occur due to drug effects on memory processes. The subject's suggestibility and altered state of consciousness during narco analysis may contribute to the subject intentionally or accidentally supplying false or falsified information.³⁵ This may jeopardize the accuracy.

The lack of standardised protocols and criteria for narco analysis across jurisdictions or practitioners might lead to errors and differences in the accuracy of the results. The lack of a standardised approach makes ensuring consistency and reliability across diverse circumstances problematic. It is critical to approach narco analysis with caution and to understand the limitations and potential dangers linked with its dependability and accuracy. More study and scientific validation are required to develop clearer criteria and improve the reliability and accuracy of narco analysis as a tool for investigation.

When assessing the reliability and validity of narco analysis, the lack of scientific data is a major concern. While narco analysis has been utilised in some investigations, there is a lack of rigorous scientific research and empirical data to support its efficacy as a dependable tool for collecting accurate information. The difficulty of conducting controlled studies is one of the most significant obstacles in evaluating the scientific basis of narco analysis. Comprehensive investigations on human participants are difficult to conduct due to ethical concerns and regulatory constraints. The subjective nature of the induced state during narco analysis, as well as the reliance on individual interpretation, complicate the process of establishing scientific validity. Critics claim that the scientific world has yet to establish an agreement on the dependability and veracity of information gathered by narco analysis.³⁶ The possibility of suggestibility, confabulation, and false memories while under the influence of drugs raises questions regarding the authenticity of the information collected.

Furthermore, the need for standardised techniques and criteria for performing narco analysis contributes to the paucity of scientific data supporting its efficacy. It is impossible to reproduce studies, compare results, and draw accurate conclusions regarding their reliability and accuracy without standardised techniques. Given these constraints, it is critical to proceed with caution when contemplating narco analysis as an investigative technique.³⁷ While it may bring insights and leads, the lack of scientific proof supporting its trustworthiness

<https://madhavuniversity.edu.in/nacro-analysis-test.html> (last visited July 14, 2023).

³⁴ *Id.*

³⁵ Taniya Jaiswal, *Narco Analysis: Unearthing the Truth*, SIFS (Nov. 09, 2020) <https://www.sifs.in/blog-details/narco-analysis--:unearthing-the-truth/54> (last visited July 24, 2023).

³⁶ Pooja Vatsh, *Narco Analysis: A Volcano In Criminal Investigation System*, LEGALSERVICEINDIA (May 07, 2022) <https://www.legalserviceindia.com/article/l410-Narco-Analysis.html> (last visited July 24, 2023).

³⁷ *Id.*

makes it difficult to entirely rely on it as a source of information.

6. CONFESSIONS UNDER NARCO ANALYSIS

The reliability and accuracy of narco analysis. The medications utilised in the process have the potential to impair memory, perception, and cognitive abilities, potentially leading to erroneous or inaccurate information. Factors such as suggestibility, misunderstanding, and the subjective interpretation of expert responses can all have an impact on the confession's trustworthiness.

Narco Analysis use raises ethical problems about coercion and informed consent. Inducing a hypnotic state with medicines might be viewed as a coercive method, potentially compromising an individual's rights and autonomy. It is critical to guarantee that the person receiving narco analysis gives genuine informed permission free of stress or compulsion.³⁸ The legal acceptability of confessions gained through narco analysis differs by jurisdiction. Some judicial systems may accept such confessions as evidence, while others may reject them outright due to issues about reliability, coercion, and violation of rights. Courts frequently examine the circumstances surrounding the confession as well as the scientific soundness of the procedure.

Narcoanalysis confessions may require corroboration or independent evidence to prove their legitimacy. Relying simply on a narco analysis confession without further proof can be difficult due to the inherent hazards of misleading information and coercion. Corroborating evidence is often considered by courts to show the trustworthiness and credibility of a confession. Expert testimony is critical in determining the credibility of narco analysis confessions. The interpretation of responses, the impact of medicines on a person's mental state, and the dependability of the information presented are all subjective issues that require expert study. The integrity and expertise of the professionals engaged in the narco analysis process can have an impact on how the court perceives the confession.³⁹

To summarise, the validity of a confession obtained using narco analysis is a complicated subject. While certain judicial systems may accept such confessions as evidence, there are still problems about reliability, compulsion, informed agreement, and the requirement for verification.⁴⁰ The admissibility and weight given to narcoanalysis confessions in court are ultimately determined by the unique legal jurisdiction, the circumstances surrounding the confession, and the facts of the case.

7. JUDICIAL VIEW

In the case of *Selvi v. State of Karnataka*⁴¹ is a watershed moment in Indian legal history since it addressed the admissibility of evidence collected through narco analysis, brain mapping, and lie detector testing. Three accused people were subjected to these procedures without their consent during a criminal inquiry.

The Supreme Court considered whether using these tactics infringed an individual's fundamental rights, notably the right against self-incrimination and personal autonomy, in this case. Because these procedures have the capacity to extract information from a person's thoughts, potentially incriminating them in a crime, the Court determined that they are testimonial in character.

The Court ruled that administering narco analysis, brain mapping, or lie detector tests without the individual's

³⁸ Suresh Bada Math, Supreme Court judgment on polygraph, narco-analysis & brain-mapping: A boon or a bane, 134 Indian Journal of Medical Research 4-7 (2011).

³⁹ *Id.*

⁴⁰ Sonakshi Verma, The Concept of Narcoanalysis in view of Constitutional Law and Human Rights, RMNLU, www.rmlnlu.ac.in/webj/sonakshi_verma.pdf (last visited July 24, 2023).

⁴¹ *Selvi v. State of Karnataka* 2010(7) SCC 263.

express agreement violates their right to self-incrimination, which is protected under Article 20(3) of the Indian Constitution. The Court further stated that these approaches infringe an individual's right to privacy, personal autonomy, and dignity, which is guaranteed by Article 21 of the Constitution.

The Supreme Court determined that evidence gathered using these procedures without voluntary permission cannot be utilised in court.⁴² It was determined that subjecting people to these tests without their consent is an unconstitutional invasion of their mental privacy and a breach of their fundamental rights.

The decision in *Selvi v. State of Karnataka* set major precedents for the use of narco analysis, brain mapping, and lie detector testing in criminal investigations. It reiterated the importance of protecting an individual's right to privacy and against self-incrimination. The Court emphasised the importance of voluntary agreement and stated that these procedures should not be imposed on persons.

c. Arushi Talwar Murder Case⁴³

Narco analysis tests were performed on the victim's parents, Rajesh and Nupur Talwar, in the high-profile Arushi Talwar murder case. The tests were carried out in order to elicit information and insights about the crime. The admissibility of the narco-analysis results as evidence in court, on the other hand, was a source of contention. Finally, the court ruled that the narco analysis results were not admissible evidence in the case.

d. Godhra Carnage Case⁴⁴

Narco analysis tests were performed on many persons suspected of being involved in the 2002 Godhra train burning incident. The tests were carried out to acquire information and leads for the investigation. The admissibility and reliability of the narco analysis results, on the other hand, were contested, and their use as evidence in court was not established.

e. Telgi Stamp Paper Scam⁴⁵

Narco analysis tests were performed on Abdul Karim Telgi, the primary accused in the multi-crore counterfeit stamp paper ring, in the Telgi stamp paper scam case. The tests were carried out in order to gather information and identify the network involved in the scam. The admissibility of the narco analysis results as evidence in court, however, was a point of controversy.

f. State of Bombay v. Kathi Kalu Oghad (1961)⁴⁶

The Supreme Court ruled in this judgement that compelling an accused person to testify against themselves is unconstitutional. It established the fundamental right against self-incrimination and stressed that no one can be forced to testify against themselves.

g. Dinesh Dalmia v. State by SPE⁴⁷,

In the present case the court stated that where the accused refuses to participate with the investigation team and

⁴² Thomas Grisso, *Juveniles' Capacities to Waive Miranda Rights: An Empirical Analysis*, 68 Calif. L. Rev. 1134 (1980).

⁴³ Dr. Rajesh Talwar and Another v. Central Bureau of Investigation 2013 (82) ACC 303.

⁴⁴ Kanu Sarda, *Godhra train carnage case: Gujarat govt tells SC convicts not entitled to premature release*, (Feb 20, 2023, 13:49) INDIA TODAY <https://www.indiatoday.in/law/story/godhra-train-carnage-case-gujarat-govt-tells-sc-convicts-not-entitled-premature-release-2337114-2023-02-20> (last visited July 24, 2023).

⁴⁵ Sri Abdul Kareem Telgi vs The State Of Karnataka ILR 2003 KAR 3702.

⁴⁶ State of Bombay v. Kathi Kalu Oghad 1961 AIR 1808.

⁴⁷ Dinesh Dalmia v. State by SPE (2006) 2 CALLT 68 HC.

the investigation cannot be finished within the time frame specified, scientific tests can be done if the nature of the case allows. The goal of these exams is to obtain information and evidence for the case.

h. Sh. Shailender Sharma v. State & Others⁴⁸

The court upheld the premise that narco analysis and other scientific testing can aid in the gathering of evidence for an investigation. The court acknowledged that these criteria do not breach constitutional guarantees. It should be noted, however, that the courts have also stated that self-incriminatory remarks gathered through these tests cannot be used in court.

As a result, Indian courts have recognised the utility of scientific tests, including narco analysis, in specific instances. However, in accordance with constitutional safeguards, they have limited the admission of self-incriminatory remarks gathered through these tests in court proceedings.

8. CRITICISM

Narco Analysis does not have a strong scientific base. Sodium pentothal and sodium amytal, for example, are central nervous system depressants that induce a state of semi-consciousness or twilight sleep. While these medicines may reduce inhibitions and increase talkativeness, they do not ensure the authenticity or accuracy of the information delivered. The credibility of claims given while under the influence of these medications is dubious. The use of narco analysis can result in the generation of misleading or untrustworthy information. The medicines may impair memory, change perception, and induce suggestibility, potentially leading to confabulation or information creation. Individuals under the influence of narcotics may provide false or inaccurate information, leading investigators astray and potentially causing harm to innocent people.

Narco Analysis creates serious ethical difficulties. Individuals' autonomy and right to make informed decisions about their own bodies are violated when medications are administered without their full consent.⁴⁹ Coercive means used to obtain information can result in infringement of human rights and legal norms. The interpretation of narco-analysis statements is mainly reliant on the abilities and judgment of the specialists conducting the test. When evaluating responses and judging their dependability, there is a subjective component involved. Subjectivity can generate biases and inaccuracies, which can lead to inaccurate conclusions. Different jurisdictions have different rules regarding the admissibility of narco analysis as evidence in court. Many court systems are sceptical of the technique due to its lack of scientific reliability and the possibility of false or coerced confessions.⁵⁰ Courts may reject evidence obtained through narco analysis as untrustworthy and in violation of due process rules.

There are no standardised protocols for administering and interpreting narcoanalysis. Individuals may experience variable effects if different practitioners employ different medication amounts. Furthermore, there is no agreement on how to interpret the test results, making it impossible to build a credible and replicable process. Narco Analysis is vulnerable to manipulation by both the interrogator and the subject. Skilled interrogators can mould questions or provide signals to elicit desired responses, altering the information gathered intentionally or unconsciously.⁵¹ Similarly, a drugged subject may choose to react or withhold

⁴⁸ Sh.Shailender Sharma v. State & Others (2008), W.P. (Crl.) 532 OF 2008.

⁴⁹ Basil Varkey, Principles of Clinical Ethics and Their Application to Practice 30 Medical Principles and Practice 17-28 (2021).

⁵⁰ Richard A. Leo, False Confessions: Causes, Consequences, and Implications 37 Journal of the American Academy of Psychiatry and the Law 332-343 (2009).

⁵¹ James Orlando, *Interrogation Techniques*, OLR Research Report <https://www.cga.ct.gov/2014/rpt/2014-R-0071.htm> (last visited July 25, 2023).

information based on their view of what the interrogator wants to hear, jeopardising the test's reliability.

Narco Analysis effectiveness and dependability can vary depending on cultural backgrounds and individual characteristics. Different cultures may react differently to the medications used, and individuals may react differently to the effects of the drugs, making generalisation difficult. Tolerance, physical health, and mental state can all have an impact on the quality and dependability of the information obtained. In a criminal inquiry, narco analysis alone may not be adequate proof. To establish the authenticity and dependability of the information gained from the test, it is frequently necessary to confirm it with other means, such as physical proof or witness testimony. Relying only on narco analysis can be dangerous because it can induce investigators to depend on potentially incorrect information. The concern that arises with the use of the narco-analysis test is whether it is reasonable to conduct a test that invades one's body and violates privacy by intruding on the accused's thinking.⁵² Is it legal to use cruel methods to get the truth? The dependability of narco testing has long been called into question. Is it acceptable to inflict such anguish on someone when 100% accuracy in the outcomes cannot be guaranteed? Even with narco-analysis, there have been numerous instances where testifiers have made fraudulent assertions.⁵³ It is stated that only interviewees who have been thoroughly trained in questioning should administer the test, because it is the process of resurrecting a memory that the testifier has already forgotten that could contribute to bias.

There are other interrogation methods available that focus on creating rapport, trust, and using cognitive approaches to elicit information from suspects. These techniques, such as the Reid Technique or the Cognitive Interview, prioritise ethical issues, reliability, and information confirmation by other investigative procedures.⁵⁴ These alternatives are typically thought to be more successful and less contentious than narcoanalysis. Narco analysis is heavily criticized for its accuracy and dependability in criminal investigations. The lack of scientific validity, the risks of false information, ethical concerns, subjective interpretation, limited admissibility in court, the lack of standardization, the susceptibility to manipulation, cultural and individual differences, the need for corroboration, and the availability of alternative methods all contribute to skepticism about narco analysis as a reliable investigative method.

9. RECOMMENDATIONS

The use of narco analysis as a technique for investigation demands a careful assessment that balances the need for information collecting with the preservation of individual rights. It is critical to establish the scientific validity of narco analysis by thorough study and empirical data before using it. A thorough review should analyse the technique's dependability, accuracy, and limitations to guarantee that the information provided is legitimate and trustworthy. Before conducting narco analysis, seek the subject's voluntary and informed consent. Consent should be granted freely and without pressure or force, with the individual understanding the procedure, its effects, and their rights at all times. It is critical to implement clear guidelines and safeguards in order to preserve the subject's rights and well-being. Legal advice, medical professionals, video documentation of the surgery, and rigorous adherence to ethical norms are examples of these. Regular reviews and monitoring of procedure implementation can aid in maintaining responsibility and preventing abuse. Certain subjects were discovered to be capable of making false statements during the test. Because the test is frequently seen as ineffective in eliciting the truth, it should not be used to compare statements made to police prior to the

⁵² South Asia Human Rights Documentation Centre, Narcoanalysis: A Dangerous Mirage, 42 Economic and Political Weekly 2857 (2007).

⁵³ Bansal, *supra* note 21.

⁵⁴ Cassandra Neal, An Evaluation of Police Interviewing Methods: A Psychological Perspective, 3 Digital Commons 28 (2019).

administration of the drug.⁵⁵ Another issue is that it is extremely difficult to provide an adequate medicine dose for a certain individual. The drug dose will vary depending on the subject's physiology, willpower, and mental attitude.

The admissibility of narco analytical results in a court of law should be carefully considered. The court system must verify that evidence gathered from narco analysis meets the norms of trustworthiness, impartiality, and constitutionality. It should be scrutinised to avoid the admission of untrustworthy or coerced information.

Narco analysis should be carried out in a way that respects an individual's right to privacy and dignity. To protect an individual's constitutional rights, it is critical to strike a balance between investigative needs and the protection of their mental privacy. It is critical to assess the necessity and proportionality of narco analysis. Exploring various investigative approaches and taking into account supplemental evidence can provide a thorough and balanced approach to information collecting that does not rely simply on narco analysis. To ensure that narco analysis is conducted within the bounds of legality, ethics, and human rights, these factors must be thoroughly evaluated and considered. It is critical for a fair and just investigation to balance the requirement for information collecting with the preservation of individual rights.

stringent Compliance with Ethical rules: When conducting narco analysis testing, it is critical to follow stringent ethical rules. The subject's informed consent should be gained without compulsion, and they should understand the procedure, any hazards, and their rights. Throughout the procedure, the subject's well-being, privacy, and dignity should be protected.

Narco Analysis tests should be scientifically validated to ensure its dependability and accuracy. Standardised methods for test administration, dose, monitoring, and interpretation should be created and routinely followed. This would help to reduce subjectivity, improve consistency, and boost the trustworthiness of the results. Professionals who do narco analysis tests should obtain extensive training, certification, and continued education to assure their competency and comprehension of the procedure. This would help to reduce errors, improve procedure quality, and increase the dependability of the information obtained.

Narco Analysis should not be used to infer conclusions or make legal choices on its own. To show their trustworthiness and validity, confessions or information obtained through narco analysis should be confirmed with other independent evidence, such as physical evidence, witness accounts, or forensic analysis. The entire narco analysis procedure, including drug administration, interviews, and monitoring, should be thoroughly documented and recorded. This paperwork should be kept securely to provide a clear record of the procedure and to enable future review, verification, and potential challenges if necessary. Before admitting narco-analysis evidence in judicial processes, courts should conduct thorough scrutiny and evaluation. When weighing the weight and admissibility of narco-analysis-based evidence, they should evaluate its scientific validity, ethical considerations, adherence to guidelines, and the possibility of coercion or false information.

Given the risks and limits involved with narcoanalysis, it is advised that alternate approaches for gathering evidence and conducting interrogations be explored and used. Techniques that prioritize human rights, ethics, scientific validity, and dependability, such as cognitive interviewing or rapport-based interrogation, should be regarded as viable alternatives. It is crucial to highlight that these recommendations are not exhaustive and that additional study, expert engagement, and ongoing review of narco-analysis practices are required to address the concerns and improve its ethical and scientific underpinnings in criminal investigations.

⁵⁵ Anubhav Seth, *Confessions through Narco Analysis in India*, TLCJ (Sept. 14, 2021), <https://journal.thelawcommunicants.com/confessions-through-narco-analysis/> (last visited July 25, 2023).