

USE OF MODERN SCIENTIFIC TESTS IN INVESTIGATION AND EVIDENCE: MERE DESPERATION OR JUSTIFIABLE IN PUBLIC INTEREST?

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Recent times have witnessed a spate in the use of modern scientific techniques such as the lie detector, brain mapping and narco analysis, for use in criminal investigation. Although the legal and ethical propriety of their use has been in doubt, they may in fact be a solution to many a complicated investigation. This article describes how the techniques may be used against an accused and concludes that although the legal setup in India may limit the evidentiary use of the techniques, their extensive deployment, particularly that of narco analysis, in investigative processes, in itself violates the fundamental rights- against self incrimination, health and privacy of the accused. Courts in India have taken into account an incomplete consideration of the law, which is the reason for their conclusion in favour of the tests. While the tests may be a practical necessity, the sanction of the law for some of them is difficult to find, and extensive safeguards need to be laid out to prevent their abuse. It is now upon the Supreme Court to define the limits of such tests in context of the rights affected, or vice-versa.

I. INTRODUCTION

As society advances, becoming more complex with every passing moment, crime presents itself in different forms and newer modes of perpetration. This correspondingly necessitates the employment of modern scientific techniques in investigative and judicial processes such as DNA fingerprinting, lie-detector tests, brain-mapping and narco-analysis tests. These techniques are equally relevant in cases where conventional forms of crime have assumed immense

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proportion, say in the form of public outcry, or to make up for shortfalls in investigative processes. The instance of Abdul Karim Telgi in the stamp paper scam and several other suspects in the *Aarushi murder* case are of contemporary relevance in this respect. The techniques involve revelation of certain pertinent information about the accused. They differ from usual investigative techniques in that they involve a certain degree of cooperation from the accused. Such cooperation need not be voluntary and in fact is often coercive in nature. Courts in India have witnessed numerous challenges to the constitutionality of these tests. The cases which have been disposed of so far have been at the level of the High Courts, and incidentally, their validity has been upheld in every instance.¹ Presently, however, the matter lies with the Supreme Court.² While the decisions of the High Courts have been unequivocal, there are some issues that were not addressed completely by them, either because they were not raised³ or because they were not felt necessary to be addressed.⁴ The law on the status of scientific tests for evidentiary purposes still is not absolutely clear. Recently, a Sessions Court in Faizabad in Uttar Pradesh accepted the report of a narco-analysis test, stating that it is evidence which can be relied upon, to reject a bail application in respect of a murder case.⁵ Fortunately, it was expressly treated as *evidence* only with respect to the bail application to indicate something of the nature of a *prima facie* case, and not for proving the statements of the accused against him to convict him.

As we proceed, we shall show that the judgments of the High Courts do not sufficiently elaborate the present status of the law in relation to the concerned areas even where it is fairly certain. The decisions also disappoint on the aspect of developing further the existing jurisprudence on the concerned areas of law. *Prima facie*, the practical utility of the tests in affording clues for investigation has been cited in favour of their continuation.⁶ After consideration

¹ See, e.g., Santokben Jadeja v. State of Gujarat, 2008 Cri.L.J. 68 (Guj.); Smt. Selvi v. State 2004 (7) Kar.L.J. 501 (Kant); Dinesh Dalmia v. State, 2006 Cri.L.J. 2401 (Mad.); Rojo George v. Deputy Superintendent of Police, 2006 (2) KLT 197 (Ker) [hereinafter Rojo George] Ramchandra Reddy v. State of Maharashtra, MANU/MH/0067/2004 (Bom) [hereinafter Ramchandra Reddy].

² The Hindu, *Supreme Court Reserves Ruling on Narco-analysis*, January 25, 2008, available at <http://www.hindu.com/2008/01/25/stories/2008012560561100.htm> (Last visited on October 5, 2008). Unfortunately, the serial number of the case as registered in the Supreme Court is not available from the official website at <http://courtnic.nic.in>, compelling us to rely on secondary sources.

³ See *discussion infra*, Part V, discussing the right to privacy in context of the narco-analysis test, which has not been raised. The issue of right to health in the context of narco-analysis has also not been dealt with completely, especially with reference to compensation if the subject suffers from side effects subsequently.

⁴ See *discussion infra*, Part III.B, discussing the issue of incrimination by discoveries made pursuant to statements made under the influence of the narco-analysis test, which has not been considered.

⁵ *Uttar Pradesh Court Admits Narco Report As Evidence*, October 5, 2008 available online at <http://www.nerve.in/news:253500170205> (Last visited on October 10, 2008).

⁶ Smt. Selvi v. State, *supra* note 1, ¶ 21; Rojo George, *supra* note 1, ¶ 15.

of the various grounds of challenge that may be raised against the tests in the Supreme Court, it is found that while there are ample statutory safeguards to prevent adverse use of such tests in a judicial proceeding, the safeguards to prevent abuse of such tests in investigative proceedings are absent. Further, it is submitted that the narco-analysis test is such a potent tool for collecting evidence that a strait-jacket distinction between an investigative and evidentiary stage cannot be maintained, and the use of the test merely for an investigative purpose can itself violate the protection against self-incrimination. The aim of this paper is to elaborately explain the relevant issues which may arise in relation to the constitutionality of the tests in relation to legal provisions on criminal procedure, the law of evidence and the Constitution of India. For reasons of cogency, we have divided the paper into five broad parts. The first part of the paper describes the tests under consideration and outlines how they may be deployed against an accused in investigative and judicial proceedings. In the second part, we talk about how the tests may be deployed in judicial proceedings, first by way of expert evidence describing standards for appreciation or the probative value of such evidence with a comparative perspective from the US judiciary, and secondly, as admissions or confessions. Thereafter the article in the third part, explores the constitutionality of the tests *vis-a-vis* the protection against self-incrimination, and in the fourth part, constitutionality *vis-a-vis* the right to privacy and the right to health. In the fifth part, we explore whether limited use of the tests for investigative purposes only may also be violative of the Constitution of India. While the lie detector and the brain mapping tests may just pass this test, narco analysis, in our opinion, fails to do so.⁷

II. THE TESTS AND MODES OF UTILIZATION

A. LIE DETECTOR OR POLYGRAPH

The Lie Detector or the Polygraph test involves attachment of paraphernalia externally to the body which measure several variables such as the pulse, blood pressure, perspiration rate, etc.⁸ The test is based on the presumption that a false statement knowingly made by a person will cause these variables to deviate from their standard levels. The standard levels are determined by asking questions to which the answers are known by the interrogator.⁹ Like any other investigative technique, in principle, the subject may choose not to answer the questions asked.¹⁰

⁷ See discussion *infra*, Parts III.B, IV. C, V, VI.

⁸ Amar Jesani, *Narco Analysis, Torture and Democratic Rights*, in People's Union for Democratic Rights, TWENTY SECOND DR. RAMANADHAM MEMORIAL MEETING, 13 (2008) available at www.pudr.org/index.php?option=com_docman&task=doc_view&gid=168 (Last visited on October 3, 2008); Ramchandra Reddy, *supra* note 1, ¶ 4.

⁹ *Id.*

¹⁰ Ramchandra Reddy, *supra* note 1, ¶14.

B. BRAIN-MAPPING

The brain-mapping test involves interrogating the witness on three kinds of questions, neutral words which are directly related to the case, probe words which attempt to elicit concealed information known by the accused, and target words which include findings relevant to the case of which the suspect is not aware.¹¹ The test does not expect an oral response from the accused, who is merely expected to listen to the words.¹² The suspect's brain would interpret the words, and if he/she has some connection with the words or stimulus, the brain would emit what are known as P-300 waves, which shall be registered by sensors.¹³ The results of the test are interpreted by an expert and enable one to infer the areas on which the suspect possesses information.¹⁴ He may then be subjected to a detailed interrogation on the specific areas regarding which he is expected to possess information. The interrogation may be a conventional one or aided by the administration of another scientific test such as the polygraph or narco analysis¹⁵. Thus, the results of the test enable one to conclude whether or not the accused possesses or is concealing any relevant information.¹⁶

C. NARCO-ANALYSIS

The narco-analysis test involves injection of certain substances in controlled quantities for two or three hours. This puts the accused in a hypnotic trance.¹⁷ The accused is then interrogated, the statements made by the accused are recorded on audio and video cassettes, and the report of the expert is helpful in collecting evidence.¹⁸ The first narco-analysis was done in the Forensic Science Laboratory, Bangalore in 2001 on an individual associated with offences committed by Veerappan.¹⁹ For conducting the test, the National Human Rights Commission has laid down certain guidelines to the effect that the test should only be administered if the consent of the subject is obtained before a Magistrate and therefore, the police cannot by themselves conduct the test whenever they deem

¹¹ Subhojyoti Acharya, *Is Narco Analysis a Reliable Science, The Present Legal Scenario in India*, available at <http://ezinearticles.com/Is-Narco-Analysis-A-Reliable-Science-The-Present-Legal-Scenario-in-India&id=991046> (Last visited on October 12, 2008); Ramchandra Reddy, *supra* note 1, ¶ 5.

¹² *Id.*

¹³ George Iype, *Just what is the Brain-Mapping Test?*, available at <http://www.rediff.com/news/2006/jul/19george.htm> (Last visited on October 8, 2008).

¹⁴ *Id.*

¹⁵ *See infra*, Part II.C for a description of the narco- analysis test.

¹⁶ *Id.*

¹⁷ Subhojyoti Acharya, *supra* note 11; Ramchandra Reddy, *supra* note 1, ¶ 6.

¹⁸ *Id.*

¹⁹ Bannur Muthai Mohan, *Misconceptions About Narco Analysis*, available at <http://www.issuesinmedicalethics.org/151co07.html> (Last visited on October 3, 2008).

appropriate.²⁰ However, the guidelines are only recommendatory in nature and therefore, cannot bind an investigating agency. It is interesting to note that the Forensic Science Laboratory at Gandhinagar in fact refused to conduct the test on a suspect when he did not give his consent.²¹ The Magistrate nevertheless ordered the laboratory to conduct the test. In 2006 however, the Supreme Court stayed the order of a metropolitan judge to conduct narco- analysis.²² This is the first and only case in respect of scientific techniques which has reached the Supreme Court. At present, the case known as the *Krusha Co-operative Bank case*,²³ is pending decision with the Supreme Court. At last count, the Supreme Court had reserved its decision on the case.²⁴

1. Utility in investigative and judicial processes

The scientific tests may be employed in two ways, that is, they may directly be used as evidence in Court in a trial or they may be used *merely* as clues for investigation. Where the tests involve the making of a statement, they may be directly adduced in evidence, provided they do not amount to a confession because proof of a confession before a police officer or in the custody of a police officer is prohibited.²⁵ However, if the statements are merely admissions, they may be adduced in evidence.²⁶ Alternately, where no statement has been made or the statement cannot be adduced without an interpretation of the report prepared at the end of the

²⁰ Teena Thacker, *UN Sees Narco Analysis As Torture*, available at <http://www.expressindia.com/latest-news/UN-sees-narcoanalysis-as-torture/321986/> (Last visited on October 8, 2008). See also *Selvi v. State*, *supra* note 1, ¶ 18, stating that experts or doctors are more willing to co-operate with the police in investigation if there is an order of a Magistrate to that effect. However, the case does not stipulate the consent of the subject as a mandatory prerequisite for administration of the test.

²¹ Lakshman Sriram, *Narcoanalysis and Some Hard Facts*, Frontline, Volume 24 - Issue 9, May 05-18, 2007, available at www.hinduonnet.com/fline/fl2409/stories/20070518002109700.htm (Last visited on October 6, 2008) [hereinafter *Lakshman Sriram*].

²² The Hindu, *Apex Court Stays Narco-Analysis Test on Krushi Bank MD*, November 17, 2006 available at <http://www.hindu.com/2006/11/17/stories/2006111719690100.htm> (Last visited on October 6, 2008).

²³ People's Union for Democratic Rights, TWENTY SECOND DR. RAMANADHAM MEMORIAL MEETING 3 (2008) available at www.pudr.org/index.php?option=com_docman&task=doc_view&gid=168 (Last visited on October 3, 2008). Unfortunately, the serial number of the case as registered in the Supreme Court is not available from the official website at <http://court.nic.in> so we have had to rely on secondary sources.

²⁴ The Hindu, *Supreme Court Reserves Ruling on Narcoanalysis*, January 25, 2008, available at <http://www.hindu.com/2008/01/25/stories/2008012560561100.htm> (Last visited on October 5, 2008).

²⁵ §§ 25-26, Indian Evidence Act, 1872.

²⁶ §17, Indian Evidence Act, 1872 defines admission as a statement, oral or documentary or contained in electronic form which suggests any inference as to any fact in issue or relevant fact.

test, the results of the test as interpreted by an expert may be furnished to the Court. A third alternative is whereby the statements may be used as proof of the specific knowledge of the accused with regard to those facts, information about which has resulted in subsequent discoveries during the course of the investigation.²⁷ Lastly, they may be used merely as clues for the investigation, where the statements are not adduced at all in evidence. However, the evidence gathered from the investigation is independently used in evidence, without the statements.

III. JUDICIAL PROCESSES: EXPERT EVIDENCE, ADMISSIONS AND CONFESSIONS

A. EXPERT EVIDENCE AND CRITERIA FOR APPRECIATION

The report of the expert in relation to the brain mapping and polygraph tests is admissible as the Indian Evidence Act permits evidence of the opinion of persons (called ‘experts’ under the Act itself) specially skilled upon a point of foreign law, *science*, *art*, or as to identity of handwriting or finger impressions, the opinions upon that point.²⁸ However, the weight accorded to such evidence is another question altogether. Expert evidence is appreciated based on several factors such as the *skill* of the expert²⁹ and the *exactness* of the science.³⁰ The Supreme Court has itself opined, *albeit* in a case concerning specifically with the medical examination of a victim of rape, that medical jurisprudence is not an exact science.³¹ If the science itself is imprecise, expert opinion is only of corroborative value and insufficient to secure a conviction by itself.³² The question which then arises is regarding the credibility of the evidence gathered from the polygraph, brain mapping and narco analysis tests, which is studied from a twofold perspective, firstly, as perceived by the scientific community, and secondly, as perceived by the Courts. The perception of the US Courts has been explained below, as the tests have been longer used there.

1. On the accuracy of the polygraph test

Research to determine the accuracy of polygraph tests began in the seventies. Abrams in 1973, reviewed reports of the polygraph’s accuracy dating from 1917, noting that, “it is almost meaningless to total and average these findings

²⁷ §27, Indian Evidence Act, 1872.

²⁸ *Id.*, §45.

²⁹ State v. S.J. Choudhary, AIR 1990 SC 1050 ¶ 9, *quoting* the 69th Report of the Law Commission, ¶ 17.31.

³⁰ Pratap Misra v. State of Orissa, AIR 1977 SC 1307, ¶ 5.

³¹ *Id.*

³² See Shashi Kumar v. Subodh Kumar, AIR 1964 SC 529, wherein the Supreme Court held that an expert’s evidence as to handwriting being opinion evidence can rarely, if ever, take the place of substantive evidence.

because of the great discrepancy in experimental paradigms and the instruments employed.”³³ A 1997 survey of 421 psychologists estimated the test’s average accuracy at about 61%.³⁴ A survey of distinguished psychologists shows that the scientific community still has its doubts on whether the tests are completely accurate.³⁵ There are several criticisms levelled against the polygraph test, the first one being that the question of construction and administration are not standardized.³⁶ Critics are of the opinion that the actual structure of the test depends on what polygraph school a polygrapher attended and his or her own preferred practices.³⁷ Moreover, after viewing the case background, different examiners may reach different conclusions regarding the questions that are to be asked during examination.³⁸ The second major criticism is that the interpretation of polygraph charts is also problematic.³⁹ According to a study conducted by some experts, this happens because the examiner who is aware of the case facts and the subject’s behaviour during examination, would invariably compromise on objectivity to some extent.⁴⁰ The same study reveals that in 49% of the cases where the results or the scoring fell in the range where it could not be ascertained whether the statement was the truth or not, the examiners actually went ahead to classify the subjects as guilty.⁴¹ In two other field studies, it was found that the examiners had not relied solely on the polygraph results but also employed the case facts and the clinical appraisal of the subject’s behaviour during the tests.⁴² In both these cases, the quantum of innocent subjects correctly classified were merely 51 percent and 63 percent respectively.⁴³

³³ U.S. Congress: Office of Technology Assessment OTA-TM-H-15, *Scientific Validity of Polygraph Testing: A Research Review and Evaluation*, 1983 quoting S. Abrams, *Polygraph Validity and Reliability: A Review*, JOURNAL OF FORENSIC SCIENCES 18(4) available at <http://ftp.fas.org/sgp/othergov/polygraph/ota/foreword.html> (Last visited on October 3, 2008).

³⁴ Vergano, Dan, *Telling The Truth About Lie Detectors*, USA TODAY (2002) available at http://www.usatoday.com/news/nation/2002-09-09-lie_x.htm (Last visited on October 3, 2008).

³⁵ William J. Iacono & David T. Lykken, *The Scientific Status of Research on Polygraph Techniques: The Case Against Polygraph Tests*, in David L. Faigman, David H. Kaye, Michael J. Saks & Joseph Sanders eds., MODERN SCIENTIFIC EVIDENCE: THE LAW AND SCIENCE OF EXPERT TESTIMONY 518 (2002).

³⁶ Anne Anastasi, *Psychological Testing* (6th Edn., 1988) as quoted in Iacono and Lykken, *supra* note 35, 518.

³⁷ *Supra* note 35, 492.

³⁸ *Id.*

³⁹ Christopher J. Patrick & William J. Iacono, *Validity of the Control Question Polygraph Test: The Problem of Sampling Bias*, 76 J. APPLIED PSYCHOL. 229, 229-238 (1991) as cited in Iacono & Lykken, *supra* note 35, 492.

⁴⁰ *Id.*, 493.

⁴¹ *Id.*, 233.

⁴² Frank Horvath, *The Effect of Selected Variables on Interpretation of Polygraph Records*, 62 J. APPLIED PSYCHOL. 127, 127-136 (1977); Benjamin Kleinmuntz & J.J. Szucko, *A Field Study of the Fallibility of Polygraphic Lie Detection*, 308 NATURE 449, 449-450 (1984), as cited in Iacono & Lykken, *supra* note 35, 507.

⁴³ *Id.*

2. US judiciary on the polygraph

The US Courts exercise great caution when dealing with reports of the polygraph test. In the Supreme Court case of *United States v. Scheffer*,⁴⁴ the majority stated that, “There is simply no consensus that polygraph evidence is reliable,” and that, “[u]nlike other expert witnesses who testify about factual matters outside the jurors’ knowledge, such as the analysis of fingerprints, ballistics, or DNA found at a crime scene, a polygraph expert can supply the jury only with another opinion.”⁴⁵ In 2005, the 11th Circuit Court of Appeals stated that “polygraphy did not enjoy general acceptance from the scientific community”.⁴⁶ Thus, polygraph is still some distance from being the acceptable criminal investigation tool in the US.

3. On the accuracy of brain mapping

Several studies have been conducted with regard to the accuracy and the validity of the brain mapping tests. As with the lie-detector test, the usefulness of the brain-mapping test too is plagued by the varying techniques that are used in the different laboratories.⁴⁷ The American Academy of Neurology conducted an extensive study, concluding that the test is “not recommended for use in civil or criminal judicial proceedings.”⁴⁸ The Society of Nuclear Medicine Brain Imaging Council concluded that the use of neuroimaging in criminal and other types of forensic situations remained *especially controversial* because there were very few controlled experimental studies.⁴⁹

4. US courts on brain mapping

American Courts have considered the question as to whether the evidence gathered from brain mapping could be admissible in court, and have categorically concluded in the negative. In *State v. Zimmerman*,⁵⁰ a case of a conviction for murder, the Arizona Court of Appeals, upheld the decision of the trial court, which had excluded evidence of brain mapping, concluding that the test

⁴⁴ 523 U.S. 303 (1998).

⁴⁵ *Id.*

⁴⁶ *United States of America v. Wyatt Henderson*, 409 F.3d 1293, available at <http://www.usdoj.gov/crt/briefs/henderson.pdf> (Last visited on October 3, 2008).

⁴⁷ *Alverson et al, Brain mapping: Should this controversial evidence be excluded?*, FEDERATION OF INSURANCE & CORPORATE COUNSEL QUARTERLY (1998) available at http://findarticles.com/p/articles/mi_qa3811/is_199801/ai_n8798427 (Last visited on October 9, 2008) citing American Academy of Neurology, Assessment: EEG Brain Mapping, 39 NEUROLOGY 1100 (1989).

⁴⁸ *Id.*, citing American Academy of Neurology and American Clinical Neurophysiology Society, Assessment: Digital EEG, Quantitative EEG and EEG Brain Mapping, 49 NEUROLOGY 277 (1997).

⁴⁹ *Id.*

⁵⁰ 43802 P.2d 1024 (Ariz. Ct. App. 1990).

was not generally accepted in the neurological community. The Minnesota Court of Appeals considered the issue of admissibility of brain-mapping evidence in an unpublished opinion, *Ross v. Schrantz*,⁵¹ a case of closed head injury suffered in an automobile accident. The primary evidence of the alleged injury was retrieved through brain mapping. The trial court had granted a motion to exclude evidence of brain mapping, stating that there was no scientific literature to show that the test was reliable or accepted in clinical applications, and that it was not a stand-alone diagnostic tool.⁵² Further, the Court stated that the test was only a research tool and could not be accepted.⁵³

5. Acceptability of narco-analysis: US courts

The Ninth Circuit Court had excluded a recording of an interview conducted under the influence of sodium pentothal⁵⁴ and psychiatric testimony in support of it.⁵⁵ The use of sodium amytal (a successor of sodium pentathol) or truth serum narco analysis was prohibited by the New Jersey Supreme Court in *State v. Pitts*⁵⁶ on the ground that the results of the tests are not scientifically reliable and that it was possible for the subjects to fill lacunae in stories (known as hyperamnesia) or to believe in false events, or to do a hypnotic recall, whereby thoughts of non-existent events are believed by the subject.⁵⁷

B. ADMISSIONS AND CONFESSIONS

In the lie detector test, the accused is not obliged to make a statement, as he may choose not to answer the question at all.⁵⁸ However, the statements in fact made under the scientific tests may be classified into admissions⁵⁹ or confessions,⁶⁰ as they suggest an inference as to a fact, including a blanket denial of any knowledge of the crime, or the statement may substantively admit to the

⁵¹ 1995 WL 254409 (Minn. Ct. App. May 2, 1995).

⁵² *Id.*

⁵³ *Id.* The Court relied on the analysis as laid down in *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993) to reach this conclusion. Under the Daubert test, the Court has to determine whether an expert will testify to scientific knowledge and secondly, whether his testimony will assist the trier of fact to understand or determine a fact in issue. The court determined that the second prong of the Daubert test could not be met, since the test was used for clinical diagnosis, and would thus not enable it to *judicially* determine the fact in issue.

⁵⁴ Till date, sodium pentathol is the ingredient used in narco analysis test conducted by laboratories in India.

⁵⁵ *Lindsey v. United States*, 16 Alaska 268, 237 F.2d 893 (9th Cir.1956).

⁵⁶ 116 N.J. 580, 562 A. 2d 1320 (N.J. 1989).

⁵⁷ *Supra* note 21.

⁵⁸ Ramchandra Reddy, *supra* note 1, ¶ 4.

⁵⁹ *Supra* note 26.

⁶⁰ A statement by the accused admitting in terms that he has committed the offence is a confession. *See generally* *State of UP v. Deoman Updhyaya*, AIR 1960 SC 1125.

commission of the crime itself. Confessions made to the police by way of such statements are inadmissible in evidence as no confession made to a police officer⁶¹ or in the presence of a police officer is admissible,⁶² unless made in the immediate presence of a Magistrate.⁶³ Thus, they shall be inadmissible, even if made to the medical officer, if they are made in the custody of a police officer. The only event in which they may be admissible is when they are made before a Magistrate. Before a confession is made before a Magistrate, the Magistrate is to explain to the subject that he is not bound to make such a confession and the Magistrate may only record it if he believes that it is being made voluntarily.⁶⁴ The presence of the lie-detector reduces the choice which the accused has to say what he or she feels like saying. The accused is not free to make any statement he or she wants to, thus, clearly rendering the circumstances coercive. Hence, a confession made to the Magistrate under the influence of the test cannot be said to be voluntary and is likely to be refused to be recorded by a Magistrate. The brain mapping test does not entail the making of a statement at all.⁶⁵ However, a police officer may administer the test to the accused and find out from a medical expert the areas on which the accused has knowledge, and later take him under duress to the Magistrate in order to record his confession. Nevertheless, the Magistrate shall follow the same process as in case of the lie-detector to ensure that the statement is being made voluntarily, and hence the same result shall ensue. The narco-analysis test, on the other hand proactively involves the making of statements by the accused. However, a Magistrate would not record the statements as they are *involuntary* and *induced*⁶⁶ and also not reliable⁶⁷. They may be useful for investigative purposes as the latter inherently entail a significant bit of trial and error work, but they may not be perfectly accurate all the time to be recorded as evidence and relied for conviction.

Admissions made to police officers are admissible in evidence. This causes problems with the lie detector and brain mapping tests as the police may prefer a longer investigation. Admissions nevertheless, are caught by the general rule stating that no statement made in course of an investigation, even if reduced to writing, is to be signed by the maker.⁶⁸ Further, even if the statement is oral, and the factum of its being made to a police officer is proved, it cannot be used as evidence.⁶⁹ The statement may, however, be used by the prosecution, albeit only with the permission of the Court, to *contradict* its maker during the trial.⁷⁰ Thus, it

⁶¹ § 25, Indian Evidence Act, 1872.

⁶² *Id.*, §26.

⁶³ *Id.*

⁶⁴ §164(2), Code of Criminal Procedure, 1973.

⁶⁵ See discussion *supra*, Part II.B.

⁶⁶ *Id.*, §24.

⁶⁷ See *Balbir Singh v. State of Punjab*, AIR 1957 SC 216, for details on reliability of the statements of witnesses.

⁶⁸ §162(1), Code of Criminal Procedure, 1973.

⁶⁹ *Id.*

⁷⁰ Proviso to §162(1), Code of Criminal Procedure, 1973.

cannot be used as substantive evidence, but only to cast aspersions on the credibility of other statements of the accused *during the trial* which are sought to be relied on. As a clarification, it is pointed out that the possibility of mischief caused by splitting up every confession into a number of admissions and offering them separately in evidence is however eliminated because of the legal requirement that a statement is to be adduced in evidence as a whole and not in parts.⁷¹

The last way of offering any statement in evidence, whether confession or not, is by adducing it alongside a discovery made pursuant to the statement. This makes it a cakewalk for the investigation as it can conduct narco-analysis and discover all the incriminating material that is required, and offer the statement in conjunction with the recovery. However, a recovery under Section 27 will not be admissible if compulsion has been used in obtaining the information leading to it.⁷² The possibility of the element of compulsion under the narco analysis test has been recognised if the statements made under its influence are sought to be adduced in evidence and if they are incriminatory, in which case they are to be excluded.⁷³ This conclusion shall restrict the application of Section 27 of the Evidence Act which allows adducing statements made to police officers if they are supported by subsequent discoveries such that statements made under the influence of narco-analysis shall be excluded as coerced. However, whether the discoveries made pursuant to those statements shall also be excluded has not been assessed by the judiciary. We are of the opinion that in cases where an incriminatory set of statements is additionally backed by discoveries which are sufficient to incriminate the accused independently of the statements, then the discoveries too should be excluded from evidence. This is because the discoveries, *which comprise all the evidence that is required for conviction*, directly follow from incriminatory statements of the accused. No *additional* evidence apart from what has been suggested by the statements has been collected. The scope of the investigation has been limited to mechanical compliance with the directions of the statements. However, where the discoveries are not sufficient to result in incrimination, but only amount to evidence of *some* facts *against* the accused, they may be admissible in evidence, as they are merely the equivalent of admissions as they require *collection of additional evidence*.

IV. TEST OF CONSTITUTIONALITY OF THE SCIENTIFIC TESTS IN INDIA: PROTECTION AGAINST SELF-INCRIMINATION

Article 20(3) of the Constitution of India stipulates a prohibition that no person accused of an offence shall be compelled to be a witness against himself. This is a fundamental right of the accused. The provision is divided into several components to understand its true import.

⁷¹ Aghnoo Nagesia v. State of Bihar, AIR 1966 SC 119.

⁷² State of Bombay v. Kathi Kalu Oghad, AIR 1961 SC 1808 [hereinafter Kathi Kalu Oghad].

⁷³ See *discussion infra*, Part IV.A.

A. WHEN IS THE PROTECTION AVAILABLE, AND WHEN IT MAY BE INVOKED

The question arises as to when a person may claim the protection against self-incrimination. While a plain reading of Article 20(3) may suggest that the protection is available only against statements made in court, the legal position is slightly different. The Supreme Court has observed in *State of Bombay v. Kathi Kalu Oghad*⁷⁴ (*hereinafter Kathi Kalu Oghad*) that the protection under this Article would be available not merely with respect to the court room evidence but also to the previous stages, if the allegation against the accused leads to his or her prosecution, even if the actual trial may not have commenced.⁷⁵ Thus, in case of the narco-analysis test, the bar as mentioned in Article 20(3) would be attracted even if the statements in such a test are made before the initiation of the trial.

However, it is possible for investigating agencies or complainants to incorrectly suspect specific persons as having committed the offence.⁷⁶ In such an event, scientific tests may produce negative results which may exculpate the accused.⁷⁷ This may be known only after the test has been administered. On this ground, the challenge to the validity of the test at the time of its administration has been held to be premature.⁷⁸ Therefore, only an inculpatory statement will attract the protection under Article 20(3), and that too, only at the time at which it is sought to be introduced in Court as evidence,⁷⁹ and not if the statement sought from the witness or the accused is not being used as evidence against the witness.⁸⁰ This observation has an interesting consequence as it accedes to the possibility of the use of such information for collection of further evidence. The evidence thus collected, if adduced in court as isolated from the statement made during interrogation of the accused, is admissible. The use of the statement in conjunction with the discoveries⁸¹ may or may not be prohibited. Whether this approach is acceptable is explored in the section dealing with the dependence of a trial on and its interface with the stage of investigation.

⁷⁴ *Supra* note 72, at 1815.

⁷⁵ M.P. Sharma v. Satish Chandra, AIR 1954 SC 300.

⁷⁶ For example, in the Aarushi murder case, the father of the teenage girl who was murdered was initially the accused person. After conducting the scientific tests it was found that the suspicions were incorrect. See Onkar Singh, *Talwar Freed on Bail After CBI Clean Chit* available at <http://www.rediff.com/news/2008/jul/11aarushi.htm> (Last visited on October 9, 2008).

⁷⁷ *Id.* The allegations against the father were removed after nothing useful was sought from his narco-analysis test.

⁷⁸ Smt. Selvi v. State, *supra* note 1, ¶ 15. Ramchandra Reddy, *supra* note 1, ¶ 22.

⁷⁹ *Id.*

⁸⁰ Ramchandra Reddy, ¶ 9, 22.

⁸¹ § 27, Indian Evidence Act, 1872, which permits evidence of a confession to the extent that it has subsequently resulted in discovery of corresponding evidence by the police.

B. WHEN CAN A PERSON QUALIFY AS A WITNESS

The term witness has not been defined in the Indian law. Nevertheless, it appears to be obvious that a person who testifies before a Court may be called a witness.⁸² Thus, his or her testimony may be received in evidence by a Court. Under the Indian Evidence Act, evidence is divided into two categories, oral and documentary.⁸³ Oral evidence is defined to mean all statements, which the court permits or requires to be made before it by a witness, in relation to matters of fact under inquiry.⁸⁴ Documentary evidence is defined to mean all documents produced for the inspection of the court.⁸⁵ Although as per the Indian Evidence Act a person does not become a witness by merely presenting a document,⁸⁶ Article 20(3) of the Constitution grants protection against compelled production of incriminating documentary evidence as well.⁸⁷ Therefore, a person who merely produces a document in Court would also qualify to be a witness under the Constitution, and is protected against incrimination by compelled production of the document.

C. COMPULSION

1. The effect of a scientifically enhanced investigation and its relation with compulsion

When a witness is subjected to a lie-detector or brain mapping test, it is similar to a normal investigation in that it is not the content of the investigation which may be offered in evidence, but the *interpretation of the expert* based on the readings of the test, which in turn relies upon the changes in the brain functioning, or the rate of perspiration, blood pressure, or the breathing or heart rate. It does not provide information on the *specific content* or the *actual knowledge* of the accused on the subject-matter of the questions. Thus, as the Bombay High Court has stated in *Ramchandra Reddy v. State of Maharashtra*,⁸⁸ the tests may indicate that the subject is concealing information pertaining to a particular topic, although the exact content of the information is not revealed. In the event that information is revealed by the accused, it has been held that although administering a scientific test on the subject may be compulsive, the *subsequent interrogation and the subject's answers to it are not*.⁸⁹ Whether this argument is tenable is a pertinent question because the investigation will be lengthened and the accused

⁸² Support for this definition is found from §118 of the Indian Evidence Act, whose marginal note mentions the word witness while the text of the provision uses the word testify, thereby using the two terms interchangeably, and equating the two.

⁸³ §3, Indian Evidence Act, 1872.

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ §139, Indian Evidence Act, 1872.

⁸⁷ *M.P. Sharma v. Satish Chandra*, AIR 1954 SC 300.

⁸⁸ MANU/MH/0067/2004, ¶ 18.

⁸⁹ *Dinesh Dalmia*, *supra* note 1, ¶ 14.

detained for longer periods of time for the investigation, until he reveals relevant information on the subject matter indicated to be concealed by the instrument, or is successfully able to deceive the instrument and the expert. Such extended periods of investigation will increase the possibility of the use of coercive means. Tiring interrogative prolixity, environmental coercion and even atmospheric pressure have been expressly held to be components of coercion by the Supreme Court.⁹⁰ It has also been held that evidence obtained by the use of coercive means is to be excluded for the purpose of a criminal trial.⁹¹ However, we are of the opinion that it is difficult for such facts to be brought to the attention of the Court in most cases owing to the disparity in power equations between the accused and the investigator. Thus, even if the administration of the tests does not amount to compulsion in all cases, indiscriminate employment of the same is likely to increase the likelihood of of coercive means during investigation.

2. Extended understanding of compulsion

As per the Supreme Court in *Nandini Satpathy v. P.L. Dani*,⁹² compulsion includes not only physical threats or violence, but also *psychic torture, atmospheric pressure, environmental coercion, tiring interrogative prolixity, overbearing and intimidatory methods*, etc.⁹³ Thus, it can be mental or physical. Mental compulsion may be witnessed in situations when the mind is conditioned by extraneous processes and thus the making of the *statements become involuntary* and hence extorted.⁹⁴

It is submitted on a consideration of the techniques that are used for conducting narco-analysis, that the hypnotic or the sleep-like state which is created in case of narco analysis tests, leads to mental compulsion as explained by the Supreme Court because in both scenarios, the subject loses the element of mental autonomy and the option of dissenting, and makes involuntary statements. There may be a minor difference that while in the former, the subject loses his or her ability to exercise his or her will to answer a question, in the latter the subject possesses the ability to answer as he or she wishes, but is unable to *exercise* the ability to do so because of the ambient environment. In any case this is only a trivial distinction because the effect is primarily the same. Secondly, the test merely shifts the time when compulsion is exercised, from the period of interrogation to the period of compulsory injection or ingestion of the drug. Even if the evidence as provided by the subject is made voluntarily during the time when the tests are conducted, the very fact that the person's body was subjected to the injection of particular substances would amount to compulsion and hence attract the immunity

⁹⁰ *Nandini Satpathy v. P.L. Dani*, AIR 1978 SC 1025.

⁹¹ *Amin v. State*, 1958 All 293 at 303; *M.P. Sharma v. Satish Chandra*, AIR 1954 SC 300.

⁹² AIR 1978 SC 1025.

⁹³ *Nandini Satpathy v. P.L. Dani*, AIR 1978 SC 1025.

⁹⁴ *Mohd. Dastagir v. State of Madras*, AIR 1960 SC 756 at 761.

provided by Article 20(3). In *M.P. Sharma v Satish Chandra*⁹⁵, the Supreme Court has pointed out that the immunity offered by Article 20(3) is available only when the police or other investigating authorities, compel the person to do a volitional act to obtain information. Thus the element of compulsion is present when the person is actually forced to make a certain revelation by the authorities under threat or duress etc.

In *Dinesh Dalmia v. State*,⁹⁶ it has been held that scientific tests are a response to the objections that human rights are violated by the use of various kinds of third-degree methods, and that these scientific tests do not involve testimonial compulsion.⁹⁷ This observation is diametrically opposite to the stand taken by a school of academicians and activists who believe that such scientific tests, in particular narco-analysis, meet the criteria required to constitute *torture*, as defined by the United Nations (UN).⁹⁸ However, it is notable that while the UN definition and the opinion of the activists regards the pain or suffering inflicted as *severe*, the Bombay High Court in Abdul Karim Telgi's case⁹⁹ has held that it is only *minimal*.¹⁰⁰

3. Comparison of narco-analysis with the case of specimen writings

The initial pronouncement laid down by the Supreme Court in *M.P. Sharma v. Satish Chandra*,¹⁰¹ was very wide, where it was held that the immunity

⁹⁵ AIR 1954 SC 300.

⁹⁶ 2006 Cri.L.J. 2401(Mad).

⁹⁷ *Id.*, ¶ 17.

⁹⁸ Article 1, UN Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment defines torture as, "An act by which *severe pain or suffering*, whether physical or mental, is *intentionally inflicted* on a person for such purposes as *obtaining from him or a third person information* or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, *when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity*. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions (*emphasis added*)."

The Convention entered into force 26 June 1987. See Mukul Sharma, *A World Without Torture*, The Hindu, June 26, 2008 available at <http://www.hindu.com/2008/06/26/stories/2008062655401100.htm> (Last visited on October 4, 2008); Amar Jesani, *Narco Analysis, Torture and Democratic Rights*, in People's Union for Democratic Rights, TWENTY SECOND DR. RAMANADHAM MEMORIAL MEETING (2008), 13 available at www.pudr.org/index.php?option=com_docman&task=doc_view&gid=168 (Last visited on October 4, 2008); Teena Thacker, *supra* note 20.

⁹⁹ The case is still pending at the Bombay High Court.

¹⁰⁰ Rajesh Shukla, *Narco Analysis and Law: A Critical Look*, in NARCOANALYSIS, TORTURE AND DEMOCRATIC RIGHTS (2008) available at http://www.pudr.org/index.php?option=com_docman&task=doc_view&gid=168 (Last visited on October 22, 2008).

¹⁰¹ AIR 1954 SC 300.

granted by Article 20(3) would extend to any kind of evidence, which is reasonably likely to result in prosecution of the person in question. However, the Court restricted the application of its prior observation, in *State of Bombay v. Kathi Kalu Oghad*,¹⁰² where a question in issue was whether compulsorily providing a handwriting specimen, if so directed by the Court, violated the protection under Art.20(3). The Court held that the phrase 'to be a witness' in respect of *oral evidence* means *imparting* knowledge in respect of relevant facts by a person who has personal knowledge of the facts,¹⁰³ and that handwriting specimens, even if compelled to be produced, would just be the case of a general submission being made to the court. However, in the case of the narco-analysis test, the facts specifically required are extracted directly in the form of statements of the accused by way of audio and video recording. The brain mapping and lie-detection tests lie somewhere in the middle; while they only indicate the factum of concealment and not the exact information that is being concealed,¹⁰⁴ the use of these tests in interrogation, by giving little or no leeway, is *primarily aimed* at extracting the exact and specific information being concealed. Corroboration of this reasoning is found in the Supreme Court's opinion stating that while a mandatory compliance of a summon to produce a document by the accused in a criminal proceeding may amount to self-incrimination, a general search warrant directed at a police officer does not.¹⁰⁵ Thus an analogy of these tests with handwriting specimens cannot be drawn and they should face the bar as provided by Article 20(3).

V. EFFECT ON OTHER FUNDAMENTAL RIGHTS

A. THE RIGHT TO PRIVACY

Broadly speaking, the right to privacy is the 'right to be let alone'.¹⁰⁶ While it is certain by now that the right to privacy exists as a fundamental right granted by the Indian Constitution,¹⁰⁷ the form and extent of the right are unclear. Judicial observations regarding the scope of the right are conspicuous by their absence. In *Govind v. State of M.P.*,¹⁰⁸ it was opined that the right to privacy has to be developed on a case-to-case basis.¹⁰⁹ Another observation in consonance with the above was made in *PUCL v. Union of India*,¹¹⁰ to the effect that the extent of the right may be too broad and that it may be too moralistic to define it judicially.¹¹¹

¹⁰² AIR 1961 SC 1808.

¹⁰³ *Id.*, ¶ 11.

¹⁰⁴ See generally Ramchandra Reddy, *supra* note 1.

¹⁰⁵ M.P.Sharma v. Satish Chandra, AIR 1954 SC 300, ¶¶ 17-18.

¹⁰⁶ Olmstead v. United States, (1928) 227 US 438, per Brandeis, J.

¹⁰⁷ See generally PUCL v. Union of India, AIR 1997 SC 568.

¹⁰⁸ AIR 1975 SC 1378.

¹⁰⁹ *Id.*, ¶ 28.

¹¹⁰ AIR 1997 SC 568.

¹¹¹ *Id.*, ¶ 19.

Nevertheless in context of that case, which related to the conditions required before tapping telephonic conversation could be authorised by the government, it was held that telephonic conversation is a part of modern man's life, and such conversations are of an *intimate and confidential character*, which gave some kind of shape to the ingredients of the right.

The cases concerning the validity of scientific tests present an opportunity for crystallising the boundaries of the right to privacy in the light of scientific and technological advancements. The scientific tests have not been challenged on the ground of violation of the right to privacy. They have been challenged largely on the ground of violation of the protection against self-incrimination under Article 20 (3),¹¹² and in some cases on the ground of violation of Article 21, where the rights alleged to have been violated are the Right to Liberty (in the context of a forced movement of the accused to different parts of India to carry out the tests),¹¹³ and the Right to Health.¹¹⁴ It has been stated, however, that the lie-detector does not directly invade the body, and that the brain-mapping test involves no direct violation of the body in the real sense of the term, but merely *touching* the physique of the person.¹¹⁵ However, the opinion was restricted to a contention that the tests involve *invasion* of the body and are violative of Article 20(3) by being *compulsive*, and not the right to privacy under Article 21.¹¹⁶ Nevertheless, courts have given their opinion on whether the right to privacy would be violated by the administration of scientific tests in cases where the challenge was not on that ground,¹¹⁷ which may be treated as *obiter*. It has been opined that the right to privacy is not violated based on the ground that it is not an absolute right,¹¹⁸ and that it is the statutory duty of every witness who has knowledge of the commission of the crime to assist the State in gathering evidence on it.¹¹⁹ However, a citizen cannot be placed under statutory duty which results in the violation of a fundamental right. While we agree that the right to privacy is not absolute,¹²⁰ we are of the opinion that it is possible that the right may be violated by the unregulated administration of scientific tests in certain cases, say, to extract personal information. Like in the case of right to life, a procedure established by law in terms of Article 21 which is fair just and reasonable may curtail the *substantive exercise of the right*. For example, restrictions upon the right to privacy as laid

¹¹² See, e.g., Ramchandra Reddy, *supra* note 1, ¶ 3; Selvi v. State, *supra* note 1, ¶ 3, Dinesh Dalmia, *supra* note 1, ¶ 7.

¹¹³ Arun Gulab Gavali v. State of Maharashtra, 2006 Cri LJ 2615, ¶2.

¹¹⁴ Rojo George, *supra* note 1.

¹¹⁵ Ramchandra Reddy, *supra* note 1, ¶ 5.

¹¹⁶ Ramchandra Reddy, *supra* note 1, ¶ 7.

¹¹⁷ Selvi v. State, *supra* note 1, ¶ 20 also quoted with affirmation in Santokben Sharmanbhai Jadeja v. State of Gujarat, *supra* note 1, ¶ 15.

¹¹⁸ *Id.*

¹¹⁹ *Id.* This observation was made after reliance on § 39 of the Criminal Procedure Code and the State v. Dharmapal, AIR 2003 SC 3450.

¹²⁰ Govind v. State of M.P., AIR 1975 SC 1378, ¶ 28.

down in the Telegraph Act, 1885 on the grounds stipulated therein¹²¹ have been upheld in the case of *PUCL v. Union of India*,¹²² although numerous procedural safeguards have been superadded by the Court to prevent abuse of the restrictions.¹²³ We are of the opinion that while making observations on the right to privacy, the courts could have defined its ambit more clearly in context of the scientific tests. Some instances where the right could be reasonably restricted could have been elaborated at least by way of example. Whether the administration of the tests does not amount to any infringement of privacy at all, or whether it is a justified restriction on the right to privacy could have been discussed. In view of the fact that control of crime is an essential and legitimate goal of the state and that the brain mapping and the lie detector test in any case are restricted to external contact with the body of the accused and do not really amount to a violation of his or her bodily autonomy,¹²⁴ we may reasonably conclude that the brain-mapping and the lie detector do not infringe the right to privacy of an individual. However, we believe that the narco-analysis test is different from the other two tests because it involves compulsory injection of a substance into the body of an accused.¹²⁵ We are of the opinion that it always infringes a person's privacy, but the infringement may be justifiable in certain cases as explained below.

1. Evaluating the narco-analysis test in the context of privacy

Cases of search and seizure, and ones subjecting an individual to compulsory medical tests are most closely related to the subject of the interference by the State with an individual's privacy. The right to privacy may be evaluated based on the statement of Prof. Tribe that "exclusion of illegitimate intrusions into privacy depends on the nature of the right being asserted and the way in which it is brought into play; it is at this point that context becomes crucial - to inform substantive judgment".¹²⁶ The narco analysis test requires *injection* of a substance which has the effect of curbing one's imagination and autonomy of answering. It directly involves a violation of a person's bodily autonomy. Of course, the same is usually done only when there seems to be a reasoned accusation or allegation against a person, even though it is possible that the allegation may later turn out to be incorrect, as the right to privacy can be restricted by a reasonable procedure. However, in the absence of *express and unambiguous procedural safeguards*, which may be in the form of mandatory rules to be followed by both, the medical

¹²¹ §5(2), Indian Telegraph Act, 1885. Grounds such as interest of the sovereignty and integrity of India, the security of the State, friendly relations with foreign states or public order or for preventing incitement to the commission of an offence are stipulated under the Act as justifying interception of messages by the Government.

¹²² AIR 1997 SC 568.

¹²³ See *PUCL v. Union of India*, AIR 1997 SC 568, ¶. The Supreme Court laid down a nine step procedure to prevent abuse of the act.

¹²⁴ Ramchandra Reddy, *supra* note 1, ¶ 5.

¹²⁵ See *discussion infra*.

¹²⁶ Lawrence H. Tribe, *AMERICAN CONSTITUTIONAL LAW* 1307 (1988).

personnel and the investigating agency, the test is susceptible to *abuse*. For example, it may be used to extract information which may be irrelevant to the investigation of the case and be of a *personal nature*.

2. Which scientific tests are expressly authorised ?

The Criminal Procedure Code of 1973 (*hereinafter* the Code) allows conducting the *examination* of an accused by a medical practitioner at the request of a police officer.¹²⁷ However, he must be arrested on a charge of committing an offence of *such a nature* and alleged to have been committed under *such circumstances* that there are *reasonable grounds* for believing that an examination of his person will afford evidence as to the commission of *an offence*.¹²⁸ Despite all the scientific and legal drawbacks which prevent the results of a narco-analysis test from being effectively used in Court as evidence, the administration of the test almost always affords reasonable grounds to believe that it will give clues for investigative processes since the same degree of precision as needed in judicial proceedings is not required in investigation. The questions which arise here are whether, firstly, is such a test contemplated by the provision. If yes, then, does it mean that the test may be administered virtually in any and every case as a matter of course?

The High Courts have concluded that the examination under the Criminal Procedure Code would include administration of the narco-analysis test. The argument that *injecting* a drug *into the body* of the accused was different from *taking a sample* of his blood or semen was rejected by the Karnataka High Court in *Smt. Selvi v. State*.¹²⁹ Although pain may be caused to an accused by injection of the drug and in that sense the administration of the drug may technically amount to hurt, the same pain will also be caused by a blood test, which is authorised by the Criminal Procedure Code in the sense that the Code permits the use of reasonable force while conducting an examination.¹³⁰ In the recent *Krusha Co-Operative Bank* case,¹³¹ this rationale was extrapolated further. It was argued by the counsel for the State that as the Criminal Procedure Code is a post constitutional law, the legislature would be presumed to have knowledge of the constitutional provisions while enacting it and hence, a test authorised by the Act would automatically be

¹²⁷ §53, Criminal Procedure Code, 1973.

¹²⁸ *Id.*

¹²⁹ 2004(7) Kar LJ 501; MANU/KA/0588/2004, ¶ 14.

¹³⁰ *Id.*, ¶ 12. § 53(1) of the Criminal Procedure Code, 1973 states that reasonable amount of force may be used while conducting the examination.

¹³¹ People's Union for Democratic Rights, TWENTY SECOND DR. RAMANADHAM MEMORIAL MEETING, at 3 (2008) available at http://www.pudr.org/index.php?option=com_docman&task=doc_view&gid=168 (Last visited on October 3, 2008). Unfortunately, the serial number of the case as registered in the Supreme Court is not available from the official website at <http://courtncic.nic.in> so we have had to rely on secondary sources.

constitutional.¹³² The argument is erroneous for two reasons. Firstly, if assumed to be correct, there would be no instance of a law which would be *ultra-vires* the Constitution and no need to review the constitutionality of a legislative act. In fact, even if the argument is accepted, it is possible that with advancement of technology new methods of testing an accused to elicit clues for investigation may be developed which may be violative of the fundamental rights of a person, in which case the provision shall have to be restrictively interpreted so that it does not offend the fundamental rights. In a similar way, Section 53 of the Code may have to be interpreted such that it does not include or authorise the narco-analysis test.

The second question refers to the instances and the manner in which the test may be authorised. Section 53 permits conducting the test at the instance of a police officer who is of the rank of a Sub-Inspector or above. In practical use, the test is reported to be conducted mostly when there are crimes which are particularly shocking and having immense repercussions on the social fabric of the nation, such as murder,¹³³ or which are aimed at defrauding the State.¹³⁴ An authorisation from the Magistrate may be obtained to the effect that the test may be conducted,¹³⁵ which lends more credence to the system, being an independent authorisation from a judicial institution. Nevertheless, this is *not a legal requirement*, and the test may be conducted without such authorisation. Thus, the test is again susceptible to abuse and requirements to prevent its incorrect administration need to be laid down.

¹³² Mudassir Rizwan, *Government Justifies Use of Narco-Analysis, Brain Mapping* available at http://www.twocircles.net/2008jan22/government_justifies_use_narco_analysis_brain_mapping.html (Last visited on September 4, 2008). See also *Smt. Selvi v. State*, *supra* note 1, ¶ 21, wherein similar observation was made by the Karnataka High Court.

¹³³ For example, the Nithari killings which involved a man accused of child pornography, organ trade and cannibalism. See *Noida Serial Killings*, available at <http://www.rediff.com/news/noida07.html> (Last visited on September 10, 2008) for a detailed timeline of the proceedings.

¹³⁴ A case in example is of Abdul KarimTelgi, where he was arrested on a charge of defrauding the exchequer to the tune of thousands of crores of rupees by making fake stamp papers.

¹³⁵ This may be done by the Magistrate directing the police to conduct such tests as a component of his general power to direct investigation of an offence under §156(3), Code of Criminal Procedure, 1973. See also *Selvi v. State*, *supra* note 1, ¶ 18, stating that experts or doctors are more willing to co-operate with the police in investigation if there is an order of a Magistrate to that effect.

B. THE RIGHT TO HEALTH

Right to health has been held to be a part of the right to life.¹³⁶ An argument that barbiturates administered during narco-analysis have detrimental side effects¹³⁷ was advanced before the Kerala High Court in *Rojo George v. Deputy Superintendent of Police*.¹³⁸ The High Court found it untenable merely because similar substances are also prescribed by way of medicines to patients despite their having side-effects; even X-Rays and CT Scans are used for diagnosing diseases, though they might have adverse effects.¹³⁹ The Court also relied on a report stating that the substances used in scientific tests are administered in lesser quantities in the test, than in medical treatment.¹⁴⁰

This reasoning suffers from the flaw that it compares medication which, although slightly harmful by itself, has been taken to cause a *net improvement* to a sick person's health after his or her *consent*, whereas scientific tests lack both these features. It could have been more appropriate to take the view that the right to health may be restricted in terms of Article 21, that is, by procedure established by law. As a requirement added by the judiciary to interpret the Article, the procedure would also have to be fair, just and reasonable.¹⁴¹ Such a procedure would not be difficult to devise. It could involve an allegation of a serious offence which has a prescribed punishment of certain minimum severity, and may require mandatory authorisation by a Court. Conditions under which the test may be conducted, precautions to be taken by the medical personnel while administering the drugs to the accused and the methods of interrogation by the police while the accused is under the influence of the drug may be prescribed to prevent abuse of power and excesses by the police and unwanted mishaps.

1. Compensation in the event of proven side-effects

Whereas a reasonable procedure may be devised to administer the drug (sodium pentothal) involved in the narco-analysis test in medically prescribed doses only, the possibility of side-effects resulting as a consequence is not eliminated. Acceptance of the observation that the agents of law and the law

¹³⁶ *State of Punjab v. Mahinder Singh Chawla*, AIR 1997 SC 1225.

¹³⁷ The side effects of sodium pentothal, the active chemical used in most narco analysis examinations are circulatory depression, respiratory depression with apnoea and anaphylaxis. Its effects on the Central Nervous System may produce head ache, retrograde amnesia, emergence delirium, prolonged somnolence and recovery. *See generally* P. Chandra Sekharan, *Untruth Serum*, COMBAT LAW, Vol.6 Issue 4, July-August 2007.

¹³⁸ 2006 (2) KLT 197.

¹³⁹ *Id.*, ¶ 9.

¹⁴⁰ *Santokben Jadeja v. State of Gujarat*, 2008 Cri LJ 68, taking judicial notice of Director of Forensic Science Laboratories, *A Report on Narco Analysis Test*, Police Department, Madiwala, Bangalore.

¹⁴¹ *See generally* *Maneka Gandhi v. Union of India*, AIR 1978 SC 597.

courts also need to be armed with legitimate powers to bring offenders to justice¹⁴² may lead one to conclude that the right to health is not absolute. Nevertheless, the possibility of awarding some relief if perceptible side effects are observed as a consequence of the tests requires consideration, in order to uphold some minimal *recognition* of the right to health in such a situation as well. To find out whether any reparation may be awarded in such an event recourse is taken to *M.K. Sharma v. Bharat Electronics Ltd.*¹⁴³ where workers of a company claimed compensation from their employer on account of *possibility* of damage to health resulting from actual exposure to harmful radiation, the Court held that no compensation could be granted at a stage where no medical proof of such harm existed.¹⁴⁴ Taking a parallel from that situation, in cases where side effects are observed and are proven to be a consequence of the tests, it is concluded that the State is under a duty to award some compensation or reparation, so as to sustain its recognition for the right to health, without compromising on the investigative tools available.

VI. WHETHER USE OF STATEMENTS FOR INVESTIGATIVE PROCESS ONLY, IS VIOLATIVE OF THE PROTECTION AGAINST SELF-INCRIMINATION?

The rationale provided in judicial decisions that if the statements of the accused are only used for investigative processes and not in judicial proceedings, the tests are constitutional is untenable as the stages of investigation and evidence cannot always be mutually exclusive. Investigation by definition itself includes all proceedings conducted for the *collection of evidence by police officers*.¹⁴⁵ While investigation may not include evidence, it will include the proceedings adopted for *collection of evidence*. Thus, the terms are not coterminous; rather, there are various interfaces between the two. The broader view of the Supreme Court is that the phrase 'to be a witness' in Art.20(3) would take within its ambit not only the evidence given by a person during a trial, but also that given during other stages of the investigative process.¹⁴⁶ Section 27 of the Evidence Act establishes one such interface between the two stages, expressly permitting all evidence in relation to a fact, which is discovered in pursuance of a statement made in the course of investigation. This includes evidence of any confessions. Thus, a confession under the influence of narco-analysis resulting in corresponding discoveries is admissible in evidence, which shall itself amount to self-incrimination. Even if the statements are not used and evidence of the discoveries is adduced independently of the confession, the confession still remains the sole cause of the discoveries, thereby rendering the statements incriminating where the discoveries alone are sufficient to result in the conviction

¹⁴² *Supra* note 72, ¶ 10.

¹⁴³ AIR 1987 SC 1792.

¹⁴⁴ *Id.*, ¶ 3.

¹⁴⁵ §.2(h), Code of Criminal Procedure, 1973.

¹⁴⁶ *M.P.Sharma v. Satish Chandra*, AIR 1954 SC 300, *reaffirmed* in *Kathi Kalu Oghad*, *supra* note 72, ¶ 22.

of the accused, as we have explained earlier. A faltering and moribund investigation may be revived by getting clues from a successful brain mapping test. Although the use of the brain-mapping test still requires significant self-investigation to be conducted by the authorised agency and the lie-detector can be defeated, often it may be only because of such tests that any evidence has been found. Interestingly, a source states that this trinity of tests is employed simultaneously, thus synergising the advantages of each test and removing its disadvantages.¹⁴⁷ Thus, any predisposed support for any of the tests that one may feel is lost.

VII. CONCLUSION

Even if the results of the scientific tests, or discoveries resulting from the tests in tandem with the statements made during interrogation are not directly used, investigation does receive a tremendous fillip on many occasions. For example, one source states that investigations into the July 11 train blasts in Mumbai and the subsequent blasts in Malegaon were successful only because of the revelations made by individuals during narco-analysis.¹⁴⁸ It goes further to state that narco-analysis has also taken the place of preventive forensics, because it has helped the administration take steps to prevent further planned blasts in Malegaon and Karnataka.¹⁴⁹ The murkiness around the Aarushi murder case finally got clearer after conducting the narco analysis test on certain suspects.¹⁵⁰ While brain mapping and lie-detector may have certain justifications as investigative and other kinds of tools, the same become difficult to apply in case of narco-analysis. Strict legal reasons fail to justify the narco-analysis test, which elicits information not of a general nature, but precisely what is required to gather clinching evidence. It eliminates the option of an accused to remain silent. The test can have repercussions on the subject's health, in which case it is essential to devise a scheme of redressal, which may take effect only if the side-effects are actually observed, for the subject. While it may not unequivocally violate a person's right to privacy if administered correctly, strict procedural safeguards need to be added to prevent its abuse. The Criminal Procedure Code allows conducting such an examination of the accused as is reasonably necessary in order to ascertain facts which may afford evidence about the commission of an offence, and to use reasonable force for the same. We have submitted that the Criminal Procedure Code does not envisage the use of such scientific tests, in particular the narco-analysis test, which was in fact used first in India in the new millennium. It is true that as per the doctrine of beneficial construction, the language of a statute is generally extended to new things which

¹⁴⁷ *Supra* note 21.

¹⁴⁸ Bannur Muthai Mohan, *Misconceptions About Narco Analysis* available at <http://www.issuesinmedicalethics.org/151co07.html> (Last visited on October 6, 2008).

¹⁴⁹ *Id.*

¹⁵⁰ Vicky Nanjappa, *Aarushi Murder: The Narco-Test That Cracked The Case* available at <http://www.rediff.com/news/2008/jul/11aarushi1.htm> (Last visited on October 6, 2008).

were not known and could not have been contemplated when the Act was passed, when it deals with a genus and the things which afterwards come into existence are merely species of it.¹⁵¹ However, the doctrine should not be invoked as a blanket justification in the present situation to justify the administration of a narco-analysis test, because the same may be unconstitutional in certain instances, as we have argued in this article. Thus, after an overall assessment, the only reason that an unrestricted use of a narco-analysis test may be justified seems to be because of practical necessity. In this context one is reminded of the observation of the Supreme Court that, “It is as much necessary to protect a accused person against being compelled to incriminate himself, as to arm the agents of law and the law courts with legitimate powers to bring offenders to justice.”¹⁵² The observation may at best give a teleological reason to continue conducting the tests, but it is insufficient to justify their administration in an uncontrolled and unregulated manner.

¹⁵¹ P. ST. J. LANGAN, MAXWELL ON THE INTERPRETATION OF STATUTES 102 (1969).

¹⁵² *Supra* note 72, ¶ 10.