REPORTABLE

IN THE SUPREME COURT OF INDIA

CRIMINAL APPELLATE JURISDICTION

Criminal Appeal No. 1267 of 2004

Smt. Selvi & Ors. … Appellants

Versus

State of Karnataka …Respondent

With

Criminal Appeal Nos. 54 of 2005, 55 of 2005, 56-57 of 2005, 58-59 of 2005, 1199 of 2006, 1471 of 2007, and Nos.987 & 990 of 2010 [Arising out of SLP (Crl.) Nos. 10 of 2006 and 6711 of 2007]

JUDGMENT

K.G. Balakrishnan, C.J.I.

Leave granted in SLP (Crl.) Nos. 10 of 2006 and 6711 of 2007.

1. The legal questions in this batch of criminal appeals relate to the involuntary administration of certain scientific techniques, namely narcoanalysis, polygraph examination and the Brain Electrical Activation Profile (BEAP) test for the

purpose of improving investigation efforts in criminal cases. This issue has received considerable attention since it involves tensions between the desirability of efficient investigation and the preservation of individual liberties. Ordinarily the judicial task is that of evaluating the rival contentions in order to arrive at a sound conclusion. However, the present case is not an ordinary dispute between private parties. It raises pertinent questions about the meaning and scope of fundamental rights which are available to all citizens. Therefore, we must examine the implications of permitting the use of the impugned techniques in a variety of settings.

2. Objections have been raised in respect of instances where individuals who are the accused, suspects or witnesses in an investigation have been subjected to these tests without their consent. Such measures have been defended by citing the importance of extracting information which could help the investigating agencies to prevent criminal activities in the future as well as in circumstances where it is difficult to gather evidence through ordinary means. In some of the

impugned judgments, reliance has been placed on certain provisions of the Code of Criminal Procedure, 1973 and the Indian Evidence Act, 1872 to refer back to the responsibilities placed on citizens to fully co-operate with investigation agencies. It has also been urged that administering these techniques does not cause any bodily harm and that the extracted information will be used only for strengthening investigation efforts and will not be admitted as evidence during the trial stage. The assertion is that improvements in fact-finding during the investigation stage will consequently help to increase the rate of prosecution as well as the rate of acquittal. Yet another line of reasoning is that these scientific techniques are a softer alternative to the regrettable and allegedly widespread use of 'third degree methods' by investigators.

3. The involuntary administration of the impugned techniques prompts questions about the protective scope of the 'right against self-incrimination' which finds place in Article 20(3) of our Constitution. In one of the impugned judgments, it has

been held that the information extracted through methods such as 'polygraph examination' and the 'Brain Electrical Activation Profile (BEAP) test' cannot be equated with 'testimonial compulsion' because the test subject is not required to give verbal answers, thereby falling outside the protective scope of Article 20(3). It was further ruled that the verbal revelations made during a narcoanalysis test do not attract the bar of Article 20(3) since the inculpatory or exculpatory nature of these revelations is not known at the time of conducting the test. To address these questions among others, it is necessary to inquire into the historical origins and rationale behind the 'right against self-incrimination'. The principal questions are whether this right extends to the investigation stage and whether the test results are of a 'testimonial' character, thereby attracting the protection of Article 20(3). Furthermore, we must examine whether relying on the test results or materials discovered with the help of the same creates a reasonable likelihood of incrimination for the test subject.

4. We must also deal with arguments invoking the guarantee of 'substantive due process' which is part and parcel of the idea of 'personal liberty' protected by Article 21 of the Constitution. The first question in this regard is whether the provisions in the Code of Criminal Procedure, 1973 that provide for 'medical examination' during the course of investigation can be read expansively to include the impugned techniques, even though the latter are not explicitly enumerated. To answer this question, it will be necessary to discuss the principles governing the interpretation of statutes in light of scientific advancements. Questions have also been raised with respect to the professional ethics of medical personnel involved in the administration of these techniques. Furthermore, Article 21 has been judicially expanded to include a 'right against cruel, inhuman or degrading treatment', which requires us to determine whether the involuntary administration of the impugned techniques violates this right whose scope corresponds with evolving international human rights norms. We must also consider

contentions that have invoked the test subject's 'right to privacy', both in a physical and mental sense.

5. The scientific validity of the impugned techniques has been questioned and it is argued that their results are not entirely reliable. For instance, the narcoanalysis technique involves the intravenous administration of sodium pentothal, a drug which lowers inhibitions on part of the subject and induces the person to talk freely. However, empirical studies suggest that the drug-induced revelations need not necessarily be true. Polygraph examination and the BEAP test are methods which serve the respective purposes of lie-detection and gauging the subject's familiarity with information related to the crime. These techniques are essentially confirmatory in nature, wherein inferences are drawn from the physiological responses of the subject. However, the reliability of these methods has been repeatedly questioned in empirical studies. In the context of criminal cases, the reliability of scientific evidence bears a causal link with several dimensions of the right to a fair trial such as the requisite standard of proving guilt beyond

reasonable doubt and the right of the accused to present a defence. We must be mindful of the fact that these requirements have long been recognised as components of 'personal liberty' under Article 21 of the Constitution. Hence it will be instructive to gather some insights about the admissibility of scientific evidence.

6. In the course of the proceedings before this Court, oral submissions were made by Mr. Rajesh Mahale, Adv. (Crl. App. No. 1267 of 2004), Mr. Manoj Goel, Adv. (Crl. App. Nos. 56-57 of 2005), Mr. Santosh Paul, Adv. (Crl. App. No. 54 of 2005) and Mr. Harish Salve, Sr. Adv. (Crl. App. Nos. 1199 of 2006 and No. 1471 of 2007) – all of whom argued against the involuntary administration of the impugned techniques. Arguments defending the compulsory administration of these techniques were presented by Mr. Goolam E. Vahanvati, Solicitor General of India [now Attorney General for India] and Mr. Anoop G. Choudhari, Sr. Adv. who appeared on behalf of the Union of India. These were further supported by Mr. T.R. Andhyarujina, Sr. Adv. who appeared on behalf of the Central

Bureau of Investigation (CBI) and Mr. Sanjay Hegde, Adv. who represented the State of Karnataka. Mr. Dushyant Dave, Sr. Adv., rendered assistance as *amicus curiae* in this matter.

7. At this stage, it will be useful to frame the questions of law and outline the relevant sub-questions in the following manner:

I. Whether the involuntary administration of the impugned techniques violates the 'right against self-incrimination' enumerated in Article 20(3) of the Constitution?

I-A. Whether the investigative use of the impugned techniques creates a likelihood of incrimination for the subject?

I-B. Whether the results derived from the impugned techniques amount to 'testimonial compulsion' thereby attracting the bar of Article 20(3)?

II. Whether the involuntary administration of the impugned techniques is a reasonable restriction on 'personal liberty' as understood in the context of Article 21 of the Constitution?

8. Before answering these questions, it is necessary to examine the evolution and specific uses of the impugned techniques. Hence, a description of each of the test procedures is followed by an overview of their possible uses, both within and outside the criminal justice system. It is also necessary to gauge the limitations of these techniques. Owing to the dearth of Indian decisions on this subject, we must look to precedents from foreign jurisdictions which deal with the application of these techniques in the area of criminal justice.

DESCRIPTIONS OF TESTS – USES, LIMITATIONS AND PRECEDENTS

Polygraph Examination

9. The origins of polygraph examination have been traced back to the efforts of Lombroso, a criminologist who experimented

with a machine that measured blood pressure and pulse to assess the honesty of persons suspected of criminal conduct. His device was called a hydrosphygmograph. A similar device was used by psychologist William Marston during World War I in espionage cases, which proved to be a precursor to its use in the criminal justice system. In 1921, John Larson incorporated the measurement of respiration rate and by 1939 Leonard Keeler added skin conductance and an amplifier to the parameters examined by a polygraph machine.

10. The theory behind polygraph tests is that when a subject is lying in response to a question, he/she will produce physiological responses that are different from those that arise in the normal course. During the polygraph examination, several instruments are attached to the subject for measuring and recording the physiological responses. The examiner then reads these results, analyzes them and proceeds to gauge the credibility of the subject's answers. Instruments such as cardiographs, pneumographs, cardio-cuffs and sensitive electrodes are used in the course of polygraph examinations.

They measure changes in aspects such as respiration, blood pressure, blood flow, pulse and galvanic skin resistance. The truthfulness or falsity on part of the subject is assessed by relying on the records of the physiological responses. [See: *Laboratory Procedure Manual – Polygraph Examination* (Directorate of Forensic Science, Ministry of Home Affairs, Government of India, New Delhi – 2005)]

11. There are three prominent polygraph examination techniques:

i. The relevant-irrelevant (R-I) technique

ii. The control question (CQ) technique

iii. Directed Lie-Control (DLC) technique

Each of these techniques includes a pre-test interview during which the subject is acquainted with the test procedure and the examiner gathers the information which is needed to finalize the questions that are to be asked. An important objective of this exercise is to mitigate the possibility of a feeling of surprise on part of the subject which could be triggered by unexpected questions. This is significant because

an expression of surprise could be mistaken for physiological responses that are similar to those associated with deception. [Refer: David Gallai, 'Polygraph evidence in federal courts: Should it be admissible?' 36 *American Criminal Law Review* 87-116 (Winter 1999) at p. 91]. Needless to say, the polygraph examiner should be familiar with the details of the ongoing investigation. To meet this end the investigators are required to share copies of documents such as the First Information Report (FIR), Medico-Legal Reports (MLR) and Post-Mortem Reports (PMR) depending on the nature of the facts being investigated.

12. The control-question (CQ) technique is the most commonly used one and its procedure as well as scoring system has been described in the materials submitted on behalf of CBI. The test consists of control questions and relevant questions. The control questions are irrelevant to the facts being investigated but they are intended to provoke distinct physiological responses, as well as false denials. These responses are compared with the responses triggered by the relevant

questions. Theoretically, a truthful subject will show greater physiological responses to the control questions which he/she has reluctantly answered falsely, than to the relevant questions, which the subject can easily answer truthfully. Conversely, a deceptive subject will show greater physiological responses while giving false answers to relevant questions in comparison to the responses triggered by false answers to control questions. In other words, a guilty subject is more likely to be concerned with lying about the relevant facts as opposed to lying about other facts in general. An innocent subject will have no trouble in truthfully answering the relevant questions but will have trouble in giving false answers to control questions. The scoring of the tests is done by assigning a numerical value, positive or negative, to each response given by the subject. After accounting for all the numbers, the result is compared to a standard numerical value to indicate the overall level of deception. The net conclusion may indicate truth, deception or uncertainty.

13. The use of polygraph examinations in the criminal justice system has been contentious. In this case, we are mainly considered with situations when investigators seek reliance on these tests to detect deception or to verify the truth of previous testimonies. Furthermore, litigation related to polygraph tests has also involved situations where suspects and defendants in criminal cases have sought reliance on them to demonstrate their innocence. It is also conceivable that witnesses can be compelled to undergo polygraph tests in order to test the credibility of their testimonies or to question their mental capacity or to even attack their character.

14. Another controversial use of polygraph tests has been on victims of sexual offences for testing the veracity of their allegations. While several states in the U.S.A. have enacted provisions to prohibit such use, the text of the *Laboratory Procedure Manual for Polygraph Examination* [supra.] indicates that this is an acceptable use. In this regard, Para 3.4 (v) of the said Manual reads as follows:

> "(v) In cases of alleged sex offences such as intercourse with a female child, forcible rape, indecent liberties or perversion, it is important that the victim, as well as the accused, be made available for interview and polygraph examination. It is essential that the polygraph examiner get a first hand detailed statement from the victim, and the interview of the victim precede that of the suspect or witnesses. …"

[The following article includes a table which lists out the statutorily permissible uses of polygraph examination in the different state jurisdictions of the United States of America: Henry T. Greely and Judy Illes, 'Neuroscience based lie-detection: The urgent need for regulation', 33 *American Journal of Law and Medicine*, 377-421 (2007)]

15. The propriety of compelling the victims of sexual offences to undergo a polygraph examination certainly merits consideration in the present case. It must also be noted that in some jurisdictions polygraph tests have been permitted for the purpose of screening public employees, both at the stage of recruitment and at regular intervals during the service-period. In the U.S.A., the widespread acceptance of polygraph tests for checking the antecedents and monitoring the conduct of

public employees has encouraged private employers to resort to the same. In fact the Employee Polygraph Protection Act, 1998 was designed to restrict their use for employee screening. This development must be noted because the unqualified acceptance of 'Lie-detector tests' in India's criminal justice system could have the unintended consequence of encouraging their use by private parties.

16. Polygraph tests have several limitations and therefore a margin for errors. The premise behind these tests is questionable because the measured changes in physiological responses are not necessarily triggered by lying or deception. Instead, they could be triggered by nervousness, anxiety, fear, confusion or other emotions. Furthermore, the physical conditions in the polygraph examination room can also create distortions in the recorded responses. The test is best administered in comfortable surroundings where there are no potential distractions for the subject and complete privacy is maintained. The mental state of the subject is also vital since a person in a state of depression or hyperactivity is likely to

offer highly disparate physiological responses which could mislead the examiner. In some cases the subject may have suffered from loss of memory in the intervening time-period between the relevant act and the conduct of the test. When the subject does not remember the facts in question, there will be no self-awareness of truth or deception and hence the recording of the physiological responses will not be helpful. Errors may also result from 'memory-hardening', i.e. a process by which the subject has created and consolidated false memories about a particular incident. This commonly occurs in respect of recollections of traumatic events and the subject may not be aware of the fact that he/she is lying.

17. The errors associated with polygraph tests are broadly grouped into two categories, i.e., 'false positives' and 'false negatives'. A 'false positive' occurs when the results indicate that a person has been deceitful even though he/she answered truthfully. Conversely a 'false negative' occurs when a set of deceptive responses is reported as truthful. On account of such inherent complexities, the qualifications and competence

of the polygraph examiner are of the utmost importance. The examiner needs to be thorough in preparing the questionnaire and must also have the expertise to account for extraneous conditions that could lead to erroneous inferences.

18. However, the biggest concern about polygraph tests is that an examiner may not be able to recognise deliberate attempts on part of the subject to manipulate the test results. Such 'countermeasures' are techniques which are deliberately used by the subject to create certain physiological responses in order to deceive the examiner. The intention is that by deliberately enhancing one's reaction to the control questions, the examiner will incorrectly score the test in favour of truthfulness rather than deception. The most commonly used 'countermeasures' are those of creating a false sense of mental anxiety and stress at the time of the interview, so that the responses triggered by lying cannot be readily distinguished.

19. Since polygraph tests have come to be widely relied upon for employee screening in the U.S.A., the U.S. Department of

Energy had requested the National Research Council of the National Academies (NRC) to review their use for different purposes. The following conclusion was stated in its report, i.e. *The Polygraph and Lie-Detection: Committee to Review the scientific evidence on the Polygraph* (Washington D.C.: National Academies Press, 2003) at pp. 212-213:

> "Polygraph Accuracy**:** Almost a century of research in scientific psychology and physiology provides little basis for the expectation that a polygraph test could have extremely high accuracy. The physiological responses measured by the polygraph are not uniquely related to deception. That is, the responses measured by the polygraph do not all reflect a single underlying process: a variety of psychological and physiological processes, including some that can be consciously controlled, can affect polygraph measures and test results. Moreover, most polygraph testing procedures allow for uncontrolled variation in test administration (e.g., creation of the emotional climate, selecting questions) that can be expected to result in variations in accuracy and that limit the level of accuracy that can be consistently achieved.
>
> Theoretical Basis: The theoretical rationale for the polygraph is quite weak, especially in terms of differential fear, arousal, or other emotional states that are triggered in response to relevant or comparison questions. We have not found any serious effort at construct validation of polygraph testing.
>
> Research Progress: Research on the polygraph has not progressed over time in the manner of a typical scientific field. It has not accumulated knowledge or strengthened its scientific underpinnings in any significant manner.

> Polygraph research has proceeded in relative isolation from related fields of basic science and has benefited little from conceptual, theoretical, and technological advances in those fields that are relevant to the psychophysiological detection of deception.
>
> Future Potential: The inherent ambiguity of the physiological measures used in the polygraph suggests that further investments in improving polygraph technique and interpretation will bring only modest improvements in accuracy."

20. A Working Party of the British Psychological Society (BPS) also came to a similar conclusion in a study published in 2004. The key finding is reproduced below, [Cited from: *A Review of the current scientific status and fields of application of polygraph deception detection* – Final Report (6 October, 2004) from The British Psychological Society (BPS) Working Party at p. 10]:

> "A polygraph is sometimes called a lie detector, but this term is misleading. A polygraph does not detect lies, but only arousal which is assumed to accompany telling a lie. Polygraph examiners have no other option than to measure deception in such an indirect way, as a pattern of physiological activity directly related to lying does not exist (Saxe, 1991). Three of the four most popular lie detection procedures using the polygraph (Relevant/Irrelevant Test, Control Question Test and Directed Lie Test, …) are built upon the premise that, while answering so-called 'relevant' questions, liars will

> be more aroused than while answering so-called 'control' questions, due to a fear of detection (fear of getting caught lying). This premise is somewhat naive as truth tellers may also be more aroused when answering the relevant questions, particularly: (i) when these relevant questions are emotion evoking questions (e.g. when an innocent man, suspected of murdering his beloved wife, is asked questions about his wife in a polygraph test, the memory of his late wife might re-awaken his strong feelings about her); and (ii) when the innocent examinee experiences fear, which may occur, for example, when the person is afraid that his or her honest answers will not be believed by the polygraph examiner. The other popular test (Guilty Knowledge Test, …) is built upon the premise that guilty examinees will be more aroused concerning certain information due to different orienting reactions, that is, they will show enhanced orienting responses when recognising crucial details of a crime. This premise has strong support in psychophysiological research (Fiedler, Schmidt & Stahl, 2002)."

21. Coming to judicial precedents, a decision reported as ***Frye*** v. ***United States***, (1923) 54 App DC 46, dealt with a precursor to the polygraph which detected deception by measuring changes in systolic blood pressure. In that case the defendant was subjected to this test before the trial and his counsel had requested the court that the scientist who had conducted the same should be allowed to give expert testimony about the results. Both the trial court and the appellate court rejected the request for admitting such testimony. The appellate court

identified the considerations that would govern the admissibility of expert testimony based on scientific insights. It was held, *Id.* at p. 47:

> "… Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.
>
> We think the systolic blood pressure deception test has not yet gained such standing and scientific recognition among physiological and psychological authorities as would justify the courts in admitting expert testimony deduced from the discovery, development, and experiments thus far made."

22. The standard of 'general acceptance in the particular field' governed the admissibility of scientific evidence for several decades. It was changed much later by the U.S. Supreme Court in ***Daubert*** v. ***Merrell Dow Pharmaceuticals Inc.***, 509 US 579 (1993). In that case the petitioners had instituted proceedings against a pharmaceutical company which had marketed 'Bendectin', a prescription drug. They had alleged

that the ingestion of this drug by expecting mothers had caused birth defects in the children born to them. To contest these allegations, the pharmaceutical company had submitted an affidavit authored by an epidemiologist. The petitioners had also submitted expert opinion testimony in support of their contentions. The District Court had ruled in favour of the company by ruling that their scientific evidence met the standard of 'general acceptance in the particular field' whereas the expert opinion testimony produced on behalf of the petitioners did not meet the said standard. The Court of Appeals for the Ninth Circuit upheld the judgment and the case reached the U.S. Supreme Court which vacated the appellate court's judgment and remanded the case back to the trial court. It was unanimously held that the 'general acceptance' standard articulated in ***Frye*** (supra.) had since been displaced by the enactment of the Federal Rules of Evidence in 1975, wherein Rule 702 governed the admissibility of expert opinion testimony that was based on scientific findings. This rule provided that:

> If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise.

23. It was held that the trial court should have evaluated the scientific evidence as per Rule 702 of the Federal Rules of Evidence which mandates an inquiry into the relevance as well as the reliability of the scientific technique in question. The majority opinion (Blackmun, J.) noted that the trial judge's first step should be a preliminary assessment of whether the testimony's underlying reasoning or methodology is scientifically valid and whether it can be properly applied to the facts in issue. Several other considerations will be applicable, such as:

- whether the theory or technique in question can be and has been tested
- whether it has been subjected to peer review and publication
- its known or potential error rate

- the existence and maintenance of standards controlling its operation
- whether it has attracted widespread acceptance within the scientific community

24. It was further observed that such an inquiry should be a flexible one, and its focus must be solely on principles and methodology, not on the conclusions that they generate. It was reasoned that instead of the wholesale exclusion of scientific evidence on account of the high threshold of proving 'general acceptance in the particular field', the same could be admitted and then challenged through conventional methods such as cross-examination, presentation of contrary evidence and careful instructions to juries about the burden of proof. In this regard, the trial judge is expected to perform a 'gate-keeping' role to decide on the admission of expert testimony based on scientific techniques. It should also be kept in mind that Rule 403 of the Federal Rules of Evidence, 1975 empowers a trial judge to exclude any form of evidence if it is found that its probative value will be outweighed by its prejudicial effect.

25. Prior to the ***Daubert*** decision (supra.), most jurisdictions in the U.S.A. had disapproved of the use of polygraph tests in criminal cases. Some State jurisdictions had absolutely prohibited the admission of polygraph test results, while a few had allowed consideration of the same if certain conditions were met. These conditions included a prior stipulation between the parties to undergo these tests with procedural safeguards such as the involvement of experienced examiners, presence of counsel and proper recording to enable subsequent scrutiny. A dissonance had also emerged in the treatment of polygraph test results in the different Circuit jurisdictions, with some jurisdictions giving trial judges the discretion to enquire into the reliability of polygraph test results on a case-by-case basis.

26. For example, in ***United States*** v. ***Piccinonna***, 885 F.2d 1529 (11th Circ. 1989), it was noted that in some instances polygraphy satisfied the standard of 'general acceptance in the particular field' as required by ***Frye*** (supra.). It was held that

polygraph testimony could be admissible under two situations, namely when the parties themselves agree on a stipulation to this effect or for the purpose of impeaching and corroborating the testimony of witnesses. It was clarified that polygraph examination results could not be directly used to bolster the testimony of a witness. However, they could be used to attack the credibility of a witness or even to rehabilitate one after his/her credibility has been attacked by the other side. Despite these observations, the trial court did not admit the polygraph results on remand in this particular case.

27. However, after ***Daubert*** (supra.) prescribed a more liberal criterion for determining the admissibility of scientific evidence, some Courts ruled that weightage could be given to polygraph results. For instance in ***United States*** v. ***Posado***, 57 F.3d 428 (5th Circ. 1995), the facts related to a pre-trial evidentiary hearing where the defendants had asked for the exclusion of forty-four kilograms of cocaine that had been recovered from their luggage at an airport. The District Court had refused to consider polygraph evidence given by the

defendants in support of their version of events leading up to the seizure of the drugs and their arrest. On appeal, the Fifth Circuit Court held that the rationale for disregarding polygraph evidence did not survive the ***Daubert*** decision. The Court proceeded to remand the case to the trial court and directed that the admissibility of the polygraph results should be assessed as per the factors enumerated in ***Daubert*** (supra.). It was held, *Id.* at p. 434:

> "There can be no doubt that tremendous advances have been made in polygraph instrumentation and technique in the years since Frye. The test at issue in Frye measured only changes in the subject's systolic blood pressure in response to test questions. [*Frye* v. *United States* ...] Modern instrumentation detects changes in the subject's blood pressure, pulse, thoracic and abdominal respiration, and galvanic skin response. Current research indicates that, when given under controlled conditions, the polygraph technique accurately predicts truth or deception between seventy and ninety percent of the time. Remaining controversy about test accuracy is almost unanimously attributed to variations in the integrity of the testing environment and the qualifications of the examiner. Such variation also exists in many of the disciplines and for much of the scientific evidence we routinely find admissible under Rule 702. [See *McCormick on Evidence* 206 at 915 & n. 57] Further, there is good indication that polygraph technique and the requirements for professional polygraphists are becoming progressively more standardized. In addition, polygraph technique has been and continues to be subjected to extensive study and publication. Finally, polygraph is

> now so widely used by employers and government agencies alike.
>
> To iterate, we do not now hold that polygraph examinations are scientifically valid or that they will always assist the trier of fact, in this or any other individual case. We merely remove the obstacle of the per se rule against admissibility, which was based on antiquated concepts about the technical ability of the polygraph and legal precepts that have been expressly overruled by the Supreme Court."
>
> (internal citations omitted)

28. Despite these favourable observations, the polygraph results were excluded by the District Court on remand. However, we have come across at least one case decided after ***Daubert*** (supra.) where a trial court had admitted expert opinion testimony about polygraph results. In ***United States*** v. ***Galbreth***, 908 F. Supp 877 (D.N.M. 1995), the District Court took note of New Mexico Rule of Evidence 11-707 which established standards for the admission of polygraph evidence. The said provision laid down that polygraph evidence would be admissible only when the following conditions are met: the examiner must have had at least 5 years experience in conducting polygraph tests and 20 hours of continuing education within the past year; the polygraph examination

must be tape recorded in its entirety; the polygraph charts must be scored quantitatively in a manner generally accepted as reliable by polygraph experts; all polygraph materials must be provided to the opposing party at least 10 days before trial; and all polygraph examinations conducted on the subject must be disclosed. It was found that all of these requirements had been complied with in the facts at hand. The District Court concluded with these words, *Id.* at p. 896:

> "… the Court finds that the expert opinion testimony regarding the polygraph results of defendant Galbreth is admissible. However, because the evidentiary reliability of opinion testimony regarding the results of a particular polygraph test is dependent upon a properly conducted examination by a highly qualified, experienced and skilful examiner, nothing in this opinion is intended to reflect the judgment that polygraph results are per se admissible. Rather, in the context of the polygraph technique, trial courts must engage upon a case specific inquiry to determine the admissibility of such testimony."

29. We were also alerted to the decision in ***United States*** v. ***Cordoba***, 104 F.3d 225 (9th. Circ. 1997). In that case, the Ninth Circuit Court concluded that the position favouring absolute exclusion of unstipulated polygraph evidence had effectively been overruled in ***Daubert*** (supra.). The defendant

had been convicted for the possession and distribution of cocaine since the drugs had been recovered from a van which he had been driving. However, when he took an unstipulated polygraph test, the results suggested that he was not aware of the presence of drugs in the van. At the trial stage, the prosecution had moved to suppress the test results and the District Court had accordingly excluded the polygraph evidence. However, the Ninth Circuit Court remanded the case back after finding that the trial judge should have adopted the parameters enumerated in ***Daubert*** (supra.) to decide on the admissibility of the polygraph test results. It was observed, *Id.* at p. 228:

> "With this holding, we are not expressing new enthusiasm for admission of unstipulated polygraph evidence. The inherent problematic nature of such evidence remains. As we noted in *Brown*, polygraph evidence has grave potential for interfering with the deliberative process. [*Brown* v. *Darcy*, 783 F.2d 1389 (9th Circ. 1986) at 1396-1397] However, these matters are for determination by the trial judge who must not only evaluate the evidence under Rule 702, but consider admission under Rule 403. Thus, we adopt the view of Judge Jameson's dissent in *Brown* that these are matters which must be left to the sound discretion of the trial court, consistent with *Daubert* standards."

30. The decisions cited above had led to some uncertainty about the admissibility of polygraph test results. However, this uncertainty was laid to rest by an authoritative ruling of the U.S. Supreme Court in ***United States*** v. ***Scheffer***, 523 US 303 (1998). In that case, an eight judge majority decided that Military Rule of Evidence 707 (which made polygraph results inadmissible in court-martial proceedings) did not violate an accused person's Sixth Amendment right to present a defence. The relevant part of the provision follows:

> "(a) Notwithstanding any other provision of law, the results of a polygraph examination, the opinion of a polygraph examiner, or any reference to an offer to take, failure to take, or taking of a polygraph examination, shall not be admitted into evidence."

31. The facts were that Scheffer, a U.S. Air Force serviceman had faced court-martial proceedings because a routine urinalysis showed that he had consumed methamphetamines. However, a polygraph test suggested that he had been truthful in denying the intentional consumption of the drugs. His defence of 'innocent ingestion' was not accepted during the court-martial proceedings and the polygraph results were not

admitted in evidence. The Air Force Court of Criminal Appeals affirmed the decision given in the court-martial proceedings but the Court of Appeals for the Armed Forces reversed the same by holding that an absolute exclusion of polygraph evidence (offered to rebut an attack on the credibility of the accused) would violate Scheffer's Sixth Amendment right to present a defence. Hence, the matter reached the Supreme Court which decided that the exclusion of polygraph evidence did not violate the said constitutional right.

32. Eight judges agreed that testimony about polygraph test results should not be admissible on account of the inherent unreliability of the results obtained. Four judges agreed that reliance on polygraph results would displace the fact-finding role of the jury and lead to collateral litigation. In the words of Clarence Thomas, J., *Id.* at p. 309:

> "Rule 707 serves several legitimate interests in the criminal trial process. These interests include ensuring that only reliable evidence is introduced at trial, preserving the jury's role in determining credibility, and avoiding litigation that is collateral to the primary purpose of the trial. The rule is neither arbitrary nor disproportionate in promoting these ends. Nor does it

> implicate a sufficiently weighty interest of the defendant to raise a constitutional concern under our precedents."

33. On the issue of reliability, the Court took note of some Circuit Court decisions which had permitted trial courts to consider polygraph results in accordance with the *Daubert* factors. However, the following stance was adopted, *Id.* at p. 312:

> "… Although the degree of reliability of polygraph evidence may depend upon a variety of identifiable factors, there is simply no way to know in a particular case whether a polygraph examiner's conclusion is accurate, because certain doubts and uncertainties plague even the best polygraph exams. Individual jurisdictions therefore may reasonably reach differing conclusions as to whether polygraph evidence should be admitted. We cannot say, then, that presented with such widespread uncertainty, the President acted arbitrarily or disproportionately in promulgating a per se rule excluding all polygraph evidence."

34. Since a trial by jury is an essential feature of the criminal justice system in the U.S.A., concerns were expressed about preserving the jury's core function of determining the credibility of testimony. It was observed, *Id.* at p. 314:

> " … Unlike 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, in addition to its own, about whether the witness was telling the truth. Jurisdictions, in promulgating rules of evidence, may legitimately be concerned about the risk that juries will give excessive weight to the opinions of a polygrapher, clothed as they are in scientific expertise and at times offering, as in respondent's case, a conclusion about the ultimate issue in the trial. Such jurisdictions may legitimately determine that the aura of infallibility attending polygraph evidence can lead jurors to abandon their duty to assess credibility and guilt. …"

35. On the issue of encouraging litigation that is collateral to the primary purpose of a trial, it was held, *Id.* at p. 314:

> "… Allowing proffers of polygraph evidence would inevitably entail assessments of such issues as whether the test and control questions were appropriate, whether a particular polygraph examiner was qualified and had properly interpreted the physiological responses, and whether other factors such as countermeasures employed by the examinee had distorted the exam results. Such assessments would be required in each and every case. It thus offends no constitutional principle for the President to conclude that a per se rule excluding all polygraph evidence is appropriate. Because litigation over the admissibility of polygraph evidence is by its very nature collateral, a per se rule prohibiting its admission is not an arbitrary or disproportionate means of avoiding it."

36. In the same case, Kennedy, J. filed an opinion which was joined by four judges. While there was agreement on the questionable reliability of polygraph results, a different stand

was taken on the issues pertaining to the role of the jury and the concerns about collateral litigation. It was observed that the inherent reliability of the test results is a sufficient ground to exclude the polygraph test results and expert testimony related to them. Stevens, J. filed a dissenting opinion in this case.

37. We have also come across a decision of the Canadian Supreme Court in ***R*** v ***Beland***, [1987] 36 C.C.C. (3d) 481. In that case the respondents had been charged with conspiracy to commit robbery. During their trial, one of their accomplices had given testimony which directly implicated them. The respondents contested this testimony and after the completion of the evidentiary phase of the trial, they moved an application to re-open their defence while seeking permission for each of them to undergo a polygraph examination and produce the results in evidence. The trial judge denied this motion and the respondents were convicted. However, the appellate court allowed their appeal from conviction and granted an order to re-open the trial and directed that the polygraph results be

considered. On further appeal, the Supreme Court of Canada held that the results of a polygraph examination are not admissible as evidence. The majority opinion explained that the admission of polygraph test results would offend some well established rules of evidence. It examined the 'rule against oath-helping' which prohibits a party from presenting evidence solely for the purpose of bolstering the credibility of a witness. Consideration was also given to the 'rule against admission of past or out-of-court statements by a witness' as well as the restrictions on producing 'character evidence'. The discussion also concluded that polygraph evidence is inadmissible as 'expert evidence'.

38. With regard to the 'rule against admission of past or out-of-court statements by a witness', McIntyre, J. observed (in Para. 11):

> "… In my view, the rule against admission of consistent out-of-court statements is soundly based and particularly apposite to questions raised in connection with the use of the polygraph. Polygraph evidence when tendered would be entirely self-serving and would shed no light on the real issues before the court. Assuming, as in the case at bar, that the evidence sought to be

adduced would not fall within any of the well recognized exceptions to the operation of the rule – where it is permitted to rebut the allegation of a recent fabrication or to show physical, mental or emotional condition – it should be rejected. To do otherwise is to open the trial process to the time-consuming and confusing consideration of collateral issues and to deflect the focus of the proceedings from their fundamental issue of guilt or innocence. This view is summarized by D.W. Elliott in 'Lie-Detector Evidence: Lessons from the American Experience' in *Well and Truly Tried* (Law Book Co., 1982), at pp. 129-30:

> A defendant who attempts to put in the results of a test showing this truthfulness on the matters in issue is bound to fall foul of the rule against self-serving statements or, as it is sometimes called, the rule that a party cannot manufacture evidence for himself, and the falling foul will not be in any mere technical sense. The rule is sometimes applied in a mechanical unintelligent way to exclude evidence about which no realistic objection could be raised, as the leading case, *Gillie v. Posho* shows; but striking down defence polygraph evidence on this ground would be no mere technical reflex action of legal obscurantists. The policy behind the doctrine is a fundamental one, and defence polygraph evidence usually offends it fundamentally. As some judges have pointed out, only those defendants who successfully take examinations are likely to want the results admitted. There is no compulsion to put in the first test results obtained. A defendant can take the test many times, if necessary "examiner-shopping", until he gets a result which suits him. Even stipulated tests are not free of this taint, because of course his lawyers will advise him to have several secret trial runs before the prosecution is approached. If nothing else, the dry runs will habituate him to the process and to the expected relevant questions."

39. On the possibility of using polygraph test results as character evidence, it was observed (Para. 14):

> "... What is the consequence of this rule in relation to polygraph evidence? Where such evidence is sought to be introduced it is the operator who would be called as the witness and it is clear, of course, that the purpose of his evidence would be to bolster the credibility of the accused and, in effect, to show him to be of good character by inviting the inference that he did not lie during the test. In other words, it is evidence not of general reputation but of a specific incident and its admission would be precluded under the rule. It would follow, then, that the introduction of evidence of the polygraph tests would violate the character evidence rule."

40. Mcintyre, J. offered the following conclusions (at Paras. 18, 19 and 20):

> "18. In conclusion, it is my opinion, based upon a consideration of rules of evidence long established and applied in our courts, that the polygraph has no place in the judicial process where it is employed as a tool to determine or to test the credibility of witnesses. It is frequently argued that the polygraph represents an application of modern scientific knowledge and experience to the task of determining the veracity of human utterances. It is said that the courts should welcome this device and not cling to the imperfect methods of the past in such an important task. This argument has a superficial appeal, but, in my view, it cannot prevail in the face of realities of court procedures.
>
> 19. I would say at once that this view is not based on a fear of the inaccuracies of the polygraph. On that

question we were not supplied with sufficient evidence to reach a conclusion. However, it may be said that even the finding of a significant percentage of errors in its results would not, by itself, be sufficient ground to exclude it as an instrument for use in the courts. Error is inherent in human affairs, scientific or unscientific. It exists within our established court procedures and must always be guarded against. The compelling reason, in my view, for the exclusion of the evidence of polygraph results in judicial proceedings is two-fold. First, the admission of polygraph evidence would run counter to the well established rules of evidence which have been referred to. Second, while there is no reason why the rules of evidence should not be modified where improvement will result, it is my view that the admission of polygraph evidence will serve no purpose which is not already served. It will disrupt proceedings, cause delays, and lead to numerous complications which will result in no greater degree of certainty in the process than that which already exists.

20. Since litigation replaced trial by combat, the determination of fact, including the veracity of parties and their witnesses, has been the duty of judges or juries upon an evaluation of the statements of witnesses. This approach has led to the development of a body of rules relating to the giving and reception of evidence and we have developed methods which have served well and have gained a wide measure of approval. They have facilitated the orderly conduct of judicial proceedings and are designed to keep the focus of the proceedings on the principal issue, in a criminal case, the guilt or innocence of the accused. What would be served by the introduction of evidence of polygraph readings into the judicial process? To begin with, it must be remembered that however scientific it may be, its use in court depends on the human intervention of the operator. Whatever results are recorded by the polygraph instrument, their nature and significance reach the trier of fact through the mouth

> of the operator. Human fallibility is therefore present as before, but now it may be said to be fortified with the mystique of science. …"

Narcoanalysis technique

41. This test involves the intravenous administration of a drug that causes the subject to enter into a hypnotic trance and become less inhibited. The drug-induced hypnotic stage is useful for investigators since it makes the subject more likely to divulge information. The drug used for this test is sodium pentothal, higher quantities of which are routinely used for inducing general anaesthesia in surgical procedures. This drug is also used in the field of psychiatry since the revelations can enable the diagnosis of mental disorders. However, we have to decide on the permissibility of resorting to this technique during a criminal investigation, despite its' established uses in the medical field. The use of 'truth-serums' and hypnosis is not a recent development. Earlier versions of the narcoanalysis technique utilised substances such as scopolamine and sodium amytal. The following extracts from an article trace the evolution of this technique, [Cited from:

C.W. Muehlberger, 'Interrogation under Drug-influence: The so-called Truth serum technique', 42(4) *The Journal of Criminal Law, Criminology and Police Science* 513-528 (Nov-Dec. 1951) at pp. 513-514]:

> "With the advent of anaesthesia about a century ago, it was observed that during the induction period and particularly during the recovery interval, patients were prone to make extremely naïve remarks about personal matters, which, in their normal state, would never have revealed.
>
> Probably the earliest direct attempt to utilize this phenomenon in criminal interrogation stemmed from observations of a mild type of anaesthesia commonly used in obstetrical practice during the period of about 1903-1915 and known as 'Twilight sleep'. This anaesthesia was obtained by hypodermic injection of solutions of morphine and scopolamine (also called 'hyoscine') followed by intermittent chloroform inhalations if needed. The pain relieving qualities of morphine are well known. Scopolamine appears to have the added property of blocking out memories of recent events. By the combination of these drugs in suitable dosage, morphine dulled labor pains without materially interfering with the muscular contractions of labor, while scopolamine wiped out subsequent memories of the delivery room ordeal. The technique was widely used in Europe but soon fell into disrepute among obstetricians of this country, largely due to overdosage.
>
> During the period of extensive use of 'twilight sleep' it was a common experience that women who were under drug influence, were extremely candid and uninhibited in their statements. They often made remarks which obviously would never have been uttered when in their

> normal state. Dr. Robert E. House, an observant physician practising in Ferris, Texas, believed that a drug combination which was so effective in the removal of ordinary restraints and which produced such utter candor, might be of value in obtaining factual information from persons who were thought to be lying. Dr. House's first paper presented in 1922 suggested drug administration quite similar to the standard 'twilight sleep' procedure: an initial dose of ¼ grain of morphine sulphate together with 1/100 grain of scopolamine hydrobromide, followed at 20-30 minute intervals with smaller (1/200 – 1/400 grain) doses of scopolamine and periods of light chloroform anaesthesia. Subjects were questioned as they recovered from the light chloroform anaesthesia and gave answers which subsequently proved to be true. Altogether, Dr. House reported about half-a-dozen cases, several of which were instrumental in securing the release of convicts from State prisons, he also observed that, after returning to their normal state, these subjects had little or no recollection of what had transpired during the period of interrogation. They could not remember what questions had been asked, nor by whom; neither could they recall any answers which they had made."

42. The use of the 'Scopolamine' technique led to the coining of the expression 'truth serum'. With the passage of time, injections of sodium amytal came to be used for inducing subjects to talk freely, primarily in the field of psychiatry. The author cited above has further observed, *Id.* at p. 522:

> "During World War II, this general technique of delving into a subject's inner consciousness through the instrumentality of narcotic drugs was widely used in the

> treatment of war neuroses (sometimes called 'Battle shock' or 'shell shock'). Fighting men who had been through terrifically disturbing experiences often times developed symptoms of amnesia, mental withdrawal, negativity, paralyses, or many other mental, nervous, and physical derangements. In most instances, these patients refused to talk about the experiences which gave rise to the difficulty, and psychiatrists were at a loss to discover the crux of the problem. To intelligently counteract such a force, it was first necessary to identify it. Thus, the use of sedative drugs, first to analyze the source of disturbance (narcoanalysis) and later to obtain the proper frame of mind in which the patient could and would 'talk out' his difficulties, and, as they say 'get them off his chest' – and thus relieve himself (narco-synthesis or narco-therapy) – was employed with signal success.
>
> In the narcoanalysis of war neuroses a very light narcosis is most desirable. With small doses of injectable barbiturates (sodium amytal or sodium pentothal) or with light inhalations of nitrous oxide or somnoform, the subject pours out his pent-up emotions without much prodding by the interrogator."

43. It has been shown that the Central Investigation Agency (C.I.A.) in the U.S.A. had conducted research on the use of sodium pentothal for aiding interrogations in intelligence and counter-terrorism operations, as early as the 1950's [See 'Project MKULTRA – The CIA's program of research in behavioral modification', On file with *Schaffer Library of Drug Policy*, Text available from <www.druglibrary.org>]. In recent

years, the debate over the use of 'truth-serums' has been revived with demands for their use on persons suspected of involvement in terrorist activities. Coming to the test procedure, when the drug (sodium pentothal) is administered intravenously, the subject ordinarily descends into anaesthesia in four stages, namely:

(i) Awake stage

(ii) Hypnotic stage

(iii) Sedative stage

(iv) Anaesthetic stage

44. A relatively lighter dose of sodium pentothal is injected to induce the 'hypnotic stage' and the questioning is conducted during the same. The hypnotic stage is maintained for the required period by controlling the rate of administration of the drug. As per the materials submitted before us, the behaviour exhibited by the subject during this stage has certain specific characteristics, namely:-

- It facilitates handling of negative emotional responses (i.e. guilt, avoidance, aggression,

frustration, non-responsiveness etc.) in a positive manner.

- It helps in rapid exploration and identification of underlying conflicts in the subject's mind and unresolved feelings about past events.
- It induces the subject to divulge information which would usually not be revealed in conscious awareness and it is difficult for the person to lie at this stage
- The reversal from this stage occurs immediately when the administration of the drug is discontinued.

[Refer: *Laboratory Procedure Manual - Forensic Narco-Analysis* (Directorate of Forensic Science, Ministry of Home Affairs, Government of India, New Delhi - 2005); Also see John M. Macdonald, 'Truth Serum', 46(2) *The Journal of Criminal Law, Criminology and Police Science* 259-263 (Jul.-Aug. 1955)]

45. The personnel involved in conducting a 'narcoanalysis' interview include a forensic psychologist, an anaesthesiologist,

a psychiatrist, a general physician or other medical staff and a language interpreter if needed. Additionally a videographer is required to create video-recordings of the test for subsequent scrutiny. In India, this technique has been administered either inside forensic science laboratories or in the operation theatres of recognised hospitals. While a psychiatrist and general physician perform the preliminary function of gauging whether the subject is mentally and physically fit to undergo the test, the anaesthesiologist supervises the intravenous administration of the drug. It is the forensic psychologist who actually conducts the questioning. Since the tests are meant to aid investigation efforts, the forensic psychologist needs to closely co-operate with the investigators in order to frame appropriate questions.

46. This technique can serve several ends. The revelations could help investigators to uncover vital evidence or to corroborate pre-existing testimonies and prosecution theories. Narcoanalysis tests have also been used to detect 'malingering' (faking of amnesia). The premise is that during the 'hypnotic

stage' the subject is unable to wilfully suppress the memories associated with the relevant facts. Thus, it has been urged that drug-induced revelations can help to narrow down investigation efforts, thereby saving public resources. There is of course a very real possibility that information extracted through such interviews can lead to the uncovering of independent evidence which may be relevant. Hence, we must consider the implications of such derivative use of the drug-induced revelations, even if such revelations are not admissible as evidence. We must also account for the uses of this technique by persons other than investigators and prosecutors. Narcoanalysis tests could be requested by defendants who want to prove their innocence. Demands for this test could also be made for purposes such as gauging the credibility of testimony, to refresh the memory of witnesses or to ascertain the mental capacity of persons to stand trial. Such uses can have a direct impact on the efficiency of investigations as well as the fairness of criminal trials. [See generally: George H. Dession, Lawrence Z. Freedman, Richard C. Donnelly and Frederick G. Redlich, 'Drug-Induced

revelation and criminal investigation', 62 *Yale Law Journal* 315-347 (February 1953)]

47. It is also important to be aware of the limitations of the 'narcoanalysis' technique. It does not have an absolute success rate and there is always the possibility that the subject will not reveal any relevant information. Some studies have shown that most of the drug-induced revelations are not related to the relevant facts and they are more likely to be in the nature of inconsequential information about the subjects' personal lives. It takes great skill on part of the interrogators to extract and identify information which could eventually prove to be useful. While some persons are able to retain their ability to deceive even in the hypnotic state, others can become extremely suggestible to questioning. This is especially worrying, since investigators who are under pressure to deliver results could frame questions in a manner that prompts incriminatory responses. Subjects could also concoct fanciful stories in the course of the 'hypnotic stage'. Since the responses of different individuals are bound to vary, there is

no uniform criteria for evaluating the efficacy of the 'narcoanalysis' technique.

48. In an article published in 1951, C.W. Muehlberger (supra.) had described a French case which attracted controversy in 1948. Raymond Cens, who had been accused of being a Nazi collaborator, appeared to have suffered an apoplectic stroke which also caused memory loss. The French Court trying the case had authorised a board of psychiatrists to conduct an examination for ascertaining the defendant's amnesia. The narcoanalysis technique was used in the course of the examination and the defendant did not object to the same. However, the test results showed that the subject's memory was not impaired and that he had been faking amnesia. At the trial, testimony about these findings was admitted, thereby leading to a conviction. Subsequently, Raymond Cens filed a civil suit against the psychiatrists alleging assault and illegal search. However, it was decided that the board had used routine psychiatric procedures and since the actual physical damage to the defendant was nominal, the psychiatrists were

acquitted. At the time, this case created quite a stir and the Council of the Paris Bar Association had passed a resolution against the use of drugs during interrogation. [Refer C.W. Muehlberger (1951) at p. 527; The Raymond Cens case has also been discussed in the following article: J.P. Gagnieur, 'The Judicial use of Psychonarcosis in France', 40(3) *Journal of Criminal Law and Criminology* 370-380 (Sept.–Oct. 1949)]

49. An article published in 1961 [Andre A. Moenssens, 'Narcoanalysis in Law Enforcement', 52(4) *The Journal of Criminal Law, Criminology and Police Science* 453-458 (Nov.-Dec. 1961)] had surveyed some judicial precedents from the U.S.A. which dealt with the forensic uses of the narcoanalysis technique. The first reference is to a decision from the State of Missouri reported as ***State*** v. ***Hudson***, 314 Mo. 599 (1926). In that case, the defence lawyer in a prosecution for rape attempted to rely on the expert testimony of a doctor. The doctor in turn declared that he had questioned the defendant after injecting a truth-serum and the defendant had denied his guilt while in a drug-induced state. The trial court had refused

to admit the doctor's testimony by finding it to be completely unreliable from a scientific viewpoint. The appellate court upheld the finding and made the following observation, *Id.* at p. 602:

> "Testimony of this character – barring the sufficient fact that it cannot be classified otherwise than a self-serving declaration – is, in the present state of human knowledge, unworthy of serious consideration. We are not told from what well this serum is drawn or in what alembic its alleged truth compelling powers are distilled. Its origin is as nebulous as its effect is uncertain. ..."

50. In ***State*** v. ***Lindemuth***, 56 N.M. 237 (1952) the testimony of a psychiatrist was not admitted when he wanted to show that the answers given by a defendant while under the influence of sodium pentothal supported the defendant's plea of innocence in a murder case. The trial court's refusal to admit such testimony was endorsed by the appellate court, and it was noted, *Id.* at p. 243:

> "Until the use of the drug as a means of procuring the truth from people under its influence is accorded general scientific recognition, we are unwilling to enlarge the already immense field where medical experts, apparently equally qualified, express such diametrically opposed views on the same facts and conditions, to the despair of the court reporter and the bewilderment of the fact-finder."

51. However, Andre Moenssens (1961) also took note of a case which appeared to endorse an opposing view. In ***People*** v. ***Jones***, 42 Cal. 2d 219 (1954), the trial court overruled the prosecution's objection to the introduction of a psychiatrist's testimony on behalf of the defendant. The psychiatrist had conducted several tests on the defendant which included a sodium pentothal induced interview. The Court found that this was not sufficient to exclude the psychiatrist's testimony in its entirety. It was observed that even though the truth of statements revealed under narcoanalysis remains uncertain, the results of the same could be clearly distinguished from the psychiatrist's overall conclusions which were based on the results of all the tests considered together.

52. At the federal level, the U.S. Court of Appeals for the Ninth Circuit dealt with a similar issue in ***Lindsey*** v. ***United States***, 237 F. 2d 893 (9th Circ. 1956). In that case, the trial court had admitted a psychiatrist's opinion testimony which was based on a clinical examination that included psychological tests and

a sodium pentothal induced interview. The subject of the interview was a fifteen-year old girl who had been sexually assaulted and had subsequently testified in a prosecution for rape. On cross-examination, the credibility of the victim's testimony had been doubted and in an attempt to rebut the same, the prosecution had called on the psychiatrist. On the basis of the results of the clinical examination, the psychiatrist offered his professional opinion that the victim had been telling the truth when she had repeated the charges that were previously made to the police. This testimony was admitted as a prior consistent statement to rehabilitate the witness but not considered as substantive evidence. Furthermore, a tape recording of the psychiatrist's interview with the girl, while she was under narcosis, was also considered as evidence. The jury went on to record a finding of guilt. When the case was brought in appeal before the Ninth Circuit Court, the conviction was reversed on the ground that the defendant had been denied the 'due process of law'. It was held that before a prior consistent statement made under the influence of a sodium pentothal injection could be admitted as evidence, it

should be scientifically established that the test is absolutely accurate and reliable in all cases. Although the value of the test in psychiatric examinations was recognised, it was pointed out that the reliability of sodium pentothal tests had not been sufficiently established to warrant admission of its results in evidence. It was stated that "Scientific tests reveal that people thus prompted to speak freely do not always tell the truth". [Cited from Andre A. Moenssens (1961) at pp. 455-456]

53. In ***Lawrence M. Dugan*** v. ***Commonwealth of Kentucky***, 333 S.W.2d. 755 (1960), the defendant had been given a truth serum test by a psychiatrist employed by him. The trial court refused to admit the psychiatrist's testimony which supported the truthfulness of the defendant's statement. The defendant had pleaded innocence by saying that a shooting which had resulted in the death of another person had been an accident. The trial court's decision was affirmed on appeal and is was reasoned that no court of last resort has recognised the admissibility of the results of truth serum tests, the principal

ground being that such tests have not attained sufficient recognition of dependability and reliability.

54. The U.S. Supreme Court has also disapproved of the forensic uses of truth-inducing drugs in ***Townsend*** v. ***Sain***, 372 US 293 (1963). In that case a heroin addict was arrested on the suspicion of having committed robbery and murder. While in custody he began to show severe withdrawal symptoms, following which the police officials obtained the services of a physician. In order to treat these withdrawal symptoms, the physician injected a combined dosage of 1/8 grain of Phenobarbital and 1/230 grain of Hyoscine. Hyoscine is the same as 'Scopolamine' which has been described earlier. This dosage appeared to have a calming effect on Townsend and after the physician's departure he promptly responded to questioning by the police and eventually made some confessional statements. The petitioner's statements were duly recorded by a court reporter. The next day he was taken to the office of the prosecutor where he signed the transcriptions of the statements made by him on the previous day. [The facts of

this case have also been discussed in: Charles E. Sheedy, 'Narcointerrogation of a Criminal Suspect', 50(2) *The Journal of Criminal Law, Criminology and Police Science* 118-123 (July-Aug 1959) at pp. 118-119]

55. When the case came up for trial, the counsel for the petitioner brought a motion to exclude the transcripts of the statements from the evidence. However, the trial judge denied this motion and admitted the court reporter's transcription of the confessional statements into evidence. Subsequently, a jury found Townsend to be guilty, thereby leading to his conviction. When the petitioner made a *habeas corpus* application before a Federal District Court, one of the main arguments advanced was that the fact of Scopolamine's character as a truth-serum had not been brought out at the time of the motion to suppress the statements or even at the trial before the State Court. The Federal District Court denied the habeas corpus petition without a plenary evidentiary hearing, and this decision was affirmed by the Court of Appeals. Hence, the matter came before the U.S. Supreme

Court. In an opinion authored by Earl Warren, C.J. the Supreme Court held that the Federal District Court had erred in denying a writ of habeas corpus without giving a plenary evidentiary hearing to examine the voluntariness of the confessional statements. Both the majority opinion as well as the dissenting opinion (Stewart, J.) concurred on the finding that a confession induced by the administration of drugs is constitutionally inadmissible in a criminal trial. On this issue, Warren, C.J. observed, 372 US 293 (1963), at pp. 307-308:

> "Numerous decisions of this Court have established the standards governing the admissibility of confessions into evidence. If an individual's 'will was overborne' or if his confession was not 'the product of a rational intellect and a free will', his confession is inadmissible because coerced. These standards are applicable whether a confession is the product of physical intimidation or psychological pressure and, of course, are equally applicable to a drug-induced statement. It is difficult to imagine a situation in which a confession would be less the product of a free intellect, less voluntary, than when brought about by a drug having the effect of a 'truth serum'. It is not significant that the drug may have been administered and the questions asked by persons unfamiliar with hyoscine's properties as a 'truth serum', if these properties exist. Any questioning by police officers which in fact produces a confession which is not the product of a free intellect renders that confession inadmissible."
>
> (internal citations omitted)

56. In ***United States*** v. ***Swanson***, 572 F.2d 523 (5th Circ. 1978), two individuals had been convicted for conspiracy and extortion through the acts of sending threatening letters. At the trial stage, one of the defendants testified that he suffered from amnesia and therefore he could not recall his alleged acts of telephoning the co-defendant and mailing threatening letters. In order to prove such amnesia his counsel sought the admission of a taped interview between the defendant and a psychiatrist which had been conducted while the defendant was under the influence of sodium amytal. The drug-induced statements supposedly showed that the scheme was a joke or a prank. The trial court refused to admit the contents of this sodium amytal induced interview and the Fifth Circuit Court upheld this decision. In holding the same, it was also observed, *Id.* at p. 528:

> "… Moreover, no drug-induced recall of past events which the subject is otherwise unable to recall is any more reliable than the procedure for inducing recall. Here both psychiatrists testified that sodium amytal does not ensure truthful statements. No re-creation or recall, by photograph, demonstration, drug-stimulated recall, or otherwise, would be admissible with so tenuous a predicate."

57. A decision given by the Ninth Circuit Court in ***United States*** v. ***Solomon***, 753 F. 2d 1522 (9th Circ. 1985), has been cited by the respondents to support the forensic uses of the narcoanalysis technique. However, a perusal of that judgment shows that neither the actual statements made during narcoanalysis interviews nor the expert testimony relating to the same were given any weightage. The facts were that three individuals, namely Solomon, Wesley and George (a minor at the time of the crime) were accused of having committed robbery and murder by arson. After their arrest, they had changed their statements about the events relating to the alleged offences. Subsequently, Wesley gave his consent for a sodium amytal induced interview and the same was administered by a psychiatrist named Dr. Montgomery. The same psychiatrist also conducted a sodium amytal interview with George, at the request of the investigators.

58. At the trial stage, George gave testimony which proved to be incriminatory for Solomon and Wesley. However, the statements made by Wesley during the narcoanalysis interview

were not admitted as evidence and even the expert testimony about the same was excluded. On appeal, the Ninth Circuit Court held that there had been no abuse of discretion by the trial court in considering the evidence before it. Solomon and Wesley had contended that the trial court should have excluded the testimony given by George before the trial judge, since the same was based on the results of the sodium amytal interview and was hence unreliable. The Court drew a distinction between the statements made during the narcoanalysis interview and the subsequent statements made before the trial court. It was observed that it was open to the defendants to show that George's testimony during trial had been bolstered by the previous revelations made during the narcoanalysis interview. However, the connection between the drug-induced revelations and the testimony given before the trial court could not be presumed. It was further noted, *Id.* at p. 1525:

> "The only Ninth Circuit case addressing narcoanalysis excluded a recording of and psychiatric testimony supporting an interview conducted under the influence of sodium pentothal, a precursor of sodium amytal. [*Lindsey* v. *United States*, 237 F.2d 893 (9th Cir. 1956) …]

> The case at bar is distinguishable because no testimony concerning the narcoanalysis was offered at trial. Only George's current recollection of events was presented.
>
> In an analogous situation, this circuit has held that the current recollections of witnesses whose memories have been refreshed by hypnosis are admissible, with the fact of hypnosis relevant to credibility only [*United States* v. *Adams*, 581 F.2d 193, 198-199 (9th Cir. 1978) ...], *cert. denied*. We have cautioned, however, that "great care must be exercised to insure" that statements after hypnosis are not the product of hypnotic suggestion. *Id.*
>
> We find no abuse of discretion in the trial court's ruling to admit the testimony of the witness George. The court's order denying Solomon's Motion to Suppress reflects a careful balancing of reliability against prejudicial dangers:"

59. However, Wesley wanted to introduce expert testimony by Dr. Montgomery which would explain the effects of sodium amytal as well as the statements made during his own drug-induced interview. The intent was to rehabilitate Wesley's credibility after the prosecution had impeached it with an earlier confession. The trial court had held that even though narcoanalysis was not reliable enough to admit into evidence, Dr. Montgomery could testify about the statements made to him by Wesley, however without an explanation of the circumstances. On this issue, the Ninth Circuit Court referred

to the ***Frye*** standard for the admissibility of scientific evidence. It was also noted that the trial court had the discretion to draw the necessary balance between the probative value of the evidence and its prejudicial effect. It again took note of the decision in ***Lindsey*** v. ***United States***, 237 F. 2d 893 (1956), where the admission of a tape recording of a narcoanalysis interview along with an expert's explanation of the technique was held to be a prejudicial error. The following conclusion was stated, 753 F.2d 1522, at p. 1526:

> "Dr. Montgomery testified also that narcoanalysis is useful as a source of information that can be valuable if verified through other sources. At one point he testified that it would elicit an accurate statement of subjective memory, but later said that the subject could fabricate memories. He refused to agree that the subject would be more likely to tell the truth under narcoanalysis than if not so treated.
>
> Wesley wanted to use the psychiatric testimony to bolster the credibility of his trial testimony that George started the fatal fire. Wesley's statement shortly after the fire was that he himself set the fire. The probative value of the statement while under narcoanalysis that George was responsible, was the drug's tendency to induce truthful statements.
>
> Montgomery admitted that narcoanalysis does not reliably induce truthful statements. The judge's exclusion of the evidence concerning narcoanalysis was not an abuse of discretion. The prejudicial effect of an aura of

> scientific respectability outweighed the slight probative value of the evidence."

60. In ***State of New Jersey*** v. ***Daryll Pitts***, 56 A.2d 1320 (N.J. 1989), the trial court had refused to admit a part of a psychiatrist's testimony which was based on the results of the defendant's sodium-amytal induced interview. The defendant had been charged with murder and had sought reliance on the testimony to show his unstable state of mind at the time of the homicides. Reliance on the psychiatrist's testimony was requested during the sentencing phase of the trial in order to show a mitigating factor. On appeal, the Supreme Court of New Jersey upheld the trial court's decision to exclude that part of the testimony which was derived from the results of the sodium-amytal interview. Reference was made to the ***Frye*** standard while observing that "in determining the admissibility of evidence derived from scientific procedures, a court must first ascertain the extent to which the reliability of such procedures has attained general acceptance within the relevant scientific community." (*Id.* at p. 1344) Furthermore, the expert witnesses who had appeared at the trial had given

conflicting accounts about the utility of a sodium-amytal induced interview for ascertaining the mental state of a subject with regard to past events. It was stated, *Id.* at p. 1348:

> "On the two occasions that this Court has considered the questions, we have concluded, based on the then-existing state of scientific knowledge, that testimony derived from a sodium-amytal induced interview is inadmissible to prove the truth of the facts asserted. [See *State* v. *Levitt*, 36 N.J. 266, 275 (1961)...; *State* v. *Sinnott*, ...132 A.2d 298 (1957)] Our rule is consistent with the views expressed by other courts that have addressed the issue.
>
> ... The expert testimony adduced at the Rule 8 hearing indicated that the scientific community continues to view testimony induced by sodium amytal as unreliable to ascertain truth. Thus, the trial court's ruling excluding Dr. Sadoff's testimony in the guilt phase was consistent with our precedents, with the weight of authority throughout the country, and also with contemporary scientific knowledge as reflected by the expert testimony. ..."
>
> (internal citations omitted)

61. Since a person subjected to the narcoanalysis technique is in a half-conscious state and loses awareness of time and place, this condition can be compared to that of a person who is in a hypnotic state. In ***Horvath*** v. ***R***, [1979] 44 C.C.C. (2d) 385, the Supreme Court of Canada held that statements made

in a hypnotic state were not voluntary and hence they cannot be admitted as evidence. It was also decided that if the post-hypnotic statements relate back to the contents of what was said during the hypnotic state, the subsequent statements would be inadmissible. In that case a 17 year old boy suspected for the murder of his mother had been questioned by a police officer who had training in the use of hypnotic methods. During the deliberate interruptions in the interrogation sessions, the boy had fallen into a mild hypnotic state and had eventually confessed to the commission of the murder. He later repeated the admissions before the investigating officers and signed a confessional statement. The trial judge had found all of these statements to be inadmissible, thereby leading to an acquittal. The Court of Appeal had reversed this decision, and hence an appeal was made before the Supreme Court.

62. Notably, the appellant had refused to undergo a narcoanalysis interview or a polygraph test. It was also evident that he had not consented to the hypnosis. The multiple

opinions delivered in the case examined the criterion for deciding the voluntariness of a statement. Reference was made to the well-known statement of Lord Summer in ***Ibrahim*** v. ***R***, [1914] A.C. 599 (P.C.), at p. 609:

> "It has long been established as a positive rule of English criminal law that no statement made by an accused is admissible in evidence against him unless it is shown by the prosecution to have been a voluntary statement, in the sense that it has not been obtained from him either by fear of prejudice or hope of advantage exercised or held out by a person in authority."

63. In ***Horvath*** v. ***R*** (supra.), the question was whether statements made under a hypnotic state could be equated with those obtained by 'fear of prejudice' or 'hope of advantage'. The Court ruled that the inquiry into the voluntariness of a statement should not be literally confined to these expressions. After examining several precedents, Spence J. held that the total circumstances surrounding the interrogation should be considered, with no particular emphasis placed on the hypnosis. It was observed that in this particular case the interrogation of the accused had resulted in his complete emotional disintegration, and hence the

statements given were inadmissible. It was also held that the rule in ***Ibrahim*** v. ***R*** (supra.) that a statement must be induced by 'fear of prejudice' or 'hope of advantage' in order to be considered involuntary was not a comprehensive test. The word 'voluntary' should be given its ordinary and natural meaning so that the circumstances which existed in the present case could also be described as those which resulted in involuntary statements.

64. In a concurring opinion, Beetz., J. drew a comparison between statements made during hypnosis and those made under the influence of a sodium-amytal injection. It was observed, at Para. 91:

> "91. Finally, voluntariness is incompatible not only with promises and threats but actual violence. Had Horvath made a statement while under the influence of an amytal injection administered without his consent, the statement would have been inadmissible because of the assault, and presumably because also of the effect of the injection on his mind. There was no physical violence in the case at bar. There is not even any evidence of bodily contact between Horvath and Sergeant Proke, but through the use of an interrogation technique involving certain physical elements such as a hypnotic quality of voice and manner, a police officer has gained unconsented access to what in a human being is of the

> utmost privacy, the privacy of his own mind. As I have already indicated, it is my view that this was a form of violence or intrusion of a moral or mental nature, more subtle than visible violence but not less efficient in the result than an amytal injection administered by force."

65. In this regard, the following observations are instructive for the deciding the questions before us, at Paras. 117,118:

> "117. It would appear that hypnosis and narcoanalysis are used on a consensual basis by certain police forces as well as by the defence, and it has been argued that they can serve useful purposes.
>
> 118. I refrain from commenting on such practices, short of noting that even the consensual use of hypnosis and narcoanalysis for evidentiary purposes may present problems. Under normal police interrogation, a suspect has the opportunity to renew or deny his consent to answer each question, which is no longer the case once he is, although by consent, in a state of hypnosis or under the influence of a 'truth serum'."
>
> (internal citation omitted)

66. Our attention has also been drawn to the decision reported as ***Rock*** v. ***Arkansas***, 483 US 44 (1987), in which the U.S. Supreme Court ruled that hypnotically-refreshed testimony could be admitted as evidence. The constitutional basis for admitting such testimony was the Sixth Amendment which gives every person a right to present a defence in criminal

cases. However, the crucial aspect was that the trial court had admitted the oral testimony given during the trial stage rather than the actual statements made during the hypnosis session conducted earlier during the investigation stage. It was found that such hypnotically-refreshed testimony was the only defence available to the defendant in the circumstances. In such circumstances, it would of course be open to the prosecution to contest the reliability of the testimony given during the trial stage by showing that it had been bolstered by the statements made during hypnosis. It may be recalled that a similar line of reasoning had been adopted in ***United States*** v. ***Solomon***, 753 F. 2d 1522 (9th Circ. 1985), where for the purpose of admissibility of testimony, a distinction had been drawn between the statements made during a narcoanalysis interview and the oral testimony given during the trial stage which was allegedly based on the drug-induced statements. Hence, the weight of precedents indicates that both the statements made during narcoanalysis interviews as well as expert testimony relating to the same have not been given weightage in criminal trials.

Brain Electrical Activation Profile (BEAP) test

67. The third technique in question is the 'Brain Electrical Activation Profile test', also known as the 'P300 Waves test'. It is a process of detecting whether an individual is familiar with certain information by way of measuring activity in the brain that is triggered by exposure to selected stimuli. This test consists of examining and measuring 'event-related potentials' (ERP) i.e. electrical wave forms emitted by the brain after it has absorbed an external event. An ERP measurement is the recognition of specific patterns of electrical brain activity in a subject that are indicative of certain cognitive mental activities that occur when a person is exposed to a stimulus in the form of an image or a concept expressed in words. The measurement of the cognitive brain activity allows the examiner to ascertain whether the subject recognised stimuli to which he/she was exposed. [Cited from: Andre A Moenssens, 'Brain Fingerprinting – Can it be used to detect the innocence of persons charged with a crime?' 70 *University*

of Missouri at Kansas City Law Review 891-920 (Summer 2002) at p. 893]

68. By the late 19th century it had been established that the brain functioned by emitting electrical impulses and the technology to measure them was developed in the form of the electroencephalograph (EEG) which is now commonly used in the medical field. Brain wave patterns observed through an EEG scan are fairly crude and may reflect a variety of unrelated brain activity functions. It was only with the development of computers that it became possible to sort out specific wave components on an EEG and identify the correlation between the waves and specific stimuli. The P300 wave is one such component that was discovered by Dr. Samuel Sutton in 1965. It is a specific event-related brain potential (ERP) which is triggered when information relating to a specific event is recognised by the brain as being significant or surprising.

69. The P300 waves test is conducted by attaching electrodes to the scalp of the subject, which measure the emission of the said wave components. The test needs to be conducted in an insulated and air-conditioned room in order to prevent distortions arising out of weather conditions. Much like the narcoanalysis technique and polygraph examination, this test also requires effective collaboration between the investigators and the examiner, most importantly for designing the stimuli which are called 'probes'. Ascertaining the subject's familiarity with the 'probes' can help in detecting deception or to gather useful information. The test subject is exposed to auditory or visual stimuli (words, sounds, pictures, videos) that are relevant to the facts being investigated alongside other irrelevant words and pictures. Such stimuli can be broadly classified as material 'probes' and neutral 'probes'. The underlying theory is that in the case of guilty suspects, the exposure to the material probes will lead to the emission of P300 wave components which will be duly recorded by the instruments. By examining the records of these wave components the examiner can make inferences about the

individual's familiarity with the information related to the crime. [Refer: *Laboratory Procedure Manual – Brain Electrical Activation Profile* (Directorate of Forensic Science, Ministry of Home Affairs, Government of India, New Delhi – 2005)]

70. The P300 wave test was the precursor to other neuroscientific techniques such as 'Brain Fingerprinting' developed by Dr. Lawrence Farwell. The latter technique has been promoted in the context of criminal justice and has already been the subject of litigation. There is an important difference between the 'P300 waves test' that has been used by Forensic Science Laboratories in India and the 'Brain Fingerprinting' technique. Dr. Lawrence Farwell has argued that the P300 wave component is not an isolated sensory brain effect but it is part of a longer response that continues to take place after the initial P300 stimulus has occurred. This extended response bears a correlation with the cognitive processing that takes place slightly beyond the P300 wave and continues in the range of 300-800 milliseconds after the exposure to the stimulus. This extended brain wave

component has been named as the MERMER (Memory-and-Encoding-Related-Multifaceted-Electroencephalographic Response) effect. [See generally: Lawrence A. Farwell, 'Brain Fingerprinting: A new paradigm in criminal investigations and counter-terrorism', (2001) Text can be downloaded from <www.brainwavescience.com>]

71. Functional Magnetic Resonance Imaging (FMRI) is another neuroscientific technique whose application in the forensic setting has been contentious. It involves the use of MRI scans for measuring blood flow between different parts of the brain which bears a correlation to the subject's truthfulness or deception. FMRI-based lie-detection has also been advocated as an aid to interrogations in the context of counter-terrorism and intelligence operations, but it prompts the same legal questions that can be raised with respect to all of the techniques mentioned above. Even though these are non-invasive techniques the concern is not so much with the manner in which they are conducted but the consequences for the individuals who undergo the same. The use of techniques

such as 'Brain Fingerprinting' and 'FMRI-based Lie-Detection' raise numerous concerns such as those of protecting mental privacy and the harms that may arise from inferences made about the subject's truthfulness or familiarity with the facts of a crime. [See generally: Michael S. Pardo, 'Neuroscience evidence, legal culture and criminal procedure', 33 *American Journal of Criminal Law* 301-337 (Summer 2006); Sarah E. Stoller and Paul Root Wolpe, 'Emerging neurotechnologies for lie detection and the fifth amendment', 33 *American Journal of Law and Medicine* 359-375 (2007)]

72. These neuroscientific techniques could also find application outside the criminal justice setting. For instance, Henry T. Greely (2005, Cited below) has argued that technologies that may enable a precise identification of the subject's mental responses to specific stimuli could potentially be used for market-research by business concerns for surveying customer preferences and developing targeted advertising schemes. They could also be used to judge mental skills in the educational and employment-related settings

since cognitive responses are often perceived to be linked to academic and professional competence. One can foresee the potential use of this technique to distinguish between students and employees on the basis of their cognitive responses. There are several other concerns with the development of these 'mind-reading' technologies especially those relating to the privacy of individuals. [Refer: Henry T. Greely, 'Chapter 17: The social effects of advances in neuroscience: Legal problems, legal perspectives', in Judy Illes (ed.), *Neuroethics – Defining the issues in theory, practice and policy* (Oxford University Press, 2005) at pp. 245-263]

73. Even though the P300 Wave component has been the subject of considerable research, its uses in the criminal justice system have not received much scholarly attention. Dr. Lawrence Farwell's 'Brain Fingerprinting' technique has attracted considerable publicity but has not been the subject of any rigorous independent study. Besides this preliminary doubt, an important objection is centred on the inherent difficulty of designing the appropriate 'probes' for the test.

Even if the 'probes' are prepared by an examiner who is thoroughly familiar with all aspects of the facts being investigated, there is always a chance that a subject may have had prior exposure to the material probes. In case of such prior exposure, even if the subject is found to be familiar with the probes, the same will be meaningless in the overall context of the investigation. For example, in the aftermath of crimes that receive considerable media-attention the subject can be exposed to the test stimuli in many ways. Such exposure could occur by way of reading about the crime in newspapers or magazines, watching television, listening to the radio or by word of mouth. A possibility of prior exposure to the stimuli may also arise if the investigators unintentionally reveal crucial facts about the crime to the subject before conducting the test. The subject could also be familiar with the content of the material probes for several other reasons.

74. Another significant limitation is that even if the tests demonstrate familiarity with the material probes, there is no conclusive guidance about the actual nature of the subject's

involvement in the crime being investigated. For instance a by-stander who witnessed a murder or robbery could potentially be implicated as an accused if the test reveals that the said person was familiar with the information related to the same. Furthermore, in cases of amnesia or 'memory-hardening' on part of the subject, the tests could be blatantly misleading. Even if the inferences drawn from the 'P300 wave test' are used for corroborating other evidence, they could have a material bearing on a finding of guilt or innocence despite being based on an uncertain premise. [For an overview of the limitations of these neuroscientific techniques, see: John G. New, 'If you could read my mind – Implications of neurological evidence for twenty-first century criminal jurisprudence', 29 *Journal of Legal Medicine* 179-197 (April-June 2008)]

75. We have come across two precedents relatable to the use of 'Brain Fingerprinting' tests in criminal cases. Since this technique is considered to be an advanced version of the P300 Waves test, it will be instructive to examine these precedents. In ***Harrington*** v. ***Iowa***, 659 N.W.2d 509 (2003), Terry J.

Harrington (appellant) had been convicted for murder in 1978 and the same had allegedly been committed in the course of an attempted robbery. A crucial component of the incriminating materials was the testimony of his accomplice. However, many years later it emerged that the accomplice's testimony was prompted by an offer of leniency from the investigating police and doubts were raised about the credibility of other witnesses as well. Subsequently it was learnt that at the time of the trial, the police had not shared with the defence some investigative reports that indicated the possible involvement of another individual in the said crime. Harrington had also undergone a 'Brain Fingerprinting' test under the supervision of Dr. Lawrence Farwell. The test results showed that he had no memories of the 'probes' relating to the act of murder. Hence, Harrington approached the District Court seeking the vacation of his conviction and an order for a new trial. Post-conviction relief was sought on grounds of newly discovered evidence which included recantation by the prosecution's primary witness, the past suppression of police investigative reports which implicated

another suspect and the results of the 'Brain Fingerprinting' tests. However, the District Court denied this application for post-conviction relief. This was followed by an appeal before the Supreme Court of Iowa.

76. The appellate court concluded that Harrington's appeal was timely and his action was not time barred. The appellant was granted relief in light of a 'due process' violation, i.e. the failure on part of the prosecution at the time of the original trial to share the investigative reports with the defence. It was observed that the defendant's right to a fair trial had been violated because the prosecution had suppressed evidence which was favourable to the defendant and clearly material to the issue of guilt. Hence the case was remanded back to the District Court. However, the Supreme Court of Iowa gave no weightage to the results of the 'Brain Fingerprinting' test and did not even inquire into their relevance or reliability. In fact it was stated: "Because the scientific testing evidence is not necessary to a resolution of this appeal, we give it no further consideration." [659 N.W.2d 509, at p. 516]

77. The second decision brought to our attention is ***Slaughter*** v. ***Oklahoma***, 105 P. 3d 832 (2005). In that case, Jimmy Ray Slaughter had been convicted for two murders and sentenced to death. Subsequently, he filed an application for post-conviction relief before the Court of Criminal Appeals of Oklahoma which attempted to introduce in evidence an affidavit and evidentiary materials relating to a 'Brain Fingerprinting' test. This test had been conducted by Dr. Lawrence Farwell whose opinion was that the petitioner did not have knowledge of the 'salient features of the crime scene'. Slaughter also sought a review of the evidence gathered through DNA testing and challenged the bullet composition analysis pertaining to the crime scene. However, the appellate court denied the application for post-conviction relief as well as the motion for an evidentiary hearing. With regard to the affidavits based on the 'Brain Fingerprinting' test, it was held, *Id.* at p. 834:

> "10. Dr. Farwell makes certain claims about the Brain Fingerprinting test that are not supported by anything other than his bare affidavit. He claims the technique has

> been extensively tested, has been presented and analyzed in numerous peer-review articles in recognized scientific publications, has a very low rate of error, has objective standards to control its operation, and is generally accepted within the 'relevant scientific community'. These bare claims, however, without any form of corroboration, are unconvincing and, more importantly, legally insufficient to establish Petitioner's post-conviction request for relief. Petitioner cites one published opinion, *Harrington* v. *State*, 659 N.W.2d 509 (Iowa 2003), in which a brain fingerprinting test result was raised as error and discussed by the Iowa Supreme Court ('a novel computer-based brain testing'). However, while the lower court in Iowa appears to have admitted the evidence under non-*Daubert* circumstances, the test did not ultimately factor into the Iowa Supreme Court's published decision in any way."

Accordingly, the following conclusion was stated, *Id.* at p. 836:

> "18. Therefore, based upon the evidence presented, we find the Brain Fingerprinting evidence is procedurally barred under the Act and our prior cases, as it could have been raised in Petitioner's direct appeal and, indeed, in his first application for post-conviction relief. We further find a lack of sufficient evidence that would support a conclusion that Petitioner is factually innocent or that Brain Fingerprinting, based solely upon the MERMER effect, would survive a *Daubert* analysis."

CONTENTIOUS ISSUES IN THE PRESENT CASE

78. As per the Laboratory Procedure manuals, the impugned tests are being conducted at the direction of jurisdictional courts even without obtaining the consent of the intended test

subjects. In most cases these tests are conducted conjunctively wherein the veracity of the information revealed through narcoanalysis is subsequently tested through a polygraph examination or the BEAP test. In some cases the investigators could first want to ascertain the capacity of the subject to deceive (through polygraph examination) or his/her familiarity with the relevant facts (through BEAP test) before conducting a narcoanalysis interview. Irrespective of the sequence in which these techniques are administered, we have to decide on their permissibility in circumstances where any of these tests are compulsorily administered, either independently or conjunctively.

79. It is plausible that investigators could obtain statements from individuals by threatening them with the possibility of administering either of these tests. The person being interrogated could possibly make self-incriminating statements on account of apprehensions that these techniques will extract the truth. Such behaviour on part of investigators is more likely to occur when the person being interrogated is

unaware of his/her legal rights or is intimidated for any other reason. It is a settled principle that a statement obtained through coercion, threat or inducement is involuntary and hence inadmissible as evidence during trial. However, it is not settled whether a statement made on account of the apprehension of being forcibly subjected to the impugned tests will be involuntary and hence inadmissible. This aspect merits consideration. It is also conceivable that an individual who has undergone either of these tests would be more likely to make self-incriminating statements when he/she is later confronted with the results. The question in that regard is whether the statements that are made subsequently should be admissible as evidence. The answers to these questions rest on the permissibility of subjecting individuals to these tests without their consent.

I. Whether the involuntary administration of the impugned techniques violates the 'right against self-incrimination' enumerated in Article 20(3) of the Constitution?

80. Investigators could seek reliance on the impugned tests to extract information from a person who is suspected or accused of having committed a crime. Alternatively these tests could be conducted on witnesses to aid investigative efforts. As mentioned earlier, this could serve several objectives, namely those of gathering clues which could lead to the discovery of relevant evidence, to assess the credibility of previous testimony or even to ascertain the mental state of an individual. With these uses in mind, we have to decide whether the compulsory administration of these tests violates the 'right against self-incrimination' which finds place in Article 20(3) of the Constitution of India. Along with the 'rule against double-jeopardy' and the 'rule against retrospective criminalisation' enumerated in Article 20, it is one of the fundamental protections that controls interactions between individuals and the criminal justice system. Article 20(3) reads as follows:

> "No person accused of any offence shall be compelled to be a witness against himself."

81. The interrelationship between the 'right against self-incrimination' and the 'right to fair trial' has been recognised in most jurisdictions as well as international human rights instruments. For example, the U.S. Constitution incorporates the 'privilege against self-incrimination' in the text of its Fifth Amendment. The meaning and scope of this privilege has been judicially moulded by recognising it's interrelationship with other constitutional rights such as the protection against 'unreasonable search and seizure' (Fourth amendment) and the guarantee of 'due process of law' (Fourteenth amendment). In the International Covenant on Civil and Political Rights (ICCPR), Article 14(3)(g) enumerates the minimum guarantees that are to be accorded during a trial and states that everyone has a right not to be compelled to testify against himself or to confess guilt. In the European Convention for the Protection of Human Rights and Fundamental Freedoms, Article 6(1) states that every person charged with an offence has a right to a fair trial and Article 6(2) provides that 'Everybody charged with a criminal offence shall be presumed innocent until proved guilty according to law'. The guarantee of 'presumption of

innocence' bears a direct link to the 'right against self-incrimination' since compelling the accused person to testify would place the burden of proving innocence on the accused instead of requiring the prosecution to prove guilt.

82. In the Indian context, Article 20(3) should be construed with due regard for the inter-relationship between rights, since this approach was recognised in ***Maneka Gandhi's*** *case,* (1978) 1 SCC 248. Hence, we must examine the 'right against self-incrimination' in respect of its relationship with the multiple dimensions of 'personal liberty' under Article 21, which include guarantees such as the 'right to fair trial' and 'substantive due process'. It must also be emphasized that Articles 20 and 21 have a non-derogable status within Part III of our Constitution because the Constitution (Fourty-Fourth amendment) Act, 1978 mandated that the right to move any court for the enforcement of these rights cannot be suspended even during the operation of a proclamation of emergency. In this regard, Article 359(1) of the Constitution of India reads as follows:-

> "**359. Suspension of the enforcement of the rights conferred by Part III during emergencies.** – (1) Where a Proclamation of Emergency is in operation, the President may by order declare that the right to move any court for the enforcement of such of the rights conferred by Part III (except Articles 20 and 21) as may be mentioned in the order and all proceedings pending in any court for the enforcement of the rights so mentioned shall remain suspended for the period during which the Proclamation is in force or for such shorter period as may be specified in the order. …"

83. Undoubtedly, Article 20(3) has an exalted status in our Constitution and questions about its meaning and scope deserve thorough scrutiny. In one of the impugned judgments, it was reasoned that all citizens have an obligation to co-operate with ongoing investigations. For instance reliance has been placed on Section 39, CrPC which places a duty on citizens to inform the nearest magistrate or police officer if they are aware of the commission of, or of the intention of any other person to commit the crimes enumerated in the section. Attention has also been drawn to the language of Section 156(1), CrPC which states that a police officer in charge of a police station is empowered to investigate cognizable offences even without an order from the jurisdictional magistrate.

Likewise, our attention was drawn to Section 161(1), CrPC which empowers the police officer investigating a case to orally examine any person who is supposed to be acquainted with the facts and circumstances of the case. While the overall intent of these provisions is to ensure the citizens' cooperation during the course of investigation, they cannot override the constitutional protections given to accused persons. The scheme of the CrPC itself acknowledges this hierarchy between constitutional and statutory provisions in this regard. For instance, Section 161(2), CrPC prescribes that when a person is being examined by a police officer, he is not bound to answer such questions, the answers of which would have a tendency to expose him to a criminal charge or a penalty or forfeiture.

84. Not only does an accused person have the right to refuse to answer any question that may lead to incrimination, there is also a rule against adverse inferences being drawn from the fact of his/her silence. At the trial stage, Section 313(3) of the CrPC places a crucial limitation on the power of the court to

put questions to the accused so that the latter may explain any circumstances appearing in the evidence against him. It lays down that the accused shall not render himself/herself liable to punishment by refusing to answer such questions, or by giving false answers to them. Further, Proviso (b) to Section 315(1) of CrPC mandates that even though an accused person can be a competent witness for the defence, his/her failure to give evidence shall not be made the subject of any comment by any of the parties or the court or give rise to any presumption against himself or any person charged together with him at the trial. It is evident that Section 161(2), CrPC enables a person to choose silence in response to questioning by a police officer during the stage of investigation, and as per the scheme of Section 313(3) and Proviso (b) to Section 315(1) of the same code, adverse inferences cannot be drawn on account of the accused person's silence during the trial stage.

Historical origins of the 'right against self-incrimination'

85. The right of refusal to answer questions that may incriminate a person is a procedural safeguard which has

gradually evolved in common law and bears a close relation to the 'right to fair trial'. There are competing versions about the historical origins of this concept. Some scholars have identified the origins of this right in the medieval period. In that account, it was a response to the procedure followed by English judicial bodies such as the Star Chamber and High Commissions which required defendants and suspects to take *ex officio* oaths. These bodies mainly decided cases involving religious non-conformism in a Protestant dominated society, as well as offences like treason and sedition. Under an *ex officio* oath the defendant was required to answer all questions posed by the judges and prosecutors during the trial and the failure to do so would attract punishments that often involved physical torture. It was the resistance to this practice of compelling the accused to speak which led to demands for a 'right to silence'.

86. In an academic commentary, Leonard Levy (1969) had pointed out that the doctrinal origins of the right against self-incrimination could be traced back to the Latin maxim *'Nemo*

tenetur seipsum prodere' (i.e. no one is bound to accuse himself) and the evolution of the concept of 'due process of law' enumerated in the Magna Carta. [Refer: Leonard Levy, 'The right against self-incrimination: history and judicial history', 84(1) *Political Science Quarterly* 1-29 (March 1969)] The use of the *ex officio* oath by the ecclesiastical courts in medieval England had come under criticism from time to time, and the most prominent cause for discontentment came with its use in the Star Chamber and the High Commissions. Most scholarship has focussed on the sedition trial of John Lilburne (a vocal critic of Charles I, the then monarch) in 1637, when he refused to answer questions put to him on the ground that he had not been informed of the contents of the written complaint against him. John Lilburne went on to vehemently oppose the use of ex-officio oaths, and the Parliament of the time relented by abolishing the Star Chamber and the High Commission in 1641. This event is regarded as an important landmark in the evolution of the 'right to silence'.

87. However, in 1648 a special committee of Parliament conducted an investigation into the loyalty of members whose opinions were offensive to the army leaders. The committee's inquisitional conduct and its requirement that witnesses take an oath to tell the truth provoked opponents to condemn what they regarded as a revival of Star Chamber tactics. John Lilburne was once again tried for treason before this committee, this time for his outspoken criticism of the leaders who had prevailed in the struggle between the supporters of the monarch and those of the Parliament in the English civil war. John Lilburne invoked the spirit of the Magna Carta as well as the 1628 Petition of Right to argue that even after common-law indictment and without oath, he did not have to answer questions against or concerning himself. He drew a connection between the right against self-incrimination and the guarantee of a fair trial by invoking the idea of 'due process of law' which had been stated in the Magna Carta.

88. John H. Langbein (1994) has offered more historical insights into the emergence of the 'right to silence'. [John H.

Langbein, 'The historical origins of the privilege against self-incrimination at common law', 92(5) *Michigan Law Review* 1047-1085 (March 1994)] He draws attention to the fact that even though *ex officio* oaths were abolished in 1641, the practice of requiring defendants to present their own defence in criminal proceedings continued for a long time thereafter. The Star Chamber and the High Commissions had mostly tried cases involving religious non-conformists and political dissenters, thereby attracting considerable criticism. Even after their abolition, the defendants in criminal courts did not have the right to be represented by a lawyer ('right to counsel') or the right to request the presence of defence witnesses ('right of compulsory process'). Hence, defendants were more or less compelled to testify on their own behalf. Even though the threat of physical torture on account of remaining silent had been removed, the defendant would face a high risk of conviction if he/she did not respond to the charges by answering the material questions posed by the judge and the prosecutor. In presenting his/her own defence during the trial, there was a strong likelihood that the contents of such

testimony could strengthen the case of the prosecution and lead to conviction. With the passage of time, the right of a criminal defendant to be represented by a lawyer eventually emerged in the common law tradition. A watershed in this regard was the Treason Act of 1696 which provided for a 'right to counsel' as well as 'compulsory process' in cases involving offences such as treason. Gradually, the right to be defended by a counsel was extended to more offences, but the role of the counsel was limited in the early years. For instance defence lawyers could only help their clients with questions of law and could not make submissions related to the facts.

89. The practice of requiring the accused persons to narrate or contest the facts on their own corresponds to a prominent feature of an inquisitorial system, i.e. the testimony of the accused is viewed as the 'best evidence' that can be gathered. The premise behind this is that innocent persons should not be reluctant to testify on their own behalf. This approach was followed in the inquisitional procedure of the ecclesiastical courts and had thus been followed in other courts as well. The

obvious problem with compelling the accused to testify on his own behalf is that an ordinary person lacks the legal training to effectively respond to suggestive and misleading questioning, which could come from the prosecutor or the judge. Furthermore, even an innocent person is at an inherent disadvantage in an environment where there may be unintentional irregularities in the testimony. Most importantly the burden of proving innocence by refuting the charges was placed on the defendant himself. In the present day, the inquisitorial conception of the defendant being the best source of evidence has long been displaced with the evolution of adversarial procedure in the common law tradition. Criminal defendants have been given protections such as the presumption of innocence, right to counsel, the right to be informed of charges, the right of compulsory process and the standard of proving guilt beyond reasonable doubt among others. It can hence be stated that it was only with the subsequent emergence of the 'right to counsel' that the accused's 'right to silence' became meaningful. With the consolidation of the role of defence lawyers in criminal trials, a

clear segregation emerged between the testimonial function performed by the accused and the defensive function performed by the lawyer. This segregation between the testimonial and defensive functions is now accepted as an essential feature of a fair trial so as to ensure a level-playing field between the prosecution and the defence. In addition to a defendant's 'right to silence' during the trial stage, the protections were extended to the stage of pre-trial inquiry as well. With the enactment of the Sir John Jervis Act of 1848, provisions were made to advise the accused that he might decline to answer questions put to him in the pre-trial inquiry and to caution him that his answers to pre-trial interrogation might be used as evidence against him during the trial stage.

90. The judgment in ***Nandini Satpathy*** v. ***P.L. Dani***, (1978) 2 SCC 424, at pp. 438-439, referred to the following extract from a decision of the US Supreme Court in ***Brown*** v. ***Walker***, 161 US 591 (1896), which had later been approvingly cited by Warren, C.J. in ***Miranda*** v. ***Arizona***, 384 US 436 (1966):

"The maxim *nemo tenetur seipsum accusare* had its origin in a protest against the inquisitorial and manifestly unjust methods of interrogating accused persons, which have long obtained in the continental system, and, until the expulsion of the Stuarts from the British throne in 1688, and the erection of additional barriers for the protection of the people against the exercise of arbitrary power, were not uncommon even in England. While the admissions or confessions of the prisoner, when voluntarily and freely made, have always ranked high in the scale of incriminating evidence, if an accused person be asked to explain his apparent connection with a crime under investigation, the case with which the questions put to him may assume an inquisitorial character, the temptation to press the witness unduly, to browbeat him if he be timid or reluctant, to push him into a corner, and to entrap him into fatal contradictions, which is so painfully evident in many of the earlier state trials, notably in those of Sir Nicholas Throckmorton, and Udal, the Puritan minister, made the system so odious as to give rise to a demand for its total abolition. The change in the English criminal procedure in that particular seems to be founded upon no statute and no judicial opinion, but upon a general and silent acquiescence of the courts in a popular demand. But, however adopted, it has become firmly embedded in English, as well as in American jurisprudence. So deeply did the inequities of the ancient system impress themselves upon the minds of the American colonists that the State, with one accord, made a denial of the right to question an accused person a part of their fundamental law, so that a maxim, which in England was a mere rule of evidence, became clothed in this country with the impregnability of a constitutional enactment."

Underlying rationale of the right against self-incrimination

91. As mentioned earlier, 'the right against self-incrimination' is now viewed as an essential safeguard in criminal procedure. Its underlying rationale broadly corresponds with two objectives – firstly, that of ensuring reliability of the statements made by an accused, and secondly, ensuring that such statements are made voluntarily. It is quite possible that a person suspected or accused of a crime may have been compelled to testify through methods involving coercion, threats or inducements during the investigative stage. When a person is compelled to testify on his/her own behalf, there is a higher likelihood of such testimony being false. False testimony is undesirable since it impedes the integrity of the trial and the subsequent verdict. Therefore, the purpose of the 'rule against involuntary confessions' is to ensure that the testimony considered during trial is reliable. The premise is that involuntary statements are more likely to mislead the judge and the prosecutor, thereby resulting in a miscarriage of justice. Even during the investigative stage, false statements

are likely to cause delays and obstructions in the investigation efforts.

92. The concerns about the 'voluntariness' of statements allow a more comprehensive account of this right. If involuntary statements were readily given weightage during trial, the investigators would have a strong incentive to compel such statements – often through methods involving coercion, threats, inducement or deception. Even if such involuntary statements are proved to be true, the law should not incentivise the use of interrogation tactics that violate the dignity and bodily integrity of the person being examined. In this sense, 'the right against self-incrimination' is a vital safeguard against torture and other 'third-degree methods' that could be used to elicit information. It serves as a check on police behaviour during the course of investigation. The exclusion of compelled testimony is important, otherwise the investigators will be more inclined to extract information through such compulsion as a matter of course. The frequent reliance on such 'short-cuts' will compromise the diligence

required for conducting meaningful investigations. During the trial stage, the onus is on the prosecution to prove the charges levelled against the defendant and the 'right against self-incrimination' is a vital protection to ensure that the prosecution discharges the said onus.

93. These concerns have been recognised in Indian as well as foreign judicial precedents. For instance, Das Gupta, J. had observed in ***State of Bombay*** v. ***Kathi Kalu Oghad***, [1962] 3 SCR 10, at pp. 43-44:

> "… for long it has been generally agreed among those who have devoted serious thought to these problems that few things could be more harmful to the detection of crime or conviction of the real culprit, few things more likely to hamper the disclosure of truth than to allow investigators or prosecutors to slide down the easy path of producing by compulsion, evidence, whether oral or documentary, from an accused person. It has been felt that the existence of such an easy way would tend to dissuade persons in charge of investigation or prosecution from conducting diligent search for reliable independent evidence and from sifting of available materials with the care necessary for ascertainment of truth. If it is permissible in law to obtain evidence from the accused person by compulsion, why tread the hard path of laborious investigation and prolonged examination of other men, materials and documents? It has been well said that an abolition of this privilege would be an incentive for those in charge of enforcement of law 'to sit

> comfortably in the shade rubbing red pepper into a poor devils' eyes rather than to go about in the sun hunting up evidence.' [Sir James Fitzjames Stephen, History of Criminal Law, p. 442] No less serious is the danger that some accused persons at least, may be induced to furnish evidence against themselves which is totally false – out of sheer despair and an anxiety to avoid an unpleasant present. Of all these dangers the Constitution makers were clearly well aware and it was to avoid them that Article 20(3) was put in the Constitution."

94. The rationale behind the Fifth Amendment in the U.S. Constitution was eloquently explained by Goldberg. J. in ***Murphy*** v. ***Waterfront Commission***, 378 US 52 (1964), at p. 55:

> "It reflects many of our fundamental values and most noble aspirations: our unwillingness to subject those suspected of crime to the cruel trilemma of self-accusation, perjury or contempt; our preference for an accusatorial rather than an inquisitorial system of criminal justice; our fear that self-incriminating statements will be elicited by inhumane treatment and abuses; our sense of fair play which dictates a fair state-individual balance by requiring the government to leave the individual alone until good cause is shown for disturbing him and by requiring the government in its contests with the individual to shoulder the entire load; our respect for the inviolability of the human personality and of the right of each individual to a private enclave where he may lead a private life; our distrust of self-deprecatory statements; and our realization that the privilege, while sometimes a shelter to the guilty, is often a protection to the innocent."

A similar view was articulated by Lord Hailsham of St. Marylebone in ***Wong Kam-ming*** v. ***R*** , [1979] 1 All ER 939, at p. 946 :

> "... any civilised system of criminal jurisprudence must accord to the judiciary some means of excluding confessions or admissions obtained by improper methods. This is not only because of the potential unreliability of such statements, but also, and perhaps mainly, because in a civilised society it is vital that persons in custody or charged with offences should not be subjected to ill treatment or improper pressure in order to extract confessions. It is therefore of very great importance that the courts should continue to insist that before extra-judicial statements can be admitted in evidence the prosecution must be made to prove beyond reasonable doubt that the statement was not obtained in a manner which should be reprobated and was therefore in the truest sense voluntary."

95. V.R. Krishna Iyer, J. echoed similar concerns in ***Nandini Satpathy's*** case, (1978) 2 SCC 424, at p. 442:

> "...And Article 20(3) is a human article, a guarantee of dignity and integrity and of inviolability of the person and refusal to convert an adversary system into an inquisitorial scheme in the antagonistic ante-chamber of a police station. And in the long run, that investigation is best which uses stratagems least, that policeman deserves respect who gives his fists rest and his wits restlessness. The police are part of us and must rise in people's esteem through firm and friendly, not foul and sneaky strategy."

96. In spite of the constitutionally entrenched status of the right against self-incrimination, there have been some criticisms of the policy underlying the same. John Wigmore (1960) argued against a broad view of the privilege which extended the same to the investigative stage. [Refer: John Wigmore, 'The privilege against self-incrimination, its constitutional affectation, raison d'etre and miscellaneous implications', 51 *Journal of Criminal Law, Criminology and Police Science* 138 (1960)] He has asserted that the doctrinal origins of the 'rule against involuntary confessions' in evidence law and those of the 'right to self-incrimination' were entirely different and catered to different objectives. In the learned author's opinion, the 'rule against involuntary confessions' evolved on account of the distrust of statements made in custody. The objective was to prevent these involuntary statements from being considered as evidence during trial but there was no prohibition against relying on statements made involuntarily during investigation. Wigmore argued that the privilege against self-incrimination should be viewed as a right that was confined to the trial stage, since the judge can

intervene to prevent an accused from revealing incriminating information at that stage, while similar oversight is not always possible during the pre-trial stage.

97. In recent years, scholars such as David Dolinko (1986), Akhil Reed Amar (1997) and Mike Redmayne (2007) among others have encapsulated the objections to the scope of this right. [See: David Dolinko, 'Is There a Rationale for the Privilege Against Self-Incrimination?', 33 *University of California Los Angeles Law Review* 1063 (1986); Akhil Reed Amar, *The Constitution and Criminal Procedure: First Principles* (New Haven: Yale University Press, 1997) at pp. 65-70; Mike Redmayne, 'Re-thinking the Privilege against Self-incrimination', 27 *Oxford Journal of Legal Studies* 209-232 (Summer 2007)] It is argued that in aiming to create a fair state-individual balance in criminal cases, the task of the investigators and prosecutors is made unduly difficult by allowing the accused to remain silent. If the overall intent of the criminal justice system is to ensure public safety through expediency in investigations and prosecutions, it is urged that

the privilege against self-incrimination protects the guilty at the cost of such utilitarian objectives. Another criticism is that adopting a broad view of this right does not deter improper practices during investigation and it instead encourages investigators to make false representations to courts about the voluntary or involuntary nature of custodial statements. It is reasoned that when investigators are under pressure to deliver results there is an inadvertent tendency to rely on methods involving coercion, threats, inducement or deception in spite of the legal prohibitions against them. Questions have also been raised about conceptual inconsistencies in the way that courts have expanded the scope of this right. One such objection is that if the legal system is obliged to respect the mental privacy of individuals, then why is there no prohibition against compelled testimony in civil cases which could expose parties to adverse consequences. Furthermore, questions have also been asked about the scope of the privilege being restricted to testimonial acts while excluding physical evidence which can be extracted through compulsion.

98. In response to John Wigmore's thesis about the separate foundations of the 'rule against involuntary confessions', we must recognise the infusion of constitutional values into all branches of law, including procedural areas such as the law of evidence. While the above-mentioned criticisms have been made in academic commentaries, we must defer to the judicial precedents that control the scope of Article 20(3). For instance, the interrelationship between the privilege against self-incrimination and the requirements of observing due process of law were emphasized by William Douglas, J. in ***Rochin*** v. ***California***, 342 US 166 (1951), at p. 178:

> "As an original matter it might be debatable whether the provision in the Fifth Amendment that no person 'shall be compelled in any criminal case to be a witness against himself' serves the ends of justice. Not all civilized legal procedures recognize it. But the choice was made by the framers, a choice which sets a standard for legal trials in this country. The Framers made it a standard of due process for prosecutions by the Federal Government. If it is a requirement of due process for a trial in the federal courthouse, it is impossible for me to say it is not a requirement of due process for a trial in the state courthouse."

I-A. Whether the investigative use of the impugned techniques creates a likelihood of incrimination for the subject?

99. The respondents have submitted that the compulsory administration of the impugned tests will only be sought to boost investigation efforts and that the test results by themselves will not be admissible as evidence. The next prong of this position is that if the test results enable the investigators to discover independent materials that are relevant to the case, such subsequently discovered materials should be admissible during trial. In order to evaluate this position, we must answer the following questions:

- Firstly, we should clarify the scope of the 'right against self-incrimination' – i.e. whether it should be construed as a broad protection that extends to the investigation stage or should it be viewed as a narrower right confined to the trial stage?
- Secondly, we must examine the ambit of the words 'accused of any offence' in Article 20(3) – i.e. whether the

protection is available only to persons who are formally accused in criminal cases, or does it extend to include suspects and witnesses as well as those who apprehend incrimination in cases other than the one being investigated?

- Thirdly, we must evaluate the evidentiary value of independent materials that are subsequently discovered with the help of the test results. In light of the 'theory of confirmation by subsequent facts' incorporated in Section 27 of the Indian Evidence Act, 1872 we need to examine the compatibility between this section and Article 20(3). Of special concern are situations when persons could be compelled to reveal information which leads to the discovery of independent materials. To answer this question, we must clarify what constitutes 'incrimination' for the purpose of invoking Article 20(3).

Applicability of Article 20(3) to the stage of investigation

100. The question of whether Article 20(3) should be narrowly construed as a trial right or a broad protection that extends to

the stage of investigation has been conclusively answered by our Courts. In ***M.P. Sharma*** v. ***Satish Chandra***, [1954] SCR 1077, it was held by Jagannadhadas, J. at pp. 1087-1088:

> "Broadly stated, the guarantee in Article 20(3) is against 'testimonial compulsion'. It is suggested that this is confined to the oral evidence of a person standing his trial for an offence when called to the witness-stand. We can see no reason to confine the content of the constitutional guarantee to this barely literal import. So to limit it would be to rob the guarantee of its substantial purpose and to miss the substance for the sound as stated in certain American decisions. …"

> "Indeed, every positive volitional act which furnished evidence is testimony, and testimonial compulsion connotes coercion which procures the positive volitional evidentiary acts of the person, as opposed to the negative attitude of silence or submission on his part. Nor is there any reason to think that the protection in respect of the evidence so procured is confined to what transpires at the trial in the court room. The phrase used in Article 20(3) is 'to be a witness' and not to 'appear as a witness': It follows that the protection afforded to an accused in so far as it is related to the phrase 'to be a witness' is not merely in respect of testimonial compulsion in the court room but may well extend to compelled testimony previously obtained from him. It is available therefore to a person against whom a formal accusation relating to the commission of an offence has been levelled which in the normal course may result in prosecution. Whether it is available to other persons in other situations does not call for decision in this case."

101. These observations were cited with approval by B.P. Sinha, C.J. in ***State of Bombay*** v. ***Kathi Kalu Oghad & Others***, [1962] 3 SCR 10, at pp. 26-28. In the minority opinion, Das Gupta, J. affirmed the same position, *Id.* at p. 40:

> "… If the protection was intended to be confined to being a witness in Court then really it would have been an idle protection. It would be completely defeated by compelling a person to give all the evidence outside court and then, having what he was so compelled to do proved in court through other witnesses. An interpretation which so completely defeats the constitutional guarantee cannot, of course, be correct. The contention that the protection afforded by Article 20(3) is limited to the stage of trial must therefore be rejected."

102. The broader view of Article 20(3) was consolidated in ***Nandini Satpathy*** v. ***P.L. Dani***, (1978) 2 SCC 424:

> "… Any giving of evidence, any furnishing of information, if likely to have an incriminating impact, answers the description of being a witness against oneself. Not being limited to the forensic stage by express words in Article 20(3), we have to construe the expression to apply to every stage where furnishing of information and collection of materials takes place. That is to say, even the investigation at the police level is embraced by Article 20(3).This is precisely what Section 161(2) means. That sub-section relates to oral examination by police officers and grants immunity at that stage. Briefly, the Constitution and the Code are coterminus in the protective area. While the code may be changed, the Constitution is more enduring. Therefore, we have to base our conclusion not merely upon Section 161(2) but

> on the more fundamental protection, although equal in ambit, contained in Article 20(3)."
>
> (at p. 435)

> "If the police can interrogate to the point of self-accusation, the subsequent exclusion of that evidence at the trial hardly helps because the harm has already been done. The police will prove through other evidence what they have procured through forced confession. So it is that the foresight of the framers has pre-empted self-incrimination at the incipient stages by not expressly restricting it to the trial stage in court. True, compelled testimony previously obtained is excluded. But the preventive blow falls also on pre-court testimonial compulsion. The condition, as the decisions now go, is that the person compelled must be an accused. Both precedent procurement and subsequent exhibition of self-incriminating testimony are obviated by intelligent constitutional anticipation." (at p. 449)

103. In upholding this broad view of Article 20(3), V.R. Krishna Iyer, J. relied heavily on the decision of the US Supreme Court in ***Ernesto Miranda*** v. ***Arizona***, 384 US 436 (1966). The majority opinion (by Earl Warren, C.J.) laid down that custodial statements could not be used as evidence unless the police officers had administered warnings about the accused's right to remain silent. The decision also recognised the right to consult a lawyer prior to and during the course of custodial interrogations. The practice promoted by this case is

that it is only after a person has 'knowingly and intelligently' waived of these rights after receiving a warning that the statements made thereafter can be admitted as evidence. The safeguards were prescribed in the following manner, *Id.* at pp. 444-445:

> "... the prosecution may not use statements, whether exculpatory or inculpatory, stemming from custodial interrogation of the defendant unless it demonstrates the use of procedural safeguards effective to secure the privilege against self-incrimination. By custodial interrogation, we mean questioning initiated by law enforcement officers after a person has been taken into custody or otherwise deprived of his freedom of action in any significant way. [...] As for the procedural safeguards to be employed, unless other fully effective means are devised to inform accused persons of their right of silence and to assure a continuous opportunity to exercise it, the following measures are required. Prior to any questioning, the person must be warned that he has a right to remain silent, that any statement he does make may be used as evidence against him, and that he has a right to the presence of an attorney, either retained or appointed. The defendant may waive effectuation of these rights, provided the waiver is made voluntarily, knowingly and intelligently. If, however, he indicates in any manner and at any stage of the process that he wishes to consult with an attorney before speaking there can be no questioning. Likewise, if the individual is alone and indicates in any manner that he does not wish to be interrogated, the police may not question him. The mere fact that he may have answered some questions or volunteered some statements on his own does not deprive him of the right to refrain from answering any further

> inquiries until he has consulted with an attorney and thereafter consents to be questioned."

104. These safeguards were designed to mitigate the disadvantages faced by a suspect in a custodial environment. This was done in recognition of the fact that methods involving deception and psychological pressure were routinely used and often encouraged in police interrogations. Emphasis was placed on the ability of the person being questioned to fully comprehend and understand the content of the stipulated warning. It was held, *Id.* at pp. 457-458:

> "In these cases, we might not find the defendant's statements to have been involuntary in traditional terms. Our concern for adequate safeguards to protect the precious Fifth Amendment right is, of course, not lessened in the slightest. In each of the cases, the defendant was thrust into an unfamiliar atmosphere and run through menacing police interrogation procedures. … It is obvious that such an interrogation environment is created for no purpose other than to subjugate the individual to the will of his examiner. This atmosphere carried its own badge of intimidation. To be sure, this is not physical intimidation, but it is equally destructive of human dignity. [Professor Sutherland, 'Crime and Confessions', 79 *Harvard Law Review* 21, 37 (1965)] The current practice of incommunicado interrogation is at odds with one of our Nation's most cherished principles – that the individual may not be compelled to incriminate himself. Unless adequate protective devices are employed to dispel the compulsion inherent in custodial

> surroundings, no statement obtained from the defendant can truly be the product of his free choice."

105. The opinion also explained the significance of having a counsel present during a custodial interrogation. It was noted, *Id.* at pp. 469-470:

> "The circumstances surrounding in-custody interrogation can operate very quickly to overbear the will of one merely made aware of his privilege by his interrogators. Therefore, the right to have counsel present at the interrogation is indispensable to the protection of the Fifth Amendment privilege under the system we delineate today. Our aim is to assure that the individual's right to choose between silence and speech remains unfettered throughout the interrogation process. A once-stated warning, delivered by those who will conduct the interrogation, cannot itself suffice to that end among those who most require knowledge of their rights. A mere warning given by the interrogators is not alone sufficient to accomplish that end. Prosecutors themselves claim that the admonishment of the right to remain silent without more 'will benefit only the recidivist and the professional.' [Brief for the *National District Attorneys Association* as amicus curiae, p. 14] Even preliminary advice given to the accused by his own attorney can be swiftly overcome by the secret interrogation process. [Cited from *Escobedo* v. *State of Illinois*, 378 U.S. 478, 485 ...] Thus, the need for counsel to protect the Fifth Amendment privilege comprehends not merely a right to consult with counsel prior to questioning, but also to have counsel present during any questioning if the defendant so desires."

106. The majority decision in ***Miranda*** (supra.) was not a sudden development in U.S. constitutional law. The scope of the privilege against self-incrimination had been progressively expanded in several prior decisions. The notable feature was the recognition of the interrelationship between the Fifth Amendment and the Fourteenth Amendment's guarantee that the government must observe the 'due process of law' as well as the Fourth Amendment's protection against 'unreasonable search and seizure'. While it is not necessary for us to survey these decisions, it will suffice to say that after ***Miranda*** (supra.), administering a warning about a person's right to silence during custodial interrogations as well as obtaining a voluntary waiver of the prescribed rights has become a ubiquitous feature in the U.S. criminal justice system. In the absence of such a warning and voluntary waiver, there is a presumption of compulsion with regard to the custodial statements, thereby rendering them inadmissible as evidence. The position in India is different since there is no automatic presumption of compulsion in respect of custodial statements.

However, if the fact of compulsion is proved then the resulting statements are rendered inadmissible as evidence.

Who can invoke the protection of Article 20(3)?

107. The decision in ***Nandini Satpathy's*** case, (supra.) also touched on the question of who is an 'accused' for the purpose of invoking Article 20(3). This question had been left open in ***M.P. Sharma's*** *case* (supra.). Subsequently, it was addressed in ***Kathi Kalu Oghad*** (supra.), at p. 37:

> "To bring the statement in question within the prohibition of Article 20(3), the person accused must have stood in the character of an accused person at the time he made the statement. It is not enough that he should become an accused, anytime after the statement has been made."

108. While there is a requirement of formal accusation for a person to invoke Article 20(3) it must be noted that the protection contemplated by Section 161(2), CrPC is wider. Section 161(2) read with 161(1) protects 'any person supposed to be acquainted with the facts and circumstances of the case' in the course of examination by the police. The language of this provision is as follows:

> **161. Examination of witnesses by police.**
> (1) Any police officer making an investigation under this Chapter, or any police officer not below such rank as the State Government may, by general or special order, prescribe in this behalf, acting on the requisition of such officer, may examine orally any person supposed to be acquainted with the facts and circumstances of the case.
> (2) Such person shall be bound to answer truly all questions relating to such case put to him by such officer, other than questions the answers to which would have a tendency to expose him to a criminal charge or to a penalty or forfeiture.
> (3) The police officer may reduce into writing any statement made to him in the course of an examination under this section; and if he does so, he shall make a separate and true record of the statement of each such person whose statement he records.

109. Therefore the 'right against self-incrimination' protects persons who have been formally accused as well as those who are examined as suspects in criminal cases. It also extends to cover witnesses who apprehend that their answers could expose them to criminal charges in the ongoing investigation or even in cases other than the one being investigated. Krishna Iyer, J. clarified this position, (1978) 2 SCC 424, at p. 435:

> "The learned Advocate General, influenced by American decisions rightly agreed that in expression Section 161(2) of the Code might cover not merely accusations already registered in police stations but those which are likely to

> be the basis for exposing a person to a criminal charge. Indeed, this wider construction, if applicable to Article 20(3), approximates the constitutional clause to the explicit statement of the prohibition in Section 161(2). This latter provision meaningfully uses the expression 'expose himself to a criminal charge'. Obviously, these words mean, not only cases where the person is already exposed to a criminal charge but also instances which will imminently expose him to criminal charges."

It was further observed, *Id.* at pp. 451-452 (Para. 50):

> "… 'To be a witness against oneself' is not confined to the particular offence regarding which the questioning is made but extends to other offences about which the accused has reasonable apprehension of implication from his answer. This conclusion also flows from 'tendency to be exposed to a criminal charge'. A 'criminal charge' covers any criminal charge then under investigation or trial or which imminently threatens the accused."

110. Even though Section 161(2) of the CrPC casts a wide protective net to protect the formally accused persons as well as suspects and witnesses during the investigative stage, Section 132 of the Evidence Act limits the applicability of this protection to witnesses during the trial stage. The latter provision provides that witnesses cannot refuse to answer questions during a trial on the ground that the answers could incriminate them. However, the proviso to this section stipulates that the content of such answers cannot expose the

witness to arrest or prosecution, except for a prosecution for giving false evidence. Therefore, the protection accorded to witnesses at the stage of trial is not as wide as the one accorded to the accused, suspects and witnesses during investigation [under Section 161(2), CrPC]. Furthermore, it is narrower than the protection given to the accused during the trial stage [under Section 313(3) and Proviso (b) to Section 315(1), CrPC]. The legislative intent is to preserve the fact-finding function of a criminal trial. Section 132 of the Evidence Act reads:-

> "**132. Witness not excused from answering on ground that answer will criminate.** – A witness shall not be excused from answering any question as to any matter relevant to the matter in issue in any suit or in any civil or criminal proceeding, upon the ground that the answer to such question will criminate, or may tend directly or indirectly to criminate, such witness, or that it will expose, or tend directly or indirectly to expose, such witness to a penalty or forfeiture of any kind.
>
> Proviso. – Provided that no such answer, which a witness shall be compelled to give, shall subject him to any arrest or prosecution, or be proved against him in any criminal proceeding, except a prosecution for giving false evidence by such answer."

111. Since the extension of the 'right against self-incrimination' to suspects and witnesses has its basis in Section 161(2), CrPC it is not readily available to persons who are examined during proceedings that are not governed by the code. There is a distinction between proceedings of a purely criminal nature and those proceedings which can culminate in punitive remedies and yet cannot be characterised as criminal proceedings. The consistent position has been that ordinarily Article 20(3) cannot be invoked by witnesses during proceedings that cannot be characterised as criminal proceedings. In administrative and quasi-criminal proceedings, the protection of Article 20(3) becomes available only after a person has been formally accused of committing an offence. For instance in ***Raja Narayanlal Bansilal*** v. ***Maneck Phiroz Mistry***, [1961] 1 SCR 417, the contention related to the admissibility of a statement made before an inspector who was appointed under the Companies Act, 1923 to investigate the affairs of a company and report thereon. It had to be decided whether the persons who were examined by

the concerned inspector could claim the protection of Article 20(3). The question was answered, *Id.* at p. 438:

> "The scheme of the relevant sections is that the investigation begins broadly with a view to examine the management of the affairs of the company to find out whether any irregularities have been committed or not. In such a case there is no accusation, either formal or otherwise, against any specified individual; there may be a general allegation that the affairs are irregularly, improperly or illegally managed ; but who would be responsible for the affairs which are reported to be irregularly managed is a matter which would be determined at the end of the enquiry. At the commencement of the enquiry and indeed throughout its proceedings there is no accused person, no accuser, and no accusation against anyone that he has committed an offence. In our opinion a general enquiry and investigation into the affairs of the company thus contemplated cannot be regarded as an investigation which starts with an accusation contemplated in Article 20(3) of the Constitution. …"

112. A similar issue arose for consideration in ***Romesh Chandra Mehta*** v. ***State of West Bengal***, [1969] 2 SCR 461, wherein it was held, at p. 472:

> "Normally a person stands in the character of an accused when a First Information Report is lodged against him in respect of an offence before an officer competent to investigate it, or when a complaint is made relating to the commission of an offence before a Magistrate competent to try or send to another Magistrate for trial of the offence. Where a Customs Officer arrests a person and informs that person of the grounds of his arrest, [which

> he is bound to do under Article 22(1) of the Constitution] for the purpose of holding an inquiry into the infringement of the provisions of the Sea Customs Act which he has reason to believe has taken place, there is no formal accusation of an offence. In the case of an offence by infringement of the Sea Customs Act which is punishable at the trial before a Magistrate, there is an accusation when a complaint is lodged by an officer competent in that behalf before the Magistrate."

113. In ***Balkishan A. Devidayal*** v. ***State of Maharashtra***, (1980) 4 SCC 600, one of the contentious issues was whether the statements recorded by a Railway Police Force (RPF) officer during an inquiry under the Railway Property (Unlawful Possession) Act, 1996 would attract the protection of Article 20(3). Sarkaria, J. held that such an inquiry was substantially different from an investigation contemplated under the CrPC, and therefore formal accusation was a necessary condition for a person to claim the protection of Article 20(3). It was observed, *Id.* at p. 623:

> "To sum up, only a person against whom a formal accusation of the commission of an offence has been made can be a person 'accused of an offence' within the meaning of Article 20(3). Such formal accusation may be specifically made against him in an FIR or a formal complaint or any other formal document or notice served on that person, which ordinarily results in his prosecution in court. In the instant case no such formal

accusation has been made against the appellant when his statements in question were recorded by the RPF Officer."

What constitutes 'incrimination' for the purpose of Article 20(3)?

114. We can now examine the various circumstances that could 'expose a person to criminal charges'. The scenario under consideration is one where a person in custody is compelled to reveal information which aids the investigation efforts. The information so revealed can prove to be incriminatory in the following ways:

- The statements made in custody could be directly relied upon by the prosecution to strengthen their case. However, if it is shown that such statements were made under circumstances of compulsion, they will be excluded from the evidence.
- Another possibility is that of 'derivative use', i.e. when information revealed during questioning leads to the discovery of independent materials, thereby furnishing a

link in the chain of evidence gathered by the investigators.

- Yet another possibility is that of 'transactional use', i.e. when the information revealed can prove to be helpful for the investigation and prosecution in cases other than the one being investigated.
- A common practice is that of extracting materials or information, which are then compared with materials that are already in the possession of the investigators. For instance, handwriting samples and specimen signatures are routinely obtained for the purpose of identification or corroboration.

115. The decision in ***Nandini Satpathy's*** case (supra.) sheds light on what constitutes incrimination for the purpose of Article 20(3). Krishna Iyer, J. observed, at pp. 449-450:

> "In this sense, answers that would in themselves support a conviction are confessions but answers which have a reasonable tendency strongly to point out to the guilt of the accused are incriminatory. Relevant replies which furnish a real and clear link in the chain of evidence indeed to bind down the accused with the crime become

> incriminatory and offend Article 20(3) if elicited by pressure from the mouth of the accused. …
>
> An answer acquires confessional status only if, in terms or substantially, all the facts which constitute the offence are admitted by the offender. If his statement also contains self-exculpatory matter it ceases to be a confession. Article 20(3) strikes at confessions and self-incriminations but leaves untouched other relevant facts."

116. Reliance was also placed on the decision of the US Supreme Court in ***Samuel Hoffman*** v. ***United States***, 341 US 479 (1951). The controversy therein was whether the privilege against self-incrimination was available to a person who was called on to testify as a witness in a grand-jury investigation. Clark, J. answered the question in the affirmative, at p. 486:

> "The privilege afforded not only extends to answers that would in themselves support a conviction under a federal criminal statute but likewise embraces those which would furnish a link in the chain of evidence needed to prosecute the claimant for a federal crime. […]
>
> But this protection must be confined to instances where the witness has reasonable cause to apprehend danger from a direct answer. […]"
>
> (internal citations omitted)
>
> "To sustain the privilege, it need only be evident from the implications of the question, in the setting in which it is asked, that a responsive answer to the question or an

> explanation of why it cannot be answered might be dangerous because injurious disclosure may result."
>
> (at p. 487)

117. However, Krishna Iyer, J. also cautioned against including in the prohibition even those answers which might be used as a step towards obtaining evidence against the accused. It was stated, (1978) 2 SCC 424, at p. 451:

> "The policy behind the privilege, under our scheme, does not swing so wide as to sweep out of admissibility statements neither confessional per se nor guilty in tendency but merely relevant facts which, viewed in any setting, does not have a sinister import. To spread the net so wide is to make a mockery of the examination of the suspect, so necessitous in the search for truth. Overbreadth undermines, and we demur to such morbid exaggeration of a wholesome protection. …
>
> In *Kathi Kalu Oghad's case*, this Court authoritatively observed, on the bounds between constitutional proscription and testimonial permission:
>
> > 'In order that a testimony by an accused person may be said to have been self-incriminatory, the compulsion of which comes within the prohibition of the constitutional provisions, it must be of such a character that by itself it should have the tendency of incriminating the accused, if not also of actually doing so. In other words, it should be a statement which makes the case against the accused at least probable, considered by itself.' [1962] 3 SCR 10, 32
>
> Again the Court indicated that Article 20(3) could be invoked only against statements which 'had a material bearing on the criminality of the maker of the statement'.

> 'By itself' does not exclude the setting or other integral circumstances but means something in the fact disclosed a guilt element. Blood on clothes, gold bars with notorious marks and presence on the scene or possession of the lethal weapon or corrupt currency have a tale to tell, beyond red fluid, precious metal, gazing at the stars or testing sharpness or value of the rupee. The setting of the case is an implied component of the statement."

118. In light of these observations, we must examine the permissibility of extracting statements which may furnish a link in the chain of evidence and hence create a risk of exposure to criminal charges. The crucial question is whether such derivative use of information extracted in a custodial environment is compatible with Article 20(3). It is a settled principle that statements made in custody are considered to be unreliable unless they have been subjected to cross-examination or judicial scrutiny. The scheme created by the Code of Criminal Procedure and the Indian Evidence Act also mandates that confessions made before police officers are ordinarily not admissible as evidence and it is only the statements made in the presence of a judicial magistrate which can be given weightage. The doctrine of excluding the

'fruits of a poisonous tree' has been incorporated in Sections 24, 25 and 26 of the Indian Evidence Act, 1872 which read as follows:

> **24. Confession caused by inducement, threat or promise, when irrelevant in criminal proceeding.** – A confession made by an accused person is irrelevant in a criminal proceeding, if the making of the confession appears to the Court to have been caused by any inducement, threat or promise, having reference to the charge against the accused person, proceeding from a person in authority and sufficient, in the opinion of the Court, to give the accused person grounds, which would appear to him reasonable, for supposing that by making it he would gain any advantage or avoid any evil of a temporal nature in reference to the proceedings against him.
>
> **25. Confession to police officer not proved.** – No confession made to a police officer shall be proved as against a person accused of any offence.
>
> **26. Confession by accused while in custody of police not to be proved against him.** – No confession made by any person whilst he is in the custody of a police officer, unless it be made in the immediate presence of a Magistrate, shall be proved as against such person.

119. We have already referred to the language of Section 161, CrPC which protects the accused as well as suspects and witnesses who are examined during the course of investigation in a criminal case. It would also be useful to refer to Sections

162, 163 and 164 of the CrPC which lay down procedural safeguards in respect of statements made by persons during the course of investigation. However, Section 27 of the Evidence Act incorporates the 'theory of confirmation by subsequent facts' – i.e. statements made in custody are admissible to the extent that they can be proved by the subsequent discovery of facts. It is quite possible that the content of the custodial statements could directly lead to the subsequent discovery of relevant facts rather than their discovery through independent means. Hence such statements could also be described as those which 'furnish a link in the chain of evidence' needed for a successful prosecution. This provision reads as follows:

> **27. How much of information received from accused may be proved.** – Provided that, when any fact is deposed to as discovered in consequence of information received from a person accused of any offence, in the custody of a police officer, so much of such information, whether it amounts to a confession or not, as relates distinctly to the fact thereby discovered, may be proved.

120. This provision permits the derivative use of custodial statements in the ordinary course of events. In Indian law,

there is no automatic presumption that the custodial statements have been extracted through compulsion. In short, there is no requirement of additional diligence akin to the administration of Miranda warnings. However, in circumstances where it is shown that a person was indeed compelled to make statements while in custody, relying on such testimony as well as its derivative use will offend Article 20(3). The relationship between Section 27 of the Evidence Act and Article 20(3) of the Constitution was clarified in ***Kathi Kalu Oghad*** (supra.). It was observed in the majority opinion by Jagannadhadas, J., at pp. 33-34:

> "The information given by an accused person to a police officer leading to the discovery of a fact which may or may not prove incriminatory has been made admissible in evidence by that Section. If it is not incriminatory of the person giving the information, the question does not arise. It can arise only when it is of an incriminatory character so far as the giver of the information is concerned. If the self-incriminatory information has been given by an accused person without any threat, that will be admissible in evidence and that will not be hit by the provisions of cl. (3) of Art. 20 of the Constitution for the reason that there has been no compulsion. It must, therefore, be held that the provisions of s. 27 of the Evidence Act are not within the prohibition aforesaid, unless compulsion has been used in obtaining the information."
>
> (emphasis supplied)

This position was made amply clear at pp. 35-36:

> "Hence, the mere fact that the accused person, when he made the statement in question was in police custody would not, by itself, be the foundation for an inference of law that the accused was compelled to make the statement. Of course, it is open to an accused person to show that while he was in police custody at the relevant time, he was subjected to treatment which, in the circumstances of the case, would lend itself to the inference that compulsion was, in fact, exercised. In other words, it will be a question of fact in each case to be determined by the Court on weighing the facts and circumstances disclosed in the evidence before it."

121. The minority opinion also agreed with the majority's conclusion on this point since Das Gupta, J., held at p. 47:

> "Section 27 provides that when any fact is deposed to as discovered in consequence of information received from a person accused of any offence, in the custody of a police officer, so much of the information, whether it amounts to a confession or not, as relates distinctly to the fact thereby discovered, may be proved. It cannot be disputed that by giving such information the accused furnishes evidence, and therefore is a 'witness' during the investigation. Unless, however he is 'compelled' to give the information he cannot be said to be 'compelled' to be a witness; and so Article 20(3) is not infringed. Compulsion is not however inherent in the receipt of information from an accused person in the custody of a police officer. There may be cases where an accused in custody is compelled to give the information later on sought to be proved under s. 27. There will be other cases where the accused gives the information without any compulsion. Where the accused is compelled to give

> information it will be an infringement of Art. 20(3); but there is no such infringement where he gives the information without any compulsion. …"

122. We must also address another line of reasoning which was adopted in one of the impugned judgments. It was stated that the exclusionary rule in evidence law is applicable to statements that are inculpatory in nature. Based on this premise, it was observed that at the time of administering the impugned tests, it cannot be ascertained whether the resulting revelations or inferences will prove to be inculpatory or exculpatory in due course. Taking this reasoning forward, it was held that the compulsory administration of the impugned tests should be permissible since the same does not necessarily lead to the extraction of inculpatory evidence. We are unable to agree with this reasoning.

123. The distinction between inculpatory and exculpatory evidence gathered during investigation is relevant for deciding what will be admissible as evidence during the trial stage. The exclusionary rule in evidence law mandates that if inculpatory

evidence has been gathered through improper methods (involving coercion, threat or inducement among others) then the same should be excluded from the trial, while there is no such prohibition on the consideration of exculpatory evidence. However, this distinction between the treatment of inculpatory and exculpatory evidence is made retrospectively at the trial stage and it cannot be extended back to the stage of investigation. If we were to permit the admission of involuntary statement on the ground that at the time of asking a question it is not known whether the answer will be inculpatory or exculpatory, the 'right against self-incrimination' will be rendered meaningless. The law confers on 'any person' who is examined during an investigation, an effective choice between speaking and remaining silent. This implies that it is for the person being examined to decide whether the answer to a particular question will eventually prove to be inculpatory or exculpatory. Furthermore, it is also likely that the information or materials collected at an earlier stage of investigation can prove to be inculpatory in due course.

124. However, it is conceivable that in some circumstances the testimony extracted through compulsion may not actually lead to exposure to criminal charges or penalties. For example this is a possibility when the investigators make an offer of immunity against the direct use, derivative use or transactional use of the testimony. Immunity against direct use entails that a witness will not be prosecuted on the basis of the statements made to the investigators. A protection against derivative use implies that a person will not be prosecuted on the basis of the fruits of such testimony. Immunity against transactional use will shield a witness from criminal charges in cases other than the one being investigated. It is of course entirely up to the investigating agencies to decide whether to offer immunity and in what form. Even though this is distinctly possible, it is difficult to conceive of such a situation in the context of the present case. A person who is given an offer of immunity against prosecution is far more likely to voluntarily cooperate with the investigation efforts. This could be in the form of giving testimony or helping in the discovery of material evidence. If a

person is freely willing to cooperate with the investigation efforts, it would be redundant to compel such a person to undergo the impugned tests. If reliance on such tests is sought for refreshing a cooperating witness' memory, the person will in all probability give his/her consent to undergo these tests.

125. It could be argued that the compulsory administration of the impugned tests can prove to be useful in instances where the cooperating witness has difficulty in remembering the relevant facts or is wilfully concealing crucial details. Such situations could very well arise when a person who is a co-accused is offered immunity from prosecution in return for cooperating with the investigators. Even though the right against self-incrimination is not directly applicable in such situations, the relevant legal inquiry is whether the compulsory administration of the impugned tests meets the requisite standard of 'substantive due process' for placing restraints on personal liberty.

126. At this juncture, it must be reiterated that Indian law incorporates the 'rule against adverse inferences from silence' which is operative at the trial stage. As mentioned earlier, this position is embodied in a conjunctive reading of Article 20(3) of the Constitution and Sections 161(2), 313(3) and Proviso (b) of Section 315(1) of the CrPC. The gist of this position is that even though an accused is a competent witness in his/her own trial, he/she cannot be compelled to answer questions that could expose him/her to incrimination and the trial judge cannot draw adverse inferences from the refusal to do so. This position is cemented by prohibiting any of the parties from commenting on the failure of the accused to give evidence. This rule was lucidly explained in the English case of ***Woolmington*** v. ***DPP***, (1935) AC 462, at p. 481:

> "The 'right to silence' is a principle of common law and it means that normally courts or tribunals of fact should not be invited or encouraged to conclude, by parties or prosecutors, that a suspect or an accused is guilty merely because he has refused to respond to questions put to him by the police or by the Court."

127. The *180th Report of the Law Commission of India (May 2002)* dealt with this very issue. It considered arguments for

diluting the 'rule against adverse inferences from silence'. Apart from surveying several foreign statutes and decisions, the report took note of the fact that Section 342(2) of the erstwhile Code of Criminal Procedure, 1898 permitted the trial judge to draw an inference from the silence of the accused. However, this position was changed with the enactment of the new Code of Criminal Procedure in 1973, thereby prohibiting the making of comments as well as the drawing of inferences from the fact of an accused's silence. In light of this, the report concluded:

> "… We have reviewed the law in other countries as well as in India for the purpose of examining whether any amendments are necessary in the Code of Criminal Procedure, 1973. On a review, we find that no changes in the law relating to silence of the accused are necessary and if made, they will be ultra vires of Article 20(3) and Article 21 of the Constitution of India. We recommend accordingly."

128. Some commentators have argued that the 'rule against adverse inferences from silence' should be broadly construed in order to give protection against non-penal consequences. It is reasoned that the fact of a person's refusal to answer questions should not be held against him/her in a wide variety

of settings, including those outside the context of criminal trials. A hypothetical illustration of such a setting is a deportation hearing where an illegal immigrant could be deported following a refusal to answer questions or furnish materials required by the concerned authorities. This question is relevant for the present case because a person who refuses to undergo the impugned tests during the investigative stage could face non-penal consequences which lie outside the protective scope of Article 20(3). For example, a person who refuses to undergo these tests could face the risk of custodial violence, increased police surveillance or harassment thereafter. Even a person who is compelled to undergo these tests could face such adverse consequences on account of the contents of the test results if they heighten the investigators' suspicions. Each of these consequences, though condemnable, fall short of the requisite standard of 'exposure to criminal charges and penalties' that has been enumerated in Section 161(2) of the CrPC. Even though Article 20(3) will not be applicable in such circumstances, reliance can be placed on Article 21 if such non-penal consequences amount to a

violation of 'personal liberty' as contemplated under the Constitution. In the past, this Court has recognised the rights of prisoners (undertrials as well as convicts) as well as individuals in other custodial environments to receive 'fair, just and equitable' treatment. For instance in ***Sunil Batra*** v. ***Delhi Administration***, (1978) 4 SCC 494, it was decided that practices such as 'solitary confinement' and the use of bar-fetters in jails were violative of Article 21. Hence, in circumstances where persons who refuse to answer questions during the investigative stage are exposed to adverse consequences of a non-penal nature, the inquiry should account for the expansive scope of Article 21 rather than the right contemplated by Article 20(3).

I-B. Whether the results derived from the impugned techniques amount to 'testimonial compulsion' thereby attracting the bar of Article 20(3)?

129. The next issue is whether the results gathered from the impugned tests amount to 'testimonial compulsion', thereby

attracting the prohibition of Article 20(3). For this purpose, it is necessary to survey the precedents which deal with what constitutes 'testimonial compulsion' and how testimonial acts are distinguished from the collection of physical evidence. Apart from the apparent distinction between evidence of a testimonial and physical nature, some forms of testimonial acts lie outside the scope of Article 20(3). For instance, even though acts such as compulsorily obtaining specimen signatures and handwriting samples are testimonial in nature, they are not incriminating by themselves if they are used for the purpose of identification or corroboration with facts or materials that the investigators are already acquainted with. The relevant consideration for extending the protection of Article 20(3) is whether the materials are likely to lead to incrimination by themselves or 'furnish a link in the chain of evidence' which could lead to the same result. Hence, reliance on the contents of compelled testimony comes within the prohibition of Article 20(3) but its use for the purpose of identification or corroboration with facts already known to the investigators is not barred.

130. It is quite evident that the narcoanalysis technique involves a testimonial act. A subject is encouraged to speak in a drug-induced state, and there is no reason why such an act should be treated any differently from verbal answers during an ordinary interrogation. In one of the impugned judgments, the compulsory administration of the narcoanalysis technique was defended on the ground that at the time of conducting the test, it is not known whether the results will eventually prove to be inculpatory or exculpatory. We have already rejected this reasoning. We see no other obstruction to the proposition that the compulsory administration of the narcoanalysis technique amounts to 'testimonial compulsion' and thereby triggers the protection of Article 20(3).

131. However, an unresolved question is whether the results obtained through polygraph examination and the BEAP test are of a testimonial nature. In both these tests, inferences are drawn from the physiological responses of the subject and no direct reliance is placed on verbal responses. In some forms of

polygraph examination, the subject may be required to offer verbal answers such as 'Yes' or 'No', but the results are based on the measurement of changes in several physiological characteristics rather than these verbal responses. In the BEAP test, the subject is not required to give any verbal responses at all and inferences are drawn from the measurement of electrical activity in the brain. In the impugned judgments, it has been held that the results obtained from both the Polygraph examination and the BEAP test do not amount to 'testimony' thereby lying outside the protective scope of Article 20(3). The same assertion has been reiterated before us by the counsel for the respondents. In order to evaluate this position, we must examine the contours of the expression 'testimonial compulsion'.

132. The question of what constitutes 'testimonial compulsion' for the purpose of Article 20(3) was addressed in ***M.P. Sharma's*** *case* (supra.). In that case, the Court considered whether the issuance of search warrants in the course of an investigation into the affairs of a company (following

allegations of misappropriation and embezzlement) amounted to an infringement of Article 20(3). The search warrants issued under Section 96 of the erstwhile Code of Criminal Procedure, 1898 authorised the investigating agencies to search the premises and seize the documents maintained by the said company. The relevant observations were made by Jagannadhadas, J., at pp. 1087-1088:

> " … The phrase used in Article 20(3) is 'to be a witness'. A person can 'be a witness' not merely by giving oral evidence but also by producing documents or making intelligible gestures as in the case of a dumb witness [see Section 119 of the Evidence Act or the like]. 'To be a witness' is nothing more than 'to furnish evidence', and such evidence can be furnished through the lips or by production of a thing or of a document or in other modes. …
>
> Indeed, every positive volitional act which furnishes evidence is testimony, and testimonial compulsion connotes coercion which procures the positive volitional evidentiary acts of the person, as opposed to the negative attitude of silence or submission on his part. …"

133. These observations suggest that the phrase 'to be a witness' is not confined to oral testimony for the purpose of invoking Article 20(3) and that it includes certain non-verbal forms of conduct such as the production of documents and

the making of intelligible gestures. However, in ***Kathi Kalu Oghad*** (supra.), there was a disagreement between the majority and minority opinions on whether the expression 'to be a witness' was the same as 'to furnish evidence'. In that case, this Court had examined whether certain statutory provisions, namely - Section 73 of the Evidence Act, Sections 5 and 6 of the Identification of Prisoners Act, 1920 and Section 27 of the Evidence Act were compatible with Article 20(3). Section 73 of the Evidence Act empowered courts to obtain specimen handwriting or signatures and finger impressions of an accused person for purposes of comparison. Sections 5 and 6 of the Identification of Prisoners Act empowered a Magistrate to obtain the photograph or measurements of an accused person. In respect of Section 27 of the Evidence Act, there was an agreement between the majority and the minority opinions that the use of compulsion to extract custodial statements amounts to an exception to the 'theory of confirmation by subsequent facts'. We have already referred to the relevant observations in an earlier part of this opinion. Both the majority and minority opinions ruled that the other statutory

provisions mentioned above were compatible with Article 20(3), but adopted different approaches to arrive at this conclusion. In the majority opinion it was held that the ambit of the expression 'to be a witness' was narrower than that of 'furnishing evidence'. B.P. Sinha, C.J. observed, [1962] 3 SCR 10, at pp. 29-32:

> " 'To be a witness' may be equivalent to 'furnishing evidence' in the sense of making oral or written statements, but not in the larger sense of the expression so as to include giving of thumb impression or impression of palm or foot or fingers or specimen writing or exposing a part of the body by an accused person for purpose of identification. 'Furnishing evidence' in the latter sense could not have been within the contemplation of the Constitution-makers for the simple reason that – though they may have intended to protect an accused person from the hazards of self-incrimination, in the light of the English Law on the subject – they could not have intended to put obstacles in the way of efficient and effective investigation into crime and of bringing criminals to justice. The taking of impressions or parts of the body of an accused person very often becomes necessary to help the investigation of a crime. It is as much necessary to protect an 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. Furthermore it must be assumed that the Constitution-makers were aware of the existing law, for example, Section 73 of the Evidence Act or Section 5 and 6 of the Identification of Prisoners Act (XXXIII of 1920).

… The giving of finger impression or of specimen signature or of handwriting, strictly speaking, is not 'to be a witness'. 'To be a witness' means imparting knowledge in respect of relevant fact, by means of oral statements or statements in writing, by a person who has personal knowledge of the facts to be communicated to a court or to a person holding an enquiry or investigation. A person is said 'to be a witness' to a certain state of facts which has to be determined by a court or authority authorised to come to a decision, by testifying to what he has seen, or something he has heard which is capable of being heard and is not hit by the rule excluding hearsay or giving his opinion, as an expert, in respect of matters in controversy. Evidence has been classified by text writers into three categories, namely, (1) oral testimony; (2) evidence furnished by documents; and (3) material evidence. We have already indicated that we are in agreement with the Full Court decision in Sharma's case, [1954] SCR 1077, that the prohibition in cl. (3) of Art. 20 covers not only oral testimony given by a person accused of an offence but also his written statements which may have a bearing on the controversy with reference to the charge against him. …

… Self-incrimination must mean conveying information based upon the personal knowledge of the person giving the information and cannot include merely the mechanical process of producing documents in court which may throw a light on any of the points in controversy, but which do not contain any statement of the accused based on his personal knowledge. For example, the accused person may be in possession of a document which is in his writing or which contains his signature or his thumb impression. The production of such a document, with a view to comparison of the writing or the signature or the impression, is not the statement of an accused person, which can be said to be of the nature of a personal testimony. When an accused person is called upon by the Court or any other authority

> holding an investigation to give his finger impression or signature or a specimen of his handwriting, he is not giving any testimony of the nature of a 'personal testimony'. The giving of a 'personal testimony' must depend on his volition. He can make any kind of statement or may refuse to make any statement. But his finger impressions or his handwriting, in spite of efforts at concealing the true nature of it by dissimulation cannot change their intrinsic character. Thus, the giving of finger impressions or of specimen writing or of signatures by an accused person, though it may amount to 'furnishing evidence' in the larger sense, is not included within the expression 'to be a witness'.
>
> In order that a testimony by an accused person may be said to have been self-incriminatory, the compulsion of which comes within the prohibition of the constitutional provision, it must be of such a character that by itself it should have the tendency of incriminating the accused, if not also of actually doing so. In other words, it should be a statement which makes the case against the accused person atleast probable, considered by itself. A specimen handwriting or signature or finger impressions by themselves are no testimony at all, being wholly innocuous because they are unchangeable except in rare cases where the ridges of the fingers or the style of writing have been tampered with. They are only materials for comparison in order to lend assurance to the Court that its inference based on other pieces of evidence is reliable. They are neither oral nor documentary evidence but belong to the third category of material evidence which is outside the limit of 'testimony'."

134. Hence, B.P. Sinha, C.J. construed the expression 'to be a witness' as one that was limited to oral or documentary evidence, while further confining the same to statements that

could lead to incrimination by themselves, as opposed to those used for the purpose of identification or comparison with facts already known to the investigators. The minority opinion authored by Das Gupta, J. (3 judges) took a different approach, which is evident from the following extracts, *Id.* at pp. 40-43:

> "That brings us to the suggestion that the expression 'to be a witness' must be limited to a statement whether oral or in writing by an accused person imparting knowledge of relevant facts; but that mere production of some material evidence, whether documentary or otherwise would not come within the ambit of this expression. This suggestion has found favour with the majority of the Bench, we think however that this is an unduly narrow interpretation. We have to remind ourselves that while on the one hand we should bear in mind that the Constitution-makers could not have intended to stifle legitimate modes of investigation we have to remember further that quite clearly they thought that certain things should not be allowed to be done, during the investigation, or trial, however helpful they might seem to be to the unfolding of truth and an unnecessary apprehension of disaster to the police system and the administration of justice, should not deter us from giving the words their proper meaning. It appears to us that to limit the meaning of the words 'to be a witness' in Art. 20(3) in the manner suggested would result in allowing compulsion to be used in procuring the production from the accused of a large number of documents, which are of evidentiary value, sometimes even more so than any oral statement of a witness might be. …

> … There can be no doubt that to the ordinary user of English words, the word 'witness' is always associated with evidence, so that to say that 'to be a witness' is to 'furnish evidence' is really to keep to the natural meaning of the words. …
>
> … It is clear from the scheme of the various provisions, dealing with the matter that the governing idea is that to be evidence, the oral statement or a statement contained in a document, shall have a tendency to prove a fact – whether it be a fact in issue or a relevant fact – which is sought to be proved. Though this definition of evidence is in respect of proceedings in Court it will be proper, once we have come to the conclusion, that the protection of Art. 20(3) is available even at the stage of investigation, to hold that at that stage also the purpose of having a witness is to obtain evidence and the purpose of evidence is to prove a fact.
>
> The illustrations we have given above show clearly that it is not only by imparting of his knowledge that an accused person assists the proving of a fact; he can do so even by other means, such as the production of documents which though not containing his own knowledge would have a tendency to make probable the existence of a fact in issue or a relevant fact."

135. Even though Das Gupta, J. saw no difference between the scope of the expressions 'to be a witness' and 'to furnish evidence', the learned judge agreed with the majority's conclusion that for the purpose of invoking Article 20(3) the evidence must be incriminating by itself. This entailed that evidence could be relied upon if it is used only for the purpose

of identification or comparison with information and materials that are already in the possession of the investigators. The following observations were made at pp. 45-46:

> " ... But the evidence of specimen handwriting or the impressions of the accused person's fingers, palm or foot, will incriminate him, only if on comparison of these with certain other handwritings or certain other impressions, identity between the two sets is established. By themselves, these impressions or the handwritings do not incriminate the accused person, or even tend to do so. That is why it must be held that by giving these impressions or specimen handwriting, the accused person does not furnish evidence against himself. ...
>
> ... This view, it may be pointed out does not in any way militate against the policy underlying the rule against 'testimonial compulsion' we have already discussed above. There is little risk, if at all, in the investigator or the prosecutor being induced to lethargy or inaction because he can get such handwriting or impressions from an accused person. For, by themselves they are of little or of no assistance to bring home the guilt of an accused. Nor is there any chance of the accused to mislead the investigator into wrong channels by furnishing false evidence. For, it is beyond his power to alter the ridges or other characteristics of his hand, palm or finger or to alter the characteristics of his handwriting.
>
> We agree therefore with the conclusion reached by the majority of the Bench that there is no infringement of Art. 20(3) of the Constitution by compelling an accused person to give his specimen handwriting or signature; or impressions of his fingers, palm or foot to the investigating officer or under orders of a court for the purpose of comparison under the provisions of s. 73 of the Indian Evidence Act; though we have not been able to

> agree with the view of our learned brethren that 'to be a witness' in Art. 20(3) should be equated with the imparting of personal knowledge or that an accused does not become a witness when he produces some document not in his own handwriting even though it may tend to prove facts in issue or relevant facts against him."

136. Since the majority decision in ***Kathi Kalu Oghad*** (supra.) is the controlling precedent, it will be useful to re-state the two main premises for understanding the scope of 'testimonial compulsion'. The first is that ordinarily it is the oral or written statements which convey the personal knowledge of a person in respect of relevant facts that amount to 'personal testimony' thereby coming within the prohibition contemplated by Article 20(3). In most cases, such 'personal testimony' can be readily distinguished from material evidence such as bodily substances and other physical objects. The second premise is that in some cases, oral or written statements can be relied upon but only for the purpose of identification or comparison with facts and materials that are already in the possession of the investigators. The bar of Article 20(3) can be invoked when the statements are likely to lead to incrimination by themselves or 'furnish a link in the

chain of evidence' needed to do so. We must emphasize that a situation where a testimonial response is used for comparison with facts already known to investigators is inherently different from a situation where a testimonial response helps the investigators to subsequently discover fresh facts or materials that could be relevant to the ongoing investigation.

137. The recognition of the distinction between testimonial acts and physical evidence for the purpose of invoking Article 20(3) of the Constitution finds a close parallel in some foreign decisions. In ***Armando Schmerber*** v. ***California***, 384 US 757 (1966), the U.S. Supreme Court had to determine whether an involuntary blood test of a defendant had violated the Fifth Amendment. The defendant was undergoing treatment at a hospital following an automobile accident. A blood sample was taken against his will at the direction of a police officer. Analysis of the same revealed that Schmerber had been intoxicated and these results were admitted into evidence, thereby leading to his conviction for drunk driving. An objection was raised on the basis of the Fifth Amendment and

the majority opinion (Brennan, J.) relied on a distinction between evidence of a 'testimonial' or 'communicative' nature as opposed to evidence of a 'physical' or 'real nature', concluding that the privilege against self-incrimination applied to the former but not to the latter. In arriving at this decision, reference was made to several precedents with a prominent one being ***United States*** v. ***Holt***, 218 US 245 (1910). In that case, a defendant was forced to try on an article of clothing during the course of investigation. It had been ruled that the privilege against self-incrimination prohibited the use of compulsion to 'extort communications' from the defendant, but not the use of the defendant's body as evidence.

138. In addition to citing John Wigmore's position that 'the privilege is limited to testimonial disclosures' the Court in *Schmerber* also took note of other examples where it had been held that the privilege did not apply to physical evidence, which included 'compulsion to submit to fingerprinting, photographing, or measurements, to write or speak for identification, to appear in court, to stand, to assume a

stance, to walk, or to make a particular gesture.' However, it was cautioned that the privilege applied to testimonial communications, irrespective of what form they might take. Hence it was recognised that the privilege not only extended to verbal communications, but also to written words as well as gestures intended to communicate [for, e.g., pointing or nodding]. This line of thinking becomes clear because the majority opinion indicated that the distinction between testimonial and physical acts may not be readily applicable in the case of Lie-Detector tests. Brennan, J. had noted, 384 US 757 (1966), at p. 764:

> "Although we agree that this distinction is a helpful framework for analysis, we are not to be understood to agree with past applications in all instances. There will be many cases in which such a distinction is not readily drawn. Some tests seemingly directed to obtain 'physical evidence,' for example, lie detector tests measuring changes in body function during interrogation, may actually be directed to eliciting responses which are essentially testimonial. To compel a person to submit to testing in which an effort will be made to determine his guilt or innocence on the basis of physiological responses, whether willed or not, is to evoke the spirit and history of the Fifth Amendment. Such situations call to mind the principle that the protection of the privilege 'is as broad as the mischief against which it seeks to guard.' […]"

In a recently published paper, Michael S. Pardo (2008) has made the following observation in respect of this judgment [Cited from: Michael S. Pardo, 'Self-Incrimination and the Epistemology of Testimony', 30 *Cardozo Law Review* 1023-1046 (December 2008) at pp. 1027-1028]:

> "the Court notes that even the physical-testimonial distinction may break down when physical evidence is meant to compel 'responses which are essentially testimonial' such as a lie-detector test measuring physiological responses during interrogation."

139. Following the ***Schmerber*** decision (supra.), the distinction between physical and testimonial evidence has been applied in several cases. However, some complexities have also arisen in the application of the testimonial-physical distinction to various fact-situations. While we do not need to discuss these cases to decide the question before us, we must take note of the fact that the application of the testimonial-physical distinction can be highly ambiguous in relation to non-verbal forms of conduct which nevertheless convey relevant information. Among other jurisdictions, the European Court of Human Rights (ECtHR) has also taken note of the distinction between testimonial and physical acts for the

purpose of invoking the privilege against self-incrimination. In ***Saunders*** v. ***United Kingdom***, (1997) 23 EHRR 313, it was explained:

> "... The right not to incriminate oneself, in particular, presupposes that the prosecution in a criminal case seek to prove their case against the accused without resort to evidence obtained through methods of coercion or oppression in defiance of the will of the accused. In this sense the right is closely linked to the presumption of innocence ... The right not to incriminate oneself is primarily concerned, however, with respecting the will of an accused person to remain silent. As commonly understood in the legal systems of the Contracting Parties to the Convention and elsewhere, it does not extend to the use in criminal proceedings of material which may be obtained from the accused through the use of compulsory powers but which has an existence independent of the will of the suspect such as, inter alia, documents acquired pursuant to a warrant, breath, blood and urine samples and bodily tissue for the purpose of DNA testing."

Evolution of the law on 'medical examination'

140. With respect to the testimonial-physical distinction, an important statutory development in our legal system was the introduction of provisions for medical examination with the overhauling of the Code of Criminal Procedure in 1973. Sections 53 and 54 of the CrPC contemplate the medical examination of a person who has been arrested, either at the

instance of the investigating officer or even the arrested person himself. The same can also be done at the direction of the jurisdictional court.

141. However, there were no provisions for authorising such a medical examination in the erstwhile Code of Criminal Procedure, 1898. The absence of a statutory basis for the same had led courts to hold that a medical examination could not be conducted without the prior consent of the person who was to be subjected to the same. For example in ***Bhondar*** v. ***Emperor***, AIR 1931 Cal 601, Lord Williams, J. held, at p. 602:

> "If it were permitted forcibly to take hold of a prisoner and examine his body medically for the purpose of qualifying some medical witness to give medical evidence in the case against the accused there is no knowing where such procedure would stop.
>
> …Any such examination without the consent of the accused would amount to an assault and I am quite satisfied that the police are not entitled without statutory authority to commit assaults upon prisoners for the purpose of procuring evidence against them. If the legislature desires that evidence of this kind should be given, it will be quite simple to add a short section to the Code of Criminal Procedure expressly giving power to order such a medical examination."

S.K. Ghose, J. concurred, at p. 604:

> "Nevertheless the examination of an arrested person in hospital by a doctor, not for the benefit of the prisoner's health, but simply by way of a second search, is not provided for by Code, and is such a case the doctor may not examine the prisoner without his consent. It would be a rule of caution to have such consent noted in the medical report, so that the doctor would be in a position to testify to such consent if called upon to do so."

A similar conclusion was arrived at by Tarkunde, J. in ***Deomam Shamji Patel*** v. ***State of Maharashtra***, AIR 1959 Bom 284, who held that a person suspected or accused of having committed an offence cannot be forcibly subjected to a medical examination. It was also held that if police officers use force for this purpose, then a person can lawfully exercise the right of private defence to offer resistance.

142. It was the 37th and 41st Reports of the Law Commission of India which recommended the insertion of a provision in the Code of Criminal Procedure to enable medical examination without the consent of an accused. These recommendations proved to be the precursor for the inclusion of Sections 53 and 54 in the Code of Criminal Procedure, 1973. It was observed in the *37th Report (December 1967)*, at pp. 205-206:

> " … It will suffice to refer to the decision of the Supreme Court in Kathi Kalu, [AIR 1961 SC 1808] which has the

effect of confining the privilege under Article 20(3) to testimony – written or oral. [Fn …] The Supreme Court's judgment in Kathi Kalu should be taken as overruling the view taken in some earlier decisions, [Fn 6, 7 …] invalidating provisions similar to Section 5, Identification of Prisoners Act, 1920.

The position in the U.S.A. has been summarised [Fn 8 – Emerson G., 'Due Process and the American Criminal Trial', 33 *Australian Law Journal* 223, 231 (1964)]

> 'Less certain is the protection accorded to the defendant with regard to non-testimonial physical evidence other than personal papers. Can the accused be forced to supply a sample of his blood or urine if the resultant tests are likely to further the prosecution's case? Can he be forced to give his finger prints to wear a disguise or certain clothing, to supply a pair of shoes which might match footprints at the scene of the crime, to stand in a line-up, to submit to a hair cut or to having his hair dyed, or to have his stomach pumped or a fluoroscopic examination of the contents of his intestines? The literature on this aspect of self-incrimination is voluminous. [Fn …]

The short and reasonably accurate answer to the question posed is that almost all such physical acts can be required. [Fn …] Influenced by the historical development of the doctrine, its purpose, and the need to balance the conflicting interests of the individual and society, the courts have generally restricted the protection of the Fifth Amendment to situations where the defendant would be required to convey ideas, or where the physical acts would offend the decencies of civilized conduct."

(some internal citations omitted)

Taking note of ***Kathi Kalu Oghad*** (supra.) and the distinction drawn between testimonial and physical acts in American cases, the Law Commission observed that a provision for examination of the body would reveal valuable evidence. This view was taken forward in the *41st Report* which recommended the inclusion of a specific provision to enable medical examination during the course of investigation, irrespective of the subject's consent. [See: *41st Report of the Law Commission of India, Vol. I* (September 1969), Para 5.1 at p. 37]

143. We were also alerted to some High Court decisions which have relied on ***Kathi Kalu Oghad*** (supra.) to approve the taking of physical evidence such as blood and hair samples in the course of investigation. Following the overhaul of the Code of Criminal Procedure in 1973, the position became amply clear. In recent years, the judicial power to order a medical examination, albeit in a different context, has been discussed by this Court in ***Sharda*** v. ***Dharampal***, (2003) 4 SCC 493. In that case, the contention related to the validity of a civil court's direction for conducting a medical examination to

ascertain the mental state of a party in a divorce proceeding. Needless to say, the mental state of a party was a relevant issue before the trial court, since insanity is a statutory ground for obtaining divorce under the Hindu Marriage Act, 1955. S.B. Sinha, J. held that Article 20(3) was anyway not applicable in a civil proceeding and that the civil court could direct the medical examination in exercise of its inherent powers under Section 151 of the Code of Civil Procedure, since there was no ordinary statutory basis for the same. It was observed, *Id.* at p. 508:

> "Yet again the primary duty of a court is to see that truth is arrived at. A party to a civil litigation, it is axiomatic, is not entitled to constitutional protections under Article 20 of the Constitution of India. Thus, the civil court although may not have any specific provisions in the Code of Civil Procedure and the Evidence Act, has an inherent power in terms of Section 151 of the Code of Civil Procedure to pass all orders for doing complete justice to the parties to the suit.
>
> Discretionary power under Section 151 of the Code of Civil Procedure, it is trite, can be exercised also on an application filed by the party. In certain cases medical examination by the experts in the field may not only be found to be leading to the truth of the matter but may also lead to removal of misunderstanding between the parties. It may bring the parties to terms. Having regard to development in medicinal technology, it is possible to find out that what was presumed to be a mental disorder

> of a spouse is not really so. In matrimonial disputes, the court also has a conciliatory role to play – even for the said purpose it may require expert advice.
>
> Under Section 75(e) of the Code of Civil Procedure and Order 26, Rule 10-A the civil court has the requisite power to issue a direction to hold a scientific, technical or expert investigation."

144. The decision had also cited some foreign precedents dealing with the authority of investigators and courts to require the collection of DNA samples for the purpose of comparison. In that case the discussion centered on the 'right to privacy'. So far, the authority of investigators and courts to compel the production of DNA samples has been approved by the Orissa High Court in ***Thogorani*** v. ***State of Orissa***, 2004 Cri L J 4003 (Ori).

145. At this juncture, it should be noted that the Explanation to Sections 53, 53-A and 54 of the Code of Criminal Procedure, 1973 was amended in 2005 to clarify the scope of medical examination, especially with regard to the extraction of bodily substances. The amended provision reads:

53. Examination of accused by medical practitioner at the request of police officer. –

(1) When a person is 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, it shall be lawful for a registered medical practitioner, acting at the request of a police officer not below the rank of sub-inspector, and for any person acting in good faith in his aid and under his direction, to make such an examination of the person arrested as is reasonably necessary in order to ascertain the facts which may afford such evidence, and to use such force as is reasonably necessary for that purpose.

(2) Whenever the person of a female is to be examined under this section, the examination shall be made only by, or under the supervision of, a female registered medical practitioner.

Explanation. – In this section and in sections 53-A and 54, -

(a) <u>'examination' shall include the examination of blood, blood-stains, semen, swabs in case of sexual offences, sputum and sweat, hair samples and finger nail clippings by the use of modern and scientific techniques including DNA profiling and such other tests which the registered medical practitioner thinks necessary in a particular case</u>;

(b) 'registered medical practitioner' means a medical practitioner who possesses any medical qualification as defined in clause (h) of Section 2 of the Indian Medical Council Act , 1956 (102 of 1956) and whose name has been entered in a State Medical Register.

(emphasis supplied)

146. The respondents have urged that the impugned techniques should be read into the relevant provisions – i.e. Sections 53 and 54 of CrPC. As described earlier, a medical examination of an arrested person can be directed during the course of an investigation, either at the instance of the investigating officer or the arrested person. It has also been clarified that it is within the powers of a court to direct such a medical examination on its own. Such an examination can also be directed in respect of a person who has been released from custody on bail as well as a person who has been granted anticipatory bail. Furthermore, Section 53 contemplates the use of 'force as is reasonably necessary' for conducting a medical examination. This means that once a court has directed the medical examination of a particular person, it is within the powers of the investigators and the examiners to resort to a reasonable degree of physical force for conducting the same.

147. The contentious provision is the Explanation to Sections 53, 53-A and 54 of the CrPC (amended in 2005) which has

been reproduced above. It has been contended that the phrase 'modern and scientific techniques including DNA profiling and such other tests' should be liberally construed to include the impugned techniques. It was argued that even though the narcoanalysis technique, polygraph examination and the BEAP test have not been expressly enumerated, they could be read in by examining the legislative intent. Emphasis was placed on the phrase 'and such other tests' to argue that the Parliament had chosen an approach where the list of 'modern and scientific techniques' contemplated was illustrative and not exhaustive. It was also argued that in any case, statutory provisions can be liberally construed in light of scientific advancements. With the development of newer technologies, their use can be governed by older statutes which had been framed to regulate the older technologies used for similar purposes.

148. On the other hand, the counsel for the appellants have contended that the Parliament was well aware of the impugned techniques at the time of the 2005 amendment and

consciously chose not to include them in the amended Explanation to Sections 53, 53-A and 54 of the CrPC. It was reasoned that this choice recognised the distinction between testimonial acts and physical evidence. While bodily substances such as blood, semen, sputum, sweat, hair and fingernail clippings can be readily characterised as physical evidence, the same cannot be said for the techniques in question. This argument was supported by invoking the rule of 'ejusdem generis' which is used in the interpretation of statutes. This rule entails that the meaning of general words which follow specific words in a statutory provision should be construed in light of the commonality between those specific words. In the present case, the substances enumerated are all examples of physical evidence. Hence the words 'and such other tests' which appear in the Explanation to Sections 53, 53-A and 54 of the CrPC should be construed to include the examination of physical evidence but not that of testimonial acts.

149. We are inclined towards the view that the results of the impugned tests should be treated as testimonial acts for the purpose of invoking the right against self-incrimination. Therefore, it would be prudent to state that the phrase 'and such other tests' [which appears in the Explanation to Sections 53, 53-A and 54 of the CrPC] should be read so as to confine its meaning to include only those tests which involve the examination of physical evidence. In pursuance of this line of reasoning, we agree with the appellant's contention about the applicability of the rule of 'ejusdem generis'. It should also be noted that the Explanation to Sections 53, 53-A and 54 of the CrPC does not enumerate certain other forms of medical examination that involve testimonial acts, such as psychiatric examination among others. This demonstrates that the amendment to this provision was informed by a rational distinction between the examination of physical substances and testimonial acts.

150. However, the submissions touching on the legislative intent require some reflection. While it is most likely that the

Parliament was well aware of the impugned techniques at the time of the 2005 amendment to the CrPC and deliberately chose not to enumerate them, we cannot arrive at a conclusive finding on this issue. While it is open to courts to examine the legislative history of a statutory provision, it is not proper for us to try and conclusively ascertain the legislative intent. Such an inquiry is impractical since we do not have access to all the materials which would have been considered by the Parliament. In such a scenario, we must address the respondent's arguments about the interpretation of statutes with regard to scientific advancements. To address this aspect, we can refer to some extracts from a leading commentary on the interpretation of statutes [See: Justice G.P. Singh, *Principles of Statutory Interpretation, 10th edn.* (New Delhi: Wadhwa & Co. Nagpur, 2006) at pp. 239-247]. The learned author has noted, at pp. 240-241:

> "Reference to the circumstances existing at the time of the passing of the statute does not, therefore, mean that the language used, at any rate, in a modern statute, should be held to be inapplicable to social, political and economic developments or to scientific inventions not known at the time of the passing of the statute. … The question again is as to what was the intention of the law

makers: Did they intend as originalists may argue, that the words of the statute be given the meaning they would have received immediately after the statute's enactment or did they intend as dynamists may contend that it would be proper for the court to adopt the current meaning of the words? The courts have now generally leaned in favour of dynamic construction. [...] But the doctrine has also its limitations. For example it does not mean that the language of an old statute can be construed to embrace something conceptually different.

The guidance on the question as to when an old statute can apply to new state of affairs not in contemplation when the statute was enacted was furnished by Lord Wilberforce in his dissenting speech in *Royal College of Nursing of the U.K.* v. *Dept. of Health and Social Security*, (1981) 1 All ER 545, which is now treated as authoritative. (...) Lord Wilberforce said, at pp. 564-565:

> In interpreting an Act of Parliament it is proper, and indeed necessary, to have regard to the state of affairs existing, and known by Parliament to be existing, at the time. It is a fair presumption that Parliament's policy or intention is directed to that state of affairs. Leaving aside cases of omission by inadvertence, this being not such a case when a new state of affairs, or a fresh set of facts bearing on policy, comes into existence, the courts have to consider whether they fall within the parliamentary intention. They may be held to do so, if they fall within the same genus of facts as those to which the expressed policy has been formulated. They may also be held to do so if there can be detected a clear purpose in the legislation which can only be fulfilled if the extension is made. How liberally these principles may be applied must depend on the nature of the enactment, and the strictness or otherwise of the words in which it has been expressed. The courts should be less willing to extend expressed meanings if it is clear that the Act

> in question was designed to be restrictive or circumscribed in its operation rather than liberal or permissive. They will be much less willing to do so where the new subject matter is different in kind or dimension from that for which the legislation was passed. In any event there is one course which the courts cannot take under the law of this country: they cannot fill gaps; they cannot by asking the question, 'What would Parliament have done in this current case, not being one in contemplation, if the facts had been before it?' attempt themselves to supply the answer, if the answer is not to be found in the terms of the Act itself."
>
> (internal citations omitted)

151. The learned author has further taken note of several decisions where general words appearing in statutory provisions have been liberally interpreted to include newer scientific inventions and technologies. [*Id.* at pp. 244-246] The relevant portion of the commentary quotes Subbarao, J. in ***Senior Electric Inspector*** v. ***Laxminarayan Chopra***, AIR 1962 SC 159, at p. 163:

> "It is perhaps difficult to attribute to a legislative body functioning in a static society that its intention was couched in terms of considerable breadth so as to take within its sweep the future developments comprehended by the phraseology used. It is more reasonable to confine its intention only to the circumstances obtaining at the time the law was made. But in modern progressive society it would be unreasonable to confine the intention of a Legislature to the meaning attributable to the word

> used at the time the law was made, for a modern Legislature making laws to govern society which is fast moving must be presumed to be aware of an enlarged meaning the same concept might attract with the march of time and with the revolutionary changes brought about in social, economic, political and scientific and other fields of human activity. Indeed, unless a contrary intention appears, an interpretation should be given to the words used to take in new facts and situations, if the words are capable of comprehending them."

152. In light of this discussion, there are some clear obstructions to the dynamic interpretation of the amended Explanation to Sections 53, 53-A and 54 of the CrPC. Firstly, the general words in question, i.e. 'and such other tests' should ordinarily be read to include tests which are in the same genus as the other forms of medical examination that have been specified. Since all the explicit references are to the examination of bodily substances, we cannot readily construe the said phrase to include the impugned tests because the latter seem to involve testimonial responses. Secondly, the compulsory administration of the impugned techniques is not the only means for ensuring an expeditious investigation. Furthermore, there is also a safe presumption that Parliament was well aware of the existence of the impugned techniques

but deliberately chose not to enumerate them. Hence, on an aggregate understanding of the materials produced before us we lean towards the view that the impugned tests, i.e. the narcoanalysis technique, polygraph examination and the BEAP test should not be read into the provisions for 'medical examination' under the Code of Criminal Procedure, 1973.

153. However, it must be borne in mind that even though the impugned techniques have not been expressly enumerated in the CrPC, there is no statutory prohibition against them either. It is a clear case of silence in the law. Furthermore, in circumstances where an individual consents to undergo these tests, there is no dilution of Article 20(3). In the past, the meaning and scope of the term 'investigation' has been held to include measures that had not been enumerated in statutory provisions. For example, prior to the enactment of an express provision for medical examination in the CrPC, it was observed in ***Mahipal Maderna*** v. ***State of Maharashtra***, 1971 Cri L J 1405 (Bom), that an order requiring the production of a hair sample comes within the ordinary understanding of

'investigation' (at pp. 1409-1410, Para. 17). We must also take note of the decision in ***Jamshed*** v. ***State of Uttar Pradesh***, 1976 Cri L J 1680 (All), wherein it was held that a blood sample can be compulsorily extracted during a 'medical examination' conducted under Section 53 of the CrPC. At that time, the collection of blood samples was not expressly contemplated in the said provision. Nevertheless, the Court had ruled that the phrase 'examination of a person' should be read liberally so as to include an examination of what is externally visible on a body as well as the examination of an organ inside the body. [See p. 1689, Para 13]

154. We must also refer back to the substance of the decision in ***Sharda*** v. ***Dharampal***, (supra.) which upheld the authority of a civil court to order a medical examination in exercise of the inherent powers vested in it by Section 151 of the Code of Civil Procedure, 1908. The same reasoning cannot be readily applied in the criminal context. Despite the absence of a statutory basis, it is tenable to hold that criminal courts should be allowed to direct the impugned tests with the

subject's consent, keeping in mind that there is no statutory prohibition against them either.

155. Another pertinent contention raised by the appellants is that the involvement of medical personnel in the compulsory administration of the impugned tests is violative of their professional ethics. In particular, criticism was directed against the involvement of doctors in the narcoanalysis technique and it was urged that since the content of the drug-induced revelations were shared with investigators, this technique breaches the duty of confidentiality which should be ordinarily maintained by medical practitioners. [See generally: Amar Jesani, 'Willing participants and tolerant profession: Medical ethics and human rights in narco-analysis', *Indian Journal of Medical Ethics*, Vol. 16(3), July-Sept. 2008] The counsel have also cited the text of the *'Principles of Medical Ethics'* adopted by the United Nations General Assembly [GA Res. 37/194, 111th Plenary Meeting] on December 18, 1982. This document enumerates some *'Principles of Medical Ethics relevant to the role of health personnel, particularly physicians,*

in the protection of prisoners and detainees against torture, and other cruel, inhuman or degrading treatment of punishment'. Emphasis was placed on Principle 4 which reads:

> **Principle 4**
> It is a contravention of medical ethics for health personnel, particularly physicians:
> To apply their knowledge and skills in order to assist in the interrogation of prisoners and detainees in a manner that may adversely affect the physical or mental health or condition of such prisoners or detainees and which is not in accordance with the relevant international instruments;

156. Being a court of law, we do not have the expertise to mould the specifics of professional ethics for the medical profession. Furthermore, the involvement of doctors in the course of investigation in criminal cases has long been recognised as an exception to the physician-patient privilege. In the Indian context, the statutory provisions for directing a medical examination are an example of the same. Fields such as forensic toxicology have become important in criminal-justice systems all over the world and doctors are frequently called on to examine bodily substances such as samples of blood, hair, semen, saliva, sweat, sputum and fingernail

clippings as well as marks, wounds and other physical characteristics. A reasonable limitation on the forensic uses of medical expertise is the fact that testimonial acts such as the results of a psychiatric examination cannot be used as evidence without the subject's informed consent.

Results of impugned tests should be treated as 'personal testimony'

157. We now return to the operative question of whether the results obtained through polygraph examination and the BEAP test should be treated as testimonial responses. Ordinarily evidence is classified into three broad categories, namely oral testimony, documents and material evidence. The protective scope of Article 20(3) read with Section 161(2), CrPC guards against the compulsory extraction of oral testimony, even at the stage of investigation. With respect to the production of documents, the applicability of Article 20(3) is decided by the trial judge but parties are obliged to produce documents in the first place. However, the compulsory extraction of material (or

physical) evidence lies outside the protective scope of Article 20(3). Furthermore, even testimony in oral or written form can be required under compulsion if it is to be used for the purpose of identification or comparison with materials and information that is already in the possession of investigators.

158. We have already stated that the narcoanalysis test includes substantial reliance on verbal statements by the test subject and hence its involuntary administration offends the 'right against self-incrimination'. The crucial test laid down in ***Kathi Kalu Oghad***, (supra.) is that of 'imparting knowledge in respect of relevant fact by means of oral statements or statements in writing, by a person who has personal knowledge of the facts to be communicated to a court or to a person holding an enquiry or investigation' [*Id.* at p. 30]. The difficulty arises since the majority opinion in that case appears to confine the understanding of 'personal testimony' to the conveyance of personal knowledge through oral statements or statements in writing. The results obtained from polygraph examination or a BEAP test are not in the nature of oral or

written statements. Instead, inferences are drawn from the measurement of physiological responses recorded during the performance of these tests. It could also be argued that tests such as polygraph examination and the BEAP test do not involve a 'positive volitional act' on part of the test subject and hence their results should not be treated as testimony. However, this does not entail that the results of these two tests should be likened to physical evidence and thereby excluded from the protective scope of Article 20(3). We must refer back to the substance of the decision in ***Kathi Kalu Oghad*** (supra.) which equated a testimonial act with the imparting of knowledge by a person who has personal knowledge of the facts that are in issue. It has been recognised in other decisions that such personal knowledge about relevant facts can also be communicated through means other than oral or written statements. For example in ***M.P. Sharma's*** case (supra.), it was noted that "…evidence can be furnished through the lips or by production of a thing or of a document or in other modes" [*Id.* at p. 1087]. Furthermore, common sense dictates that certain communicative gestures such as

pointing or nodding can also convey personal knowledge about a relevant fact, without offering a verbal response. It is quite foreseeable that such a communicative gesture may by itself expose a person to 'criminal charges or penalties' or furnish a link in the chain of evidence needed for prosecution.

159. We must also highlight that there is nothing to show that the learned judges in ***Kathi Kalu Oghad*** (supra.) had contemplated the impugned techniques while discussing the scope of the phrase 'to be a witness' for the purpose of Article 20(3). At that time, the transmission of knowledge through means other than speech or writing was not something that could have been easily conceived of. Techniques such as polygraph examination were fairly obscure and were the subject of experimentation in some Western nations while the BEAP technique was developed several years later. Just as the interpretation of statutes has to be often re-examined in light of scientific advancements, we should also be willing to re-examine judicial observations with a progressive lens. An explicit reference to the Lie-Detector tests was of course made

by the U.S. Supreme Court in the ***Schmerber*** decision, 384 US 757 (1966), wherein Brennan, J. had observed, at p. 764:

> "To compel a person to submit to testing in which an effort will be made to determine his guilt or innocence on the basis of physiological responses, whether willed or not, is to evoke the spirit and history of the Fifth Amendment."

160. Even though the actual process of undergoing a polygraph examination or a BEAP test is not the same as that of making an oral or written statement, the consequences are similar. By making inferences from the results of these tests, the examiner is able to derive knowledge from the subject's mind which otherwise would not have become available to the investigators. These two tests are different from medical examination and the analysis of bodily substances such as blood, semen and hair samples, since the test subject's physiological responses are directly correlated to mental faculties. Through lie-detection or gauging a subject's familiarity with the stimuli, personal knowledge is conveyed in respect of a relevant fact. It is also significant that unlike the case of documents, the investigators cannot possibly have any prior knowledge of the test subject's thoughts and memories,

either in the actual or constructive sense. Therefore, even if a highly-strained analogy were to be made between the results obtained from the impugned tests and the production of documents, the weight of precedents leans towards restrictions on the extraction of 'personal knowledge' through such means.

161. During the administration of a polygraph test or a BEAP test, the subject makes a mental effort which is accompanied by certain physiological responses. The measurement of these responses then becomes the basis of the transmission of knowledge to the investigators. This knowledge may aid an ongoing investigation or lead to the discovery of fresh evidence which could then be used to prosecute the test subject. In any case, the compulsory administration of the impugned tests impedes the subject's right to choose between remaining silent and offering substantive information. The requirement of a 'positive volitional act' becomes irrelevant since the subject is compelled to convey personal knowledge irrespective of his/her own volition.

162. Some academics have also argued that the results obtained from tests such as polygraph examination are 'testimonial' acts that should come within the prohibition of the right against self-incrimination. For instance, Michael S. Pardo (2008) has observed [Cited from: Michael S. Pardo, 'Self-Incrimination and the Epistemology of Testimony', 30 *Cardozo Law Review* 1023-1046 (December 2008) at p. 1046]:

> "The results of polygraphs and other lie-detection tests, whether they call for a voluntary response or not, are testimonial because the tests are just inductive evidence of the defendant's epistemic state. They are evidence that purports to tell us either: (1) that we can or cannot rely on the assertions made by the defendant and for which he has represented himself to be an authority, or (2) what propositions the defendant would assume authority for and would invite reliance upon, were he to testify truthfully."

163. Ronald J. Allen and M. Kristin Mace (2004) have offered a theory that the right against self-incrimination is meant to protect an individual in a situation where the State places reliance on the 'substantive results of cognition'. The following definition of 'cognition' has been articulated to explain this position [Cited from: Ronald J. Allen and M. Kristin Mace, 'The

Self-Incrimination Clause explained and its future predicted', 94 *Journal of Criminal Law and Criminology* 243-293 (2004), Fn. 16 at p. 247]:

> "… 'Cognition' is used herein to refer to these intellectual processes that allow one to gain and make use of substantive knowledge and to compare one's 'inner world' (previous knowledge) with the 'outside world' (stimuli such as questions from an interrogator). Excluded are simple psychological responses to stimuli such as fear, warmness, and hunger: the mental processes that produce muscular movements; and one's will or faculty for choice. …"
>
> (internal citation omitted)

164. The above-mentioned authors have taken a hypothetical example where the inferences drawn from an involuntary polygraph test that did not require verbal answers, led to the discovery of incriminating evidence. They have argued that if the scope of the Fifth Amendment extends to protecting the subject in respect of 'substantive results of cognition', then reliance on polygraph test results would violate the said right. A similar conclusion has also been made by the National Human Rights Commission, as evident from the following extract in the *Guidelines Relating to Administration of Polygraph Test [Lie Detector Test] on an Accused (2000)*:

> "The extent and nature of the 'self-incrimination' is wide enough to cover the kinds of statements that were sought to be induced. In M.P. Sharma, AIR 1954 SC 300, the Supreme Court included within the protection of the self-incrimination rule all positive volitional acts which furnish evidence. This by itself would have made all or any interrogation impossible. The test – as stated in Kathi Kalu Oghad (AIR 1961 SC 1808) – retains the requirement of personal volition and states that 'self-incrimination' must mean conveying information based upon the personal knowledge of the person giving information. By either test, the information sought to be elicited in a Lie Detector Test is information in the personal knowledge of the accused."

165. In light of the preceding discussion, we are of the view that the results obtained from tests such as polygraph examination and the BEAP test should also be treated as 'personal testimony', since they are a means for 'imparting personal knowledge about relevant facts'. Hence, our conclusion is that the results obtained through the involuntary administration of either of the impugned tests (i.e. the narcoanalysis technique, polygraph examination and the BEAP test) come within the scope of 'testimonial compulsion', thereby attracting the protective shield of Article 20(3).

II. Whether the involuntary administration of the impugned techniques is a reasonable restriction on 'personal liberty' as understood in the context of Article 21 of the Constitution?

166. The preceding discussion does not conclusively address the contentions before us. Article 20(3) protects a person who is 'formally accused' of having committed an offence or even a suspect or a witness who is questioned during an investigation in a criminal case. However, Article 20(3) is not applicable when a person gives his/her informed consent to undergo any of the impugned tests. It has also been described earlier that the 'right against self-incrimination' does not protect persons who may be compelled to undergo the tests in the course of administrative proceedings or any other proceedings which may result in civil liability. It is also conceivable that a person who is forced to undergo these tests may not subsequently face criminal charges. In this context, Article 20(3) will not apply in situations where the test results could become the basis of non-penal consequences for the subject such as

custodial abuse, police surveillance and harassment among others.

167. In order to account for these possibilities, we must examine whether the involuntary administration of any of these tests is compatible with the constitutional guarantee of 'substantive due process'. The standard of 'substantive due process' is of course the threshold for examining the validity of all categories of governmental action that tend to infringe upon the idea of 'personal liberty. We will proceed with this inquiry with regard to the various dimensions of 'personal liberty' as understood in the context of Article 21 of the Constitution, which lays down that:

> 'No person shall be deprived of his life and liberty except according to procedure established by law'.

168. Since administering the impugned tests entails the physical confinement of the subject, it is important to consider whether they can be read into an existing statutory provision. This is so because any form of restraint on personal liberty, howsoever slight it may be, must have a basis in law. However,

we have already explained how it would not be prudent to read the explanation to Sections 53, 53-A and 54 of the CrPC in an expansive manner so as to include the impugned techniques. The second line of inquiry is whether the involuntary administration of these tests offends certain rights that have been read into Article 21 by way of judicial precedents. The contentions before us have touched on aspects such as the 'right to privacy' and the 'right against cruel, inhuman and degrading treatment'. The third line of inquiry is structured around the right to fair trial which is an essential component of 'personal liberty'.

169. There are several ways in which the involuntary administration of either of the impugned tests could be viewed as a restraint on 'personal liberty'. The most obvious indicator of restraint is the use of physical force to ensure that an unwilling person is confined to the premises where the tests are to be conducted. Furthermore, the drug-induced revelations or the substantive inferences drawn from the measurement of the subject's physiological responses can be

described as an intrusion into the subject's mental privacy. It is also quite conceivable that a person could make an incriminating statement on being threatened with the prospective administration of any of these techniques. Conversely, a person who has been forcibly subjected to these techniques could be confronted with the results in a subsequent interrogation, thereby eliciting incriminating statements.

170. We must also account for circumstances where a person who undergoes the said tests is subsequently exposed to harmful consequences, though not of a penal nature. We have already expressed our concern with situations where the contents of the test results could prompt investigators to engage in custodial abuse, surveillance or undue harassment. We have also been apprised of some instances where the investigation agencies have leaked the video-recordings of narcoanalysis interviews to media organisations. This is an especially worrisome practice since the public distribution of these recordings can expose the subject to undue social

stigma and specific risks. It may even encourage acts of vigilantism in addition to a 'trial by media'.

171. We must remember that the law does provide for some restrictions on 'personal liberty' in the routine exercise of police powers. For instance, the CrPC incorporates an elaborate scheme prescribing the powers of arrest, detention, interrogation, search and seizure. A fundamental premise of the criminal justice system is that the police and the judiciary are empowered to exercise a reasonable degree of coercive powers. Hence, the provision that enables Courts to order a person who is under arrest to undergo a medical examination also provides for the use of 'force as is reasonably necessary' for this purpose. It is evident that the notion of 'personal liberty' does not grant rights in the absolute sense and the validity of restrictions placed on the same needs to be evaluated on the basis of criterion such as 'fairness, non-arbitrariness, and reasonableness'.

172. Both the appellants and the respondents have cited cases involving the compelled extraction of blood samples in a variety of settings. An analogy has been drawn between the pin-prick of a needle for extracting a blood sample and the intravenous administration of drugs such as sodium pentothal. Even though the extracted sample of blood is purely physical evidence as opposed to a narcoanalysis interview where the test subject offers testimonial responses, the comparison can be sustained to examine whether puncturing the skin with a needle or an injection is an unreasonable restraint on 'personal liberty'.

173. The decision given by the U.S. Supreme Court in ***Rochin*** v. ***California***, 342 US 165 (1952), recognised the threshold of 'conduct that shocks the conscience' for deciding when the extraction of physical evidence offends the guarantee of 'due process of law'. With regard to the facts in that case, Felix Frankfurter, J. had decided that the extraction of evidence had indeed violated the same, *Id.* at pp. 172-173:

> " … we are compelled to conclude that the proceedings by which this conviction was obtained do more than offend some fastidious squeamishness or private sentimentalism about combating crime too energetically. This is conduct that shocks the conscience. Illegally breaking into the privacy of the petitioner, the struggle to open his mouth and remove what was there, the forcible extraction of his stomach's contents – this course of proceeding by agents of government to obtain evidence is bound to offend even hardened sensibilities. They are methods too close to the rack and the screw to permit of constitutional differentiation.
>
> … Use of involuntary verbal confessions in State criminal trials is constitutionally obnoxious not only because of their unreliability. They are inadmissible under the Due Process Clause even though statements contained in them may be independently established as true. Coerced confessions offend the community's sense of fair play and decency. So here, to sanction the brutal conduct which naturally enough was condemned by the court whose judgment is before us, would be to afford brutality the cloak of law. Nothing would be more calculated to discredit law and thereby to brutalize the temper of a society."

174. Coming to the cases cited before us, in ***State of Maharashtra*** v. ***Sheshappa Dudhappa Tambade***, AIR 1964 Bom 253, the Bombay High Court had upheld the constitutionality of Section 129-A of the Bombay Prohibition Act, 1949. This provision empowered prohibition officers and police personnel to produce a person for 'medical

examination', which could include the collection of a blood sample. The said provision authorised the use of 'all means reasonably necessary to secure the production of such person or the examination of his body or the collection of blood necessary for the test'. Evidently, the intent behind this provision was to enforce the policy of prohibition on the consumption of intoxicating liquors. Among other questions, the Court also ruled that this provision did not violate Article 21. Reliance was placed on a decision of the U.S. Supreme Court in ***Paul H. Breithaupt*** v. ***Morris Abram***, 352 US 432 (1957), wherein the contentious issue was whether a conviction on the basis of an involuntary blood-test violated the guarantee of 'due process of law'. In deciding that the involuntary extraction of the blood sample did not violate the guarantee of 'Due Process of Law', Clark, J. observed, at pp. 435-437:

> " … there is nothing 'brutal' or 'offensive' in the taking of a blood sample when done as in this case, under the protective eye of a physician. To be sure, the driver here was unconscious when the blood was taken, but the absence of conscious consent, without more, does not necessarily render the taking a violation of a constitutional right and certainly the test administered

> here would not be considered offensive by even the most delicate. Furthermore, due process is not measured by the yardstick of personal reaction or the sphygmogram of the most sensitive person, but by that whole community sense of 'decency and fairness' that has been woven by common experience into the fabric of acceptable conduct. It is on this bedrock that this Court has established the concept of due process. The blood test procedure has become routine in our everyday life. It is a ritual for those going into the military service as well as those applying for marriage licenses. Many colleges require such tests before permitting entrance and literally millions of us have voluntarily gone through the same, though a longer, routine in becoming blood donors. Likewise, we note that a majority of our States have either enacted statutes in some form authorizing tests of this nature or permit findings so obtained to be admitted in evidence. We therefore conclude that a blood test taken by a skilled technician is not such 'conduct that shocks the conscience' [*Rochin* v. *California*, 342 US 165, 172 (1952)], nor such a method of obtaining evidence that it offends a 'sense of justice' [*Brown* v. *Mississippi*, 297 US 278, 285 (1936)]..."

175. In ***Jamshed*** v. ***State of Uttar Pradesh***, 1976 Cri L J 1680 (All), the following observations were made in respect of a compulsory extraction of blood samples during a medical examination (in Para 12):

> "We are therefore of the view that there is nothing repulsive or shocking to the conscience in taking the blood of the appellant in the instant case in order to establish his guilt. So far as the question of causing hurt is concerned, even causing of some pain may technically amount to hurt as defined by Section 319 of the Indian

> Penal Code. But pain might be caused even if the accused is subjected to a forcible medical examination. For example, in cases of rape it may be necessary to examine the private parts of the culprit. If a culprit is suspected to have swallowed some stolen article, an emetic may be used and X-ray examination may also be necessary. For such purposes the law permits the use of necessary force. It cannot, therefore, be said that merely because some pain is caused, such a procedure should not be permitted."

A similar view was taken in ***Ananth Kumar Naik*** v. ***State of Andhra Pradesh***, 1977 Cri L J 1797 (A.P.), where it was held (in Para. 20):

> " ... In fact S. 53 provides that while making such an examination such force as is reasonably necessary for that purpose may be used. Therefore, whatever discomfort that may be caused when samples of blood and semen are taken from an arrested person, it is justified by the provisions of Sections 53 and 54, CrPC."

We can also refer to the following observations in ***Anil Anantrao Lokhande*** v. ***State of Maharashtra***, 1981 Cri L J 125 (Bom), (in Para. 30):

> " ... Once it is held that Section 53 of the Code of Criminal Procedure does confer a right upon the investigating machinery to get the arrested persons medically examined by the medical practitioner and the expression used in Section 53 includes in its import the taking of sample of the blood for analysis, then obviously the said provision is not violative of the guarantee incorporated in Article 21 of the Constitution of India."

176. This line of precedents shows that the compelled extraction of blood samples in the course of a medical examination does not amount to 'conduct that shocks the conscience'. There is also an endorsement of the view that the use of 'force as may be reasonably necessary' is mandated by law and hence it meets the threshold of 'procedure established by law'. In this light, we must restate two crucial considerations that are relevant for the case before us. Firstly, the restrictions placed on 'personal liberty' in the course of administering the impugned techniques are not limited to physical confinement and the extraction of bodily substances. All the three techniques in question also involve testimonial responses. Secondly, most of the above-mentioned cases were decided in accordance with the threshold of 'procedure established by law' for restraining 'personal liberty'. However, in this case we must use a broader standard of reasonableness to evaluate the validity of the techniques in question. This wider inquiry calls for deciding whether they are compatible with the various judicially-recognised

dimensions of 'personal liberty' such as the right to privacy, the right against cruel, inhuman or degrading treatment and the right to fair trial.

Applicability of the 'right to privacy'

177. In ***Sharda*** v. ***Dharampal***, (supra.) this Court had upheld the power of a civil court to order the medical examination of a party to a divorce proceeding. In that case, the medical examination was considered necessary for ascertaining the mental condition of one of the parties and it was held that a civil court could direct the same in the exercise of its inherent powers, despite the absence of an enabling provision. In arriving at this decision it was also considered whether subjecting a person to a medical examination would violate Article 21. We must highlight the fact that a medical test for ascertaining the mental condition of a person is most likely to be in the nature of a psychiatric evaluation which usually includes testimonial responses. Accordingly, a significant part of that judgment dealt with the 'right to privacy'. It would be

appropriate to structure the present discussion around extracts from that opinion.

178. In ***M.P. Sharma*** (supra.), it had been noted that the Indian Constitution did not explicitly include a 'right to privacy' in a manner akin to the Fourth Amendment of the U.S. Constitution. In that case, this distinction was one of the reasons for upholding the validity of search warrants issued for documents required to investigate charges of misappropriation and embezzlement. Similar issues were discussed in ***Kharak Singh*** v. ***State of Uttar Pradesh***, AIR 1963 SC 1295, where the Court considered the validity of police-regulations that authorised police personnel to maintain lists of 'history-sheeters' in addition to conducting surveillance activities, domiciliary visits and periodic inquiries about such persons. The intention was to monitor persons suspected or charged with offences in the past, with the aim of preventing criminal acts in the future. At the time, there was no statutory basis for these regulations and they had been framed in the exercise of administrative functions. The majority opinion

(Ayyangar, J.) held that these regulations did not violate 'personal liberty', except for those which permitted domiciliary visits. The other restraints such as surveillance activities and periodic inquiries about 'history-sheeters' were justified by observing, at Para. 20:

> "... the right of privacy is not a guaranteed right under our Constitution and therefore the attempt to ascertain the movements of an individual which is merely a manner in which privacy is invaded is not an infringement of a fundamental right guaranteed by Part III."

179. Ayyangar, J. distinguished between surveillance activities conducted in the routine exercise of police powers and the specific act of unauthorised intrusion into a person's home which violated 'personal liberty'. However, the minority opinion (Subba Rao, J.) in ***Kharak Singh*** took a different approach by recognising the interrelationship between Article 21 and 19, thereby requiring the State to demonstrate the 'reasonableness' of placing such restrictions on 'personal liberty' [This approach was later endorsed by Bhagwati, J. in ***Maneka Gandhi*** v. ***Union of India***, AIR 1978 SC 597, see p. 622]. Subba Rao, J. held that the right to privacy 'is an

essential ingredient of personal liberty' and that the right to 'personal liberty is 'a right of an individual to be free from restrictions or encroachments on his person, whether those restrictions or encroachments are directly imposed or indirectly brought about by calculated measures.' [AIR 1963 SC 1295, at p. 1306]

180. In ***Gobind*** v. ***State of Madhya Pradesh***, (1975) 2 SCC 148, the Supreme Court approved of some police-regulations that provided for surveillance activities, but this time the decision pointed out a clear statutory basis for these regulations. However, it was also ruled that the 'right to privacy' was not an absolute right. It was held, at Para. 28:

> "The right to privacy in any event will necessarily have to go through a process of case-by-case development. Therefore, even assuming that the right to personal liberty, the right to move freely throughout the territory of India and the freedom of speech create an independent right of privacy as an emanation from them which one can characterize as a fundamental right, we do not think that the right is absolute."
>
> ... Assuming that the fundamental right explicitly guaranteed to a citizen have penumbral zones and that the right to privacy is itself a fundamental right, that

> fundamental right must be subject to restriction on the basis of compelling public interest."
>
> (at p. 157, Para. 31)

181. Following the judicial expansion of the idea of 'personal liberty', the status of the 'right to privacy' as a component of Article 21 has been recognised and re-inforced. In ***R. Raj Gopal*** v. ***State of Tamil Nadu***, (1994) 6 SCC 632, this Court dealt with a fact-situation where a convict intended to publish his autobiography which described the involvement of some politicians and businessmen in illegal activities. Since the publication of this work was challenged on grounds such as the invasion of privacy among others, the Court ruled on the said issue. It was held that the right to privacy could be described as the 'right to be let alone and a citizen has the right to safeguard the privacy of his own, his family, marriage, procreation, motherhood, child-bearing and education among others. No one can publish anything concerning the above matters without his consent whether truthful or otherwise and whether laudatory or critical'. However, it was also ruled that exceptions may be made if a person voluntarily thrusts himself

into a controversy or any of these matters becomes part of public records or relates to an action of a public official concerning the discharge of his official duties.

182. In ***People's Union for Civil Liberties*** v. ***Union of India***, AIR 1997 SC 568, it was held that the unauthorised tapping of telephones by police personnel violated the 'right to privacy' as contemplated under Article 21. However, it was not stated that telephone-tapping by the police was absolutely prohibited, presumably because the same may be necessary in some circumstances to prevent criminal acts and in the course of investigation. Hence, such intrusive practices are permissible if done under a proper legislative mandate that regulates their use. This intended balance between an individual's 'right to privacy' and 'compelling public interest' has frequently occupied judicial attention. Such a compelling public interest can be identified with the need to prevent crimes and expedite investigations or to protect public health or morality.

183. For example, in ***X*** v. ***Hospital Z***, (1998) 8 SCC 296, it was held that a person could not invoke his 'right to privacy' to prevent a doctor from disclosing his HIV-positive status to others. It was ruled that in respect of HIV-positive persons, the duty of confidentiality between the doctor and patient could be compromised in order to protect the health of other individuals. With respect to the facts in that case, Saghir Ahmad, J. held, at Para. 26-28:

> "… When a patient was found to be HIV (+), its disclosure by the Doctor could not be violative of either the rule of confidentiality or the patient's right of privacy as the lady with whom the patient was likely to be married was saved in time by such disclosure, or else, she too would have been infected with a dreadful disease if marriage had taken place and been consummated."

184. However, a three judge bench partly overruled this decision in a review petition. In ***X*** v. ***Hospital Z***, (2003) 1 SCC 500, it was held that if an HIV-positive person contracted marriage with a willing partner, then the same would not constitute the offences defined by Sections 269 and 270 of the Indian Penal Code. [Section 269 of the IPC defines the offence of a 'Negligent act likely to spread infection of disease

dangerous to life' and Section 270 contemplates a 'Malignant act likely to spread infection of disease dangerous to life'.] A similar question was addressed by the Andhra Pradesh High Court in ***M. Vijaya*** v. ***Chairman and Managing Director, Singareni Collieries Co. Ltd.***, AIR 2001 AP 502, at pp. 513-514:

> "There is an apparent conflict between the right to privacy of a person suspected of HIV not to submit himself forcibly for medical examination and the power and duty of the State to identify HIV-infected persons for the purpose of stopping further transmission of the virus. In the interests of the general public, it is necessary for the State to identify HIV-positive cases and any action taken in that regard cannot be termed as unconstitutional as under Article 47 of the Constitution, the State was under an obligation to take all steps for the improvement of the public health. A law designed to achieve this object, if fair and reasonable, in our opinion, will not be in breach of Article 21 of the Constitution of India. …"

185. The discussion on the 'right to privacy' in ***Sharda*** v. ***Dharampal***, (supra.) also cited a decision of the Court of Appeal (in the U.K.) in ***R (on the application of S)*** v. ***Chief Constable of South Yorkshire***, (2003) 1 All ER 148 (CA). The contentious issues arose in respect of the retention of fingerprints and DNA samples taken from persons who had

been suspected of having committed offences in the past but were not convicted for them. It was argued that this policy violated Articles 8 and 14 of the European Convention on Human Rights and Fundamental Freedoms, 1950 [Hereinafter 'EctHR]. Article 8 deals with the 'Right to respect for private and family life' while Article 14 lays down the scope of the 'Prohibition Against Discrimination'. For the present discussion, it will be useful to examine the language of Article 8 of the EctHR:-

> **Article 8 – Right to respect for private and family life**
> 1. Everyone has the right to respect for his private and family life, his home and his correspondence.
> 2. There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.

186. In that case, a distinction was drawn between the 'taking', 'retention' and 'use' of fingerprints and DNA samples. While the 'taking' of such samples from individual suspects could be described as a reasonable measure in the course of

routine police functions, the controversy arose with respect to the 'retention' of samples taken from individuals who had been suspected of having committing offences in the past but had not been convicted for them. The statutory basis for the retention of physical samples taken from suspects was Section 64(1A) of the Police and Criminal Evidence Act, 1984. This provision also laid down that these samples could only be used for purposes related to the 'prevention or detection of crime, the investigation of an offence or the conduct of a prosecution'. This section had been amended to alter the older position which provided that physical samples taken from suspects were meant to be destroyed once the suspect was cleared of the charges or acquitted. As per the older position, it was only the physical samples taken from convicted persons which could be retained by the police authorities. It was contended that the amended provision was incompatible with Articles 8 and 14 of the EctHR and hence the relief sought was that the fingerprints and DNA samples of the concerned parties should be destroyed.

187. In response to these contentions, the majority (Lord Woolf, C.J.) held that although the retention of such material interfered with the Art. 8(1) rights of the individuals ('right to respect for private and family life') from whom it had been taken, that interference was justified by Art. 8(2). It was further reasoned that the purpose of the impugned amendment, the language of which was very similar to Art. 8(2), was obvious and lawful. Nor were the adverse consequences to the individual disproportionate to the benefit to the public. It was held, at Para. 17:

> "So far as the prevention and detection of crime is concerned, it is obvious the larger the databank of fingerprints and DNA samples available to the police, the greater the value of the databank will be in preventing crime and detecting those responsible for crime. There can be no doubt that if every member of the public was required to provide fingerprints and a DNA sample this would make a dramatic contribution to the prevention and detection of crime. To take but one example, the great majority of rapists who are not known already to their victim would be able to be identified. However, the 1984 Act does not contain blanket provisions either as to the taking, the retention, or the use of fingerprints or samples; Parliament has decided upon a balanced approach."

Lord Woolf, C.J. also referred to the following observations made by Lord Steyn in an earlier decision of the House of Lords, which was reported as ***Attorney General's Reference (No. 3 of 1999)***, (2001) 1 All ER 577, at p. 584:

> "… It must be borne in mind that respect for the privacy of defendants is not the only value at stake. The purpose of the criminal law is to permit everyone to go about their daily lives without fear of harm to person or property. And it is in the interests of everyone that serious crime should be effectively investigated and prosecuted. There must be fairness to all sides. In a criminal case this requires the court to consider a triangulation of interests. It involves taking into account the position of the accused, the victim and his or her family, and the public."

On the question of whether the retention of material samples collected from suspects who had not been convicted was violative of the 'Prohibition against Discrimination' under Art. 14 of the EctHR, it was observed, (2003) 1 All ER 148 (CA), at p. 162:

> "In the present circumstances when an offence is being investigated or is the subject of a charge it is accepted that fingerprints and samples may be taken. Where they have not been taken before any question of the retention arises, they have to be taken so there would be the additional interference with their rights which the taking involves. As no harmful consequences will flow from the retention unless the fingerprints or sample match those

> of someone alleged to be responsible for an offence, the different treatment is fully justified."

188. In the present case, written submissions made on behalf of the respondents have tried to liken the compulsory administration of the impugned techniques with the DNA profiling technique. In light of this attempted analogy, we must stress that the DNA profiling technique has been expressly included among the various forms of medical examination in the amended explanation to Sections 53, 53-A and 54 of the CrPC. It must also be clarified that a 'DNA profile' is different from a DNA sample which can be obtained from bodily substances. A DNA profile is a record created on the basis of DNA samples made available to forensic experts. Creating and maintaining DNA profiles of offenders and suspects are useful practices since newly obtained DNA samples can be readily matched with existing profiles that are already in the possession of law-enforcement agencies. The matching of DNA samples is emerging as a vital tool for linking suspects to specific criminal acts. It may also be recalled that the as per the majority decision in ***Kathi Kalu Oghad***, (supra.) the use

of material samples such as fingerprints for the purpose of comparison and identification does not amount to a testimonial act for the purpose of Article 20(3). Hence, the taking and retention of DNA samples which are in the nature of physical evidence does not face constitutional hurdles in the Indian context. However, if the DNA profiling technique is further developed and used for testimonial purposes, then such uses in the future could face challenges in the judicial domain.

189. The judgment delivered in ***Sharda*** v. ***Dharampal***, (supra.) had surveyed the above-mentioned decisions to conclude that a person's right to privacy could be justifiably curtailed if it was done in light of competing interests. Reference was also made to some statutes that permitted the compulsory administration of medical tests. For instance, it was observed, at Para. 61-62:

> "Having outlined the law relating to privacy in India, it is relevant in this context to notice that certain laws have been enacted by the Indian Parliament where the accused may be subjected to certain medical or other tests.

> By way of example, we may refer to Sections 185, 202, 203 and 204 of the Motor Vehicles Act, Sections 53 and 54 of the Code of Criminal Procedure and Section 3 of the Identification of Prisoners Act, 1920. Reference in this connection may also be made to Sections 269 and 270 of the Indian Penal Code. Constitutionality of these laws, if challenge is thrown, may be upheld."

190. However, it is important for us to distinguish between the considerations that occupied this Court's attention in ***Sharda*** v. ***Dharampal***, (supra.) and the ones that we are facing in the present case. It is self-evident that the decision did not to dwell on the distinction between medical tests whose results are based on testimonial responses and those tests whose results are based on the analysis of physical characteristics and bodily substances. It can be safely stated that the Court did not touch on the distinction between testimonial acts and physical evidence, simply because Article 20(3) is not applicable to a proceeding of a civil nature.

191. Moreover, a distinction must be made between the character of restraints placed on the right to privacy. While the ordinary exercise of police powers contemplates restraints of a

physical nature such as the extraction of bodily substances and the use of reasonable force for subjecting a person to a medical examination, it is not viable to extend these police powers to the forcible extraction of testimonial responses. In conceptualising the 'right to privacy' we must highlight the distinction between privacy in a physical sense and the privacy of one's mental processes.

192. So far, the judicial understanding of privacy in our country has mostly stressed on the protection of the body and physical spaces from intrusive actions by the State. While the scheme of criminal procedure as well as evidence law mandates interference with physical privacy through statutory provisions that enable arrest, detention, search and seizure among others, the same cannot be the basis for compelling a person 'to impart personal knowledge about a relevant fact'. The theory of interrelationship of rights mandates that the right against self-incrimination should also be read as a component of 'personal liberty' under Article 21. Hence, our understanding of the 'right to privacy' should account for its

intersection with Article 20(3). Furthermore, the 'rule against involuntary confessions' as embodied in Sections 24, 25, 26 and 27 of the Evidence Act, 1872 seeks to serve both the objectives of reliability as well as voluntariness of testimony given in a custodial setting. A conjunctive reading of Articles 20(3) and 21 of the Constitution along with the principles of evidence law leads us to a clear answer. We must recognise the importance of personal autonomy in aspects such as the choice between remaining silent and speaking. An individual's decision to make a statement is the product of a private choice and there should be no scope for any other individual to interfere with such autonomy, especially in circumstances where the person faces exposure to criminal charges or penalties.

193. Therefore, it is our considered opinion that subjecting a person to the impugned techniques in an involuntary manner violates the prescribed boundaries of privacy. Forcible interference with a person's mental processes is not provided for under any statute and it most certainly comes into conflict

with the 'right against self-incrimination'. However, this determination does not account for circumstances where a person could be subjected to any of the impugned tests but not exposed to criminal charges and the possibility of conviction. In such cases, he/she could still face adverse consequences such as custodial abuse, surveillance, undue harassment and social stigma among others. In order to address such circumstances, it is important to examine some other dimensions of Article 21.

Safeguarding the 'right against cruel, inhuman or degrading treatment'

194. We will now examine whether the act of forcibly subjecting a person to any of the impugned techniques constitutes 'cruel, inhuman or degrading treatment', when considered by itself. This inquiry will account for the permissibility of these techniques in all settings, including those where a person may not be subsequently prosecuted but could face adverse consequences of a non-penal nature. The appellants have contended that the use of the impugned

techniques amounts to 'cruel, inhuman or degrading treatment'. Even though the Indian Constitution does not explicitly enumerate a protection against 'cruel, inhuman or degrading punishment or treatment' in a manner akin to the Eighth Amendment of the U.S. Constitution, this Court has discussed this aspect in several cases. For example, in ***Sunil Batra*** v. ***Delhi Administration***, (1978) 4 SCC 494, V.R. Krishna Iyer, J. observed at pp. 518-519:

> "True, our Constitution has no 'due process' clause or the VIII Amendment; but, in this branch of law, after *Cooper* [(1970) 1 SCC 248] and *Maneka Gandhi,* [(1978) 1 SCC 248] the consequence is the same. For what is punitively outrageous, scandalizingly unusual or cruel and rehabilitatively counter-productive, is unarguably unreasonable and arbitrary and is shot down by Article 14 and 19 and if inflicted with procedural unfairness, falls foul of Article 21. Part III of the Constitution does not part company with the prisoner at the gates, and judicial oversight protects the prisoner's shrunken fundamental rights, if flouted, frowned upon or frozen by the prison authority. Is a person under death sentence or undertrial unilaterally dubbed dangerous liable to suffer extra torment too deep for tears? Emphatically no, lest social justice, dignity of the individual, equality before the law, procedure established by law and the seven lamps of freedom (Article 19) become chimerical constitutional claptrap. Judges, even within a prison setting, are the real, though restricted, ombudsmen empowered to proscribe and prescribe, humanize and civilize the life-style within the carcers. The operation of Articles 14, 19

> and 21 may be pared down for a prisoner but not puffed out altogether. ...."

195. In the above-mentioned case, this Court had disapproved of practices such as solitary-confinement and the use of bar-fetters in prisons. It was held that prisoners were also entitled to 'personal liberty' though in a limited sense, and hence judges could enquire into the reasonableness of their treatment by prison-authorities. Even though 'the right against cruel, inhuman and degrading punishment' cannot be asserted in an absolute sense, there is a sufficient basis to show that Article 21 can be invoked to protect the 'bodily integrity and dignity' of persons who are in custodial environments. This protection extends not only to prisoners who are convicts and under-trials, but also to those persons who may be arrested or detained in the course of investigations in criminal cases. Judgments such as ***D.K. Basu*** v. ***State of West Bengal***, AIR 1997 SC 610, have stressed upon the importance of preventing the 'cruel, inhuman or degrading treatment' of any person who is taken into custody. In respect of the present case, any person who is

forcibly subjected to the impugned tests in the environs of a forensic laboratory or a hospital would be effectively in a custodial environment for the same. The presumption of the person being in a custodial environment will apply irrespective of whether he/she has been formally accused or is a suspect or a witness. Even if there is no overbearing police presence, the fact of physical confinement and the involuntary administration of the tests is sufficient to constitute a custodial environment for the purpose of attracting Article 20(3) and Article 21. It was necessary to clarify this aspect because we are aware of certain instances where persons are questioned in the course of investigations without being brought on the record as witnesses. Such omissions on part of investigating agencies should not be allowed to become a ground for denying the protections that are available to a person in custody.

196. The appellants have also drawn our attention to some international conventions and declarations. For instance in

the *Universal Declaration of Human Rights* [GA Res. 217 A (III) of December 10 1948], Article 5 states that:

> "No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment."

Article 7 of the *International Covenant on Civil and Political Rights* (ICCPR) [GA Res. 2200A (XXI), entered into force March 23, 1976] also touches on the same aspect. It reads as follows:

> "…No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment. In particular, no one shall be subjected without his free consent to medical or scientific experimentation."

Special emphasis was placed on the definitions of 'torture' as well as 'cruel, inhuman or degrading treatment or punishment' in Articles 1 and 16 of the *Convention Against Torture and other Cruel, Inhuman or Degrading Treatment or Punishment, 1984*.

> **Article 1**
> 1. For the purposes of this Convention, torture means any 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.
2. This article is without prejudice to any international instrument or national legislation which does or may contain provisions of wider application.

Article 16
1. Each State Party shall undertake to prevent in any territory under its jurisdiction other acts of cruel, inhuman or degrading treatment or punishment which do not amount to torture as defined in Article 1, when such acts are committed by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. In particular, the obligations contained in Article 10, 11 , 12 and 13 shall apply with the substitution for references to torture or references to other forms of cruel, inhuman or degrading treatment or punishment.
2. The provisions of this Convention are without prejudice to the provisions of any other international instrument or national law which prohibit cruel, inhuman or degrading treatment or punishment or which relate to extradition or expulsion.

197. We were also alerted to the *Body of Principles for the Protection of all persons under any form of Detention or Imprisonment* [GA Res. 43/173, 76th plenary meeting, 9 December 1988] which have been adopted by the United Nations General Assembly. Principles 1, 6 and 21 hold relevance for us:

Principle 1
All persons under any form of detention or imprisonment shall be treated in a humane manner and with respect for the inherent dignity of the human person.

Principle 6
No person under any form of detention or imprisonment shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment. No circumstance whatever may be invoked as a justification for torture or other cruel, inhuman or degrading treatment or punishment.

The term 'cruel, inhuman or degrading treatment or punishment' should be interpreted so as to extend the widest possible protection against abuses, whether physical or mental, including the holding of a detained or imprisoned person in conditions which deprive him, temporarily or permanently, of the use of any of his natural senses, such as sight or hearing, or of his awareness of place and the passing of time.

Principle 21
1. It shall be prohibited to take undue advantage of the situation of a detained or imprisoned person for the purpose of compelling him to confess, to incriminate himself otherwise or to testify against any other person.
2. No detained person while being interrogated shall be subjected to violence, threats or methods of interrogation which impair his capacity of decision or judgment.

198. It was shown that protections against torture and 'cruel, inhuman or degrading treatment or punishment' are accorded to persons who are arrested or detained in the course of armed conflicts between nations. In the *Geneva Convention relative to*

the Treatment of Prisoners of War (entry into force 21 October 1950) the relevant extract reads:

> **Article 17**
> … No physical or mental torture, nor any other form of coercion, may be inflicted on prisoners of war to secure from them information of any kind whatever. Prisoners of war who refuse to answer may not be threatened, insulted, or exposed to any unpleasant or disadvantageous treatment of any kind. …

199. Having surveyed these materials, it is necessary to clarify that we are not absolutely bound by the contents of the *Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (1984)* [Hereinafter 'Torture Convention'] This is so because even though India is a signatory to this Convention, it has not been ratified by Parliament in the manner provided under Article 253 of the Constitution and neither do we have a national legislation which has provisions analogous to those of the Torture Convention. However, these materials do hold significant persuasive value since they represent an evolving international consensus on the nature and specific contents of human rights norms.

200. The definition of torture indicates that the threshold for the same is the intentional infliction of physical or mental pain and suffering, by or at the instance of a public official for the purpose of extracting information or confessions. 'Cruel, Inhuman or Degrading Treatment' has been defined as conduct that does not amount to torture but is wide enough to cover all kinds of abuses. Hence, proving the occurrence of 'cruel, inhuman or degrading treatment' would require a lower threshold than that of torture. In addition to highlighting these definitions, the counsel for the appellants have submitted that causing physical pain by injecting a drug can amount to 'Injury' as defined by Section 44 of the IPC or 'Hurt' as defined in Section 319 of the same Code.

201. In response, the counsel for the respondents have drawn our attention to literature which suggests that in the case of the impugned techniques, the intention on part of the investigators is to extract information and not to inflict any pain or suffering. Furthermore, it has been contended that the

actual administration of either the narcoanalysis technique, polygraph examination or the BEAP test does not involve a condemnable degree of 'physical pain or suffering'. Even though some physical force may be used or threats may be given to compel a person to undergo the tests, it was argued that the administration of these tests ordinarily does not result in physical injuries. [See: Linda M. Keller, 'Is Truth Serum Torture?' 20 *American University International Law Review* 521-612 (2005)] However, it is quite conceivable that the administration of any of these techniques could involve the infliction of 'mental pain or suffering' and the contents of their results could expose the subject to physical abuse. When a person undergoes a narcoanalysis test, he/she is in a half-conscious state and subsequently does not remember the revelations made in a drug-induced state. In the case of polygraph examination and the BEAP test, the test subject remains fully conscious during the tests but does not immediately know the nature and implications of the results derived from the same. However, when he/she later learns about the contents of the revelations, they may prove to be

incriminatory or be in the nature of testimony that can be used to prosecute other individuals. We have also highlighted the likelihood of a person making incriminatory statements when he/she is subsequently confronted with the test results. The realisation of such consequences can indeed cause 'mental pain or suffering' for the person who was subjected to these tests. The test results could also support the theories or suspicions of the investigators in a particular case. These results could very well confirm suspicions about a person's involvement in a criminal act. For a person in custody, such confirmations could lead to specifically targeted behaviour such as physical abuse. In this regard, we have repeatedly expressed our concern with situations where the test results could trigger undesirable behaviour.

202. We must also contemplate situations where a threat given by the investigators to conduct any of the impugned tests could prompt a person to make incriminatory statements or to undergo some mental trauma. Especially in cases of individuals from weaker sections of society who are unaware

of their fundamental rights and unable to afford legal advice, the mere apprehension of undergoing scientific tests that supposedly reveal the truth could push them to make confessional statements. Hence, the act of threatening to administer the impugned tests could also elicit testimony. It is also quite conceivable that an individual may give his/her consent to undergo the said tests on account of threats, false promises or deception by the investigators. For example, a person may be convinced to give his/her consent after being promised that this would lead to an early release from custody or dropping of charges. However, after the administration of the tests the investigators may renege on such promises. In such a case the relevant inquiry is not confined to the apparent voluntariness of the act of undergoing the tests, but also includes an examination of the totality of circumstances.

203. Such a possibility had been outlined by the National Human Rights Commission which had published *'Guidelines relating to administration of Polygraph test (Lie Detector test) on*

an accused (2000)'. The relevant extract has been reproduced below:

> "… The lie detector test is much too invasive to admit of the argument that the authority for Lie Detector tests comes from the general power to interrogate and answer questions or make statements. (Ss. 160-167 CrPC) However, in India we must proceed on the assumption of constitutional invasiveness and evidentiary impermissiveness to take the view that such holding of tests is a prerogative of the individual, not an empowerment of the police. In as much as this invasive test is not authorised by law, it must perforce be regarded as illegal and unconstitutional unless it is voluntarily undertaken under non-coercive circumstances. If the police action of conducting a lie detector test is not authorised by law and impermissible, the only basis on which it could be justified is, if it is volunteered. There is a distinction between: (a) volunteering, and (b) being asked to volunteer. This distinction is of some significance in the light of the statutory and constitutional protections available to any person. There is a vast difference between a person saying, 'I wish to take a lie detector test because I wish to clear my name', and when a person is told by the police, 'If you want to clear your name, take a lie detector test'. A still worse situation would be where the police say, 'Take a lie detector test, and we will let you go'. In the first example, the person voluntarily wants to take the test. It would still have to be examined whether such volunteering was under coercive circumstances or not. In the second and third examples, the police implicitly (in the second example) and explicitly (in the third example) link up the taking of the lie detector test to allowing the accused to go free."

204. We can also contemplate a possibility that even when an individual freely consents to undergo the tests in question, the resulting testimony cannot be readily characterised as voluntary in nature. This is attributable to the differences between the manner in which the impugned tests are conducted and an ordinary interrogation. In an ordinary interrogation, the investigator asks questions one by one and the subject has the choice of remaining silent or answering each of these questions. This choice is repeatedly exercised after each question is asked and the subject decides the nature and content of each testimonial response. On account of the continuous exercise of such a choice, the subject's verbal responses can be described as voluntary in nature. However, in the context of the impugned techniques the test subject does not exercise such a choice in a continuous manner. After the initial consent is given, the subject has no conscious control over the subsequent responses given during the test. In case of the narcoanalysis technique, the subject speaks in a drug-induced state and is clearly not aware of his/her own responses at the time. In the context of polygraph

examination and the BEAP tests, the subject cannot anticipate the contents of the 'relevant questions' that will be asked or the 'probes' that will be shown. Furthermore, the results are derived from the measurement of physiological responses and hence the subject cannot exercise an effective choice between remaining silent and imparting personal knowledge. In light of these facts, it was contended that a presumption cannot be made about the voluntariness of the test results even if the subject had given prior consent. In this respect, we can re-emphasize Principle 6 and 21 of the *Body of Principles for the Protection of all persons under any form of Detention or Imprisonment (1988).* The explanation to Principle 6 provides that:

> "The term 'cruel, inhuman or degrading treatment or punishment' should be interpreted so as to extend the widest possible protection against abuses, whether physical or mental, including the holding of a detained or imprisoned person in conditions which deprive him, temporarily or permanently, of the use of any of his natural senses, such as sight or hearing, or of his awareness of place and the passing of time."

Furthermore, Principle 21(2) lays down that:

> "No detained person while being interrogated shall be subjected to violence, threats or methods of interrogation which impair his capacity of decision or judgment."

205. It is undeniable that during a narcoanalysis interview, the test subject does lose 'awareness of place and passing of time'. It is also quite evident that all the three impugned techniques can be described as methods of interrogation which impair the test subject's 'capacity of decision or judgment'. Going by the language of these principles, we hold that the compulsory administration of the impugned techniques constitutes 'cruel, inhuman or degrading treatment' in the context of Article 21. It must be remembered that the law disapproves of involuntary testimony, irrespective of the nature and degree of coercion, threats, fraud or inducement used to elicit the same. The popular perceptions of terms such as 'torture' and 'cruel, inhuman or degrading treatment' are associated with gory images of blood-letting and broken bones. However, we must recognise that a forcible intrusion into a person's mental processes is also an affront to human dignity and liberty, often with grave and long-lasting

consequences. [A similar conclusion has been made in the following paper: Marcy Strauss, 'Criminal Defence in the Age of Terrorism – Torture', 48 *New York Law School Law Review* 201-274 (2003/2004)]

206. It would also be wrong to sustain a comparison between the forensic uses of these techniques and the practice of medicine. It has been suggested that patients undergo a certain degree of 'physical or mental pain and suffering' on account of medical interventions such as surgeries and drug-treatments. However, such interventions are acceptable since the objective is to ultimately cure or prevent a disease or disorder. So it is argued that if the infliction of some 'pain and suffering' is permitted in the medical field, it should also be tolerated for the purpose of expediting investigations in criminal cases. This is the point where our constitutional values step in. A society governed by rules and liberal values makes a rational distinction between the various circumstances where individuals face pain and suffering. While the infliction of a certain degree of pain and suffering is

mandated by law in the form of punishments for various offences, the same cannot be extended to all those who are questioned during the course of an investigation. Allowing the same would vest unlimited discretion and lead to the disproportionate exercise of police powers.

Incompatibility with the 'Right to fair trial'

207. The respondents' position is that the compulsory administration of the impugned techniques should be permitted at least for investigative purposes, and if the test results lead to the discovery of fresh evidence, then these fruits should be admissible. We have already explained in light of the conjunctive reading of Article 20(3) of the Constitution and Section 27 of the Evidence Act, that if the fact of compulsion is proved, the test results will not be admissible as evidence. However, for the sake of argument, if we were to agree with the respondents and allow investigators to compel individuals to undergo these tests, it would also affect some of the key components of the 'right to fair trial'.

208. The decision of this Court in ***D.K. Basu*** v. ***State of West Bengal***, AIR 1997 SC 610, had stressed upon the entitlement of a person in custody to consult a lawyer. Access to legal advice is an essential safeguard so that an individual can be adequately apprised of his constitutional and statutory rights. This is also a measure which checks custodial abuses. However, the involuntary administration of any of the impugned tests can lead to a situation where such legal advice becomes ineffective. For instance even if a person receives the best of legal advice before undergoing any of these tests, it cannot prevent the extraction of information which may prove to be inculpatory by itself or lead to the subsequent discovery of incriminating materials. Since the subject has no conscious control over the drug-induced revelations or substantive inferences, the objective of providing access to legal advice are frustrated.

209. Since the subject is not immediately aware of the contents of the drug-induced revelations or substantive inferences, it also conceivable that the investigators may chose

not to communicate them to the subject even after completing the tests. In fact statements may be recorded or charges framed without the knowledge of the test subject. At the stage of trial, the prosecution is obliged to supply copies of all incriminating materials to the defendant but reliance on the impugned tests could curtail the opportunity of presenting a meaningful and wholesome defence. If the contents of the revelations or inferences are communicated much later to the defendant, there may not be sufficient time to prepare an adequate defence.

210. Earlier in this judgment, we had surveyed some foreign judicial precedents dealing with each of the tests in question. A common concern expressed with regard to each of these techniques was the questionable reliability of the results generated by them. In respect of the narcoanalysis technique, it was observed that there is no guarantee that the drug-induced revelations will be truthful. Furthermore, empirical studies have shown that during the hypnotic stage, individuals are prone to suggestibility and there is a good

chance that false results could lead to a finding of guilt or innocence. As far as polygraph examination is concerned, though there are some studies showing improvements in the accuracy of results with advancement in technology, there is always scope for error on account of several factors. Objections can be raised about the qualifications of the examiner, the physical conditions under which the test was conducted, the manner in which questions were framed and the possible use of 'countermeasures' by the test subject. A significant criticism of polygraphy is that sometimes the physiological responses triggered by feelings such as anxiety and fear could be misread as those triggered by deception. Similarly, with the P300 Waves test there are inherent limitations such as the subject having had 'prior exposure' to the 'probes' which are used as stimuli. Furthermore, this technique has not been the focus of rigorous independent studies. The questionable scientific reliability of these techniques comes into conflict with the standard of proof 'beyond reasonable doubt' which is an essential feature of criminal trials.

211. Another factor that merits attention is the role of the experts who administer these tests. While the consideration of expert opinion testimony has become a mainstay in our criminal justice system with the advancement of fields such as forensic toxicology, questions have been raised about the credibility of experts who are involved in administering the impugned techniques. It is a widely accepted principle for evaluating the validity of any scientific technique that it should have been subjected to rigorous independent studies and peer review. This is so because the persons who are involved in the invention and development of certain techniques are perceived to have an interest in their promotion. Hence, it is quite likely that such persons may give unduly favourable responses about the reliability of the techniques in question.

212. Even though India does not have a jury system, the use of the impugned techniques could impede the fact-finding role of a trial judge. This is a special concern in our legal system,

since the same judge presides over the evidentiary phase of the trial as well as the guilt phase. The consideration of the test results or their fruits for the purpose of deciding on their admissibility could have a prejudicial effect on the judge's mind even if the same are not eventually admitted as evidence. Furthermore, we echo the concerns expressed by the Supreme Court of Canada in ***R*** v. ***Beland***, [1987] 36 C.C.C. (3d) 481, where it was observed that reliance on scientific techniques could cloud human judgment on account of an 'aura of infallibility'. While judges are expected to be impartial and objective in their evaluation of evidence, one can never discount the possibility of undue public pressure in some cases, especially when the test results appear to be inculpatory. We have already expressed concerns with situations where media organisations have either circulated the video-recordings of narcoanalysis interviews or broadcasted dramatized re-constructions, especially in sensational criminal cases.

213. Another important consideration is that of ensuring parity between the procedural safeguards that are available to the prosecution and the defence. If we were to permit the compulsory administration of any of the impugned techniques at the behest of investigators, there would be no principled basis to deny the same opportunity to defendants as well as witnesses. If the investigators could justify reliance on these techniques, there would be an equally compelling reason to allow the indiscrete administration of these tests at the request of convicts who want re-opening of their cases or even for the purpose of attacking and rehabilitating the credibility of witnesses during a trial. The decision in ***United States*** v. ***Scheffer***, 523 US 303 (1998), has highlighted the concerns with encouraging litigation that is collateral to the main facts in issue. We are of the view that an untrammelled right of resorting to the techniques in question will lead to an unnecessary rise in the volume of frivolous litigation before our Courts.

214. Lastly, we must consider the possibility that the victims of offences could be forcibly subjected to any of these techniques during the course of investigation. We have already highlighted a provision in the *Laboratory Procedure Manual* for Polygraph tests which contemplates the same for ascertaining the testimony of victims of sexual offences. In light of the preceding discussion, it is our view that irrespective of the need to expedite investigations in such cases, no person who is a victim of an offence can be compelled to undergo any of the tests in question. Such a forcible administration would be an unjustified intrusion into mental privacy and could lead to further stigma for the victim.

Examining the 'compelling public interest'

215. The respondents have contended that even if the compulsory administration of the impugned techniques amounts to a seemingly disproportionate intrusion into personal liberty, their investigative use is justifiable since there is a compelling public interest in eliciting information that could help in preventing criminal activities in the future.

Such utilitarian considerations hold some significance in light of the need to combat terrorist activities, insurgencies and organised crime. It has been argued that such exigencies justify some intrusions into civil liberties. The textual basis for these restraints could be grounds such as preserving the 'sovereignty and integrity of India', 'the security of the state' and 'public order' among others. It was suggested that if investigators are allowed to rely on these tests, the results could help in uncovering plots, apprehending suspects and preventing armed attacks as well as the commission of offences. Reference was also made to the frequently discussed 'Ticking Bomb' scenario. This hypothetical situation examines the choices available to investigators when they have reason to believe that the person whom they are interrogating is aware of the location of a bomb. The dilemma is whether it is justifiable to use torture or other improper means for eliciting information which could help in saving the lives of ordinary citizens. [The arguments for the use of 'truth serums' in such situations have been examined in the following articles: Jason R. Odeshoo, 'Truth or Dare?: Terrorism and Truth Serum in

the Post- 9/11 World, 57 *Stanford Law Review* 209-255 (October 2004); Kenneth Lasson, 'Torture, Truth Serum, and Ticking Bombs: Toward a pragmatic perspective on coercive interrogation', 39 *Loyola University Chicago Law Journal* 329-360 (Winter 2008)]

216. While these arguments merit consideration, it must be noted that ordinarily it is the task of the legislature to arrive at a pragmatic balance between the often competing interests of 'personal liberty' and public safety. In our capacity as a constitutional court, we can only seek to preserve the balance between these competing interests as reflected in the text of the Constitution and its subsequent interpretation. There is absolutely no ambiguity on the status of principles such as the 'right against self-incrimination' and the various dimensions of 'personal liberty'. We have already pointed out that the rights guaranteed in Articles 20 and 21 of the Constitution of India have been given a non-derogable status and they are available to citizens as well as foreigners. It is not

within the competence of the judiciary to create exceptions and limitations on the availability of these rights.

217. Even though the main task of constitutional adjudication is to safeguard the core organising principles of our polity, we must also highlight some practical concerns that strengthen the case against the involuntary administration of the tests in question. Firstly, the claim that the results obtained from these techniques will help in extraordinary situations is questionable. All of the tests in question are those which need to be patiently administered and the forensic psychologist or the examiner has to be very skilful and thorough while interpreting the results. In a narcoanalysis test the subject is likely to divulge a lot of irrelevant and incoherent information. The subject is as likely to divulge false information as he/she is likely to reveal useful facts. Sometimes the revelations may begin to make sense only when compared with the testimony of several other individuals or through the discovery of fresh materials. In a polygraph test, interpreting the results is a complex process that involves accounting for distortions such

as 'countermeasures' used by the subject and weather conditions among others. In a BEAP test, there is always the possibility of the subject having had prior exposure to the 'probes' that are used as stimuli. All of this is a gradually unfolding process and it is not appropriate to argue that the test results will always prove to be crucial in times of exigency. It is evident that both the tasks of preparing for these tests and interpreting their results need considerable time and expertise.

218. Secondly, if we were to permit the forcible administration of these techniques, it could be the first step on a very slippery-slope as far as the standards of police behaviour are concerned. In some of the impugned judgments, it has been suggested that the promotion of these techniques could reduce the regrettably high incidence of 'third degree methods' that are being used by policemen all over the country. This is a circular line of reasoning since one form of improper behaviour is sought to be replaced by another. What this will result in is that investigators will increasingly seek reliance on the

impugned techniques rather than engaging in a thorough investigation. The widespread use of 'third-degree' interrogation methods so as to speak is a separate problem and needs to be tackled through long-term solutions such as more emphasis on the protection of human rights during police training, providing adequate resources for investigators and stronger accountability measures when such abuses do take place.

219. Thirdly, the claim that the use of these techniques will only be sought in cases involving heinous offences rings hollow since there will no principled basis for restricting their use once the investigators are given the discretion to do so. From the statistics presented before us as well as the charges filed against the parties in the impugned judgments, it is obvious that investigators have sought reliance on the impugned tests to expedite investigations, unmindful of the nature of offences involved. In this regard, we do not have the authority to permit the qualified use of these techniques by way of enumerating the offences which warrant their use. By

itself, permitting such qualified use would amount to a law-making function which is clearly outside the judicial domain.

220. One of the main functions of constitutionally prescribed rights is to safeguard the interests of citizens in their interactions with the government. As the guardians of these rights, we will be failing in our duty if we permit any citizen to be forcibly subjected to the tests in question. One could argue that some of the parties who will benefit from this decision are hardened criminals who have no regard for societal values. However, it must be borne in mind that in constitutional adjudication our concerns are not confined to the facts at hand but extend to the implications of our decision for the whole population as well as the future generations. Sometimes there are apprehensions about judges imposing their personal sensibilities through broadly worded terms such as 'substantive due process', but in this case our inquiry has been based on a faithful understanding of principles entrenched in our Constitution. In this context it would be useful to refer to some observations made by the Supreme

Court of Israel in ***Public Committee Against Torture in Israel*** v. ***State of Israel***, H.C. 5100 / 94 (1999), where it was held that the use of physical means (such as shaking the suspect, sleep-deprivation and enforcing uncomfortable positions for prolonged periods) during interrogation of terrorism suspects was illegal. Among other questions raised in that case, it was also held that the 'necessity' defence could be used only as a *post factum* justification for past conduct and that it could not be the basis of a blanket pre-emptive permission for coercive interrogation practices in the future. Ruling against such methods, Aharon Barak, J. held at p. 26:

> "… This is the destiny of democracy, as not all means are acceptable to it, and not all practices employed by its enemies are open before it. Although a democracy must often fight with one hand tied behind its back, it nonetheless has the upper hand. Preserving the 'Rule of Law' and recognition of an individual's liberty constitutes an important component in its understanding of security."

CONCLUSION

221. In our considered opinion, the compulsory administration of the impugned techniques violates the 'right against self-incrimination'. This is because the underlying rationale of the

said right is to ensure the reliability as well as voluntariness of statements that are admitted as evidence. This Court has recognised that the protective scope of Article 20(3) extends to the investigative stage in criminal cases and when read with Section 161(2) of the Code of Criminal Procedure, 1973 it protects accused persons, suspects as well as witnesses who are examined during an investigation. The test results cannot be admitted in evidence if they have been obtained through the use of compulsion. Article 20(3) protects an individual's choice between speaking and remaining silent, irrespective of whether the subsequent testimony proves to be inculpatory or exculpatory. Article 20(3) aims to prevent the forcible 'conveyance of personal knowledge that is relevant to the facts in issue'. The results obtained from each of the impugned tests bear a 'testimonial' character and they cannot be categorised as material evidence.

222. We are also of the view that forcing an individual to undergo any of the impugned techniques violates the standard of 'substantive due process' which is required for restraining

personal liberty. Such a violation will occur irrespective of whether these techniques are forcibly administered during the course of an investigation or for any other purpose since the test results could also expose a person to adverse consequences of a non-penal nature. The impugned techniques cannot be read into the statutory provisions which enable medical examination during investigation in criminal cases, i.e. the Explanation to Sections 53, 53-A and 54 of the Code of Criminal Procedure, 1973. Such an expansive interpretation is not feasible in light of the rule of 'ejusdem generis' and the considerations which govern the interpretation of statutes in relation to scientific advancements. We have also elaborated how the compulsory administration of any of these techniques is an unjustified intrusion into the mental privacy of an individual. It would also amount to 'cruel, inhuman or degrading treatment' with regard to the language of evolving international human rights norms. Furthermore, placing reliance on the results gathered from these techniques comes into conflict with the 'right to fair trial'. Invocations of a compelling public interest cannot justify

the dilution of constitutional rights such as the 'right against self-incrimination'.

223. In light of these conclusions, we hold that no individual should be forcibly subjected to any of the techniques in question, whether in the context of investigation in criminal cases or otherwise. Doing so would amount to an unwarranted intrusion into personal liberty. However, we do leave room for the voluntary administration of the impugned techniques in the context of criminal justice, provided that certain safeguards are in place. Even when the subject has given consent to undergo any of these tests, the test results by themselves cannot be admitted as evidence because the subject does not exercise conscious control over the responses during the administration of the test. However, any information or material that is subsequently discovered with the help of voluntary administered test results can be admitted, in accordance with Section 27 of the Evidence Act, 1872. The National Human Rights Commission had published *'Guidelines for the Administration of Polygraph Test (Lie*

Detector Test) on an Accused' in 2000. These guidelines should be strictly adhered to and similar safeguards should be adopted for conducting the 'Narcoanalysis technique' and the 'Brain Electrical Activation Profile' test. The text of these guidelines has been reproduced below:

(i) No Lie Detector Tests should be administered except on the basis of consent of the accused. An option should be given to the accused whether he wishes to avail such test.
(ii) If the accused volunteers for a Lie Detector Test, he should be given access to a lawyer and the physical, emotional and legal implication of such a test should be explained to him by the police and his lawyer.
(iii) The consent should be recorded before a Judicial Magistrate.
(iv) During the hearing before the Magistrate, the person alleged to have agreed should be duly represented by a lawyer.
(v) At the hearing, the person in question should also be told in clear terms that the statement that is made shall not be a 'confessional' statement to the Magistrate but will have the status of a statement made to the police.
(vi) The Magistrate shall consider all factors relating to the detention including the length of detention and the nature of the interrogation.
(vii) The actual recording of the Lie Detector Test shall be done by an independent agency (such as a hospital) and conducted in the presence of a lawyer.

(viii) A full medical and factual narration of the manner of the information received must be taken on record.

224. The present batch of appeals is disposed of accordingly.

.....CJI

[K.G. BALAKRISHNAN]

.....,J.

[R.V. RAVEENDRAN]

....., J.

[J.M. PANCHAL]

New Delhi

May 5, 2010