



ETHICAL ASPECTS OF FORENSIC EXPERT EVIDENCE IN CRIMINAL CASES

C.E. Pratap

Ph.D Research Scholar (Part-time)

Post Graduate and Research Department

Tamil Nadu Dr. Ambedkar Law University, Chennai, India

Abstract : The present paper highlights the various ethical issues and challenges confronted by an expert while dealing with forensic evidence in criminal cases; the quality criterion to be followed in validation of a forensic technique; the need for accreditation of the crime laboratories and the gaps in the existing law emphasizing the importance of ethical and legal standards to be followed by an expert.

Index Terms – Forensic Expert Evidence, Ethics, Accreditation, Crime laboratories, Validation

INTRODUCTION

The criminal justice system depends on other discipline in the process of legal adjudication. The investigation of a criminal case centers on the collection of material evidence from the scene of crime by the police. The evidence so collected will have to be forwarded to the forensic laboratory for analysis by a scientific expert. Although forensic evidence has great value in identifying various aspects of a crime, the problem remains that due to widespread human involvement in this field, there is always room for mishandling by experts during laboratory analysis. Each step in this process, right from the collection of evidence from the scene of the crime, till the evidence being analyzed in a forensic laboratory, requires serious care and precaution. Forensic evidence must be handled by an expert in a highly ethical manner to produce accurate results. Ethics in the field of forensic science is one of the utmost important criteria since it can have a direct impact on determining the fate of those involved in a criminal case. The persons involved with the examination of forensic samples in a crime laboratory have certain obligation to follow the ethical practice and the same is determined based on the competency of an expert. An expert who is professionally incompetent in a particular field or does not have adequate knowledge on a specific area is entrusted with forensic examination it is a serious ethical challenge. The concept of ethics in forensic science thus requires a forensic scientist to inform correctly his expert status when he is going to testify as expert in a particular subject. A forensic expert who has certain duties towards the victim, suspect and prosecution in a criminal trial has to conduct himself in a more ethical manner and he is expected to function by adopting an unbiased approach. The forensic laboratories should evolve their unique ethical standards and employ reliable methods of analysis with the assistance of technically competent scientific experts to maintain accuracy.

NEED OF THE STUDY

The weight of forensic evidence depends on the special knowledge and expertise qualification of an expert. The probative value of expert evidence is assessed based on the experience of the witness in a particular field of study which he is assigned to testify. It is in this context the forensic expert is expected of adhere to the ethical requirements in declaring his test results as per the existing scientific standards. The professional competence of a scientific expert has posed serious challenges where in certain cases if he lacks competency or his qualifications are not up to the expected level as prescribed by the scientific bodies. Every forensic scientist is ethically obliged to state his competency on a particular scientific examination.

ETHICS IN FORENSIC SCIENCE

Forensic science is the interface of science and law where principles of science are used for legal purposes. Hence, the ethics of forensic science are those pertaining to the application of science to law. Forensic science has many controversial ethical facets and forensic scientists are often surrounded by inexplicable ethical disputes. (Yadav, 2017) Ethics and morality cannot be read in isolation. There must be a harmonious construction between ethics and morals. However, ethics in its strict sense is different from morality. Ethics is based upon knowledge and thinking; morality is based upon belief and feeling. Ethics is a standard that determines the behavior of an individual. (Pratap, 2015) It is a rule of conduct recognized among the right thinking persons. Ethics has been defined by Frabkena as “a branch of philosophy; it is moral philosophy or philosophical thinking about morality, moral problems and moral judgment”. (Frabkena, 1973, 2nd Edition)

Personal ethics or morals in the field of forensic science refer to the concerns a forensic scientist has, that are based on personal ethics or religious considerations which are not derived from professional and/or scientific roles. On the contrary, the professional ethics refer to the codes or guidelines that regulate the professional and scientific conduct which are more fundamental compared to personal ethics or morals. (Weinstock R, 2013). A lawyer's outlook to professional ethics is different from that of scientists. The lawyer's ethics always depends on his duties towards his client and court. Forensic scientists are under an obligation to tell the truth before court of law. They have certain duties towards the society, victim, suspect and prosecution. His duty to the society is based on the trust reposed in him by the general public. All forensic labs were run with the public fund and therefore as a government agency they are responsible to give a correct result. For that they must perform efficiently and effectively. Similarly they are equally responsible to the prosecution, victim and suspect. There are plenty of instances in which scientific opinion or results became important. Sometimes the prosecution's case may entirely depend on the report of the forensic expert or his opinion. Therefore, forensic scientists and laboratories shall guarantee that the judicial system can rely on the works done by them. (Dinkar, 2013)

ETHICAL OBLIGATIONS OF EXPERT WITNESSES

An apparent place to look for standards of adequate validation is within an expert's area of study itself. Ethical behavior of expert should be judged by the standards of the discipline of the expert. In fact, a number of professional associations have promulgated codes of conduct for their members that are consistent with this view. These codes primarily focus on an expert's justification for courtroom statements and require that the basis of belief be equal to that required when performing outside the courtroom. (Shiffman, 1999). Ethics form the core of criminal investigation as a single violation can cost the life of the innocent or the acquittal of the criminal both of which impair the social concept of justice. Justice is a basic virtue and should operate as such from the perspective of an unbiased rational observer. (Robin T, 2010). It is an indisputable fact that the fundamental presumption that the court presumes while admitting forensic evidence that forensic scientist is ethical and had conducted the investigation in an ethical manner. If the method of collection of forensic evidence by an expert is not congruent to the ethical standards it would render such evidence to be inadmissible. (Mehra, 2021). Ethics serves as the cornerstone for almost all professions and of paramount importance.

The nexus between forensic science and ethics is incomparable as the profession *per se* demands ethical behaviour or fair conduct from the expertise person. The underlying factor of forensic science that connects an expert with ethics is the quest for truth which expects high degree of professionalism and the standard ethical practices in conducting the forensic tests in a laboratory. The expert witness is expected to declare his results in an unbiased manner by following the well established mode of ethical practice. The underlying reason that the experts are required to confirm to the accurate results in fixing the criminality on a person or to rule of his involvement in an offence is because of the reliability factor involved in the trial. The courts rely widely on the expert's opinion in cases where questions of scientific technicalities are involved. Therefore the expert's evidence must be reliable, accurate and free from bias. It is *sine qua non* that the experts must possess absolute ethical behaviour while testifying on a specific subject matter and cannot exaggerate their qualifications or experience. (Franciellen de Barros, March 2021).

ETHICAL IMPASSE IN FORENSIC EXPERT EVIDENCE

The widespread use of forensic evidence in criminal cases ever since the recognition of DNA testing and other involvement of other scientific techniques such as narco analysis, polygraph, brain mapping and similar other tests has opened up the avenues inasmuch as questioning the credibility of such evidence in a trial mainly due to the ethical dilemmas that arise in admitting the evidence. The forensic scientist is given the task of applying the principles of relevant science while employing these tests for forensic purpose. The ethical issues and the bottleneck covering the forensic science discipline can be categorized based on the various factors involved right from collection of evidence at the scene of occurrence till the presentation of testimony by the scientific expert in the court at the time of trial. The ethical dilemmas are classified into the following broad categories. (Siegal). These factors would *interalia* include the professional credentials, laboratory analytical procedures and interpretation of expert evidence in the court of law etc.

A. PROFESSIONAL CREDENTIALS

The main criterion that distinguishes a forensic scientist from other witnesses in a criminal trial is his expertise qualification and special knowledge in the field of study. The probative value of expert evidence wholly depends on the experience he has in a particular field which he is going to testify by adducing evidence as a witness. The expert is required to possess very wide knowledge in the area in which is called upon to testify in a criminal case. A crime may give forensic clues at the scene of occurrence, which is to be collected by the expert and the same undergoes a laboratory analysis by examination of blood stain, fingerprint and other biological fluids. With the advancement of science and technology many new branches of study has evolved over the years. Therefore specialized understanding and in-depth study on a specific study will enable the expert to give evidence in his expertise area. In the recent days lack of competency among the forensic experts is identified as the most significant ethical problem. (Murdock, 1989). A survey of lawyers and scientists associated with the American Academy of Forensic Sciences has provided certain guidelines for experts to uphold their professional credentials. Section 1(b) of the Code of the American Academy of Forensic Science mandates that "Every member of AAFS shall refrain from providing any material misrepresentation of education, training, experience or area of expertise". (Code of Ethics for the American Academy of Forensic Science, (1986)).

The ethical issues *qua* professional credentials also includes the issues pertaining to misrepresentation of the educational qualifications by exaggerating or overstating the degree attainment by the expert (e.g. it is unethical to say one's qualification as PhD if he has only a master's degree on the subject); professional licensures or certifications (e.g. falsely claiming certification as

a forensic Pathologist from the American Board of Pathology or a common tactic of equating having attained actual certification with being board “eligible”), employment history and data about previous testimonies such as number of times, locations etc. Similarly, the expert must disclose correctly the number of articles he had published on a subject and the number of seminars and training programs he had attended. Experts on forensic ethics are of the view that in case, if a person during cross examination tends to guess the particulars of the programmes he attended and furnish inaccurate details the same will amount to misrepresentation of status. (Mills, 1997).

John F. Kelly and Phillip K. Wearne have cited an archetypal example for professional incompetence. (Wearne, 2003) Fred Salem Zain was a police forensic expert in West Virginia and Texas for nearly fifteen years. The police crime lab hired him as chemist during 1979, where he testified as an expert in number of rape and murder cases about the tests he had never done and results he had never obtained. In 1989, Zain became head of Serology at the Bexar County Medical Examiner’s office in San Antonio, Texas. When asked to review Zain’s work, a Dallas forensic scientist found fraud and falsification in his reports. In one case, Zain had testified about blood evidence in which no blood had even been found; in other cases he reported as having performed tests which his lab was incapable of doing.

Similarly it is unethical for a forensic scientist to testify regarding the qualification, credibility of a report, and experience of another forensic scientist, if he is not eligible for the same. A well known writer and eminent Professor of Forensic Science and Law of the George Washington University has pointed out many instances regarding the unethical behaviour of forensic scientists while testifying in criminal cases. The courts have similarly found in many cases that false claims were made by laboratory technician, serologist, psychologist, arson expert and ballistic expert. (Starrs, 1988)

B. LABORATORY ANALYSIS AND TESTING OF SAMPLES

The ethical issues related to forensic data extends to the collection and testing of samples in the laboratory; storage of the samples by ensuring no contamination and processing the results by following high quality standards. (Cordner, 2001). Obtaining forensic samples from the crime scene without any tampering is a challenging task. If the sample collected by the forensic expert is contaminated then it will be a major risk to the reliability of such evidence itself. (Wallace HM, 2014). Contamination can happen at various stages of laboratory analysis to which the person handling such forensic data must act very cautiously. This can be commonly referred to as mishandling of forensic data due to certain unethical practices adopted by the expert in dealing with the samples in a laboratory, which is considered as a serious ethical problem. The recent trends in India indicate that fingerprint expert has been performing the duty of handwriting expert, evidence that is to be collected by a registered practitioner is being collected by unqualified individuals and various other instances wherein falsified qualifications have been presented to prove credibility. (Mehra, Ethical dilemmas in Forensic Science: A curse upon India, 2021).

C. INTERPRETATION OF FORENSIC DATA AND PRESENTATION OF EXPERT TESTIMONY IN TRIAL

The forensic scientists face many ethical predicament while presentation of their expert testimony in the court. The interpretation of forensic data involves use of scientific jargons, use of confusing testimonies, excessive equivocacy and advocacy. The next issue is with reference to the way the results of the forensic laboratories are reported. In certain cases, laboratories report minimal results without any appropriate explanations which will cause unnecessary confusion in the trial. In many cases the forensic scientist who performed the laboratory analysis is not even found to be present in the court during trial for rendering his opinion. The presentation of scientific expert testimony should be supplemented by the expert inside the court room by providing assistance in cases where the judge is not well versed with the scientific terminology used in the laboratory reports. The expert shall not use hyper technical terms with an intention to confuse the court and the report given by him must not be deceptive with false material particulars. (Hickman, 2015)

D. PRIVATE VERSUS PUBLICLY EMPLOYED FORENSIC SCIENTISTS

There is a rapid increase in the number of private forensic consultants in the recent years which pose a serious likelihood to the ethics in the field of forensic science. There is no regulatory measure or any disciplinary code that can be applied to such private consultants. The professional integrity of a member in forensic science discipline is comparatively higher degree than in other professions, as the forensic experts are put to strict form of quality control by subjecting themselves to cross examination in courts, where any kind of malpractice, errors and omissions is likely to be revealed during the course of trial. The private consultancy offers the greatest risk of malpractice as there are less supervision, less peer review and more financial incentive.

In case of public forensic laboratories run by the Government, it must be noted that they are neither a part of nor administered by the local governments or local law enforcement agencies. It is often stated that “public crime laboratories are not sanctuaries of science....” The public cannot give that much of reliance on those labs similar to other research laboratories because in crime labs the scientists are researching with old, degraded, partial, distorted, blurred and contaminated samples. (Cooley, 2011).

BIAS AND PARTIALITY: WEAKENING FACTORS OF EXPERT EVIDENCE

The term ‘bias’ in the context of forensic science require special understanding. In forensic setting the term ‘bias’ means a scientist’s direct or indirect, intentional or unintentional partial findings, which can harm one side and harm another. (Dinkar V. , 2013). Bias may result in causing prejudice to one side and benefit to the other. It is related to taking a stand for or against a person or thing. It is based on hostile feelings motivated by judgmental habits or hasty generalizations. (Budowle B, 2001). The other reason for bias is the subordination of the expert to the law enforcement agencies. (Hodge, 1988). Analysis of the crime scene or evidence can also be subjected to bias if experts become emotionally involved in the case very sentimentally, which can lead them to discard the details that challenge their beliefs. (Cline, 2018). Similarly, indifference and lack of commitment can

cause bias when they accept other person's opinion without reaching their own conclusions, causing loss of objectivity. (Byrd, 2006). An expert is required to offer his opinion which is completely unbiased in all aspects. The results of the expert forming conclusions on a particular area of his specialized knowledge will certainly play a vital role in the justice delivery system. The evidence will be taken into consideration during the trial for convicting the guilty and can spurn any unnecessary prosecution of the innocent person. (Dror, 2018).

The conclusions of professionals prejudiced by biases should not be confused with the resolute need to testify falsely. The expert witnesses are often not aware of the fact that their conclusions if declared as incorrect or unreliable will be viewed seriously by the courts during trial as it would hamper the justice delivery system. (Bieber, 2012). Most of the authors opined that the bias has a major impact on forensic science wherein the experts could be influenced from various extraneous factors that questions the credibility of the evidence. This could certainly result in giving biased findings clothed with partiality. The bias, bribe and partisanship of experts are escalating due to the absence of well defined code of ethics and its proper implementation. (Pratap, Reliability of forensic scientific evidence in criminal trials: An Indian perspective, 2016). Having discussed about the importance of bias and partiality as weakening factors of expert evidence, now it is cardinal to examine the different types of bias and partiality.

TYPES OF BIAS

Bias can be classified into two main types namely: (i) Personal bias and (ii) Institutional bias. Personal bias is related to an individual forensic scientist and their employment with the law enforcement agencies. In India, almost all the forensic laboratories are run by the Government. These labs are under the administrative control of police authorities, which tends to work according to the whims and fancies of the police. To know more about the personal bias it is appropriate to refer to the illustration given by Starrs regarding the police pressure. In a murder case by shooting, the police investigator from the Midwest gave a 45-calibre pistol to a ballistic expert for analysis and said, "we know this guy shot the victim and this is the gun he use. All we want to do is to confirm what we already know so we can get a warrant to get the scumbag off the street. We will wait. How quick can you do it." (Starrs J. E., 1991). This illustrates how the personal bias of a forensic scientist can administer a mortal blow to his ability as an impartial scientist to testify as a forensic expert. The ethical aspects of an expert who testifies before the court of law are not governed by comprehensive legislation in India and hence the same is in pitiable condition.

Institutional bias has been well defined by Starrs as "manifested by the policies, programmes, or practices of an agency, an organization or a group, whether public or private, or any of its personnel which benefit or promote the interests of one side on a court room dispute, while either denying or minimizing the interests of the other side". (Starrs J. E., 1991). The benefit or detriment caused to a party is only the effect of institutional bias and its real purpose is to protect the vested interests of the laboratory and its existence. Sometimes bias may occur even to protect the vested interests of the scientists who had conducted the forensic analysis at the laboratory.

An apt illustration for institutional bias comes from the legal story of William C. Thompson, published in the online internet journal, Scientific Testimony. William C. Thompson was called by a criminal defence lawyer at Los Angeles, to attack the prosecution's DNA evidence against Marshall, charged for rape. In this case a commercial laboratory known as Genetic Design had performed the DNA typing of the vaginal swab samples taken from the victim and confirmed that the DNA pattern is consistent with the defendants. But William C. Thompson could not observe any match of Marshall from the autorads. Therefore, he suspected examiner bias in interpreting DNA test results of Marshall. He claimed that the laboratory had failed to use an objective method for scoring the bands in the DNA profile. In his view the laboratory had instead used subjective procedures that were actually biased against the defendant. But against this claim the scientist for the prosecution had fraudulently stated that the DNA test was conducted in an objective manner. From the repeated investigations conducted by Thompson, found that the objective band sizing varied significantly depending on the person who was doing the computerized scoring. The test result including or excluding Marshall as a rapist depended ultimately on a subjective judgment.

A research survey conducted by Gannett News Service (USA) in 1994 identified 85 cases processed since 1974, in which prosecutors intentionally or unintentionally used contaminated forensic evidence, resulting in the conviction of innocents or acquittal of the offenders. Further during the very same period, 48 suspects sentenced to death were released after it was found that charges against them were based on fabricated evidence or because the exonerating or exculpatory evidence was withheld. (Dinkar, 2013).

TYPES OF PARTIALITY

According to Nickerson, partiality can be classified based on the effect which it will have in the cognitive process and understanding levels of a person. (Nickerson, 1998). The various types of effects can be summarized as expectancy effect, role effect, primacy effect. The expectancy effect is defined when one awaits a certain result from an initial observation or analysis, because anticipation leads to the desired result. Role effect is defined when two people, due to their profession, collect disparate information at a crime scene, because each expert will focus on different aspects according to their role. Primacy effect means when, in a lengthy information collecting process, the first data gathered is privileged to guide the conclusion and consequent decisions. Opinions formed early tend to influence later information, allowing any data disclosed early in the investigation to generate the outcome or conclusion of the case.

It is to be noted that analyzing of forensic evidence is subject to bias and it can cause partiality. It is therefore necessary that expert need training and be imparted with continuous ethical and legal education to enhance their professional pursuit and to perform their duties without any bias or partiality.

PROBLEM OF 'HIRED GUNS' AS FORENSIC EXPERTS

The expert's opinion supports scientific evidence in courts. Experts are in direct contact with the investigators, and the forensic scientist becomes part of the law enforcement agencies whose primary aim is to solve the case and find the guilty. The next important issue that corrodes the ethical values in forensic scientific evidence is the engaging of "hired guns" as forensic experts who have an affinity with a particular lawyer and try to benefit them. Such type of experts may state opinions in derogation of the theories or applications of their scientific field. They are the persons who will give the ethical majority a bad name. The percentage of hired guns are probably smaller than the ethical scientists, however, it is difficult for the courts to distinguish the hired guns from the honest experts. (Weinstock, 1997). The problem with the hired guns is that they will make their own theory and techniques suitable for the case in hand for contradicting the evidence of the other side.

INTERFERENCE BY THE POLICE AND PROSECUTION

A forensic scientist is duty bound to the court and he cannot act as a witness of the police or the prosecution even though the police gave the cases for the scientific analysis at the forensic laboratory. It is a generally accepted fact that if a forensic expert is answerable to the police he is apprehended to be not working independently. (IXth All India Forensic Science Conference, Shimla, 1995). The forensic science laboratories are under the police department and therefore it is doubtful whether forensic scientists can deliver their opinion freely without interference of the police. It is therefore safely presumed that forensic expert evidence is prone to police interference at various stages of collection of clue materials by the scientific experts. In India, the usual practice is that the police will collect the relevant materials from the scene of occurrence of the crime and hand over the same to the forensic experts for laboratory analysis. In this stage the police will often insist on the forensic laboratory authorities to make the evidence for incriminating the suspects to rope them into the crime. The police will assume the role of an advocate in convincing the prosecutor and judge that there is probable cause believe that the accused committed the alleged crime. Thus the control of the police starts from the collection of evidence at the crime scene to the final opinion made by the forensic scientific expert on the evidence during criminal trial.

The research conducted by Joseph L. Peterson (Peterson, 2nd Ed. 1986) and his co-researchers reveals that there is no assurance that the physical evidence gathered by the police from the crime scene will be examined. In most of the crime laboratories, the evidence remains in the storage until the investigating officer requests that it be examined. Apart from the reasons *supra* mentioned there are certain other extraneous factors which may influence the forensic scientist during the examination of the evidence. Extraneous factors connected with the case may influence the examiner to a great extent and induce him to reach a conclusion in line with other evidence in the case. One such reason was pointed by M.J. Sacks as the psychological phenomenon will influence people's perceptions and interpretations on particular aspects. It was particularly pointed out that the circumstances in which a forensic scientist may be extraneously influenced are when there is a direct communication between investigators and examiners; cross-communication among examiners; reversing one's findings in the light of domain-irrelevant evidence and selective re-examination of evidence. (M.J. Sacks et al., 2003).

QUALITY CRITERION IN FORENSIC EVIDENCE

Quality is a criterion fixed by the society for determining the standard of a particular thing or service. Quality is generally defined by J.M. Juran as "freedom from deficiencies-freedom from errors that require doing work over again (rework) or that result in field failure, customer dissatisfaction, customer claims, and so on". (Juran, 1999) However this definition is not suitable for forensic science service. The meaning of quality may change occasionally. For instance, the quality in forensic lab means "fitness for purpose in the laboratories of the forensic science service" (Bramley,R, 2003) and quality of forensic service means one "achieved by the competent forensic practitioners that work under the guidance of a quality system and with the right philosophy of approach". A forensic scientist must be a person capable in applying scientific knowledge to the solutions of forensic problems. (Fereday M.J. & Koop,I, 2003)

Thus the quality of forensic evidence always depends on various factors like validation of a particular technique, quality of the instruments used for analysis, competency of the persons employed for the analysis, standards provided for avoiding contamination, accreditation of the laboratory, certification to the proficiency of forensic personnel and the crime laboratory to conduct tests and to evaluate the continued capacity of analysis, technical support personnel and the quality performance of the laboratory. There is no quality control mechanism in generating and presenting forensic evidence. It should be part of the system. Regular blind tests at irregular intervals should be the absolute rule. Checks for honesty should be part of the system. If there are complaints of dishonesty, covert investigations should ascertain the factum. Quality assurance panel should also check periodically the equipment, the techniques and the data generated by the expert for giving both positive and negative reports. Quality control involves the elements of standardization of tools and techniques which is *sine qua non* in all scientific work so that the results given by one institution do not differ from the finding of another institution. It also includes accreditation of the experts and of the institutions which is essential to control the menace of dishonest and unqualified experts. (B.R.Sharma, 5th Edn., 2014).

ACCREDITATION OF FORENSIC LABORATORIES IN INDIA

Forensic science certification is a recognition given by the prominent forensic organizations, regarding a person's knowledge, skills or ability in the forensic subject or an institution's capability in conducting forensic works. A sound quality assurance is essential for a laboratory and the persons working in the laboratory to consistently improve their laboratory practices. In India, a Technical Committee appointed by Chairman, National Accreditation Board for Testing and Calibration Laboratories (NABL), developed specific guideline document on accreditation of Forensic Laboratories in June 1998. Accreditation of Forensic Laboratories under NABL was launched during a special meeting held at India Habitat Centre, New Delhi on 2nd May

1999. NABL is an autonomous body under the aegis of Department of Science and Technology, Government of India. The main aims and objectives of NABL *interalia* includes to promote, coordinate, guide, implement and maintain an accreditation system suitable for the country in accordance with the relevant national and international standards; to ensure that the accredited laboratories adhere to all the conditions of accreditation, by periodic surveillance; to acquire travelling standards and artifact for conducting studies on measurements by the accredited laboratories and thereby to help improve reliability and reproducibility of results. The National Accreditation Board for Testing and Calibration Laboratories (NABL) will conduct an inter-laboratory proficiency testing of all laboratories that are members of the NABL.

CONCLUSION

Therefore it can be concluded that the ethical requirements involved in forensic evidence mandates the strict adherence to various standards by the scientific experts while analyzing the materials in a laboratory. The importance of ethics in criminal trials is one of the rudimentary aspects in justice delivery system. The need of hour is to bring a comprehensive regulatory framework in line with the model Code of Ethics for Forensic Scientists prevailing in other countries. This will adequately cover the rules for moral profiling of Forensic Scientists; regulating the conduct pertaining to collection and testing of evidence; rules for preservation of evidence by forensic laboratories; rules for establishment of forum for complaints against the experts and penal provisions against the misconduct by forensic experts. In India, it is a sorry state of affairs that there is no separate legislation available to swathe all these issues. It is high time that law should be enacted by taking into account of the increasing use of scientific methods in investigation. Further the evolving of new laws will in a way help in regulating the overall conduct of the forensic scientist. The ethical issues are mandatory for ensuring maximum reliability and credibility of scientific evidence. It is therefore necessary to have a check on the ethical behavior of an expert periodically and ensure that his professional competence is in line with the existing standards prescribed by the accrediting bodies. The forensic scientists need to follow the code of ethics in all stages of analyzing the evidence during a criminal trial.

