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# Ethical dilemmas in Forensic Science: A curse upon India

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## ABSTRACT

*Forensic Science has been a part of criminal investigation since the bygone era and its contribution towards meeting the ends of justice is undeniable in various cases. Forensic science is the need of modern times considering its contribution towards criminal investigation and is composed of variety of disciplines that work within the legal system. It is pertinent to note that the role of forensic science in criminal investigation cannot be studied in isolation and to obtain a holistic view one must study its role through the prism of ethics. A careful observation of the ethical dilemmas in forensic science in India would suggest how a lack of a unified code of ethics for the field and lack of regulation has been feeding upon the country as a malign cancer by aiding in destruction of the social fabric. An example of the same can be the Nirbhaya case wherein the vigilance and ethical standards of the evidence collection, investigation and admission before court of law were of the highest level resulting in conviction whereas the loose ethical standards in Aarushi Talwar case completely botched the investigation and turned a simple case into a murder mystery. Forensic science and forensic scientist play a significant role in the justice system and to ensure that justice is being served it is important to regulate their conduct efficaciously and to uplift our forensics*

**Keywords:** *Forensics Science, Ethics, Aarushi Talwar, Unified Code of Ethics.*

## I. INTRODUCTION

In the Independent India the national outcry for higher conviction rates has always been the headlines of newspaper and the genesis of national debate. The primary focus of the debate remains the ineffective legislative framework of India or the shortcoming of Indian judiciary. The ordinary prudent man fails to assess the area which has maximum contribution in acquittals and convictions i.e. 'Efficacy of Forensic Evidence'. It is to be noted that the development of 'forensic science' has provided a powerful tool in the hands of law enforcement agencies and the judiciary. Anthropometry, finger prints and footprints technology, ballistics, odontology,

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serology were essentially developed to aid the criminal justice administration.<sup>2</sup> Forensic science maybe defined as the science which deals with application of every branch of scientific knowledge and techniques to the purposes of the law, especially matters under investigation before courts of law. Forensic science in the 21<sup>st</sup> century has gained momentum considering the rising crimes, atrocities and acts of terrorism being committed world-wide. Forensic science processes, identifies and compares the materials and establishes the presence or the absence of a link between crime, the criminal and the victim.<sup>3</sup>

Forensic Science has been a part of criminal investigation since the bygone era and its contribution towards meeting the ends of justice is undeniable in various cases. Forensic science is the need of modern times considering its contribution towards criminal investigation and is composed of variety of disciplines that work within the legal system. It is pertinent to note that the role of forensic science in criminal investigation cannot be studied in isolation and to obtain a holistic view one must study its role through the prism of ethics.

It is a matter of fact that ethics forms the core of forensic science and is of paramount importance in professional cultures such as business, medicine, law, science and technology. 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 primary virtue and should operate as such from the perspective of an unbiased, rational observer.<sup>4</sup> A biased observation shall fundamentally divert the course of investigation and may completely undermine justice.

It is an undeniable fact that the basic presumption that the court presumes while admitting forensic evidence is that forensic scientist is ethical and has conducted the investigation in an ethical manner. Furthermore, the aforementioned position is the first point of attack by the defense lawyer and their primary focus to render forensic evidence inadmissible is to discredit the forensic scientist or the method of collection. Thus, the importance of ethical standards cannot be ignored. It becomes evident that even though forensic science may be multi-dimensional it shall always remain congruent to ethics. An example of the same can be the Nirbhaya case wherein the vigilance and ethical standards of the evidence collection, investigation and admission before court of law were of the highest level resulting in conviction whereas the loose ethical standards in Aarushi Talwar case completely botched the investigation and turned a simple case into a murder mystery.

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<sup>2</sup> Rajender Singh *et. al.*, "Voice Spectograph as an Aid in Crime Investigation", in *Frontiers of Forensics* (1990).

<sup>3</sup> B.R. Sharma, *Forensic Science in Criminal Investigation*, (6<sup>th</sup> Edition, Lexis Nexis 2020).

<sup>4</sup> Robin T. Bowen, *Ethics and the Practice of Forensic Science*, (CRC Press, 2010)

The research aims at bringing out the importance of forensic science in criminal investigations and the unique relationship of ethics and forensic science in the modern era. It tries to arrive at a conclusion that there is need for a universal ethics code for forensic science as the laboratories may be regulated by the legislative framework enforce in India. However, there no independent liability is being imposed upon the forensic scientist. The primary focus of the study is upon the impact of ethical dilemmas upon the criminal investigations and the ramifications of the same.

### **(A) Statement of Problem**

It is a matter of fact that ethics cannot be taught by conducting a lecture nor shall an unethical person miraculously transform into an ethical person. While forensic science is a field wherein a biased investigation can not only botch the investigation but can completely undermine the concept of justice which shall forever be written in history in the form of precedent with no one to the blame to. While it is important to understand the role of forensic science in criminal investigation it is also important to understand the ethical responsibility of the forensic scientist. It has been observed that due to lack of regulatory framework, accountability and vigilance forensic scientist often undermine their duties and ethics. 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 Practioner is being collected by unqualified individuals, bias investigations, insouciant evidence collection etc have been the kaleidoscopic patterns in India. The current legislative framework needs to be looked into to arrive at a conclusion to determine whether

### **(B) Research Question**

- A. Whether the ethical conduct is of paramount importance in forensic science?
- B. Whether there is a need for a unified code of ethics for forensic experts in India?

### **(C) Research Methodology**

Doctrinal legal methodology will be used for carrying out this research. Analytical method will be used to identify what law currently is and to evaluate it's efficiency. Comparative method will be used to determine if Peru provides better protection to their TK via *sui generis* protection as opposed to India which does not provide comprehensive *sui generis* protection to TK.

## **II. LITERATURE REVIEW**

Peter Barnet in his book '**Ethics in Forensic Science- Professional standards for the practice**

**of criminalist'** (2001) and Keith Inman and Norah Ruding in their work '**Protocols in Forensic Science**' have given a detailed account of the history and background of ethics and the importance of professional ethics in the field of forensic science. Their work collectively sheds light on the need for development of ethics code and elucidates the application of philosophy of ethics in forensics. They try to bring out the relationship between forensic science and ethics and the multi-dimensional character of forensic science. They make a case for development of ethics code and its importance in the modern era. They give examples of protocols to be followed in forensic science. Their collective research gives out end number of accounts for ethical dilemmas and its ramifications.

Nivedita Grover and Ishya Tyagi in their research titled, '**Development of Forensic Science and Criminal Prosecution- India**' (2014) have also admirably tried to trace the evolution of forensic science globally and have laid primary emphasis on its evolution in India. The research aids in appreciating the legislative framework enforce in India with respect to forensic science and also helps in understanding its importance in the Indian scenario. They have provided a jurisprudential analysis of the role of forensic science in India which further aids in understanding the ground reality. The research also outlines the major lapses in the framework in brief.

Robert T. Bowen in his book, '**Ethics and Practice of Forensic Science**' (2017), links the philosophical theory of ethics and application of the same in the field of forensic science. The research provides a detailed account of philosophy of its ethics, its application, relationship of ethics and forensic science and the role of ethics in a court room. He argues that ethical behavior cannot be taught through a lecture or an unethical person cannot be changed into an ethical person. He tries to analyse the motivation for unethical behavior and its ramifications. He has not only provided a detailed account of example of unethical behavior but has also shed light upon the need for reforms in policing and forensic investigation. He goes on to suggest a few changes that could be made to the existing regulate the conduct of scientific professionals.

Philip J. Candilis, Robert Warenstock and Richard Martinez in their book titled '**Forensic Ethics and Expert Witness**' (2007), in depth analyze the ramification of unethical conduct in court trials and application of ethical theories to forensic science that can efficiently guide the ethical behaviour of forensic scientist.

Margaret A. Berger in her research titled '**Evolving trends in forensic science**' (2010), gives an account of the significance of ethics and professional conduct. It gives account of the

erroneous conviction of innocents and leaving of real perpetrators free. It also draws a distinction between forensic scientist and forensic experts which help in better understanding of the their individualistic role in criminal investigation at different stages.

Brandon L. Garret and Petter J. Neufred, in their work, '**Invalid Forensic Science Testimony and Wrongful Convictions**' (2009), gives out a detailed account of wrongful convictions, invalid testimonies and unethical conduct of experts. They also make a strong case for reforms in forensic science and establish the fact that forensic science for a very long time an ignored science.

Paul C. Gianelli, in his research, '**Forensic Science: Under the Microscope**' (2008), talks about forensic science being under the radar of scrutiny. While drawing a distinction between forensic scientist and experts he lays emphasis on the challenges faces by forensic experts in their respective fields. It helps in understanding the deep routed problem and helps in suggestion of reforms by addressing the challenges so faced in the respective field. A concurrent can also be drawn by comparing the Indian challenges.

Dr. Carole Mc Cartney and Emmanuel Amokea, '**UK forensic science regulator: A model for forensic science**', (2017) it identifies the efficacies of the UK regulator model and the challenges faced by the aforementioned model. He propagates that the regulator UK model is partially effective even though it minimizes the risk a more robust model is required. It also gives a detailed account of the challenges faced in implementation and formulation of the model. It also focuses on the role of regulators and external requirements that are needed for implementation of such a model.

Ethics is a branch of philosophy that deals with what is morally right and immoral or wrong<sup>5</sup>, it basically deals with what are good and bad. The parameter which decides whether an action or inaction is good or bad is based on social acceptance of the same. Thus, 'right' refers to good behavior or conduct that is ideal and 'wrong' refers to immoral behavior or conduct and the outcome or consequences of the same. Ethics are subjective in nature and may differ from person to person. Generally, ethics seeks to resolve question relating to human morality by defining concepts such as good or bad, right or wrong, evil or vice, moral or immoral etc. Richard William Paul and Linda Elder define ethics as 'a set of concepts and principles that guide us in determining what behavior helps or harms sentient creatures'.

The word 'Ethics' is derived from an Ancient Greek word *ethikos* which translates to 'relating

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<sup>5</sup> Paul C. Giannelli, *Forensic Science: Under the Microscope*, 34 OHIO N.U. L. REV.315 (2008).

to one's own character'.<sup>6</sup> The study of ethics may also be defined as the general study of the ideals regarding human behavior and the guiding principles. Ethics basically deals with individual morals, motivation, immoral actions, group dynamics etc. and it helps an individual to deal with various situations. Ethics are generally based on personal perceptions and experiences and thus are subjective in nature. However, ethics may be viewed as the standards of conduct that prescribe a certain manner of conduct and behavior to be observed. It is pertinent to note that 'morality' and 'ethics' are two different concepts that even though are casually used interchangeably.

Ethics serve as the cornerstone for almost all professions and are of paramount importance. The nexus between forensic science and ethics is unparalleled as the profession on the very face of it demands ethical behavior or conduct from the practicing person. The factor that binds 'forensic science' and 'ethics' is the quest of the truth, forensic science is the quest of the truth which much be carried with the greatest level of professionalism and ethical practices. The relationship between forensic science and ethics can deduced from famous theories of ethics i.e. utilitarian and deontological and their application to forensic science. Forensic science is multi-dimensional universe that encompasses within its ambit various disciplines. The forensic science portion of any law enforcement agency is but a small cog in the large wheel of the agency.<sup>7</sup> Forensic science determines the *modus operandi*, crime committed, who committed the crime, tools used etc. Thus, indirectly it can be said that the forensic scientist will determine in a limited manner not only the consequences for the defendant but also the outcome for the plaintiff.

### III. APPLICATION OF ETHICAL THEORIES IN FORENSIC SCIENCE

John Stuart Mill and Jerry Bentham developed the well-known utilitarian theory of ethics which states that an action may be categorized as moral and immoral based on the capacity to achieve greatest good for the greatest number. Even though the theory is well-known and greatly practiced it vague in nature and does not adequately account for individual rights. The theory has both positive and negative impact in the realm of forensic science the innocence project<sup>8</sup> for instance serves the greater good whereas a biased expert opinion shall completely derail the investigation for example the famous case of Duke Lacrosse<sup>9</sup> (2006) the biased expert reserved the DNA evidence that could exonerate the defendants with a view of securing

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<sup>6</sup> Ibid.

<sup>7</sup> Peter D. Barnet, Ethics in Forensic Science- Professional Standards for the Practice of Criminalistics. 136 (2001).

<sup>8</sup> Innocence project is a non-profit organization that works towards exonerating the wrongfully convicted person with the help of DNA evidence and positively contributes toward s the advancement of criminal justice system.

<sup>9</sup> Paul C. Giannelli, *Duke Lacrosse Rape Case*, 23<sup>RD</sup> CRIMINAL JUSTICE, FALL 2008, 54 (2008).

conviction for rape and ensuring that the greatest number of people are benefitted by setting the example that no matter who the accuse maybe in the eyes of law a criminal shall be a criminal if proven guilty. It is evident in above back drop that where in one case forensic scientist acted as the savior while in the other the scientist completely overturned the case. Therefore, it is important that principles of ethics are rightly applied in the field of forensic science and a scientist must adhere to ethics as generally the court basis its decision on their testimony and report.

Similarly, according to Immanuel Kant's deontological approach the moral actions occur out of obligation and are judged based on the intention and motivation for the action. Immanuel Kant's theory has the greatest application in the field of forensic science as the scientists believe they are appointed to serve the government to prove their case. However, the truth is that they at the service of 'truth' which must prevail under all circumstances. Thus, the scientist is duty bound to report evidence even if it's in the favor of the defendant or accused. Similarly, following protocol and maintaining the sanctity of evidence is the duty of the forensic scientist and investigator and if the forensic scientist aids his colleague when the later errs it is a gross violation of ethics. It is a matter of fact that ethics and forensic science has an unparalleled relationship and a forensic scientist must always maintain the procedural standards and conduct in order to ensure that he is complacent with all necessary requirements. In the history of mankind there have been various instances where ethical dilemmas in forensic science have completely derailed the investigation and trial.

#### **IV. ETHICAL DILEMMAS IN FORENSIC SCIENCE**

The early 1990's significantly influenced the forensic science as it was in the 19<sup>th</sup> century when forensic gained momentum and recognition mainly due to widespread use of DNA testing, innocence project and famous Daubert case and O.J. Simpson trial which drew the focus towards forensic science. It is pertinent to note that forensic science maybe defined as the application of scientific techniques and methods to the investigation before a court of law. Thus, it is the primary duty of the forensic scientist to apply the principles of science and while applying such principles it is perceptible that while applying such techniques one may encounter ethical questions. The history of forensic science is stained with various cases that formed the basis of the ethical dilemmas in forensic science. It is a matter of fact that forensic scientist are criminalists and they often in direct contact with crime investigators, detectives, judges, attorneys etc. on regular basis considering their scope of work in such a situation the shall raise various ethical dilemmas.

A study conducted by Jay Siegel laid down the following taxonomy of ethical violations in forensic science<sup>10</sup>:

**A. Scientific Issues**

- Misrepresentation of professional credentials,
- Insufficient to indiscriminant analysis or dry labbing,
- Tailoring scientific analysis to fit the law

**B. Bias**

- Bias towards or against a party
- Contextual bias
- Conformational bias

**C. Presentation of Testimony in Court**

- Sufficiency of laboratory reports
- Use of associative and scientific terminology
- Deceptive or confusing testimony or outright lies
- Overselling or underselling the value of evidence

**D. Status of Employment**

- Public or private
- Fees
- Hired gun

**E. Obligations to the Profession**

- Failure to maintain currency in field
- Faulty proficiency tests
- Dishonest continuing education practices

**V. SCIENTIFIC ISSUE**

The presumption that the court or the party that has called for expert opinion in the form of a forensic scientist is that the professional shall adequate knowledge about the concerned subject matter and shall be qualified to provide his/her valuable insights with respect to the same. The heart of forensic science is scientific analysis and is the currency of all forensic scientists. 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 qualification have been

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<sup>10</sup> Kevin J. Strom and Matthew J. Hickman, *Forensic Science and the Administration of Justice: Critical Issues and Directions*, 57 (2015).

presented to prove credibility.<sup>11</sup> On the global scale the issue of ‘dry-labbing’ is of great concern wherein the expert without examining the evidence efficiently records the result. It is pertinent to note that an ethical dilemma in the field of forensic science has a trickling effect as the ethical conduct maybe conducted during the investigation of a particular case but it shall substantially affect all the cases that have been previously handled by the respective professional. In a lab in New Jersey the lab technician was accused of dry labbing and it had the potential of jeopardizing almost 8,000 criminal cases.<sup>12</sup> In various cases the evidences are tailored to match the story of the prosecution or to discredit the story of the Defence. In the Aarushi Talwar murder case the evaluation of the murder weapon was based on the presumption that the parents have killed the daughter and the evidence was presented in a manner so as to lead the court to a similar conclusion and support the story concocted by Central Bureau of Investigation Chief. Such ethical violations are detrimental to the interest of the public at charge and do not serve any purpose whatsoever. Furthermore, they just add burden on the criminal justice system and waste its precious resources and time. The greatest example of the same is Fred Zain who began his career in forensic science by claiming that he had earned a master’s degree which he actually did not ever possess.<sup>13</sup>

## VI. BIAS

When the expert has inclination or prejudice for or against any one of the party or witness or any other person that concerns the trial he/she is said to be biased. It is factor that had been directly addressed by the National Academics of Science Report (hereinafter referred to as ‘NAS, 2009’). It is an undisputed fact that the expert generally favors the party that has called for the expert opinion and they generally color the opinion and conclusion of that side. It is pertinent to note that a scientific opinion would be value free and would not purposefully favor one side or the other, but in actuality, opinions, even rigorous scientific ones, can do more harm than good to one party or the other and can often be shaded so that the opinions more explicitly favor one side and that is where the ethical dilemma arises.<sup>14</sup> The existence of contextual bias is the major reason that conviction cannot be secured especially in the following cases rape cases, medical negligence cases, certain murder cases etc.<sup>15</sup> The famous cases of Amanda Knox or OJ Simpson or even in the murder trial of Oscar Pistorius are the greatest example of

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<sup>11</sup> Observation of a practicing lawyer of Rajasthan High Court and District Court, Jaipur.

<sup>12</sup> Fiona Macdonald, *One lab tech is accused of doing something that could jeopardize almost 8,000 criminal cases*, BUSINESS INSIDER (Feb.02.2020, 8:55 P.M.), <https://www.businessinsider.com/a-forensic-lab-tech-was-accused-of-fabricating-results-2016-3?IR=T>.

<sup>13</sup> ROBIN T. BOWEN, ETHICS AND PRACTICE OF FORENSIC SCIENCE, 310, (2<sup>nd</sup> ed. 2018).

<sup>14</sup> Supra note 9.

<sup>15</sup> Observation of a practicing Criminal lawyer of Supreme Court of India and High Court, Mumbai.

contextual bias wherein the forensic scientist and the investigators erred in efficiently handling the evidence. Similarly, if one is to precede without bias the investigation proceeds in a very smooth manner. The error in John Kennedy Assassination provides insight on efficient crime scene management. In the infamous Nirbhaya rape case the expert had without showcasing any bias ethically examined the evidence ensuring that the evidence is not tampered thereby making admission of the same easier for the court of law. Misidentification of evidence is the greatest ethical dilemma that comes within the ambit of confrontational bias. The cases handled by the Innocence Project are the greatest example of confrontational bias.

## VII. PRESENTATION OF TESTIMONY IN COURT

The role of the forensic scientist or expert is not limited to examining the evidence and producing the result but extends to presentation of such results before the court of law and explaining the court of law the scientific method by which such conclusion has been arrived at. It is pertinent to note that in the Indian adverbial system expert opinion can be admissible under Section 45 and 46 of the Indian Evidence Act, 1872 and in such cases the veracity of the testimony shall decide the evidentiary value of the such opinion. The Hon'ble Court refused to admit scientific evidence of ossification test to determine age of prosecutrix as the expert could not justify his stance to the satisfaction of the court.<sup>16</sup> In certain cases the laboratory result are not sufficient to base conviction or acquittal for instances in the case of , the Hon'ble Court held that **Murarilal Vs. State of Madhya Pradesh**<sup>17</sup> '*...since human judgment cannot be said to be totally infallible due caution have to be exercised and the approach ought to be that of care and caution and it is only upon probe and examination the acceptability or credit worthiness of the same depends.*'

## VIII. STATUS OF EMPLOYMENT AND OBLIGATIONS TO PROFESSION

The forensic expert at various sense a certain bias for the person or institution that is paying the salary or fees of such expert and begins assuming that it is mandatory for him to support the view endorsed by the payer. Such kind of behaviour leads to unethical conduct. Similarly, there are certain obligations that the expert has towards his profession that are sacrosanct for example one should over-sell or under-sell an opinion for any benefit, one must not falsify work experience, one must not wrongly classify self-training as professional training, one must always be well versed with the procedural standard of conduct and behaviour etc. these are basically common notions that are customary in nature and must be followed to ensure that the

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<sup>16</sup> Vishnu alias Undrya v. State of Maharashtra, AIR 2006 SC 508.

<sup>17</sup> AIR 1980 SC 531.

duties of the experts are being discharged in an efficient and ethical manner. It is a matter of fact that forensic scientist do not place much reliance on research though this is not a well-recognised ethical dilemma it considerably impacts the ethical decision making of the expert. Science is an evergreen field and thus one must keep researching and updating themselves this is one of the most integral prerogatives of the forensic expert and maybe considered as an primary obligation towards the profession. Joyce Gilcrist serves as an example of the pressures a forensic scientist operating under the direct control of law enforcement agency or operating as a forensic scientist who is also sworn office may face.<sup>18</sup>

In most situations, there is a lack of standards so more dilemmas may arise as the process is based on making necessary accommodations and balancing pros and cons and one may not efficiently be able to do so. Ethical issues generally make people feel stuck and in such situations immoral actions and unjust benefits may seem appealing to the human mind. Forensic scientist come across plethora of occupational hazards on a daily basis with respect to ethical behaviour. It is pertinent to note that the position of the forensic scientist is not only complex but comes with great level of stress and public pressure along with that there is a need for them to cope up with the fact that they are 24x7 surrounded by death and crime thereby increasing the social pressure and inducing unethical behaviour. Therefore, a Universal Code of Ethics becomes a need of the hour.

## **IX. NEED FOR A UNIVERSAL CODE OF ETHICS**

Forensic science plays an integral role in the criminal justice system; any wrong unreasoned or careless opinion may cause great injustice to either parties of the suit. It is pertinent to note that the harm shall not be limited to the parties but shall also extend to public at large as wrongful convictions shall be considered as precedent and such precedents are bad in law in moral. It is evident in the above backdrop that the forensic experts must at all times maintain high ethical and moral grounds and must perform their duties diligently. While one is expected to maintain such ethical high grounds and moral character is it ironical that there is no Code or Statute that provides for such standards nor is there any judicial pronouncement that deals with the subject matter in detail. It is a matter of fact that forensic science is the essence of the criminal justice system and the field of forensic science has been left unregulated by both the judiciary and the legislature. In the year 2000-20001 the Annual Report of National Human Rights Commission shed light on the subject matter and tried evoking an response from the Central Government but miserably failed. Obstacles in the field of forensic science must be understood as obstacles

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<sup>18</sup> Supra note 8.

to the protection of human rights and must be taken up by the government and public in the strictest sense. A need for a Code of Ethics for Forensic Expert is a matter of concern across the globe and such code is necessary to mediate and expand contact between the forensic experts and public at large. Codes of ethics are institutional guidelines used to reinforce ethical conduct,<sup>19</sup> it is the written codified rules that govern behaviour of an individual based on moral value. It basically contains mandatory provision and target guidelines that help to lessen the burden of gray areas. Furthermore, the professional codes hold people accountable for diligent performance of duty and strict observation of ethical standards. It serves as a basis for disciplinary action and is regulated by law and the scientific community to regulate legal and moral behaviour of an individual professionally and personally.

There are no fool proof means of identifying the best expert or even identifying potential fraudulent expert. All those involved in using expert themselves, must be prepared to question qualification of an expert to the appropriate authorities if there are serious concern about their validity and performance.<sup>20</sup> Similarly, there is absolute no law or guideline that would efficiently regulate the biased structure of forensic laboratories especially wherein the investigative agency (i.e. CBI) is itself the owner of central laboratories is obvious that such examination shall colour the opinion of the investigation authority itself. The Aarushi Talwar murder case is the best example to bring out the structural flaw. While the court places reliance on such opinion the judiciary and the legislature completely disregard the concept of ‘accountability’; a profession wherein opinion of one individual could substantially affect the life of the individual and the public interest due to the aspect of justice, there is absolutely no personal responsibility that is attached to such experts. In a zeal to be the best forensic scientist Annie Dookhan tampered with drug evidence, cut corners, dry labbed, forged results in favour of the prosecution, fabricated evidences and committed a series of unethical acts and even though the Supreme Court of United States of America<sup>21</sup> tried to regulate such unethical conduct the expert remained unharmed.

It is pertinent to note that the legislature only governs the setting up of the laboratory and does not in any manner whatsoever deal with the qualification requirements, procedural mandates required for collection of evidence or storage etc. It is a matter of grave concern that there is no universal code of ethics to govern such a profession. In the case of **Baso Prasad v State of**

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<sup>19</sup> Souryal, S. , *Ethics in Criminal Justice: In Search of the Truth*,30-31, (UK: Routledge, Taylor & Francis Group 6<sup>th</sup> ed. 2014) (2014).

<sup>20</sup> Ibid.

<sup>21</sup> *Melendez-Dias v Massachusetts*, 557 U.S. 305, 129 S.Ct. 2527, 174 L..Ed.2d 314 (2009).

**Bihar**<sup>22</sup>, the Hon'ble Court held that medical evidence may corroborate the prosecution witness; in some it may not. The Court however, cannot apply any universal rule whether ocular evidence would be relied upon or the medical evidence, as the same will depend upon the facts and circumstances of each case.

In most cases, the technicians use up all available evidence preventing defense experts from refuting or verifying the results. A lack of documentation, failure to follow procedures, and not running scientific controls are also a part of the problem.<sup>23</sup>

There have been various instances wherein the forensic experts have abused their power by stealing drugs from laboratory after examining evidence<sup>24</sup>, wherein the forensic scientists are pressurised to testify to procedure with which they were unfamiliar<sup>25</sup> etc. It is pertinent to note that the structural framework does not even provide the basic opportunity to file a complaint thereby strengthening the argument in favour of formation of uniform code of ethics. Codes are a method of maintaining harmony with professional organisation as they are used to adjudicate disputes among members.<sup>26</sup> In the Indian scenario where red tapism, bureaucracy and corruption are at its peak an Ethical Code becomes a need of the hour as such mechanism will not only help establish standard protocols but shall also promote individual accountability which shall serve the criminal justice system better. Furthermore, in a country where numerous cases of corruption go undocumented a code of ethics shall provide a platform for whistle blowers in the field of forensic science and facilitate smooth governance of forensic science. It is important to lay down procedures in the field to bilaterally regulate investigators as if the concept of accountability is introduced flaw with respect to collection of evidence and investigation shall also come to light and various other flaws of the criminal justice shall be exposed. It is a matter of fact that experts are often tutored for presenting evidence before the court and they often do not provide complete disclosure in such cases a procedure to regulate such ethical issues shall prove to be useful. Furthermore, it is pertinent to note that an error committed by a forensic expert or scientist cannot be recognised by a layman or the judges in most of the cases and such error maybe found out only by another scientist in such a situation having a body that would regulate such issues is mandatory so as to ensure that unethical behaviour and conduct is not promulgated. Thus, there is need a for a universal code of ethics

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<sup>22</sup> AIR 2007 SC 1019.

<sup>23</sup> Supra note 8.

<sup>24</sup> Supra note 9.

<sup>25</sup> Steffen, J., Colorado, *Lab report shows potential issue with testimony on blood-test*, THE DENVER POST, (July 17, 2013 at 3:24 p.m), <https://www.denverpost.com/2013/07/17/colorado-lab-report-shows-potential-issues-with-testimony-on-blood-tests/>

<sup>26</sup> Supra note 12.

at national and international level so as establish uniformity and smooth governance it is a matter of fact that human is a social animal that fears hierarchy and functions better when under constant scrutiny.

## **X. UNITED KINGDOM FORENSIC SCIENCE REGULATION: A MODEL REGULATION**

Code of ethics as discussed above is not a national concern but an international concern too. In 2016, President's Council of Advisors on Science and Technology released a report that focused on lack of validity of many forensic techniques.<sup>27</sup> Concern with respect to forensic science was raised when nearly 23 % of wrongful conviction was overturned by the Innocence Project and in more than 250 cases DNA evidence had been unethically handled.<sup>28</sup> A comparative study of forensic practices across the globe suggested critical failings in forensic science are ubiquitous.<sup>29</sup>

Thereafter, United Kingdom adopted uniform provisions for high quality scientific evidence by forming Forensic Science Regulator.<sup>30</sup> The introduction of the same metamorphosed the forensic field in U.K. as it began focusing on providing legal guidance on legal obligation of expert witnesses, began promotion use of standardised procedure, it structured the unstructured field, it promoted research, it established accountability, provided anti-contamination guidance. Public comment guidance, it also defined values and ideal for forensic practitioners and completely revolutionised the forensic model in place. It seemed like a beacon for hope for many. However, the model had to imply soft implementation due to various reasons thus even though the model succeeded it did not reach the heights it was intended to.

While the model maybe appealing in nature it is practically impossible to implement such a model in India as the statutory framework in India does not efficiently recognise 'Forensic Science'. It is a matter of deep concern that a body that works so closely with the criminal justice system is so negligently regulated and even after incidents such as Aarushi Talwar case and reports by various authorities the statue has rather taken a static approach towards it. The statue or the government only controls the establishment of authorities and it in a very limited manner deals with their governance through notification and gazettes which in itself shows the archaic approach taken towards the field. The result of such a relaxed approach has forced the

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<sup>27</sup> John P. Holdren, President's Council Of Advisors On Science And Technology, Executive Office Of The President, Report To The President, Forensic Science In Criminal Courts: Ensuring Scientific Validity Of Feature-Comparison Methods (2016), [https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST/pcast\\_forensic\\_science\\_report\\_final.pdf](https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensic_science_report_final.pdf) (last visited MAR 3, 2020).

<sup>29</sup> Gary Edmond & Joelle Vuille, Comparing the Use of Forensic Science Evidence in Australia, Switzerland & United States: Transcending The Adversarial/Non-Adversarial Dictomy, *Jurimetrics J.* (2015).

<sup>30</sup> Andrew Rennison, *The Forensic Science Science Regulator Business Plan 2008-2009*, 104 (2008).

Indian judiciary to come to a conclusion that forensic evidence is a weak piece of evidence and requires corroboration.<sup>31</sup>

## **XI. CONCLUSION**

Criminal Justice System recognizes Forensic Science as an important aspect of its system. However, the analysis of importance of ethics in Forensic Science shows it is not only an important aspect but is one of the basic pillars of Criminal Justice System. Since the evolution of Forensic Science, there have been many cases providing the utter need of the Code of Ethics in Forensic Science. As the society is governed by laws, rules and regulations which are essential to regulate human behavior, similarly, Forensic Science which is used by Forensic Scientist who happens to be human, laws, rules and regulations should be mandatory to regulate their conduct.

The need of ethics are not only required to curb mistakes while committing acts using Forensic Science but it is also required to regulate the conduct of Forensic Scientists from being inclined to any human nature evil. Even though there are codes of conduct in some countries to regulate the process and conduct of forensic scientists but it is a dire need in the country like India, where there is abundance of several evils like including but not limited to caste, sex, corruption, regionalism, which may hamper a criminal investigation. In India, a Uniform Code of Ethics for Forensic Scientists is the need of the hour providing:

- a. Rules for moral profiling of Forensic Scientists
- b. Rules for the Conduct pertaining to collection and testing of evidence
- c. Rules for Independence of arm of Forensic Science and not subordination to investigation agency.
- d. Rules for Database and social protocol of Forensic Scientists
- e. Rules for Forum of Complaints against acts of Forensic Scientists
- f. Rules for preservation of evidence by Forensic Labs
- g. Rules for penal provisions against misconduct by Forensic Experts
- h. Rules for Independent and Neutral Investigations by Forensic Experts.

The Forensic Experts are the key which can solve the unsolved riddles of a crime and at the same time they may make a simple case a difficult riddle to resolve and thus severely damage the criminal justice system. The Soul of Justice in Criminal Justice System needs to be kept

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<sup>31</sup>S. Gopal Reddy V. State of Andhra Pradesh, (1996) 4 SCC 596.

alive and a Code of Ethics for the Conduct and Investigation by Forensic Experts is the need of the hour in India and worldwide.

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