



## NEUROCRIMINOLOGY: A FIELD OF PSYCHOLOGY THAT CORRECTS THE ANTI-SOCIAL BEHAVIOUR

**Bijin Thomas Zachariah\***

RCI Reg. Clinical Psychologist, Ph.D Research Scholar, Institute of Research And Development, Raksha Shakti University, Ahmedabad, Gujarat, India.  
\*Corresponding Author

**Dr. S.L. Vaya**

Former Additional Director, Directorate of Forensic Sciences, Gandhinagar, Gujarat; Former Director, Institute of Behavioural Science, Gujarat Forensic Sciences University, Gandhinagar, Gujarat; Former Director, Institute of Research And Development, Raksha Shakti University, Ahmedabad, Gujarat, India.

**Bibin Abraham Zachariah**

RCI Reg. Clinical Psychologist, Ph.D Research Scholar, Institute of Research And Development, Raksha Shakti University, Ahmedabad, Gujarat, India.

### ABSTRACT

Forensic Psychology is an applied field of Psychology that is related with law and legal system regarding the collection of evidences and reporting them for the judicial presentation. Investigative Psychology is an outcome of forensic psychology that would lead the investigative psychologist to help the investigating agencies by conducting specific psychological examinations related to that particular crime. But both Forensic Psychology and Investigative Psychology are purely related to path finder to give right direction in an investigation through its applications. But, there is a field that is linked to Forensic and Investigative Psychology that helps the individual to correct the anti-social behaviour that lead to criminal activity. That is known as "Neurocriminology", an intervention module for correcting Antisocial Behavior and thereby reduce the recidivism in jails, and juvenile homes. This article will give a glimpse of the link between path from the forensic-investigative psychology to 'Neurocriminology'.

**KEYWORDS** : Forensic, Investigative, Neurocriminology.

### Defining Forensic Psychology:

Forensic psychology literally is psychology to do with Courts of Law. The Latin or origins of the term forensic are much the same as those of the word 'forum'. The "Forum" is the famous law court of ancient Rome, the remnants of which still stand today in Rome, Italy.

An application of psychological knowledge or methods to a task by the legal system (Wrightsmann, 2001).

More specifically, forensic psychology is concerned with Applied Discipline Draws knowledge from the following specialized fields of psychology:

- Neurosciences/Neuropsychology
- Clinical Psychology
- Social Psychology

Forensic psychology is most importantly being utilized in the scientific interrogation of the accused, suspect, witnesses and victims. For finding out the truth about the occurrence. And Background information about the crime. To preserve the human rights. To uphold the dignity of the accused, suspects, witnesses and victims.

### Neurocriminology:

Neurocriminology model developed by Robert R. Ross, Elizabeth Fabiano & Roslynn D. Ross. It is not a "Faulty Brain" model. On promoting prosocial neurological development – Not on neurological damage. This model refines and extends the cognitive behavioral model based on empirical research not only on the relationship between antisocial behaviour and cognition. Also the role of emotion in prosocial competence; the development of empathy; prosocial emotional values; research on desistance from an antisocial lifestyle and research in social cognitive neuroscience. The Reasoning & Rehabilitation (R&R) module is the training program. It is internationally accredited, evidence-based, cognitive-behavioral program for teaching the cognitive skills, social skills and values that are required for prosocial competence.

Some literature that reveals the efficacy of Neurocriminology

module are:

Its efficacy has been examined in a remarkable number of independent international evaluations not only in Canada where it was developed but also in California, Colorado, Georgia, Texas, Germany, Scotland, Spain, Sweden and the United Kingdom (Antonowicz, 2005).

A 14% decrease in re-offending by R&R participants in institutional settings compared with controls and a 21% decrease for participants in community settings (Tong & Farrington, 2006). Another meta-analysis also found an overall reduction in recidivism of 14%, (Tong & Farrington 2007).

In India, Gujarat state took the lead to establish Forensic Psychology as an independent discipline to study, understand and interpret the behavior of the offender from crime scene to court rooms. The present changing times, with the tremendous advancements of technology and its greater access coupled with globalization have successfully aided the gathering of crime related information, contacts and material. As a result insidious growth of crimes such as terror activities and Organized crimes amongst others are becoming a source of concern. Thus, the future of police sciences depends on the growth of behavioral sciences in understanding the behavior of the complainants, witnesses, suspects, perpetrators, and accused, without which it may be difficult to get the justice to the victims of the crime. It is high time that professionally trained behavioral scientists start using their acumen beyond deception detection by extending their services to the prevention, and correction of criminal cases and also strive to develop Forensic Neuro Criminology as an independent discipline.

The experiences in the twin areas of Clinical & Forensic Psychology fields have taught one important truth; i.e. even the most organized and complex crimes are rehearsed in the 'mind of the perpetrator'. While physical evidence may not be available at the scene of crime; motive and the intention are registered in the memory of perpetrators. Forensic or investigative psychologists deal with this memory by assessments of suspects, accused and eyewitness. They also assess their motives and intentions including malingering. As a

result, investigative Psychology as a discipline could become instrumental in crime prevention.

As professional psychologists in clinical or forensic sector, basic concern is to study the human mind and behavior. Any deviations from norms observed in systematic investigation draws our attention. It was surprise to discover past history of mental illness in few suspects accused of serious crimes. They were apprehended as suspects identified as a peripheral member of an organized crime unit and were referred for detection of deceptions. Especially in cases of riots and mob violence, a careful tracking of past medical records reflected psychiatric intervention for mental illness. However, when they were suspected of a crime and were brought for investigation, none of them reported their past history of mental illness. Something as seemingly mundane as this is a matter of research to study whether past history of mental illnesses have any correlation with deviant behavior which is seen in riots and mob violence incidences. This reflects a clear overlaps of clinical and forensic domains. Thus there is a need to study the clinical symptoms and deviant behaviors on a continuum.

As a Professional Clinical Psychologist of Mental Health Sector as well as a Forensic Psychologist catering to the justice delivery system, judicial system is overwhelming in their support to accommodate and accept discipline of "Psychology" to understand human mind and criminal behavior. As a consequence any advancement in the technology to assess deviant behavior, interventions to reduce recidivism is always welcomed in a monitored manner.

#### Principles-Techniques-Scientific base

- **Psychophysiology - Polygraph & LVA** (Lie detector examination) Forensic clinical psychology base.
- **Electrophysiology – Brain Fingerprinting Technology/Brain Mapping**-Neuropsychology.
- **Psychoanalytical/psychopathology/psychodynamic – Forensic Psychological Profiling**-Psychological assessment - Forensic clinical -experimental psychology.
- **Cognitive Behaviour Therapy**- Neurocriminology (Clinical-Neuro-Psychology) - Correctional Psychology.

Twenty years ago, when brain imaging made it possible for researchers to study the minds of violent criminals and compare them to the brain imaging of "normal" people, a whole new field of research — neurocriminology — opened up.

Adrian Raine was the first person to conduct a brain imaging study on murderers and has since continued to study the brains of violent criminals and psychopaths. His research has convinced him that while there is a social and environmental element to violent behaviour, there's another side of the coin, and that side is biology.

Neurocriminology is a neuroscience technique to probe the causes and cures of crime. Neurocriminology studies the makeup and composition of the brain and looks for correlations between characteristics of the brain and criminal behaviour. The very rapid developments taking place in brain-imaging science are creating a new approach to our concepts of responsibility and retribution on the one hand, and understanding and mercy on the other. (Ross RR. 2008)

Neurocriminology is documenting structural and functional brain impairments not just in antisocial, violent, and psychopathic individuals, but also in spouse abusers and white collar criminals. Neuro-criminologists are proposing a neuro-developmental contribution to crime causation. By Neurocriminology researches, it is clarified that the brain circuits found to be impaired in offenders parallel the brain circuits found to underlie moral decision-making in controls. Recent researches in neurocriminology, are outlining implications not just for the field of criminology, but also for concepts of legal and moral responsibility, free will, and

punishment. To this end, the legal implications of brain research, free will and the neural bases of antisocial or criminal behaviour are of central importance. Understanding responsibility, free will, and punishment and their relationship profound debate brewed in Neurocriminology; if the neural circuitry underling legality is compromised in offenders, is it morally and legally wrong of us to punish prisoners as much as we do? The relationship between belief in free will and third-party punishment of criminal norm violations have been the subject of great debates among philosophers, criminologists, and neuroscientists. (Arian Petoft, 2015)

Free will is the often unspoken center piece of the criminal law, which presumes humans are responsible agents, who are free to choose to comply with social norms or violate them. While many texts discussing the forensic implications of neuroscience refer to cases where brain damage such as that caused by an accident, tumour, or surgical resection is related to alleged criminal behaviour; this is the idea thoughts criminal, antisocial, sociopathic, or psychopathic behaviour is linked to focal lesions of the brain (Schleim S.Brains, 2012).

Today, by Neurocriminology studies, (Legal Responsibility) is far away from its classical sense. Neuro-criminologists by considering, pondering and interpreting brain-imaging, endeavour to prove relative offenders responsibility. There are multiple neuro-scientific documents that imply the truth of their claims. To test their hypotheses, neuro-criminologists combined functional magnetic resonance imaging (fMRI) with a third-party punishment task, asking healthy subjects to estimate how much punishment a hypothetical offender deserved for a set of prototypical offenses ranging across severity of crime from property destruction and theft to rape and murder. (Krueger F, Hoffman M, Walter H, Grafman J, 2014)

Biological and neurological explanations for criminal behaviour raise key questions for not only how the criminal justice system can incorporate the science of neurocriminology, but if they do, whether criminal punishment as we know it can continue in the same vein.

#### Conclusion:

Let us not forget: Central to all this is essentially **A HUMAN BEING**; call him a suspect or a convict, he has to be understood in the context of his experiential world which is responsible for shaping him. The society has to maintain its order in the interest of "loka samastha sukhino bhavantu"; But it also has to act to ensure that no one deviates to join the crime world. Those who get punished, see this as an opportunity to redeem themselves and come back to join society as meaningful productive members. From our experience, we do not believe that the journey of these individuals is only that of Crime and Punishment. In a larger way, this is a journey of self-actualization of an individual, of the victim and that of a social system which is also looking to reform and not segregate. Probably venture of Neurocriminology as a module to correct the accused of social system is the hope for the future (Dr. S.L.Vaya – C.S. Kang Oration Lecture, NACIACP).

"Rehabilitation of delinquents and offenders - they said it couldn't be done. Many say it still can't be done. Some say it shouldn't be done. But it can be done. It has been done. It is being done. We hope it will continue to be done. The question we address is: can it be done better?"..... Dr. Robert R. Ross.

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