How does Brain Matter? The Case of Dignified Mind and Law

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Abstract

What does the brain mean in a legal domain and how the integration of neuroscience and law goes beyond the practical difficulties highlighted by the social scientists and legal theorists? On the one hand, the legal theorists took it as a conceptual error and on the other hand, advocates of neurosciences took it as a promising emerging field of integration. Some scholars took an alternative route considering it as a fascinating element of scientific discourse. The present article aims to show that the coming of "brain language" in comparison to the other forensic languages in the everyday legal discourse is not going to become a reality, as truth inferred through the everyday experiences and the interpretations of scientific knowledge by the judges. Scientific knowledge through the mapping of active brain area by the available brain visualising techniques shows the correlation between brain and behaviour and not the causation. So its use in the legal domain seems less institutionalised, showing the determinism of the brain as less authentic in itself when compared with the intuitive path embedded in the culture and history.

Keywords: brain, law, mind, discourse, dignity of mind

Is the brain the reality to be considered as a scientific object for neuroscientists? For the mind, we have explanations in different theoretical models and is debatable, but the brain had proven its stand as the tangible site of neural firing through many techniques, for example, fMRI. The exciting work (Libet, Gleason, Wright, and Pearl, 1983., Libet, 1985., Libet, 1999) showed the

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brain could respond before an action occurred. Though this difference was in milliseconds, the impact of Libet et al.'s research was to create a debate in the legal domain among concepts such as mind, free will, determinism, and responsibility (e.g., Glannon, 2009; Pardo and Patterson, 2013; Santosuosso and Bottalico, 2009 Smith, 2011; Zeki and Goodenough, 2006). Among these categories of work, different strands, such as brain determinism, the capacity of the human will and compatibilism showed that both brain and free will, complement each other.

The mind in the legal domain, however, is picturized into two inflated and bolstered images, one that mind is an individual's mental resource and second, the mind is simply brain activity, and both the views have always returned to the scepticism (Pardo and Patterson, 2013; see also Miller, 2010). Other perspectives of mind, for example, as a soul and as behaviour, have also been rejected due to the rise of cognitive revolution (see Chomsky, 1959) and paradoxically linked to the debate in the religion where soul matters or overpowered by the 'machine metaphor' of mind. The legalists reject the essentialist meaning of mind but may have taken the wrong turn by inferring on the cause of the action linking it to something like an intention to act. The location of intentions seen in the language communicated rather than something superficial like computerised interpretations of the brain relating it to behaviour. However, the affirmation and acceptance of something obnoxious before committing the act, confirms the responsibility of the person as per the judicial norms. The intentions and knowledge of the actions committed explored through the displayed evidence which is present in the external environment and just not discovering something in the brain as a singular fact. All the evidence and observations interpreted in the social context before reaching for any concrete decision. The activity of the brain is not the intention and intention is not the behaviour was entirely acknowledged by the scientific community as a mereological fallacy (see Mora, 2018; Bennett and Hacker, 2003).

In the legal domain, individual responsibility matters for any legal action provided that the response was under control, for example, the insanity law where the response buffer due to the uncontrollable spurts of insanity does not imply the individual responsibility. Here the uncontrollable cause outperforms an individuals' free will and control, leading to the lowered sense of responsibility. Similarly, the construction of the brain discourse where the brain as the principal controlling agent of the body diluted the intensity of the individual will (see Libet et al., 1983). Though the legal domain still considers the brain as part of the corporeal body which took part in the actions categorised as criminal or uncivil, the dominance of the brain discourses with its varieties of structure and function has taken a grip of the current logic as compared to the earlier one given by the legal experts. Green and Cohen (2001) to have an empathetic

approach towards the consequentialist approach to punishment, regarded the brain as a solely deterministic object of human behaviour. Since mind considered as a primary causal agent, no one should be punished for his/her will and action which is regulated by the brain as it is the brain which fired and led to the behaviour.

The debate against retributivism and consequentialism, as the former believes on the cause and effect, and latter is the avoidance of the criminal or any undesirable acts in the future, is grounded on the assumption that laying the complete responsibility on the person as such may be erroneous and against the humanity. Both retributivism and consequentialism attribute the burden on people rather than people's brain, thus refuting deterministic possibilities, as the brain is the evolutionary property and people own it. The responsible based on their past observable actions and missing something more potent operating on the individual such as a brain is like a whole train which is accountable for getting derailed rather than the engine's mistake only. The legal domain based on responsibility and justice looks for many distinctions such as responsibility, guilty mind and guilty act, intention and free will to yield insight that is of interest to study the interconnected causes. The general agreement in the legal system about the nature of law based on Cartesian presuppositions, where things oscillate between dualities of precepts and antinomies such as right and wrong, good and bad, responsible and irresponsible (Goodenough, 2001; see also Pardo and Patterson, 2013).

Brain observations and connecting its neural firing as one of the causes behind any action does not separate individuals from the responsibilities of owning one's actions. Brain events, it implies from the above arguments, do not refrain person from the responsibility, but it may not indicate the will. As some of the cases stating that the child's raging behaviour has to do with the amygdala activations in the brain but does not mean that the child is not responsible and either he has willed. Responsibility in the legal domain is on the willingness and intentions of the person, which makes the person responsible. Any anomaly in the brain which led to a deficiency in the accountable and pro societal actions, however, does not reliever the person from responsibilities, in the consequentialists terms, despite the theory of knowledge that the person has not intended and willed his action. In the legal domain, the search for causes is paramount in the decision making, and sometimes the faultiness occurs due to a misunderstanding between causation and correlation. Brain data correlates with the action as such, there is no proof of its causal role, though it is in human nature, in general, to take both as one. Goodenough and Prehn (2006) expressed hope with the emerging discipline like cognitive neuroscience bringing change in the normative judgement in law and justice. Since brain studies offered help in the legal decision making, they posed a challenge to the

experiences of judges and the long debate about the responsibility and free will. Goodenough (2001) was of the conclusion that brain research act as a boon to the legal domain adding to the argument made by Green and Cohen (2001) about the brain that it may bring change at the remarkable level. However, legal realism accounted for the scientifically observable facts about the cause of action (e.g. crime committed) despite the human subjectivities and biasedness. It values the authenticity of the methods which presents the reality of social activities, thoughts, intentions and will in pure form, eliminating the common errors which elude the fact.

The actions without the person's consciousness and control rigorously scrutinised, where the empiricist and realist judges relied more on their intuitions and experiences (see also Haidt, 2001) than something metaphysical like mind or the brain whose findings only can act as the shaft in the heap of grain. The intention is nothing but a way of thought, and its location is sceptical, whereas, the brain objectified but it is too late to know about its propensities to led to the action as time has already passed. This logical inference discounted the brain studies much than the intuition of the jury or judge to act in the present to review the matter. So, the dominance of observable prevailed rather than the person's psychology. The inference about the psychology was more a matter of the theory of mind where the perpetrator or the victim's brain was understood through the folk psychological notions and that too in the bosoms of the collective circle of the juries and the judges. Thus, the mind and its importance questioned by extending further to the emerging debates on Mens rea (Guilty mind) and Actus Reus (Guilty act) (see Morse, 2016; Patterson and Pardo, 2016). The legal domain though ventured into the truth of actions which no doubt is an act of the individual towards whom responsibility is laden, and it is him only who becomes part of society and may be a potential threat to the members of that society. The intentions to act was difficult to locate unless the analysis laden into the language of the individual and how he communicates about the event. The truth and falsity is a matter of how communications enacted in the public and private domain. Thus, if the reliability of some pieces of the evidence establishes than facts are clear, otherwise, it is false, and the person is under the judicial scanner again.

The dignity of the brain and mind

The issues undertaken in the current article is about the emerging of brain discourse in the legal domain, and since brain discourse seems to be a scientific discourse, it may corrupt the idea of legal sensemaking through its all-encompassing techniques legitimising the discourses with subtle power dynamics of science and non-scientific undertakings. The power

to culturally understand others through reflexive understanding seems more to rely on brain neural firing rather than real empathy towards the others dignity. Though in the legal domain, a method to find the cause of the action makes it refined for the justice, the location of causes is the matter of exactness rather than certainty (see Heaton, 2000). 'What leads to what' is a statement amenable to interpretations, but the most precise and visible aspect of mind is what seen and observed in the individuals' engagement with the social world. The story of people matters, but fixing upon the intentions which are considered necessary in the dominant psychological literature, as something within the person, may be a matter of interpreters' experience and their societal position.

The categorisation of story into authentic and inauthentic based on available stereotypes is some quick assertions of true and false. The mind is a matter of reflexive observation where understanding emerges cooperatively through the exchange of language of whatever form and allowance for crossing the boundaries of stereotypes. In the legal domain, often we encounter negations about the existence of a free will and its mythical character, where all that matters is the responsibility and ownership. Responsibility can be elevated or diminished depending upon the circumstances, and available evidence recognised through some scientifically acceptable methods. However, free will generally seems to be more wild and careless with no evidence to its support and thus does not deserve to be taken seriously. Legal domain believes in both action observed and the intention which derived the act, there is a thin line between free will and responsibility, separating them intact. It is another matter that free will and responsibility have taken to be one and same. As we see how the words "ought" and "can" are separated through the severe deconstruction of the language, otherwise, they may be taken as same in our everyday understanding (see also White, 1993). In one way, it is an objective version of the object and reality, where an object in the external world represented as it is. This representation is the benchmark of clarity where the object is described and not laden with subjectivities and the experiences of the observer.

Similarly, the free will as an expression of the intention of some mundane object in the external world also implies a responsibility to own the expression. So, in one sense the declaration of intention is not the cause of the action, but it is action in itself, though, its location by adopting a series of steps, makes it as a cause. This article is not rejecting the cause, but finding the actual cause of action was a matter of interpretations, which dominantly happens in the court. This interpretation, if legitimised, becomes the truth. So, becoming fact is more important than the cause which happens to be as a marker of the action. If that established truth confronted by the new arising anomaly and ticklish questions, the very first thing the legal

agents do is to go for the reasons and causes and match up with the previously located cause. There is always something to be explored, which looks like the cause of the behaviour and then linked to the free will and responsibility. It always seems like post hoc explanations of some events occurring in the empirical world. Usually, the occurring of an incident led to the cause, which is considered to be the best possible cause. We are temper by the scientific naturalism, where we are naturally searching for the causer of the event, where one object led to the movement of the second object. The most dominant effect, such as, some pain-causing event, is the most recognised event, and we start in the backward direction from it in search of the cause which we assume to be the best cause with some legitimised methodologies. The point made here is to understand the meaning of the cause which had led psychologists to emphasise brain, mind and behaviour in a workable context of societies interpreted through different ideological frameworks. What matters here is the theoretical stance taken by the protagonists, as mentioned earlier, to avoid the uncertainty inherent in the complexity of human nature. For example, when psychologist speculates about the emergence of any phenomenon such as thinking and manipulation of information, in the majority of cases, his methodology focus on the environment in which some activities operated which he deterministically alludes to something in the ability and neural firing. In one way this is a simple activity where we act on our environment, though its link inferred towards somethings conjectured as the cause. The cause determines the certainty of the event, at least in the natural sciences. In the philosophical domain and the psychological domain, causes are the source of events, but the probable one. The psychologists are more possessive about their causes than philosophers, as in oppositely critical psychologists are ready to critic the cause as a person who de-philosophise.

The objectification of the brain

The new avenues are always discovered about the brain rather than new critiques as it happened when the mind theorised. Though the acceptance of brain as a causal entity behind the action is debatable. The meaning of brain and mind in the philosophers, psychologists and neuroscientists language has different versions, where, one embraces them together, rejects one at the cost of other, deny completely, or somewhere stuck in the dominance of language. It may be a pertinent query for psychologists, that how brain science comes into our commonsensical language and how does it matter at all in our everyday and ordinary exchanges of discourses and interactions. Eisenberg (1995) was of the view that the brain and mind are social construction comprising both the biological and social trajectories. The brain studies which are gradually becoming an essential insight into the legal and other domains such as education

filtered through the dominant societal lens, such as, realism and neorealism, where brain and mind supervene on each other as an epiphenomenon. However, brain science not merely portrayed as social constructions though socially constructed objects accepted as real objects in the empirical world. Why will one not go for the neurological treatment if there are signs of a tumour visible through the fMRI? Some of the research in psychology and neuroscience took the positive side of the brain as a determining force for our cognition, behaviour and emotions, and some accept its importance in existence. Some of the recent works re-looking into the legitimacy of the Libet et al. (1983; 1985) work found the result as affirmative, showing the unconscious determinants of our actions in brain activity before the intention becomes conscious (see Soon et al., 2008; see also Schleim, 2012). However, this does not mean that consciousness of intention led to the action, because the person may also then choose not to act (e.g. Schleim, 2012, p. 105; Trevena and Miller, 2010). However, further research led to couple of findings which questioned the reliability and validity of experimental procedure which was used (Libet et al., 1983) leading to their strict reliance on some part of the brain which are more active in the conscious state of mind then in the unconscious state (e.g. Bunge, 2004; Schleim, 2012). Some of the recent work also analysed the Libet's central notion of the 'initiation' of freely willed processes by the brain in terms of a cause, a necessary condition, a correlation and a regular succession (see Radder and Meynen, 2012, p. 3) and found none of these interpretations supported. This latter studies did not find any concrete evidence of support for the link between free will and the brain.

The hegemonised belief about the brain is something connected to the mind and intelligence or cognition in itself. Every human and other species live with their brain as per the realist account and the relativist perspective, their brain is onto some contexts too. There are many versions of the brain which has now replaced mind, such as the individual brain to the collective brain, and from the neutral brain to the political brain. The upshot of all these naming and social contouring of the mind legitimately reverts to the standard and scientific guidelines about the brain as imposed or in other words specified by the neuroscientist. For example, the role of amygdala size in the social cognition (see Amaral et al., 2003; Adolphs, 1999) and the political choice (e.g. Nam et al., 2018) is noted to be what neuroscientists speculated through the available techniques. However, there is research which argued against the unquestionable reliance on the neuroscientific techniques (see Mobbs et al., 2007; Jones et al., 2013), especially to the legal decision making where responsibility and action matters. Since brain information is the interpretations by the neuroscientists' based on the probable connection of the brain's neural firing and the actions or intentions, still these interpretations

are based on the correlations obtained between change in the brain structure and externally observable effects. The validity of the arguments is debatable and controversial in the courtroom and interdisciplinary circles. Metaphorically the expert's reliance on the neuroimaging techniques only shows the picture of the brain like bumps, contours, blood flow, as it happens when one sees down on the earth from an aeroplane in the night (see Mobbs et al., 2007).

Though this picture may fascinate the judge and effect his decision making, these symbolise the hyper-reality of the brain and action amenable to different qualities of interpretations. Close observation may show the overlapping the various brain regions making it difficult to say for sure the exact temporal and spatial activation (see Overwalle, 2009). Thus, an inference of related constructs of the mind, such as intentions and beliefs, as constructed entities rather than obvious ones. Though it looks like an accurate observation but embedded in logical fallacies, these assertions are congruent to the knowledge and intuitions of the judges as sometimes it unintentionally falls into the mereological fallacy leading to errors of categorisation (Bennett and Hacker, 2003, Bennett et al., 2007). Since brain in itself amount to nothing but a mass of organ located somewhere in the head, unless its importance as a principal bodily agent playing an essential role in other physical functioning, social interactions and cognition have been defined and brought to the common understanding. Morse (2016) called brain as an electrochemical machine which itself do not have consciousness of past, present and future and nothing like any remorse embedded somewhere in it that oneself gone in the future. He called these the property of a person (p. 34). In one-way brain was seen as an objective entity like a machine which has nothing to be blamed or rewarded. It all happens with people, an agent who has the will and who holds the responsibility and liability. The reduction of people to some entity like the brain is against the dignity of mind and humanity unless its use by the external observer is for saving the agency of people (e.g. The model Penal code; M'Naghten test). The concept of responsibility, intentions, knowledge implies the 'acting intentional agents' (Morse, 2016) and the reduction of these concepts to the brain shows the power of the institutionalised and traditional form of discourses. The brain language has become the norm for some, and to others, it has been a conscious rejection. In the legal domain, brain information looks absurd as it only shows some pictures rather than the correct causal theory of action (CTA) (Aguilar and Buckareff, 2010; Morse, 2016, p. 32). It is in the everyday social, and discursive practises that brain got legitimised and all other mental construct got attached to it. The brain studies built upon the assumption that there is a central regulatory force which determines the action and intention, but intent ascribed to the series of neural activities

leading to further prepositions that intended cause is linked to the brain (see Pardo and Patterson, 2013). Further, Pardo and Patterson (2013) stated that "empirical gap between current information about the brain and particular mental states is too large to infer whether a defendant did or did not have a particular mental state (P. 135).

The person action comprises the integrations of beliefs, intention, will and responsibilities, which are itself nurtured in the cultural context, which is a shared and collective process. As a brain, as per the available analogy, has a particular shape and is complicated with the coming of new neurons and depletion of dead cells, may also correspond to the complexities of culture. So, does the brain understanding is limited to its structure and function as derived out of scanning? Are we not living our brain and our experience matters to our agency? If one's action makes the person a legal agent according to the standards of criminal behaviour, the person is guilty prime facia. Though it is a matter of debates and dialogues about what comprises guilty intention, this aspect carefully studied by neuroscientists acting as an expert in the courtroom. However, the main criteria of consideration depend upon proving the responsibility. If brain information is showing that the person's act was due to brain abnormalities, the responsibilities diminished, leading to rehabilitation. The primary arguments are about the creation of the brain in the scientific dictionary and making it one of the best lens to understand society and law. Brain studies go together with the societal perceptions where its notions created through scientific activities and practices (see Bhaskar, 1989; Harre and Secord, 1973; see also Adolphs, 2009). Brain and mind under one paradigm and conceptual scheme seem to be problematic, and here the dignity of both can be critically ventured. In the legal domain, neuroscientists with their view and data only act as an expert, but the last decision is with the judge whose approach is not based on the act of singularity but in its more dominantly acceptable format laden in the collectively constructed viewpoints. The commonly accepted worldviews and its theory about the validity of evidence seem to be prevailing in the courtroom and collectively recognised.

The brain research present one model of reality, wherein, the fact is considered to be laden somewhere within the sophisticated discourses. Though this is harsh truth that fact in whatever way it occurred, and which was pregnant with the event, caused maximum attention, to the social beings, as a product of imposed history. The problem with the precise meaning of the brain is its universality of structure and the variations in the neural firing making the person act or think. Here the intuition of the legal players has the potentiality to cross the reductive approach of the brain sciences. The brain as a determiner of the action causing the event and the repercussion of the event again make the brain the determiner of new effects, place the

whole scenario into the circles of predetermined destiny. This kind of arguments are against the will and responsibility and to some extent, undermines the dignity of brain and mind. Do brain studies have anything to do with the critical social sciences such as understanding race, caste and poverty? Brain studies though try to remark the societal dilemmas such as the meaning of truth, evidence, phenomenological experiences and its expressions, its approach to understanding is always correlative rather than predictive. The brain exists in varieties, as in the biological sense making of various species including the robots, and metaphorically to make its idea on sale about its importance directed towards multiple domains such as ethics and morality, interactive and social, political and cultural.

The current article brings into our working knowledge, what we observe as cultivated brain data, may be a misnomer to the actual reality of knowledge since the ontological aspect of any experience is epistemically constructed for the convenience, to be defined. For example, activity in the anterior cingulate cortex and chances of manipulation may show the tendency of lawmakers and judges to believe in their established logic of interpretations or altogether reject it depending upon the hold in the judiciary context and recognition as being authoritative. The position taken by the judges and juries is a matter of knowledge about something circulated in a sophisticated way, such as the knowledge about the meaning of stealing, and that wholesomely matter to the act. The mediating role of intention between the neural firing and the action is not apart from the contextual underpinnings, where the moral appropriation of operations defined in the cultural context. The commonsensical understanding that human has an inner sense of morality and the normative moral sense is embedded or is in the knowledge system of the individual. So, if one person is in the social field of the other, it is understood that the person is harmful or has a moral sense. In our collective understanding, the rule-abiding, social, conforming and the institutional person may be the virtuous person. This ordinary or common sense of understanding others meet a shock if the normative boundary crossed or the persons act eccentric or illegal. The activity the and the engagement with the social environment like manipulation of the various social objects, human, animal or some valued things, seems to have a certain degree of relationship with the traditional way of engagement. Generally, intentions linked to this engagement are also quite established. However, the nature of intention may vary as, for example, the reason to steal does not matter in front of the action and its normative interpretation as stealing is illegal and criminal. In front of this assertion taken as truth, any genuine intention become opprobriously embarrassing and altogether amenable to be rejected. Thus, the communication of the intention and its consideration as truth or false rightly matters.

The contentious view regarding the truth in actuality and the logic behind its proof is about its exact property, which makes it accurate in the empirical domain of law. Intuitions are also the matter of some experiences and fit of rationality, though not accessible in the conventional format of decision making. In that sense, the role of brain knowledge through the experts are logical propositions taken as standard. The activities in which brain scientists involve and engage with the tools to understand the brain and behaviour make their knowledge sophisticated and authentic. Though the generalisation of the brain knowledge observed as per the neuroscientist's worldviews and interpretations (see Harre and Gillett, 1994), the role of brain structure has only given knowledge about acts and activation of the brain structure. So, the statements of confidence like "Amygdala is responsible for the social cognition"[1] becomes the assertion of science depicting some realty. So, it is not that the reality of the brain becomes apart from the normative understanding of any truth, for example, the attitude of right-wing supporters towards migration. There are studies (e.g. Nam et al., 2018), which have conjectured their arguments based on neuroscientific evidence. However, these lines of cases embedded in some template where socio-political matters are valued. If this template not evaluated, the assertion of brain scientists' hardly matters, and its ontological stance is beyond the realm of understanding. For some, politics are the terrains to some mean and ends, and for some, it does not matter, similarly, the assertions which matter to the legal domain in finding the meaning and facts[2] contribute to the understanding of the context. The language used by the brain scientists must match with the style used by the legalists to have reliability in the framing of the decisions, the though, technically, this is not possible, as the context of the language the construction for both the domains differ.

The domain of law seems compatible with moral responsibility and free will, whereas the field of brain is incompatible with free will and here the mechanism and determinism become more evident. Even the surety about the deterministic role of the brain questions the brain functioning considered more as mechanistic combined with indeterministic or random events of neural activity (see Roskies, 2006). There were studies which showed that despite the

[1] Author is not aware of any exact statement like this, however, research, show the role of the amygdala in the social cognition (e.g. Adolphs, 1999, 2001, 2010; Amaral et al., 2003; Emery and Amaral, 2000).

[2] The facts and meanings linked to several linguistic assertions are embedded in the logicality. Truth exists, but the picture-laden about the truth in the language may be nonsensical or can manipulate. The anti-philosophical accounts of Ludwig Wittgenstein (e.g. Tractatus Logico-Philosophicus) were about pictorial form embedded in the language. Wittgenstein stated that language has its structure and use and every use is laden with the rule of use.

assumption that determinism is right people held the person morally responsible (see Nahmias et al., 2007) The emotional aspect of people is highly visible and analysed and this adds to the responsibility and the freedom of the will. What we observe is not some brain walking or speaking and the showing ambitions, but we as interpreters commits to the human emotions and body language. Here the action and intention merge and clarify the causal inferences as being true or false.

Brain and discourses of law

Brain in itself does not say anything or do any action except giving a way of novel interpretations of its active parts by the interlocutors who communicate its presence and activity. The building of scientific explanations at the institutional level provides impetus to the common belief about the brain that it is an organisation of the stipulated parts and are logically organised (Benson, 2001). The emergence of the brain and its link with the mind is somewhat a realists' account, where the brain placed outside the individuals' perceived social world, within the corporeal individual who is a social being (Harre, 1993). The legalist falls into one fundamental question, 'whether the accused is involved in the criminal act or not, in the same way as brain scientist falls into the mysteries of attribution of the brain to actions or not. The brain state of the person during the criminal act and after the crime committed may vary or change in due course of time, that is, the activation of brain structure in the particular situation, the duplication of which is highly improbable in any artificiality of the case later. Otherwise, as brain theory might explain that a similar or exact location may create the same intentions and may lead to similar kind of actions. Does this imply universally to all humans and animals? There action as observed to be standard or not, and if not, then non-normative to the role expected of it from the observer's perspective. Is this an assumption to have seen the human acting in a standard way in the particularities of the situation? So, in this case, does the value of the free will matters to avoid acting as much it is expected to be in the realm of the standard behaviour? Can a person avoid a situation that may instigate the criminal act? Is it the matter of the framing of the brain through training oneself and brain to prevent the particular action in those situations? Though, there are many control models to the behaviours contrary to the societal standards. Does the criminal act is a matter of the case compelling the actor to engage in this action, despite the person's brain activations, showing the congruity? As the operation of a human being not fragmented into parts, for example, his hand did this, or her brain did that, any statement professing the mechanism of the body part may be misleading. It is absurd to align one's motive with the device of hand movement leading to some criminal

acts. The knowledge of one's action and the belief about the intentions matter much in the legal domain, which pursued through many channels of judicial decision making. Thus, the effects overall, despite all the expert's nuances are manifested holistically, and not constructed in parts.

The brain consisting of its parts in different lobes has a complete influence on the personality of the individual. The question about brain and locations and functions of its components may be an error of categorisation to the human will and responsibility, leading possibly to the underestimation of "neurological requirements". These neurological requirements imply the significance of the brain and this had been shown through the number of studies about its importance in the basic human functioning comprising emotions and cognitions in the social world. The brain-damaged person show behaviour contrary to the person whose brain part is assumed to be intact and symmetrical. Here the legalist may add to his intuition to dilute the intensity of blame and accusation about the behaviour of the patient in the situation. The dignity of the brain and mind consists not in their boundaries and duality as they are not two different aspects of human, but each corresponds to the other, and any conjecture about the dissociation of two commence to tautology and superfluity.

The narrative of the person's life in which the person constructs his world may find disconnection when the new situation arrives even in a similar context. Here the brain of the person adjusts to the unique position, and a new self-narrative formed. The law and brain can have a connection to the point where the past of the person makes it presence in the present situation through the memory leading to the confession, any change during that period does not matter (see also Gazzaniga, 2008). So, who is responsible for the person of the past whose brain is no more in that state? Also, why the whole agenda of the brain gets disconnected generally from people and most of them do not put any value to it in their everyday life? The disconnection and public disengagement of neuroscience is a matter of not finding any existential meaning to the scientific questions which neuroscience raises. Some of the scholars were seemed more doubtful about the neuroscientific interventions and rejected it as a fad (e.g. Ashkanasy, Becker, and Waldman, 2014). It is imperative to consider the discourses prevalent dominantly in the legal domain which decides the nature of cognitive interpretations.

The discourses of the brain are more contingent with its description rather than some explanations. The existence of the brain in the everyday conversation becomes a reality and emerge as some of the facts about the beings embedded in the collective meanings constructed out of scientific technicalities. The truth of the brain is instead the reality of the dominant form of interaction automatically emerging in the situations of the legal domain. The very picture of some reality depicted through the sentence construction of the witness only describes some

conditions in the present and is phenomenal rather than causal. In that sense, the brain and its role in both the actions and reactions of crime only carry some description. However, the cause and the ostensive meaning of that description taken for further analysis. In this whole process of inferring the object based on the specifications, which consist of the sets of entities in a correlated format[3]. The brain-based data to understand about the causalities about the actions gets limited by the temporal and spatial location of the individuals, and one has to be careful in the deterministic attributions since data in itself does not convey anything unless given value. In the case of brain studies, where the areas of the brain show the activations, and it attached to the previous picture of data leading to the correlation and causation. The activation of brain area may have meaning, or simply it is like a biological functioning of the human body which is taken for granted until the person becomes mindful of some bodily event which is unique, for example, increasing of heart activity or loss of the vision and so on. Brain data are limited data based on a couple of instruments based explanations, and it is quite improbable and not clear that the activation in some particular brain part is experientially same for two different people in the varieties of contexts. The cortical functioning no doubts vital in the cognitive manipulations, but the cognitive manipulations connected to the intended thinking does not have the surety of similarity of the experiences of different people. This argument may contest from the cognitive neuroscientific perspectives, but as there are no limitations to the methodology associated with the cases, so the propositions of doubt directed towards the exactness of the meaning of brain functioning is contestable. Thus the questions about the existence of free will and intentions towards the action do have anything to do with the brain is metaphorically understood like the river which flows in one direction only to be diverted towards the other ground by the people to avoid drought in that area. So the brain functions as a result of fine temporal structure in neural activity (Date, Bienenstock, & Geman, 1998) but the directions of its functioning seem to be stated by the will of the agent.

The brain functioning in any way legitimises the legal philosophy of retributivism, historically avoiding the mistake of determinism, in the name of scientifically discovered neural activities. What can be the nature and representations of the brain, if those techniques of brain scanning did not exist? The fundamental questions like this may provide more understanding of the significance of something like a brain in the human. How do people come to know about the brain and in what way does the discourse of mind framed? As we discussed

[3] Descriptions are the storytellers' connections of events and the inferences about the cause is the secondary constructions where the idea of truth and false emerges.

previously, that ontological argument about the brain existence does not preclude the dialogue not taking into account the presence of the brain? In one way, the brain plays its role despite the various debates of its life or not, which leads to the varieties of conclusions. In the current times, the information about the brain scan available through the neuroscientists can be possible, which may create more debates on legal decision making (see Gazzaniga, 2008). However, this chance of rising disputes was less earlier when no information about the brain was available. Some of the debates about insanity and control over the event led to the shift towards the understanding of the will and responsibility. For example, the famous M'Naugten test changed the nature of the debate about the insanity had made remarkable ado in the future.

What was the nature of justice when no brain scan information was available (debate based on Green and Cohen, 2004)? The language which denotes the brain functioning are the spurts of interpretations which the experts organise based on his experiences and emotions. This organisation of one's skills based on brain knowledge and the thought and language of the person may provide some authentic connection to the reality of the person under examination. The idea is also to make sense of the misuse of the technologies and the legitimacy of impressions. This grand narrative about the brain functioning and collections of technical terminology creates an organised whole which may have all the scientific features hiding some truth under the impressions of clear interpretations. For example, the rejection of rationality of some tribal group as holding a primitive brain with queer and strange abnormal behaviour not considered to be civilised is a biased form of interpretations. One can put some of the mediators like memory and its traces as a link between brain and language through which something like the truth is conveyed or made understood to the external world.

The truth about some event has its dignity if it launches itself through the valid medium and congruently understood. In other words, the fact described the reality of some events known to the beholder and shared authentically into the folk psychological notion of the other. Truth, like William James, sought it pragmatically, by the way, it corresponds to some reality, the ontological fact about the truth can never be deciphered logically, in all its features well-ordered and intact narrated or presented to the world in some time and locations. This whole agenda of truth and memory with the owner's tools of language find legitimate if it is all set into the shared belief systems. For example, if the truth about the geographical location of any country or group of countries (e.g. the Middle East) has got into the shared belief system of the whole world (due to some dominant notion of globalization and socioeconomic and capitalists regulations), the reification had turned into the objective reality and taken as exact geographical location.

However, in the current time, this truth has got the shift. The truth about the existence of any object or the geographical location of any country looked upon through the other perspectives, both indigenous or local. In the criminal law, the sense-making about the defendant's knowledge about his involvement in the crime is sought out by embarking upon the series of connected events occurred in pre and post events, which is also thoroughly examined through the description given by the witness and the way the defendant communicates. Logically, the truth implies cause and falsity does not (see Hattori, 1997), as reality can only connect to the object while it is absurd in the case of falsity. In the legal domain, if the truth manipulated with the new arrangement of words deceiving the others, then the cause emerge, but that is in itself not the authentic but an imaginary cause. Also, if the method of words to capture the truth connotes different meaning, then the whole effort to show the picture of reality becomes superfluous and tautological. In any case the truth matters, only the way it describes itself make its cause a real cause. This account is debatable and needs more evidence and deontological pictures where justice becomes paramount and rigorous corroborations were done to picture the truth through many connecting causal models.

The logical connections of words for describing the truth can demarcate into useful and useless knowledge about the fact. Thus, the evidence and observation of the actual statement only change the opinion about the truth, not the truth itself. So, the person who do not know the reality of the existence of some phenomenon and has some belief about the event, when asserts his knowledge about the aspect, do not lie or deceit but is true to his understanding. The assertion primarily is different from the lie, which is a conscious act of manipulation of knowledge leading away from the fact and fitting it to the category of truth. About our discussion of locating the cause of truth in the legal domain, the brain provides one of the objective standard, which shows the changes in its circuitry while experts put the person through several tests. These tests ask many relevant and irrelevant questions, and the person's brain is on the scanner. Though the real-time observation is difficult to obtain as these scanners are low on the temporal resolution, so the valid and reliable interpretations are not apparent in this case, however, it may lead to some critical but incomplete observations if controlled adequately through the corroborations of different tests.

Though our society has different layers of classes and one's relative position is viewed differently by the individuals and groups, the technological and scientific evidence is valued depending upon the perspective which people hold from their social position. It is not that social position is some unquestionable truth, but its objectivity is to determine the available knowledge about one's social status. The social situation is also seen in a deterministic way by

the people who hold the objective view about the society (e.g. Berger and Luckmann, 1966) as compared to people who own a subjective perspective. Since these viewpoints do not apply to the person as a responsible being, but it also provides a framework for the other aspects of human beings, such as technology and scientific values. The neuroscientific evidence holds importance as it has scientific stature and in no small extent valued by the scientific communities. The value given to the neuroscientific evidence is a matter of technologies which picture and record the brain activities. The techniques have its value, and it gives life to the brain by the interpretations of the correlations between brain activities and behaviour. Image of the brain has to be there to make it's business alive, but in everyday life, it does not happen and what we mostly construe is something beyond the mind, and embedded in the understanding of the discourses. The scientists venture into the brain process to make its presence felt on the screen. This societal value for the scientific research had given new impetus to the physical reality of the brain and possibility cannot be denied for its dominant role soon in the legal domains.

The discourses which were short of the brain language may get more weight where people directly perceive their brain in everyday language exchanges. However, the current position of the brain understanding is among the few classes of society only, and the generalisation towards the whole community is an exaggeration. The social interaction patterns among those classes nurture the reality of brain. It is usual to say that the construction of technical concepts made the existence of the brain more dominating on others. Since science and technology, when institutionalised is regulated by the power dynamics and their dominant linguistic approach, in turn, governs the psychological underpinning of the working and other social classes. Though this may be one metatheory to understand the brain coming under the periphery of one's discursive mode of thought, the different research (e.g. O'Connor and Joffe, 2014) tried to understand the social representations of brain research among the general population. They found that neuroscience is far from common sense understanding and is part of another world of science and social milieu. There may be two versions to understand the social representations of brain research, one, in which brain research commonly accepted and when subtleties arise due to brain defect, then it comes to the social discourse. Second is that people are aware and value other aspects of their consciousness, which rejects the brain or put it in some silo of the mental deficit.

The brain had been in the commonsensical understanding through the vantage point of some illness and as constructed in the media discussions. Neuroscience, though seems to have a short history in the domain of psychology and law with the coming of novel techniques

otherwise, it has a century of discourses in the medical field only. The spread of the neuroscience in the general population is limited to the use of the term brain as a kind of exchange word with the mind, intelligence and, personality as compared with psychoanalysis. It is rare to notice that people in general or in the legal domain use the terminology of brain science such as the neocortex, or limbic system or basal ganglia as a more acute cause of some external observable behaviour. The problem with the representations and the emerging image of the brain in the legal discourse is like all or none pattern, as either there is full-fledged consciousness of the presence of brain or none of it. There was little evidence about the compatibilist approach about the determining influence of the brain and the individuals will, as it may not be fitting under the reality of all or none. Practically, even the information about the brain event matters as they are seen or integrated with the individual's will and intentionality.

Conclusion

In the neuroscience, the brain is an objective and integral system and its picture acquired through the neurological technique is one and same, though with temporal and spatial differences in the neural activities. There is no difference between the object and its picture when it comes to observation[4]. This point can be explained further through the example of memory and brain. Can we catch memory through the current status of the brain? How do we know that the brain is the carrier of memories which are vivid and deeply embedded in the persons? Memories do not merely embed within the person's mind, but it has all host of connections with the activities and movements. How does the brain account for that? The neuroscientists make an account of the memories of the patient through the ablation or stimulation of brain areas (see Harre and Gillet, 1994; see also Penfield, 1958) and this account is the result of his memories and collections, shows that consciousness is the result of activities and engagement with the material objects. It is a complicated matter to understand where does the memory traces lie and why they lie there, and what does this imply when it comes to the remembering? Let us take the case of information manipulation and lying, where there is an assumption of the secret language, possibly an actual knowledge consciously held by the person under examination. There might be the possibility that the person may frame this information with style seems to be fluent or gibberish but masking the word of truth which is in the knowledge framework of that person, hidden in actuality. The person may also be in

[4] Wittgenstein, Philosophical Investigation, Part 1

some state of mind to put that truthful information under unconsciousness when he had the chance to be interrogated. Thus the possibility is usually taken into account to understand the witness or the defendant. The more fragile question is 'whether the hidden language of truth, as assumed, is a true language'? Can it be framed and consciously or unconsciously communicated to the outside world? Where does the truth lie is one of the difficult questions which does not have the perfect answer? Truth, the certainty of the knowledge, exactness and probability of the truth are some of the epistemological routes for going near to the facts about the event in question. So, for the neuroscientists, the method to locate the functioning of the brain areas may be one of the boon to inquire about the knowledge of the facts, but interpretations may be a matter of fallacious judgment if not carefully corroborated. Thus, the scientific understanding of the memory, assumed to be an essential link for knowledge about the domain-specific experience of the fact, has the connection with the set of postulates about the brain areas, for example, hippocampus and spatial memory, and seen in the varieties of contexts and cultures (see also Caramazza and Shelton, 1998; Gazzaniga, 2011). Brain activity and previous postulates about any part of the brain taken as lie zone, in any way, a priori, may be sufficient evidential criteria to uncover the hidden knowledge about the fact. As in the case of doctor's diagnosis where he does not rely on the report of the scanning of some body part, he also uses other instruments like the stethoscope, talking to the patient about the problem and finally his approach and intuitive will to work with the problem. This whole procedure may not be the same for all the doctors, but based on a set standard, some methods of diagnosis are in commonality. The most crucial part, however, is the application and the interpretation to which patient and the doctor may agree for the time with the hope curing the disease. In other words, the set standards of application of the techniques and procedure may have led to the fact, but the real value of the fact gain its prominence with the subjective interpretations. The notions of the brain as a mechanical matter, under the influence of classical physics, may conjure upon its properties in which the cognitions like memories embeds. The critical physicists, though agreeing with Newton's Action at a distance analogy, go beyond the mechanistic approach of the brain as a physical entity and all other psychological phenomena as an epiphenomenon (Loewenstein, 2013). The alternative interpretations of the brain as just not a determiner but also determined through the will of the person may be fascinating, but in the legal domain, this notion may sound queer, though, in reality, the will and responsibility never rejected as indifferent. In one way, the paradoxical idea of rejection of the will as a regulator of the brain and the brain as a regulator of intention may sound compatible. However, the irony of the brain science is all about its role taken as a determiner of the act only and in

the coming of time may make the hermeneutic turn in the construction of discourse in favour of brain fitted under the realm of person's intentionality.

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[1] Author is not aware of any exact statement like this, however, research, show the role of the amygdala in the social cognition (e.g. Adolphs, 1999, 2001, 2010; Amaral et al., 2003; Emery and Amaral, 2000).

[2] The facts and meanings linked to several linguistic assertions are embedded in the logicality. Truth exists, but the picture-laden about the truth in the language may be nonsensical or can manipulate. The anti-philosophical accounts of Ludwig Wittgenstein (e.g. Tractatus Logico-Philosophicus) were about pictorial form embedded in the language. Wittgenstein stated that language has its structure and use and every use is laden with the rule of use.

[3] Descriptions are the storytellers' connections of events and the inferences about the cause is the secondary constructions. Here the idea of truth and false emerges

[4] Wittgenstein, Philosophical Investigation, Part 1