AGE OF CRIMINAL RESPONSIBILITY AND THE CHILD CRIMINAL JUSTICE: 
IMPERATIVES OF DEVELOPMENTAL MODEL OF JUVENILE JUSTICE FOR 
INDIA

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1. Introduction

Children are the ‘subservient’ and ‘underclass’ of the society and their development is directly connected with how we raise them.1 Every society has its own values and mores for responding and treating the children but there are certain things which are universal like if certain wants and desires of the children are fulfilled satisfactorily, the children develop with a positive orientation and if there is neglect in this aspect the result may turn out to be different and dreadful. Thus there is a directly proportional relationship between the raising of the children and the responding and treating the children.

Juvenile delinquency is not a new problem which any contemporary society is facing but has been there since a long time and in every society. The way a society treats its young population or children can be seen as the measure of how much that society is ‘civilized’. There have been generally two schools2 of thought with regard to the treatment3 to be given to Juvenile-in-conflict–with-law (JICL): Early Progressivism and Modern Conservatism. Early progressivism has generally focused on the care and protection of the children by the parents and if the parents are unable to do this job it has to be done by the state in order to help these children develop into better citizens of tomorrow.

The Early Progressivists4 believed that the children who come in conflict with the legal system are the children in need of care and protection and are not to be punished as adults. Underlying this philosophy, the basic assumptions were that the children are vulnerable, innocent and dependent on the adult section of the society.5 They believed that

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3 The term “treatment” has been used here not in the sense of some disease by which the children are afflicted and which needs cure but the author has used the term in this paper in the sense of the interaction of the juvenile justice agencies with the children and how the juvenile justice system has taken care of needs and wants of the child who come in contact with the law enforcement agencies due to some unfortunate circumstances.

4Julian W. Mack, “The Juvenile Court” 23 HLR 104 (1909):104

these children have gone astray or “wayward children” due to the environmental conditions like the neglect of the parents, peer pressure, poverty etc. These children are not to be punished even if they commit the crime but are to be cared for and given protection so that they can grow into useful and productive citizens of the society. Thus the early progressivists believed that the first duty to take care of the children is that of the parents i.e. father and mother and it is the duty of the state to enforce that duty and if the parents are unable or unwilling to undertake this duty due to poverty or other reason, then the State has to step in under the principle of *Parens Patriae* where the state is clothed with the authority of the parent and nurture the child as a guardian. The care which the state takes is in the form of education and other essential needs of the child.

But the line of thought discussed above took a heavy toll when the rate of juvenile crime began to increase (particularly in the United States America) during the 1980s. Now the progressivism took the backseat and many began to think on the line of the crime control rather than the care and protection of “wayward children”. Thus the primary focus began to shift from care and protection towards the public safety/crime prevention and the line of thought which began to emerge was known as the modern conservatism.

Contemporary Conservative Reformers have been demanding the re-orientation of the Juvenile Justice System by shifting its lenses from the welfare of the children-in-conflict-with-law to the public safety by punishing the offenders without any regard to the age or maturity of the offenders. The primary aim of the modern conservatives is to remove the misfits from the society by punishing and incarcerating them so as to put them “out of circulation”. This line of thought further took the view that the persons above the age of 16 years were mature enough to know the consequences of their actions and hence they should be treated as the adult members of the society. Thus the juvenile justice systems in various countries began to move from traditional welfare-ism to the crime control and began to punish the children guilty of serious crimes in the same way as the adults by invoking the misguided rhetoric of “adult-time-for-adult-crimes” and

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6 *Supra* note 2 at 536
8 Miriam Van Waters, *Youth in Conflict* 9 (Republic Publishing Co., New York, 1925)
10 J. Sprott, “Understanding the Public Opposition to a Separate Youth Justice System” 44 *CAD* 399 (1998).
there was a continuous trend to extend the jurisdiction of the criminal courts by reducing the age of the “child”.\(^\text{11}\)

India is one of the good illustrations in this respect as India has moved from the welfare model of Juvenile Justice introduced in 2000 to the crime control model (as introduced in 2015). This change in the policy discourse was initiated by the *Nirbhaya gang-rape* of 2012 where a young woman was gang-raped by a group of persons of which one was a juvenile below the age of 18 years. This incident was used by the mass-media as a tool to “*manufacture consent*”,\(^\text{12}\) for extending the contours of the jurisdiction of the criminal court over the child-in-conflict-with-law. This mass-media commanded vile and propaganda-fueled campaign led to demanding of amendment of Juvenile Justice Act, 2000 for reducing the age of the “juvenile” under the Act and providing stringent punishment to the serious juvenile offenders. This public demand was fulfilled when the Juvenile Justice (Care and Protection of Children) Bill, 2015 was passed by the Upper House (i.e. Rajya Sabha) of Parliament of India. This Act allowed the juvenile justice authorities to try the juveniles aged 16 to 18 years of age accused of the “*heinous offences*”\(^\text{13}\) as the adult in the adult prisons in total disregard of the international Covenants laying down the standards to deal with the young offenders.

The experience of various countries\(^\text{14}\) has shown that “*getting tough*” with the young offenders like imprisoning them, the court-ordered sanctions, etc. will solve only short term problems by reducing juvenile crime rates and putting the young offenders “*out of circulation*” by institutionalising them.\(^\text{15}\) But these methods will not have a long-term effect and will defeat the very purposes of the Juvenile Justice System, which is, building capability of the young offender so as to make him/her self-reliant and valuable citizen of society;\(^\text{16}\) accountability of the offender\(^\text{17}\) and his/her personal


\(^{13}\) The Juvenile Justice (Care and Protection of Children) Act, 2015 (Act 6 of 2016), s. 2(33):

“*Heinous offences*” includes those offences for which minimum punishment provided under Indian Penal Code or any other law for the time in force is imprisonment for seven years or more.

\(^{14}\) Supra note 1 at 1-24.


\(^{17}\) Howard Zehr, *The Little Book of Restorative Justice* 11-16 (Goodbooks,New York, 2014)
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transformation while avoiding the corrosive effect of institutionalization;\(^{18}\) giving voice to the victim’s suffering\(^{19}\) and re-integration of the juvenile in the society and his/her acceptance in the society. In light of the above goals of a rational and balanced juvenile justice system, this paper will try to analyse the concept of the age of criminal responsibility (ACR) and the concept of the juvenile under the Juvenile justice system of India and what alternatives are necessary to make the system reliable and result-oriented.

2. Age of Criminal Responsibility and the Conundrum of Binary Classification in India

The Age of Criminal Responsibility in India has been captive to the practice of the binary classification of the life-span of the human beings into childhood and adulthood and gives rise to the grotesque practice that the person is either child or adult leading to the negation of the very concept of adolescence.\(^ {20}\) The mainstream policy discourse has been to take the whole period of 1-18 years as a single group without any regard for any gradation within this group and different sub-stages of development. \(^ {21}\)

In India, there area plethora of definitions of ‘child’ for different purposes such as crime prevention, employment, driving, medical decisions, etc. and so there is an absence of any uniform definition of the child under the law.\(^ {22}\) The area of the child welfare has always taken back seat in India and making them the “second-class-citizens” in the sense that the welfare policies were always made from the perspective of adult members of the society.\(^ {23}\) There has been some sort of contradiction within the legal arena with respect to the very definition of the “child”.\(^ {24}\) On the one hand the legal position is that the child cannot undertake the voting\(^ {25}\), driving,\(^ {26}\) medical


\(^{19}\) Robert Elias, Victims Still: The Political Manipulation of Crime Victims 29-50 (Sage Publications, California, 1993)

\(^{20}\) John T. Whitehead and Steven P. Lab, Juvenile Justice: An Introduction 1-6 (Anderson Publishing, Massachusetts, 7th edn., 2013)

\(^{21}\) Geeta Chopra, Child Rights in India: Challenges and Social Action 137-163 (Springer, New Delhi, 2015)


\(^{25}\) The Constitution of India, art.326

\(^{26}\) The Motor Vehicles Act, 1988 (Act 59 of 1988) s. 4
decision, etc., until (s)he completes the age of 18 years and on the other hand there are provisions which allows a child to undertake employment after the completion of age of 14 years and a child can be held responsible for committing any offence after completing the age 12 years.

The Juvenile Justice (Care and Protection of the Children) Act, 2015 has added to this confusion by following the same old practice of binary classification of the human beings into children and adults with the exception of age group of 16-18 years who would be tried as an adult if they are convicted of the serious offences under the law. The Act of 2015 defines the “Child” under section 2 (12):

“(12). “Child” means a person who has not completed eighteen years of age.”

The main problem with the above definition is the very concept of child introduced by the Act which bundles all the persons below the age of 18 years in one group to the total disdain of the gradations with this broader group. Whereas the “Child-in-Conflict-with-Law” is defined under Section 2(13) as under:

“(13). Child in conflict with law means a child who is alleged or found to have committed an offence and who has not completed eighteen years of age on the date of commission of such offence.”

Reading section 2(12) and section 2(13) together it becomes apparent that the Indian law is still following the same concoction of the binary classification of the individuals for the purpose of fixing criminal responsibility leaving the important category of the “adolescent” clubbed with the age-group of the child under the Act.

Adolescents have their own special development needs which are not similar to the needs of the ‘children’ and they are in need of greater care and protection. The Act of 2015 defines the child as the person who has not completed the age of eighteen years and the persons of eighteen years of age or above are implicitly declared as the adults where the former category will be dealt with under the juvenile justice system and the latter category will be dealt under the normal adult criminal justice system.

Now the judicial response to the age of criminal responsibility will be examined. In this paper, only the cases decided by the Supreme Court of India have been examined in order to observe the line of thinking or approach of the highest court of the

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27 The Indian Penal Code 1860 (Act 45 of 1860) ss. 88, 89, 90.
28 The Child Labour (Prohibition and Regulation) Act, 1986 (Act 61 of 1986), s. 3
29 The Indian Penal Code 1860 (Act 45 of 1860) ss. 82, 83.
30 The Juvenile Justice (Care and Protection of Children) Act, 2015 (Act 2 of 2016), s. 2(12).
31 The Juvenile Justice (Care and Protection of Children) Act, 2015 (Act 2 of 2016), s. 2(13)
land as its decisions lay the precedent with regard to any area of concern. If the cases decided by the Supreme Court of India are examined, it can be seen that there is no uniform approach and the court has taken U-turns at various times which seem to be based on unfounded rhetoric. It appears that in some cases the court has taken the view in favour of age relaxation vis-a-vis juvenile offenders and in some other cases overruling its own line thinking ordered against age relaxation.

In Rajinder Chandra v. State of Chhattisgarh and Another, the Supreme Court held that the courts should detest from applying the ‘hyper-technical approach’ while reviewing evidence submitted in favour of a claim of juvenility. It further held that if there are two views regarding the age of the juvenile, the courts should favour the view that holds the person as the child.

In Hari Ram v State of Rajasthan, the Supreme Court gave the detailed analysis of Section 7 of Juvenile Justice Act, 2000 read with Rule 12 of Juvenile Justice Rules, 2007. The court further held that the once the age of the juvenile has been determined in accordance with the procedure laid down in Section 7 read with Rule 12, the Court or Board should pass a written order in that regard and thereafter no court or board can undertake further inquiries with regard to the age of the juvenile.

Adopting the same approach as in above cases, the court in Mahadeo s/o Kerba v. State of Maharashtra held that the court should go for the medical opinion of the medical board vis-à-vis claim of juvenility only in absence of the alternative methods described in Rule 12 (3) (a) i to iii of the Juvenile Justice (Care and Protection of Children) Rules, 2007 as the Rule 12 (3)(b) provide that the medical opinion can be sought ‘…. only in absence of either (i), (ii) or (iii) of clause (a)’

Following the welfare-oriented approach, the Supreme court in Salil Bali v. Union of India and Another and Dr. Subramaniam Swamy and Ors v. Raju, Through Member, Juvenile Justice Board and Another while deciding the vires of the Juvenile Justice (Care

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32 (2002) 2 SCC 287
33 (2009) 13 SCC 211.
34 (2013) 14 SCC 673
35 The Juvenile Justice (Care and Protection of Children) Rules, 2007, Rule 12(3) states:
(3) In every case concerning a child or juvenile in conflict with law, the age determination inquiry shall be conducted by the court or the Board or, as the case may be, the Committee by seeking evidence by obtaining –
(a) (i) the matriculation or equivalent certificates, if available; and in the absence whereof;
(ii) the date of birth certificate from the school (other than a play school) first attended; and in the absence whereof;
(iii) the birth certificate given by a corporation or a municipal authority or a panchayat;
36 Writ Petition (C) No. 10 of 2013 (Decided on July 17, 2013).
37 Special Leave Petition (Crl.) No. 1953 of 2013 (Decided on August 22, 2013)
and Protection of Children) Act, 2000\textsuperscript{38} \textit{vis-à-vis} the Constitution of India and the prayer to seek changes in section 2(k) of the Act observed that in recent years there has been increasing crimes by the adults and the same is not true of the juvenile as the data\textsuperscript{39} produced by the petitioners show. The court further held that increase in the age of a child from 16 to 18 years by the Act of 2000 was the decision of the Indian Parliament which was in accordance with the international child law and that cannot be tinkered by the judiciary.

This line of thinking undergoes a change towards crime control orientation in the below-mentioned cases. In these cases, the Supreme Court takes U-turn as far as the above-mentioned welfare-orientation is concerned. In \textit{Om Prakash v. State of Rajasthan and Another}\textsuperscript{40} observed that:

\begin{quote}
\textit{Para 22}……when an accused commits a grave and heinous offence and thereafter attempts to take statutory shelter under the guise of being a minor, a casual or cavalier approach while recording as to whether an accused is a juvenile or not cannot be permitted as the courts are enjoined upon to perform their duties with the object of protecting the confidence of common man in the institution entrusted with the administration of justice……
\end{quote}

In \textit{Om Prakash}, the court has given more emphasis to the ‘confidence of the public in the institutions of the justice administration’ and putting to wind the objective of the Juvenile Justice Act i.e., ‘welfare and best interests of the child.’

The same approach has been followed by the Supreme Court in case of the Abuzar Hossain alias Gulam Hossain v. State of WestBengal\textsuperscript{41} when Justice R.M. Lodha in his judgment observed:

\begin{quote}
\textit{Para 36 (iv) An affidavit} of the claimant or any of the parents or a sibling or a relative in support of the claim of juvenility raised for the first time in appeal or revision or before this Court during the pendency of the matter or after disposal of the case shall not be sufficient justifying an enquiry to determine the age of such person unless the circumstances of the case are so glaring that satisfy the judicial conscience of the court to order an enquiry into determination of age of the delinquent……” (emphasis added).
\end{quote}

\textsuperscript{38} The Juvenile Justice (Care and Protection of Children) Act, 2000 (Act 56 of 2000).
\textsuperscript{39} National Crime Records Bureau, Crime in India- 2014 Compendium (Ministry of Home Affairs, Government of India, July, 2015)
\textsuperscript{40} (2012) 5 SCC 201 Para 22.
\textsuperscript{41}(2012) 10 SCC 489
This observation of the Supreme Court neglects the basic problem that is poverty and illiteracy among the masses in India and many children of this country didn’t have the fortune of attending the schools whereby they can satisfy the tests of age determination as provided in Rule 12 of 2007 Rules. And further the judgment provides abstruse test of ‘glaring case’ which should ‘satisfy the judicial conscience of court’ in exceptional cases warranting enquiry. This particular problem was taken note of by the separate judgment of Justice (as he then was) T.S. Thakur in the same case where he observed:

“......cases in which the accused setting up the plea of juvenility is unable to produce any one of the documents referred to in Rule 12(3)(a) (i) to (iii) of the Rules, under the Act, not necessarily because, he is deliberately withholding such documents from the court, but because, he did not have the good fortune of ever going to a school from where he could produce a certificate regarding his date of birth. Para 36 (IV) sounds a note of caution that an affidavit of a parent or a sibling or other relative would not ordinarily suffice, to trigger an enquiry into the question of juvenility of the accused, unless the circumstances of the case are so glaring that the court is left with no option except to record a prima facie satisfaction that a case for directing an enquiry is made out. What would constitute a ‘glaring case’ in which an affidavit may itself be sufficient to direct an inquiry, is a question that cannot be easily answered leave alone answered by enumerating exhaustively the situations where an enquiry may be justified even in the absence of documentary support for the claim of juvenility......” (emphasis added).

Recently in case of Parag Bharti (Juvenile) v. State of Uttar Pradesh, the Supreme Court observed:

“Para 27. The benefit of the principle of benevolent legislation attached to the J. J. Act would thus apply to only such cases wherein the accused is held to be a juvenile on the basis of at least prima facie evidence regarding his minority as the benefit of the possibilities of two views in regard to the age of the alleged accused who is involved in grave and serious offence which he committed and gave effect to it in a well-planned manner reflecting his maturity of mind rather than innocence indicating that his plea of juvenility is more in the nature of a shield to dodge or dupe the arms of law, cannot be allowed to come to his rescue.....” (emphasis added)

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43 *Id.* at 99-105
44 Criminal Appeal No. 1193 of 2006 (Decided on October 10, 2012).
45 Criminal Appeal No. 486 of 2016 (Arising out of Special Leave Petition (Crl.) No. 5839 of 2013) (Decided on May 12, 2016).
This recent observation of the Supreme Court highlights that now the focus of state institutions is more in direction of the crime-control rather than the due-process model of crime control and they are more and more adopting the law and order approach to the juvenile offenders.

3. Imperatives of Developmental Model of Juvenile Justice for India

Generally, Child is taken as a person who has not completed the age of 18 years as is evident in the Article 1 of United Nations Convention on the Rights of the Child, 1989 which states that:

“For the purposes of the present Convention, a child means every human being below the age of eighteen years unless under the law applicable to the child, majority is attained earlier”.

Further the United Nations Standard Minimum Rules for the Administration of Juvenile Justice under Article 4 states as:

“Age of criminal responsibility: In those legal systems recognizing the concept of the age of criminal responsibility for juveniles, the beginning of that age shall not be fixed at too low an age level, bearing in mind the facts of emotional, mental and intellectual maturity.”

International child law incorporates large number of principles on which the juvenile justice system of a country should be based. One of the basic principles is to promote the well-being of the child and this can be promoted through two modes: firstly, children in institutions should be helped in maintain the family relationships for the purpose of socialization and secondly, children who are ‘alleged or accused of infringing the penal law of country’ should be treated in a ‘manner consistent with the promotion of the child’s sense of dignity and worth’. Thus, Article 40(1) of United Nations Convention on the Rights of the Child, 1989 states that:

“States Parties recognize the right of every child alleged as, accused of, or recognized as having infringed the penal law to be treated in a manner consistent with the promotion of the child’s sense of dignity and worth, which reinforces the child’s respect for the human

rights and fundamental freedoms of others and which takes into account the child’s age and the desirability of promoting the child’s reintegration and the child’s assuming a constructive role in society.”

Generally, the persons below the age limit are taken to be not responsible for the criminal acts committed by them. But the question arises: Can the group (age group 0-18 years) taken as a whole be considered under the definition of the “child”? Are there any gradations within the group itself?

The stages of human development and growth can be categorized into three groups i.e. childhood, adolescence and the adulthood. Generally, the Psychologists\textsuperscript{49} have classified the persons in the age group of 0-18 years into Children or Pre-Adolescents (one in the age group of 0-11 years) and Adolescents. Adolescents are further divided into three sub-groups: Early-Adolescence (12-14 years), Middle - Adolescence (15-18 years) and Later-Adolescence (18-21 years) based on their brain and psycho-social development.\textsuperscript{50} The first group that is the persons in the age bracket of 0-11 years comes within the circumference of childhood period in which brain development is minimal but there is physical development of the body parts. Later three sub-groups are part of the period of adolescence period.

Primary Changes versus Secondary Changes: Texts and Contexts

Adolescence period is the period of transition from the period of childhood to adulthood and is also the period which prepares a person for accepting the role of the adult life. This period is characterized by a vast number of changes in the child with respect to their biological, psychological and social characteristics. Some research, which Grayson N. Holmbeck\textsuperscript{51} calls psychoanalytic perspective, have tried to view this period as a period of storm and fury and characterized by the conflict-personality. This view is generally based on the observations of the clinical psychologists who are treating the children with adolescent problems. However, the public policy formulation and public perception are still in tune with this view. This perspective is also being amplified when it is used by the writers who work for the media outlets who characterize this period as rebellious, frustration-oriented and conflict driven which needs immediate correction.

\textsuperscript{49}Lawrence Streinberg, Deborah Lowe Vandell, et al., Development: Infancy Through Adolescence 5-9 (Cengage Learning, Belmont, CA, 2011)

\textsuperscript{50}Laurence Steinberg, Adolescence 263–265 (McGraw-Hill Inc. New York, 5th ed. 1999),

This perspective is calling the shots in the Juvenile Justice policy of various countries which are moving towards the crime control model of criminal justice where the primary concern is the safety of the society and the application of the law and order approach. But there is another view\(^{52}\) regarding adolescence, that is, the pragmatic view, which views adolescence not as the period of storm and fury but as period of Primary changes which occur in the biology, psychology and social role of children which have an impact on the Contexts (family and peer relationship, school and work environment). These primary changes in the adolescent in the light of contexts go on to produce the Secondary changes of identity formation, achievement orientation, sexuality, intimacy, autonomy and attachment. The culmination of all these changes in the life of the adolescent defines the type of adolescent when he comes in contact with others in the society.

These developmental changes\(^{53}\) have been lucidly elaborated by J.P. Hill,\(^{54}\) which has been modified for the present paper and shown in the following table:

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<th>Primary Changes</th>
<th>Impact Upon</th>
<th>Contexts</th>
<th>To Produce</th>
<th>Secondary Changes</th>
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<td>Biological/Puberty</td>
<td>Family relationship</td>
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<td>Identity formation</td>
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<td>Psychological/Cognitive</td>
<td>Peer relationship</td>
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<td>Achievement</td>
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<td>Social Redefinition</td>
<td>School environment</td>
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Generally, the Primary changes occur in three domains: physiological, psychological and social roles. As far as the physiological changes are concerned there are changes in the physiology of the person like development of the bodily organs and the

\(^{52}\) \textit{Id.} at 17-28.  
\(^{53}\) \textit{Supra} note 50 at 18-24  
\(^{54}\) J.P. Hill, \textit{Understanding Early Adolescence: A Framework} (Centre for Early Adolescence, Carrboro, N.C., 1980)
primary and secondary sexual characteristics. The *psychological changes* start to occur from the point of the birth of human being and as per the Jean Piaget’s theory\(^{55}\) it is stage-based: *sensorimotor* stage (birth to two years of age) where there develops in the child the conscience of the world around her by the reflexes and touching; *pre-operational* stage (two to seven years of age) where the child begins to think of the things symbolically where one thing may symbolize or stand for other than itself. In this stage the thinking of the child is still egocentric and the child cannot express any viewpoint regard other people; *Concrete-operational* stage (seven to eleven years of age) in the children is the turning point vis-à-vis their socio-psychological development because there is beginning of logical and operational thought in the child and the process of conservation starts whereby the child begins to remember the number, weight and mass without taking into account the shape or symbol of the thing. *Formal-operational stage* starts approximately at eleven years of age and lasts till the adulthood and in this stage the child begins to think about the abstract concepts and test the hypothetical questions.\(^{56}\)

As far as the *social changes* are concerned, the social status of the child goes under various changes. In the case of the non-industrial societies, there are certain rituals which take place at the time of completing the puberty phase like the rite de passage.\(^{57}\) These rituals are carried in order to make the person aware of the responsibilities which (s)he has to undertake on the onset of the adulthood. While in the case of the industrial societies, there are no such rituals but changes definitely occur analogous to their social status.\(^{58}\) These changes take place in various arenas: political (e.g. voting rights), economic (e.g. adolescents can work without restriction), interpersonal (e.g. changes in the power relations within the family) and legal (e.g. adolescents in their later phase can be tried in mainstream adult courts).\(^{59}\)

All these changes in the adolescence period have an impact on the interaction of that adolescent with the society. If there is any alteration in the contexts such as the broken family or the parents have separated, the primary changes which occur in the altered contexts will have an impact on the secondary changes such as identity


\(^{58}\) Vincent Tinto, “Stages of Student Departure: Reflections on the Longitudinal Character of Student Leaving” 59 *TIHE* 438 (1988)

\(^{59}\) Supra note 50 at 20
formation of the adolescent and (s)he may emerge as the degenerate or delinquent adolescent.

Biological and Brain Development: A Concoction of Structural and Functional Changes

The period of the adolescence is important for the changes or developments which take place in the brain of the human being. These changes\textsuperscript{60} are of two types: structural changes and functional changes. There are four main structural changes which take place in the brain of the human being during the period of adolescence. Firstly, there is synaptic pruning\textsuperscript{61} which occurs due to the decrease of the gray matter from the pre-frontal regions of the brain and thus leading to the elimination of the unused connections between the neurons. These changes occur during the period (early and middle adolescence) when there is development of the cognitive abilities and logical reasoning in the adolescent person.

Secondly, there are changes in the activity of the dopamine receptors which becomes dense in the areas which connect the limbic system of brain. Limbic system is the area which processes the emotions and the pleasure and pain experienced by the human beings. And due to this concentration of dopamine receptors during the phase of adolescence in the areas connecting the limbic system of brain, the adolescence becomes hypersensitive towards those activities which give him or her pleasure or vent to his or her emotions like sex, harming other persons.\textsuperscript{62}

Thirdly, there is increase of white matter in the pre-frontal cortex region of the brain during adolescence which is due to the process of myelination\textsuperscript{63} when nerve fibers become covered by the sheet of white fatty substance (myelin) helping and improving the brain circuits. The improvement in the neural connections are important for regulating the high-order brain functions like risks and rewards, planning something, making decisions, etc.

Fourthly, the connections between the pre-frontal cortex and the limbic system\textsuperscript{64} are further strengthened during adolescence. This strengthening of the connections between these two parts of the brain is important for the purpose of the emotion regulation and self-control.

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{60} Laurence Steinberg, “Should the science of adolescent brain development inform public policy?” 64 \textit{AP} 739(2009).
\item \textsuperscript{61} Supra note 48 at 99-102.
\item \textsuperscript{62} Supra note 48 at 102.
\item \textsuperscript{63} Aaron White, “Substance use & adolescent brain development” 22 \textit{YLS} 39 (2003).
\end{itemize}
\end{footnotesize}
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Besides the structural changes in the adolescent brain, there also occur also functional changes in the brain of an adolescent. **Firstly,** there is increase in the brain activity related to the self-regulation which requires self-control.\(^{65}\) If the adults have to undertake the task of self-regulation their brain uses the wider network of the brain regions which makes that process easier, unlike the adolescents where certain regions are still in their formative stages.

**Secondly,** there are changes in the brain of the adolescent *vis-a-vis* adolescent brain’s response towards rewards. It has been observed that the adolescent’s reward centres\(^{66}\) are more activated whenever (s)he perceives rewards in any situation than the children or adults. This is the reason that the adolescents engage in behaviour where they perceive that they are going to get more rewards from any act even though it means to commit certain risky or unlawful acts.

**Thirdly,** there is increased cross-talk of the brain regions of the adult brain whenever it encounters any neural stimuli. Before the adulthood period, there is less talk between different regions of the brain and during the adulthood whenever there are neural stimuli different regions of the brain start to act on that stimuli leading to the proper and efficient response. That is why there is increased susceptibility to the peer-influence and succumbing to the peer-pressure.\(^{67}\)

4. Conclusion

Adolescents can neither be considered as the *children* nor can they be considered within definition of *adult* as all these categories have their own distinctive development needs and wants. Adolescence is a period distinct from other life-periods in the life of the human being in which very drastic changes occur in the physiology and socio-psychology. There occurs the process of synaptic pruning and myelination in the brain which help in the biological maturity as well as the psycho-social maturity of the individual. In light of the physiological and psycho-social developmental paradigms as discussed above, it can be said with utmost certainty that the adolescents are distinct from both children as well as adults and they need more protections and care than other two categories as this is a phase during which a person is more prone to all sort of delinquent or bad influences. Therefore, there is need to move away from the binary

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\(^{66}\) Supra note 62 at 39.

(child/adult) to the triple or three-stage (pronged)(child/adolescent/adult) classification which takes care of the needs and wants of each developmental stage of human being as this will help in proper understanding of the problems and the needs of the adolescents which will be beneficial for dealing with problem of juvenile delinquency. So there is need to ‘think developmentally’ in order to formulate the laws regarding the age of criminal responsibility which are in compliance with the developmental story and the socio-economic realities.