



## Development of Human Brain

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### The role of the proposed research

The origin of life on Mother Earth from Carbon and Nitrogen cycle based chemistry about 3 billion years ago, organizational evolution [change] has become a perpetuating adaptive process, known as natural selection, which by leaps and bounds gave rise to the origin of man, who in the present era mastered, Geosphere, Hydrosphere, Atmosphere, Biosphere, and Cosmosphere through space travel. At present man belongs to earth, according to the biochemical evolutionary experts A.L. Oparin and S.L. Miller, "God created man and the man created several things including God of his choice". This is possible for him with the structural and functional specialties of his neurons in the brain centers, on the evolutionary front, the cranium size is rapidly expanding due to mutational rates of diverse brain centers, controlling the body and the social functions and attitudes to create and establish a feeling of universal oneness of human society. At such an evolutionary rate of changes in human genome much concerned with the neurons of the brain and its network several sense, mis-sense and non-sense mutations are unavoidable giving rise to changes of all dimensions producing rulers on the top to an idiot on the lower rung of the Ladder of Human Development. Thanks to the human genome it is producing 2 to 3% of the mentally retarded as against a good percent of normal humans. This low percent is not only due to genetic errors but also due to so many kinds of infectious diseases that the human embryo faces from the day of fertilization, or due to epigenetic factors on the chromosomes of the male and female genetic. Mental Retardation (MR) has been defined as a condition of arrest or incomplete development of brain centers connected to the various mental faculties of the child. According to American Association for the Mentally Deficient (1983) mental retardation refers to a significant sub-average general intellectual functioning existing concurrently with defects in adaptive behavior, which manifested during the developmental period. Accardo and Captue (1996) defined mental retardation as a condition characterized by cognitive limitation due to organic brain dysfunction. Seeta Sinclair (1998) described mental retardation as sub average intellectual function combined with subnormal adaptation to a person's surrounding. Mental retardation is often associated with substantial neural loss or damage and therefore it is not curable with modern or orthodox medicine or otherwise. Therefore, it is often advised that mentally retarded should be managed and tolerated in a most feasible way and attempts should be made to relatively reduce adverse impacts of mentally retarded as much as possible. Researchers suggest that the mental handicap is primarily to be accepted as sort of permanent disability of some structural and functional part(s) of the brain which perhaps might have occurred sometime during the autogenetic stages of the fetus in the uterus for which the actual causes so far could not be exactly traced and elucidated even by the experts in human medicine for possible care and prevention.

### Steps of the proposed research.

In the past years the fortunes and misfortunes of the retarded were guided by superstition, ignorance and fear, to many centuries with first record in Greece and Rome. A significant beginning in the evolution of positive social thought towards the mentally retarded was established in the 19th century and considered that the mentally retarded persons have also rights in the society. Sparked by the leadership of Izard, Sequin, Howe and others, the scientific enquiry succeeded superstition and fear through their pioneering efforts. Consequently, sound educational and training programs were developed to manage mental defects, and institutional facilities were established.

These techniques were applied largely to very retarded person, the major from of retardation identifiable at that time. Although program emphasis within the institutions was often merely custodian, a milestone has been passed in the acceptance of public responsibility for the retarded and the provision of human care for them in public support facilities were



earmarked.

### Significance of the proposed research.

there has been increase in parents who have children with mental retardation, and research has become increasingly diverse. The causes of development of mental retardation are variedly related to factors of genetic inheritance or to the effects of the external environment and infection. This comes together with the impairment of the central nervous system, its different structure or different development, during the antenatal, prenatal or early postnatal period. The evolutionary concepts on human genome were considered important as compared to the other organisms. The useful change is adapted in the direction of better interaction with physical, chemical and biological environments. Changes are inevitable in different organs of human system to win over even adverse surroundings step by step through the process known as micro evolutionary changes. Apart from mutation and selection a third force in the genome is often referred as drift of genes in living systems which are non adaptive by nature fixing either recessive gene or the dominant.

### Objectives of the proposed research

The other national bodies of the welfare sector are: 1] All India Institute of Physical Medicine and Rehabilitation, Bangalore, 2] All India Institute of Special Education on Hearing, Mysore, 3] All India Institute of Rehabilitation and Artificial Limbs, Madras, 4] All India Institute of Physically Handicapped, New Delhi, 5] The national Institute of Rehabilitation of Medical Science, New Delhi, 6] All India Institute of Medical Sciences, New Delhi, 7] National Institute of Mental Health and Neuro Sciences, Bangalore. Though lot of work has been done on mental retardation in social and legal context and innumerable strategies have brought out for implementing various interaction programmes, however, the zeal and vigour in the context of developing countries like India has been as slow as the learning

### Findings of the proposed research.

In connection with 58th Independence day, it is announced that six different areas were selected with commitment for 80% employment for population of India of which people with disability were chosen for 10 different domains proposing change for equity and social justice by Ministry of Social justice and Empowerment, Government of India. District Rehabilitation Center Adoption, Nutritional award, National Trust for the following. From the foregoing it could be understandably inferred that many kinds of efforts in attending to the problems and needs of parents with mentally retarded children have been scrupulously designed and attempted from different circles of power from central governments to the village level organizations, funds are earmarked in budget and legislation and laws are framed to tackle the problems faced by the parents with mentally retarded children. However, the prevention of birth of mentally retarded children and scientific study related to that strangely remained incomplete and totally neglected at all levels as is evident from the existing literature.

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