



THE BATTLE OF NATURE VERSUS NURTURE HAS BEEN GOING ON FROM TIME IMMEMORIUM. SOCIOLOGISTS, PSYCHOLOGISTS AND EDUCATIONISTS NEED TO UNDERSTAND THIS CONFLICT AND COLLABORATE TO FIND WAYS TO BENEFIT THE MARGINALISED CHILDREN IN SCHOOLS.

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Since the time man started studying their own species, one of the main topics of interest was to understand what makes an individual the way he is. Since then we have looked into how the human mind and body works. We have studied subjects like behaviour, intelligence, personality, memory, sense and perception, and lifespan development. But one of the most debated upon subjects that will forever remain, is that of the study of heredity and environment, and which of the two plays a more crucial role in the development of the different traits and makeup of mankind.

This debate about nature versus nurture goes back to Jean-Baptiste de Monet, Chevalier de Lamarck (1744–1829) a French military man and scientist, who saw the interplay between two powerful factors: the innate heritability of characteristics acquired under the influence of the environment and a certain inherent” force pulling living nature towards greater complexity and higher adaptability as the comprehensive driver of evolution”. Lamarck believed that individuals interact with the environment and respond to it with changes in their needs and behaviour. These changes lead to selective use or disuse of organs and traits, which become stronger and more developed or grow weaker and gradually disappear. Through reproduction, the acquired modifications are then stabilized in subsequent generations and further enhanced in time. Several decades later, Charles Darwin incorporated elements of Lamarck's natural philosophy in his own theory of evolution and notion of heredity. The phrase "nature and nurture" was first coined by Francis Galton, who was influenced by

his cousin Charles Darwin's book on evolution, in the year 1874. Those days they believed that our genes defined who we became (natural selection, which was proposed by Darwin) and is the only thing that influences human development. But over the years, with rigorous study, it was realized that the environment in which we were brought up and the ones in which we interact in, also plays a big hand in the development.

We tend to define Nature as the biological and genetic contribution to human development and Nurture as the psychological and social contribution. Similarly, when discussing specific risk factors and the size of their contribution to nature or nurture we tend to think in terms of direct genetic and direct environmental factors as well as gene-environment interactions. In yet others such as family history where there are genetic, cultural, and physical components, the distinctions become blurred. In this paper the author will discuss nature and nurture in the context of education and the children's ability to make full use of schools, completing the learning cycle and thereby living a better quality life.

It is therefore important for all teachers and educators to understand the needs of the student and also what will grab the interest and passion of the child so that he/she can become a self-motivated, self-directed individual. This becomes imperative in schools for the disadvantaged and marginalised. It is in these schools that, what the teacher thinks of the child actually shapes the future of the child. One of the much repeated phrases in these schools is "it runs in the family" or "teaching these children are a waste of time because they are not interested" This low expectation from the students going to government schools becomes a self-fulfilling prophecy because these first generation learners become easily demotivated and demoralised and drop out of the school system.

The story of the disadvantaged children going to government schools is a story of hopelessness and despair. They come from gloomy backgrounds where they witness domestic violence, they see their fathers in alcoholic stupor most of the time, their older siblings a member of a gang and they are subjected to a great deal of bullying from the anti-social elements in the slums. For them, being in school should be a welcome change. The mid day meal served in the school is an added benefit. Most government schools have started giving a glass of milk in the mornings. All these are very welcome change that should keep the children eager to come to school and stay rooted till they complete their education here. But why is that India is having one of the highest drop outs in the world?

A recent survey by National Statistical Office (NSO) has revealed that around 12.6% of students drop out of school in India, 19.8% discontinued education at the secondary level, while 17.5% dropped out at the upper primary level. As per the survey, a dropout is a student who does not complete the last level of education for which he/she has enrolled and is currently not attending any educational institution. The Government's Right to Education Act and National Policy on Education may have been motivating to provide education to all but it is equally important to analyse the sustainability and efficiency of the education system. Dropout rates are considered to be a great wastage in the education system, not only do many students leave school without

acquiring basic skills, but their premature departure represents a significant waste of scarce education resources. (Walia, 2018)

The reasons cited for these drop outs are, for the additional help needed at home or father's workplace, inability to sustain the fees and school expenses and thirdly the lack of interest in studies that the children show. About 30.2% of the girls gave domestic work as the reason for discontinuing education and about 36.90% of boys left studies because they had to support their families. Many children believe that there is no point in studying if they have to do the same job as their parents, thus they leave school at primary level itself. More than 30% of children involved in the survey showed a lack of interest in studies, they preferred to drop out because whatever was being taught in schools did not interest them. These problems become more pronounced in government schools where the poverty is stark and discrimination and ill treatment of marginalised children is palpable.

The author concedes that the economic reality that prohibits marginalised children from completing education, which is a problem that needs to be addressed by government authorities, sociologists and policy makers. The question of "lack of interest" is clearly in the domain of educational psychology. Many teachers and school psychologists find it easier to pin the responsibility to the families of these marginalised children coming from the slums and the force of "nature" is cited. The author believes that it is time for sociologists, psychologists and educationist to put their heads together and find solutions to this problem of drop outs and finally resolve the debate between nature and nurture. How can we pay more caring attention the the children, how can we make the curriculum more relevant and how can ignite their interest in subjects through the method of teaching? These questions need to be addressed before we put the entire responsibility of the children dropping out from schools to the families they were born in.

The American Anthropological Association has adopted a statement on race which declares, that 'human cultural behaviour is learned, conditioned into infants beginning at birth, and always subject to modification. Our temperaments, dispositions, and personalities, regardless of genetic propensities, are developed within sets of meanings and values that we call 'culture'.' If we were to replace the American term of race with caste to suit the Indian context, the debate of how the children from the marginalised casts can benefit for education can be explored further.

Earlier, formal education provided a head start to the upper castes/classes, and today private, English-medium and exclusive schools continue to do the same. This implies that formal education provided by the government in the vernacular language now caters primarily to those sections of the population which were not earlier a part of formal education. This has implications for school–community interactions, given that the communities that are now accessing school have neither a history of interacting with the school as an institution nor, in most cases, do they wield power to ensure the school's accountability. (BK Anitha,2015) It would be reasonable to propose that schools have an active parents association irrespective of their earnings and profession, so that teachers can get sensitised to the challenges that these children face at home and their neighbourhood. Once the educators (both teachers, management and policy makers) understand how difficult it is for these children

from the marginalised and disadvantaged communities from the slums to keep coming to school, do their assignments on time and then prepare for their exams, then they will be less judgmental and more empathetic. While it is true that nature does affect the DNA of the child, their levels of malnutrition because of the mother's health, the ill effects can be reversed if the child is given a nurturing environment in school.

The best way to illustrate the debate between Nature versus Nurture is by studying the research done on identical twins who grew up in different environments. The book *Two: Lives of Extraordinary Twins* by Nancy L. Segal (2005) is a story about twins that will appeal to anyone fascinated by the similarities and differences of those who are genetically identical. It is a study of infant and early childhood learning and behaviour attest to the reality of our cultures in forming who we are which is a basic tenet of anthropological knowledge that all normal human beings have the capacity to learn any cultural behaviour. This tenet is illustrated by the twins, Oskar, raised a Catholic by his mother in Hitler's Germany, and Jack, raised a Jew by his father in Trinidad. Their extremely different cultural environments made their first meeting in 1954, aged 21, a failure. They were finally brought together 25 years later by the University of Minnesota 'Twins Reared Apart' program. Their story was the subject of the 1995 documentary *Oskar and Jack*. It showed how while these twins were similar in many areas, they thought and behaved differently because of their different upbringing. In short, while nature is definitely important, it was not the sole determinant of ability, attitude and behaviour of individuals. The environment and "culture" where these individuals are reared have a long lasting impact on their development.

If we were to take this principle of thought to schools in India that deal with children coming from impoverished families in the slums, then while nature does play a role in understanding what they are familiar and comfortable with, it is the nurturing that can happen in school that becomes a game changer. The question to ask here, is are our experts in sociology, psychology and education ready and prepared to take that responsibility?

Many educators will most justifiably say that in our country the real problem is the numbers that all schools have to deal with. We are undeniably the largest education system in the world. The total number of government schools in India is 10.32 Lakh in the academic year 2020-21. The total number of students in India is 26.44 Crore. Although the government has specified that the teacher to student ratio should be 1:30, in most government schools the equation is more like 1:100. There are many schools of total number of 300 students with just 2 teachers. It is therefore no surprise that in these schools, nurturing does not happen. An estimated 6.1 million children out of school in 2014 reduced from 13.46 million in 2006. Out of 100 students, 29 per cent of girls and boys drop out of school before completing the full cycle of elementary education, and often they are the most marginalised children. (Source: SRI-IMRB Surveys, 2009 and 2014)

There are few steps that the government has to take to salvage the current scenario in education and lock in better future of millions of children. In 2023-24, the Ministry of Education has been allocated Rs 1,12,899 crore. This is an increase of 13% over revised estimates for 2022-23. The Department of School Education and Literacy has been allocated Rs 68,805 crore (61% of the Ministry's expenditure) We have to make sure that this money is actually sent to the states and not withheld as has happened in the early years.

There is a disturbing shortage of over one million teachers in schools, according to a recent UNESCO report. Around 1.1 lakh schools in India are single-teacher entities. A total of 19%, or 11.16 lakh teaching positions in schools, lie vacant in the country. In rural areas, the number is as high as 69%. The government must ensure that the teachers are hired quickly and no school should have teacher deficit.

Government must ensure that all the schemes that have been started continue irrespective of which political party authored the schemes.

- Sarva Shiksha Abhiyan – Launched in 2001 with an aim to promote ‘Education for All’, strengthening the existing infrastructure of schools and construction of new schools.
- National Programme for Education of Girls at Elementary Level – It is a focused intervention of Government of India, to reach the “Hardest to Reach” girls, especially those not in school
- Mid Day Meal Scheme – It is one meal that is provided to all children enrolled in government schools, government-aided schools, local body schools, special training centres (STC), madrasas and makhtabs supported under Sarva Shiksha Abhiyan (SSA)
- Rashtriya Madhyamik Shiksha Abhiyan – It is a flagship scheme aiming at enhancing secondary education and increasing the enrolment rate by providing a secondary school within a reasonable distance of every home.
- Scheme for Infrastructure Development in Minority Institutes – The scheme would facilitate education of minorities by augmenting and strengthening school infrastructure in Minority Institutions in order to expand facilities for formal education to children of minority communities
- Beti Bachao Beti Padhao – The scheme to promote girl child education in India.

All these schemes have a great deal of merit but unfortunately there are several gaps in implementation and some of the government offices themselves do not know much about these schemes. Once the school system begins to realise the importance the government and the country is giving to children’s education their sense of accountability will increase and they will be more committed to create the change between nature to nurture. So in education while nature cannot be denied it can be forgotten if an alternate nurturing environment is provided to school students. This can be done if all domains work together to make it happen by listening and being more sensitive.