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Commentary

On Contested domains of biological similarities and sociocultural diversity *By* Shalina Mehta

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The salient points of Shalina Mehta's paper revolve around the following considerations:

1. Scientists and social scientists often read the same text but they construct their categories independently.
2. The reaction of a social scientist to texts produced by population geneticists and the attempts made by geneticists to propose a genetic theory of the origin of ethnological history of human populations in India have almost the same contextual significance.
3. DNA evidence, while posing a challenge to the discourse on cultural pluralism and social diversity, only imperfectly explains the different perspectives of science and social science in the context of human diversity and ancestry.

On the question of human diversity and ancestry in the Indian subcontinent, anthropologists in India rely heavily on the classical texts and regional accounts. In this endeavour, their role as cultural pluralists looms large over those who consider culture as epiphenomenal to the wider concept of Indian civilization. The genomic studies conducted by population geneticists have their focus on the early migration pattern of diverse groups of people of the region. Their intention is to find an answer to the vexed question of determining the nature and composition of India's early population. Different groups of people involved in the process have, however, been described in conventional terms as physical or racial types carrying with them a supposedly differential degree of biological traits. The question of socio-cultural diversity is probably not in their active consideration or they might have deliberately avoided dealing with it since diversity at the socio-cultural level is often described in tautological terms or it has no sound scientific basis. But is the text produced by them based on their own scientific studies free from hypothetical assumptions? Agreeably, it is not enough just to identify the primordial sources or archetypes. More important perhaps is to see how these could be linked with the whole range of diversities including culture and society. Why are cultures different? Anthropologists try to locate culture in individual consciousness pervading social life. They are in search for deep-seated meanings behind cultural expressions. From a different perspective, the biological process of 'natural selection' has its parallel in anthropology in the form of 'cultural selection' as advocated by anthropologists like Tim Ingold (1986). The notion of 'cultural selection' in opposition to 'natural selection' corresponds to what may be called 'a theory of rational choice'. As carriers of cultural traditions, they are conscious of their conduct having a positive value. Cultural differences and social diversity need to be seen from all these considerations. The question of perception is involved in the way the researcher looks at the socio-cultural phenomenon, which may not exactly tally with the textual representation. Mehta herself confessed that while working in Pachmarhi in Madhya Pradesh she initially did not perceive her Hindu, Muslim and Christian respondents to be different from one another in any significant way. But in the ultimate text produced by her it was shown that 'there were significant intra- and inter-community boundaries that were protected with alacrity'. Does it mean that constructing and depicting a cultural or social profile with the help of a 'sociological lexicon' has no or little mental involvement of the researcher? This is probably the demand of a 'normative cultural construct' following a scientific (social scientific) line of thinking. Biologically speaking, human beings are no longer totally subjected to the laws of natural selection because they are now in a position to make their own intelligent designs. It may have far-reaching implications in the sense that the strong biological base of humanity may lose its absolute character. Attempts are on to resurrect the *Neanderthals* through bioengineering. If it materializes, it may signal the end of *Homo sapiens*, implying thereby that the biological base of humanity is no longer absolutely fixed and ever solid (Harari 2011).

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To show how cultural and social categories are distinct from biologically defined units, a communitarian approach is sometimes taken recourse to. The idea of 'constructed communities' is suggestive of a type of exclusivity in socio-cultural research, which is a property of scientific research. But the concept of community itself is a contested one and its acceptance at certain stage in some specific situation does not in any way prove that communities in general follow a uniform pattern and direction. Consensus has a role to play in the functioning of a community and it only supports a relational position as is applicable in case of 'othering'. Earlier, caste could attain a semblance of biological significance and it was even considered as 'a demographically isolated unit' (Risley 1908). Some effort was given to establish the racial or ethnic base of caste groups. Irawati Karve employed anthropometric data to prove that, and she experimented with her own caste, which in reality was a sub-caste. Later on, studies of castes and tribes on limited genetic traits have been taken up by a number of physical or biological anthropologists. Population geneticists have made use of some of these traits to see demographic and micro-evolutionary effects. Attempts have been made to establish a common link between population groups by mapping the homogeneity and heterogeneity pattern on the basis of genetic studies. Still, the results of all such studies have an element of hypothetical assumption. In unfolding 'the extremely complex historicity of human migration', population geneticists also fall victim to hypothetical interpretations of the real distribution pattern of human beings in the form of aggregates. It is doubtful whether genomic diversity in the Indian subcontinent could be explained independent of differences prevailing at the ethnic or racial, linguistic or cultural level. In the Indian situation a type of dichotomy seems to prevail in the occurrence of different ethnic, cultural and social categories. One may refer particularly to 'indigenous categories' and 'observed categories'. 'Indigenous categories' do not tally with the 'observed categories', which only confirms the fluidity of the situation. Moreover, the observed categories cannot always be genetically established. Genetic mutation and cultural innovation may not stand in complementary opposition in every situation.

Shalina Mehta's view that in the Indian context, and this probably applies to similar such situations, not all diversities in the form of cultural, linguistic, social, religious dissimilarities could be explained in quantifiable terms, may sound a little one-sided. The importance of quantitative data in genetically oriented studies will always be there, but the application areas of such data may invite questions from those who are deeply engaged in studying all forms of diversity in a comprehensive way. The question of scientific validity is very often raised. Are the socially bounded endogamous structural categories scientifically sustainable? It may be a little difficult to give a direct answer to it. Suffice it is to say that there are some studies conducted by population geneticists on endogamous groups to see the inbreeding effects to prove their closeness. To say that their purpose is actually to go for an interpretation of the complex character of endogamy may again amount to a simplistic assessment of their works. The fact is culture is no longer controlled by biology and it is now releasing itself from the shackles of biology. Geneticists are trying to transform human living lineages, but little do they realise that such lineages carry with them a long tradition of cultural continuity.

Mehta has taken pains to show that the genetically established hypothesis is too simplistic to take into consideration the whole range of cultural and other forms of diversities displayed at specific levels. 'Once social and cultural diversity is acknowledged, why look for hypothetical similarities?', she questioned. Right from the Darwinian times, attempts have been made to identify the heritable traits in a population of individuals linked by 'ancestor–descendant relations in an evolving lineage'. We may not have difficulty in accepting that 'Mitochondrial DNA haplotypes based on RFLP are strikingly similar across ethnic groups of India'. Again, the explanation which is 'consistent with the hypothesis that a small number of females entered India at the initial process of the peopling of India', although a hypothetical deduction, is logical enough. The two need to be combined. Nagel (1979) called genetic explanation 'causal explanation'. The same also applies to social science. Although social scientific method depends more on one's understanding of social reality, it sometimes yields causal explanation.

What E Mayr (1982) in his book *The growth of biological thought* observed seems meaningful in a way: 'No one should make sweeping claims concerning evolution in fields outside the biological world without first becoming acquainted with the well-seasoned concepts of organic evolution and, furthermore, without a most rigorous analysis of the concepts he plans to apply'.

Incidentally, the very idea of evolution came from social science. Rigour should apply not only to the concepts used, but also to their application in areas which have non-biological components dictating terms.

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