

# Losing the community Trees in the Global Wood: The academic marginalization of local data in Biological Anthropology

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## Abstract

Biological anthropologists are geared towards explaining evolution, genetics, adaptation and diversity among human populations. Many of them are working in tandem with social/cultural anthropologists in order to link up their idea of biologically unique populations with cultural data that overlay the underlying reasons. However, others are still under the assumption that in such a globalized world, there was no point in working on small limited populations/communities when there was such a lot of linkage between groups and communities of individuals. Some biological anthropologists are now attempting to rework the idea of ethnicity which has been so far used as a sociological/socio-cultural/anthropological concept into a more biologically rewarding definition (Billinger <sup>1</sup>).

Of course, once these people get into the editorial boards of anthropology journals they create havoc. They ignore the fact that the world is often made up of small communities who often have differential mating patterns that create small pools of genes. Anthropologists have called them Mendelian populations. However, many anthropologists forget that this is an essential prerequisite for getting large-scale overviews of human beings. A Mendelian population is an essential prerequisite for understanding realities, whether about proteins, DNA variations, growth rates or even about hair and tooth characteristics (for instance, see Billinger <sup>2</sup>). Without such an underlying approach the whole idea of finding anthropological correlations turn out to be a farce.

Many of the journals in anthropology are churning out articles regarding growth and development, dermatoglyphics, and what have you, without ensuring that this data has been collected from an entity such as a Mendelian population. Without this underlying unity, the

data may vary as much as possible, and then, if we are comparing this data with any other population, when the group collected from never was an entity then what are we really comparing?

This has become a new problem for Biological and forensic Anthropologists. If the communities we are studying are porous and have too many inter-marriages with other communities, then they are no longer Mendelian populations. How do we study them? Are they now a 'fuzzy group' which we may hope to make sense of with perhaps better mathematical models? It's somewhat like trying to make sense of a metropolitan area where all varying populations have come in, often without merging, who were still inter-marrying within themselves. Can one pool such data to say something about the metropolitan area? We believe not...

We state here that many such studies ignore the basic assumptions that make such studies useful. Going without the criterion of keeping some variables stable while others are 'manipulated' to make sense of the reality follows the best traditions of a scientific methodology that has yet to become outdated. It is thus, in the interest of the best traditions of science, that we request and solicit papers that are related to these issues in the coming issues of the journal.

If one ignores the variation caused by ethnic identities and community marriage practices (for one example see Laskar and Kaplan <sup>3</sup>), then one also ignores the fact that the pooled together data would be rather lumpy. It would neither be homogenous nor uniform. As such then, we would fail to understand the biological diversity and variation of human populations in large areas which would hamper or even delay the formation of accurate comparative data over large

areas. Thus, this would be contrary to the aim and scope of current biological anthropology as we know it today. For instance, in India, many authors tend to take Rajputs, Brahmans, Jats, Gujjars or other caste groups as well as some tribal groups as being uniform internally over large areas<sup>4</sup>, local level ethnographies show that this is not the case. Also, the term Scheduled Caste used frequently in India is essentially an administrative construct created from a number of endogamous communities together. There seems to adequate information confirming that such ethnic groups, communities, tribes and castes have had independent origins<sup>5,6,7,8,9,10,11</sup>. This seems to be valid in other parts of the world also<sup>12,13</sup>.

In this context, we would like to forward the argument that this internal 'lumpiness' of data is also often accepted in research publications from other countries as well in the same manner as from India. In fact, a lifetime of producing such research has often emboldened some researchers to claim that there is no internal lumpiness or variation in the biological anthropology population data collected by them.

In this case, one feels reviewers of research papers and journal editors would be ill advised to accept any large scale generalizations in such data without the assurance of a number of ethnographic works that support the assumptions of homogeneity and similarity.

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