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Anthropologists: specialists of the general or marginal researchers?

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I read with great interest the book review by Andrea Drusini of "What It Means to Be 98% Chimpanzee: Apes, People, and Their Genes" by J. Marks (Drusini, 2005). In fact, this is a review-discussion that goes well beyond the contents of the book, as Drusini takes the opportunity to introduce a critical discussion of a conception of modern science, in particular criticizing the reductionism by some geneticists. In my opinion, we must add the molecular hard-liners, i.e. those researchers whose world begins and ends in the cage of their instruments.

With regard to some of Drusini's observations, how can one not agree with his criticism of mechanistic reductionism, with the need to have a general view of knowledge, and with his ideal view of the role of Anthropology, a holistic discipline by ancient definition, I would say? However, I wonder if Prof. Drusini has also used the occasion to criticize the world of Anthropology - a heartfelt criticism of the reductionism of the role and research of Physical anthropologists.

The fact that some molecular biologists use small and at times overlapping samples in the attempt to reconstruct phylogeny (a valid aim) but also to date the expansion-splitting of populations, all the while ignoring the results of palaeontology, palethnology and even history, is the fruit not only of the current domination of reductionism but also of the absence of a role of anthropologists. Or better. The "specialist of the general" is absent, in other words the Anthropologist is absent.

Where are the synthetic works of anthropologists that refute or support the hypotheses of researchers who date expansions with temporal ranges of variation (in thousands of years) that sometimes amplify the "central" estimate by 30-50% (e.g. Comas *et al.*, 1996, p. 1074; Ingman *et al.*, 2000, p. 712; Rootsi, 2004, p. 135; Semino *et al.*, 2004, p. 1032), usually invoking unproved hypotheses of refuge areas in a Last Glacial Maximum period and subsequent repopulations, in which the affiliations of the samples often fall in the categories of nation-states or in their geographical subdivisions or at least in their regions? Moreover, even though the samples are often objectively small and with all-inclusive labels, the authors present microevolutionary schemes that merit much more caution; indeed, experience teaches us that other more detailed samples could substantially modify the currently proposed schemes. Be that as it may, it is fashionable today (perhaps rightly so) to describe biological evolution mainly via the microscope of pyrimidine and purine sequences.
But this is not the point. Nor is the horrible reductionist popularisation currently in fashion in the mass media and even in scientific journals.

The point is that Physical Anthropology has become, or perhaps has always been, a marginal discipline and a discipline of exiles. Today, the tragedy is (and please allow me to generalize) that the Anthropologist not only fails to be a "specialist of the general", and thus cannot elaborate a general view of biological and cultural evolution, but has become, in his various facets, a marginal and isolated researcher.

Unfortunately, we must admit that the Physical Anthropologist, conditioned by the chronic paucity of means and resources, by the insufficient Impact Factor and diffusion of his journals, as well as by the general inability to find a common path, has become a researcher on the borders between other disciplines, often not managing to synthesize them, only surviving there among the folds, in the residual areas. Let me explain. Isn't Human Ecology a discipline that survives on the margins when Engineers, Geologists, Botanists and even Architects and Zoologists appropriate environmental studies and become the main interpreters of aspects of the

Man-Environment relationship that truly interest society? What is the specificity of Molecular Anthropology when it simply replicates the topics of molecular geneticists, without adding knowledge from human palaeontology, palethnology, historical demography and even history? And so on and so on, not for satisfaction about the isolation but to try to find a new impulse, a new way of cohabiting and of conducting research within the discipline.

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reply to Capelli *(J. Anthropol Sci., 83:141)*

Cristian Capelli is correct to cite Cavalli-Sforza *et al.* (1994), thus underlining the importance of a holistic approach when attempting to interpret the biological evolution of human populations. It can also be accepted that small samples and even a single specimen can be used to draw general inferences, but I believe that this is valid only for particular, and I would say constrained, research situations. Instead, I consider their use rather questionable when the samples are labelled as nation-states or their regions, and especially when the results obtained with these small and often overlapping samples are used to formulate theories based solely on the relative molecular biological data. Moreover, the wide variability of expansion estimations, due to the current techniques and tools, is another important reason to seek further support from other disciplines. Let me make it clear that I do not suggest these theories are wrong, I am simply saying that they need to be supported by the results of other fields of research. Finally, I want to emphasize that each discipline certainly deserves respect, or better, deserves a great deal of respect for its contribution to knowledge, but this does not mean that we must uncritically accept every theory produced by its researchers.