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A VIEW FROM THE SOUTH: TRANSDISCIPLINARITY, BIOLOGICAL ANTHROPOLOGY AND THE 21st. CENTURY*

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ABSTRACT: This paper discusses the future of Biological/Physical Anthropology as a fundamental part of Anthropology in the 21st Century. The paper calls the attention to the need for more transdisciplinary work among anthropologists, and in particular the need for transdisciplinary collaboration between the countries of the Northern and Southern hemisphere; it also examines the need for further engagement of Human Biologists and Biological Anthropologists with what Rappaport called "societal issues". The future developments and perspectives of Biological Anthropology and its practitioners depends greatly on lessons learned from Anthropology's past history, where the most successful endeavors, such as the International Biological Program were transdisciplinary in nature and scope. Rev. Arg. Antrop. Biol. 8(1): 153-161, 2006.

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Resumen: En el presente estudio se discuten aspectos del futuro de la Antropología Física o Biológica, como parte fundamental del contenido de nuestra ciencia, recién entrada al siglo XXI. Se puntualiza enfáticamente sobre la necesidad de realizar un intenso trabajo interdisciplinario entre los antropólogos y se remarca en particular, la necesidad de colaboración entre los países situados al norte y sur de nuestro hemisferio. También se puntualiza lo provechoso de poner en práctica una acción conjunta entre antropobiólogos y especialistas en biología humana, apuntando a lo que Rappaport llamó "resultados societarios". El desarrollo futuro y las perspectivas de la Antropología Biológica y de sus seguidores depende en gran medida de lo aprendido en el pasado con las empresas más exitosas, tales como el Programa Biológico Internacional, que fue transdisciplinario tanto en su naturaleza como en sus objetivos.Rev. Arg. Antrop. Biol. 8(1): 153-161, 2006.

INTRODUCTION

As in many disciplines, the amount of knowledge accumulated in Biological/ Physical Anthropology in the 20th Century was enormous. Nevertheless, at the same time, as with other classical areas of anthropology, biological anthropology has also grown increasingly apart from the others sister disciplines. In this article I discuss the need to redirect the discipline to a more interactive position, and some possible implications of not doing so.

At the beginning of the 21st Century three aspects are of increasing importance to Biological Anthropology and its practitioners: Number one is the need for more transdisciplinary work within anthropology and between this and other areas of the natural and the social sciences. Number two, is the particular need for transdisciplinary international collaboration between the countries of the Northern and the Southern hemisphere; and Number three is the need for further engagement of Human Biologists and Biological Anthropologists with what Roy Rappaport has called the "societal issues", i.e. those related to the socio-ecological contexts in which human populations live (Rappaport, 1993). All these aspects are inherently connected, hence it is appropriate to talk about them in tandem.

Paul Baker's writings have always been a tribute and incentive for multidisciplinary and transdisciplinary work in Biological Anthropology and Human Biology (Baker, 1982; 1988). However, at least since the 1980's there has been a continual dis-agregation of the core areas of anthropology, what is known as the four fields (Social/Cultural Anthropology, Physical/Biological Anthropology,

Linguistic Anthropology, and Archaeology) (Podolefsky and Brown, 1994; Schultz and Lavenda, 2001). This is likely a reflection of the dynamics of modern science at large with its history of a growing dichotomy between man and nature (Stone, 2002), and of increasing specialization and subdivision of fields associated with national and international funding opportunities which, at some points even creates barriers between adjacent areas (Brown and Yoffee, 1992). This can be seen by the growing number of new specialized journals and other publications dealing specifically with the disciplines, fields and subfields of anthropology that appear every year. While specialization is necessary, it is important to remember that isolation rarely results in relevant scientific or social contributions, and here are some reasons why.

Particularly in the area of anthropology, throughout the United States, Europe and many other countries, as resources shrink and become more competitive and industry driven, there has been a continuous trend of departmental fragmentation and even division, with professionals from the socio-cultural area and linguistics, professionals from the biological/physical area, and professionals from archaeology moving into entirely different departments and even separate campi of the university. From a science point of view we all stand to loose with situations like that.

It is well known that dialogue between areas such as the humanities and the biological sciences, for example, is not easy as the professionals often speak different "languages", and come from completely different backgrounds. Among the disciplines of anthropology it is often as hard or even harder to open a productive dialogue. However, it is exactly because of the challenge of creating this exchange, the importance that this has to the students, and the continual need to find meaningful ways for the enhancement of the sciences of studying humans, that this objective should not be given up. Even though this is not and easy task, it is important to start by breaking down our own barriers and preconceptions, and be genuinely interested in the contributions other perspectives and points of view have to offer to our proposed research endeavors, whatever those might be.

Since the last decades of the 20th Century numerous researchers have discussed the need for more transdisciplinary research, especially between the health fields and the social sciences, including anthropology (Farmer, 1999; Goldman, 2001; Waltner-Toews, 2001; Silva, 2002; Trostle, 2005), and even though within anthropology interdisciplinary work has advanced, true transdisciplinary research is still mostly wishful thinking. In the next section are presented some examples as to why transdisciplinary collaborations are fundamental to the continued growth of biological anthropology and anthropology in general. But first, it is important to refer to a statement by one of the most respected anthropologists of the 20th Century:

"It would be an exaggeration to claim that the future of anthropology lies entirely in its engagement with the troubles of the contemporary world, but it would be an equally, or even more, serious error to continue to relegate such engagements to anthropology's peripheries. The numbers of anthropologists devoting all, or significant part, of their professional efforts to the understanding and amelioration of contemporary difficulties has grown in recent years and, judging from the interest of graduate students at my institution, will only increase further in the decades to come" (Rappaport, 1993:301).

Probably, many readers have seen this statement presented by Dr. Rappaport a little over a decade ago. It was true then, and it continues to be true now. Anthropology in general, and biological anthropology in particular, has much to gain from their professional's engagement in societal issues, and much to loose by distancing our science from the needs of the society. Indeed, more and more biological anthropologists are dedicating their work to help the understanding and solution of contemporary human difficulties, from the study of the socioecological determinants of chronic diseases such as obesity, hypertension and the metabolic syndrome, to the genomic era and its impacts and social perceptions, to the discussion about the value of the use of terms such as "race" and "ethnicity" to determine access to public services such as health and education, among many others (Young, 1994; Goodman and Leatherman, 1998; Santos and Maio, 2004; Silva, 2004; Cooper, 2005). However, these are still a minority among the researchers.

This century that just started will be a very challenging one for humanity, but, perhaps through our engagement and cross-disciplinary collaborations we might be able to make it a little less lethal to some segments of the world's populations. As problems such as increased violence and warfare, migration, populations displacement, rural and urban impoverishment and hunger, increased social disparities, environmental degradation, climate changes, environmental discrimination, and emerging and re-emerging diseases overwhelm national societies and governments' abilities to deal with them, the increasing understanding of their sociocultural, political, economic and environmental causes, and their biocultural consequences, can provide clues as to how to better prevent and perhaps, if we are optimists, reduce significantly some of them. But these goals will only be achieved by looking at the larger picture of human-environment interactions. And this can only be achieved when the work is done together with other disciplines.

Additionally, since the majority of the most serious problems faced by humanity, occur in developing countries in the South, North-South cooperation and transdisciplinary collaboration become especially relevant. For example, South America has dealt with several rounds of "international crises" during the latter part of the last Century, combining economic collapse, as what happened with Argentina, with increased internal violence and warfare, as in the case of Colombia and Peru, and environmental degradation and increasing social disparities, as is the case of Brazil, Venezuela and Bolivia. Under these circumstances, the work of biological anthropologists gains an even greater importance, whether it is investigating the effects of socioeconomic disruption and environmental degradation on the physical and mental health of local populations; discussing issues such as ethnicity, race and racism in the public sectors, and the practical sociocultural consequences of human genetic variability, or helping to identify victims of state, militia and traffic crimes in mass graves.

However, despite many individual and collective efforts in the South, much more can be accomplished if the work is done jointly with other specialties within the countries, and if the colleagues to the North also become more involved. In the countries of South America and Africa researchers are overall faced with enormous institutional, financial and political crises, with hiring freezes and severe budget cuts for education, science and research, and in recent years with an enormous "brain drain", where the youngest and brightest scientists are fleeing their home countries in search of more academic growth and better living conditions in North America and the European Union (Lessa, 2006). Under these circumstances, the local research initiatives are severely constrained. Only with interinstitutional and transdisciplinary collaborations will we be able to look for answers to the problems facing academic institutions, and design bioculturally appropriate approaches to deal with the real issues of our societies at large both in the South and in the North.

Finally, I would like to discuss one more example for the increased need of transdisciplinary collaboration within anthropology: The book "Darkness in El Dorado" published some years ago by journalist Patrick Tierney (Tierney, 2001) presented to the general public some very critical perspectives about the work of anthropologists among traditional indigenous populations. The book, and the corollary of web sites and articles discussing it, brought again to the center of the debate a series of very complex issues pertaining to almost all the fields of the anthropological sciences. The discussion, as the one associated with the Human Genome Diversity Project, and the ethics of doing research among traditional indigenous populations has sharply divided many academic circles with biological anthropologists, geneticists and human biologists generally on one side, and

sociocultural anthropologists, historians and social activists on the other, while the traditional populations are caught in the middle (Albert, 2001; Santos, 2002; Salzano and Hurtado, 2004). In 2002 I attended an international conference at Cornell University, USA, called "Tragedy in the Amazon: Yanomami Voices, Academic Controversy and the Ethics of Research"

(http://members.aol.com/archaeodog/darkness_in_el_dorado/documents/0156.htm).

Even though a major topic of the event was the discussion about the practices and ethics associated with the collection of biological samples in traditional indigenous populations (in this case blood of Yanomami populations), there was no voice from the bioantropological community at the meeting. During this Conference, very grave accusations were leveled to many respected anthropologists and institutions, and to the American Anthropological Association's "El Dorado Task Force" and their report published on the Association's web page (http://www.aaanet.org/edtf/index.htm). When asked why there were no biological anthropologists in the panel of the Conference, the organizers answered that they had sent invitations, but, the invited professionals did not come. This apparent lack of interest on a subject that is at the core of our work, the collection and study of biological samples, can have serious repercussions for the future of bioanthropological research with living human populations, some of which are already starting to appear in the form of increased difficulty of access by researchers to some groups (Santos, 2002; Salzano and Hurtado, 2004).

The issue of research methods and ethics in anthropological research, and the very complex questions they raise are a clear example of the need for more transdisciplinary work involving socio-cultural anthropologists, bioanthropologists, archaeologists and linguists. Each one of these disciplines has much to loose by not working together to understand the historical and political needs of the traditional societies they study and in developing better forms of interactions with them. Only by actively searching for partnerships outside of our immediate field, and particularly in the (other) social sciences we will be able to develop field and laboratory technique and practices that will benefit science without doing harm to the people which this science is supposed to benefit.

As one looks for newer developments and perspectives to biological anthropology, it is fundamental to keep in mind that, as with the history of mankind, the future of the discipline strongly depends on lessons learned from the past. The most successful endeavors, with the highest explanatory capabilities, like the almost two decades long International Biological Programme (IBP) (Baker and Little, 1976; Collins and Weiner, 1977), the studies of hypoxia conducted in the 1970's and 80' (Sutton et al., 1988), and the Center for Research

on Tibet (http://www.case.edu/affil/tibet/aboutUs/center_info.htm) among others, have been transdisciplinary in nature and scope. Let's keep that in mind as we plan for the future of Anthropology.

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