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Reinventing Anthropology: American Association of Physical Anthropologists Annual Luncheon Address, April 1, 1994

MATT CARTMILL
Department of Biological Anthropology and Anatomy, Duke University Medical Center, Durham, North Carolina

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When Jere Haas called me up and invited me to address this gathering, I told him that I was honored, but that I had a potentially disqualifying handicap. Since the last time I gave the luncheon talk, at the AAPA meetings in Philadelphia ten years ago, I had become the Editor of the *American Journal of Physical Anthropology*; and the AJPA's editor is supposed to be impartial and not harbor any ulterior preferences for one set of ideas over another. I hesitated to run the risk of being seen in public having any opinions about anything.

After thinking it over, I felt that I ought to talk about something that would be interesting to the members of this Association, but not have any direct bearing on anybody's scientific research. So I decided to talk about anthropology.

That may seem like an odd choice, because we are after all the American Association of Physical Anthropologists, and what we do ought to be part of a science called anthropology and relate to it in some broad, general way. This was true once, but I'm not convinced that it's true any longer. Many of us are harboring such doubts. Several of you voiced them in a news article in the September 24th, 1993, issue of *Science* on the current condition of anthropology. The medical anthropologist Clifford Barnett summed it up for a lot of us when he said that the current condition of anthropology is pretty much on a par with the current condition of Yugoslavia.

I want to suggest to you that—at least for the immediate future—our association with mainstream anthropology has become a strange anomaly, in which we struggle to see ourselves as somehow contributing to a discipline increasingly dominated by a viewpoint that regards what we do as philosophically impossible and morally incorrect. It's sort of like trying to make ourselves out as a subdiscipline within the Society for Creation Research. If the unique mission of anthropology among the sciences is to be carried on in the future, we are going to have to set to work with like-minded colleagues in other subfields to ensure that it happens, and that it happens on our terms. This is going to demand a reinvention of what anthropology is all about—and a recentering of our own discipline, to keep us from turning into a disparate collection of clinicians and biologists marching off in all directions under the tattered banner of a defunct social science.

REDUCTIONISM IN ANTHROPOLOGY

As that article in *Science* pointed out, anthropology today is in a state of crisis. This isn't anything new. Anthropology has been in a state of crisis for as long as I can remember. The crisis is built into the definition of anthropology. Anthropology is the one science that tries, as a recent editorial in *Man* put it, "to help dismantle the intellectual barriers that . . . separate the humanities from natural science" (Ingold, 1992). The result is that anthropology is an institutionalized train wreck. It has been plagued throughout its history by the antipathy and distrust that

prevails between science and the humanities—what C. P. Snow (1959) called the two cultures. In trying to connect the two, anthropologists have generally wound up distorting one so that it makes some sort of sense in terms of the other. This habit has been an unfailing source of tension between biological and cultural anthropologists.

Earlier in this century, the privileged mode of explanation was the reduction of humanistic ideas and issues to biology. Psychoanalytical anthropologists represented people's ideas about morality, art, and religion as side effects of their child-rearing practices and toilet training. Experimental psychologists tried to make sense of these things in terms of classical or operant conditioning. Marxist anthropologists and cultural ecologists labored to make us see all cultural values as side effects of people's modes of subsistence and production. Others sought to convince us that murder and warfare are the byproducts of territorial and aggressive instincts inherited from our killer-ape ancestors. More recently, some of the sociobiologists among us have tried to make out everything from altruism and homosexuality to infanticide and rape as genetically conditioned phenomena imposed upon us by the demands of inclusive fitness.

Most cultural anthropologists are no longer willing even to consider this sort of explanation. But their rejection of biological and economic reductionism, which is generally a pretty sensible rejection, isn't the source of the current crisis. That crisis stems from their discovery, over the past decade, that they can run the reductionist program in the opposite direction, by reimagining natural science as a literary genre and turning the tools and concepts of textual criticism loose on it. The privileged mode of explanation in anthropology has turned around 180 degrees, and now favors explaining the facts of biology—or more precisely, the assertions of biologists—in terms of cultural values.

THE POSTMODERN TURN

This new reductionism goes under various labels. One such label is "critical theory." Another is "postmodernism." Conceived as an academic discipline in itself, it is sometimes referred to as "cultural studies" (Handler, 1993). It is grounded in the proposition that scientists' self-proclaimed objectivity and the so-called external reality that they pretend to study are myths. There is no objective reality, no "other" out there to be objectified. All others are part of the self. All so-called realities are subjective, and all of them are constructs. The ones that find widespread acceptance are *social* constructs: party platforms, socially hammered out to satisfy a variety of practical and political aims. Facts are negotiated, not discovered. It follows from this that any claim to know something about an objective reality is at bottom a power grab, a bid to eliminate cultural and political diversity by dictating the terms and content of everybody's discourse.[1] Scientists' claims to knowledge are really political claims, dressed up as detached objectivity in the hopes of awing the suckers into submission. The important thing to ask about such claims is not whether they are true, which is an imponderable question, but what hidden political agenda they're designed to advance. "Once the political nature of all knowledge is accepted," writes one postmodern anthropologist, "the critique of all knowledge becomes possible" (Marcus, 1992:161).[1]

I think that many of us would go along with this, up to a point. Most of us would grant that our concepts and theories are not simple objective perceptions handed to us by nature. And we all know that scientists have all too often tried to cloak their political agendas in a mantle of impartial objectivity. Physical anthropology has been one of the worst offenders in this regard among the sciences, as anyone who has ever looked into the history of the concept of race can tell you. But the postmodern claim is not just that scientists sometimes, or even always, manage to sneak in politics under the cover of doing science. Rather, the claim is that politics

[1]In the words of Foucault (1980:133): "Truth is linked in a circular relation with systems of power which produce and sustain it, and to effects of power which it induces and which extend it."

is what doing science is all about: that the real point of science is not (as we like to pretend) figuring out how the world works, but rather trying to concoct objective-sounding reasons for imposing our will on others.

Like many of us, I have been stumbling across the postmodernist sensibility around the fringes of our discipline for years and barking my shins on it, letting out an occasional yelp (Cartmill, 1991a,b) when I bumped into Donna Haraway (1989) deconstructing primatology as a genre of science fiction, or the prominent French postmodernist Jean Baudrillard (1983) denouncing DNA as a myth concocted by American technocrats to oppress the working class. But I had not understood how pervasive and normative the postmodern view of science had become among mainstream anthropologists until I attended the 1993 annual meeting of the American Anthropological Association. In session after session, speakers rose to offer ironic postmodern critiques of the arrogant positivism and ulterior political motives of the anthropologists of the past who had thought they were doing science. Going through the 130-page program of those meetings, I tallied up the sessions where one or more titles featured postmodern buzzwords like "discourse," "social construction," "otherness," and "late capitalism," and found that 41% of the 314 sessions contained one or more papers that appeared to emanate from a postmodern perspective, whereas only 6% included papers that had anything to do with biology or biological anthropology.

This sort of disproportion isn't entirely new either. Biological anthropologists have always been in a minority among American anthropologists, and have probably been underrepresented at general anthropological meetings ever since the AAPA was founded in 1930 to cater to our peculiar interests. But I think things are different now, because for the first time in the history of our science, we are facing not just a divergence of interests, but a principled rejection by mainstream anthropologists of the evolutionary tradition that underlies everything we do—and that originally held anthropology together.

At that same AAA meeting, President Annette Weiner convened two special sessions to discuss the precarious condition of anthropology today. The first session, entitled "Cultural Anthropology without Anthropologists," was dedicated to the proposition that anthropology is becoming just a subgenre of critical theory. One speaker after another took to the podium to praise the declining discipline of cultural anthropology for having helped to show the world that, as UCLA's Mario Biagioli put it, "claims about the universality of science should be understood as a form of cognitive colonialism." The second Presidential session, entitled "Physical Anthropologists without Anthropology," was convened to explore the proposition that physical anthropology is no longer part of the anthropological tradition. Coming in at the end as a discussant, I argued that all this has things exactly backwards; that it is the *biological* anthropologists who have conserved a more or less traditional notion of the scope and mission of anthropology, from which the *cultural* anthropologists find themselves increasingly alienated and estranged.

This isn't necessarily a compliment to us. The traditional conception of anthropology was not altogether innocuous or benign, and there are some good reasons for its having been deconstructed to death by the critical theorists. It's no secret that anthropology originated as a colonial operation that sought to interpret the constituents of Europe's world empires in terms of nineteenth-century European notions of progress (Willis, 1974). Social anthropologists studied the religions, politics, and kinship structures of the conquered peoples, and arranged them in linear hierarchies beginning in half-animal savagery and progressing through history to culminate in their European counterparts. Archeologists documented the same ascent from savagery in the remains of past cultures. Physical anthropologists measured the bones of people and other primates and laid them out in similar ascending series ending in Europeans, using the so-called savage races as intermediate forms to "bridge the gulf that separates the gentleman from the gorilla," as the British Darwinist George Romanes put it (Romanes, 1889).

In short, the evolutionary paradigm that once pervaded anthropology and justified pulling all its diverse interests together under a single departmental roof was infested with some nasty political subtexts, and there are reasons why it has been abandoned and discredited among cultural anthropologists. In a recent article in the *New York Review of Books,* Clifford Geertz (1994) points to some of those reasons and sums up the current consensus on primitive societies. Put simply, there are no primitive societies. The people around today who lack literacy or metallurgy or agriculture are not, as anthropologists used to think, survivors from preliterate (or Neolithic, or Paleolithic) stages of cultural evolution, but oppressed and marginalized victims who have been deliberately left out of the industrial world order. Geertz writes, "There are no petrified survivors from the world we have lost; just hapless castaways, neglected and vulnerable, of the one we live in. The anthropological 'science,' if it is a science, seems to have lost its object."

We can get some idea of how big and how fast a loss this was by tracking the changing views of hunters and gatherers in the works of one major expert, Richard Lee. In the 1968 Wenner-Gren volume *Man the Hunter,* Lee saw modern hunter-gatherers as endangered living fossils from the Paleolithic, conserving the ancestral human way of life and representing "life in the state of nature" (Lee, 1968:43). But in a politicized and postmodern recent article in *American Anthropologist,* Lee (1992) argues that such people should be viewed not as primitives but as counter-cultural dropouts, who deliberately reject industrial civilization and mock the bureaucratic world order by choosing to stay outside of it. Anthropologists are of course as divided on this matter as they are on everything else (Testart, 1988; Kent, 1992; Shott, 1992), but I think the position held by Geertz and Lee currently has the upper hand.

This postmodernist revisionism is not likely to be a passing fad. There are powerful and valid insights in it, and they have a lot of cultural, historical, and political force behind them. I think we can accept and even welcome the fact that cultural anthropology has given up for good on the old program of trying to make evolutionary sense out of the cultural and behavioral diversity of modern human societies. But there are some aspects of the postmodern revolution in anthropology that we can't and shouldn't accept, because they are as surely incompatible with an evolutionary outlook as anything the creation scientists preach. Much of academic anthropology, as presently conceived and practiced, in fact shares certain assumptions with creation science that make both of them hard to reconcile with the scientific world picture we share with other biologists.

FACTS, VALUES, AND SCIENCE

For the natural scientist, the world presents itself as a vast assemblage of material objects interacting with each other in recurring patterns. Our faith as scientists is that we can discern some of these patterns and use them in predicting the future— and in manipulating the present, to shape the future to our liking. As both the friends and enemies of science have long insisted, the ultimate point of science is not knowledge but power: over nature, over our enemies, and over ourselves. The itch for control lies at the heart of the experimental method, and distinguishes science from the airy and inconsequential sorts of natural philosophy that preceded it.

On the whole, science's quest for power has been successful. But although science and the technologies that come with it confer power on us, they don't confer direction. For scientists, the elemental constituents of the world are facts and objects; and moral principles—statements about what *ought* to be, not what is—are awkward anomalies that don't fit the grammar of science. The scientist's typical response to moral issues has always been to dismiss them as unscientific (with a strong hint that they don't really merit serious attention) or to try to reduce them somehow to *is* statements—to objective-sounding factual assertions about, say,

hormones or instincts or inclusive fitness or operant conditioning or the Oedipus complex.[2]

These attitudes make it hard for natural scientists to understand or sympathize with those who look at things the other way around—who see moral precepts as fundamental and the purported facts as side issues, which sometimes have to be twisted and bent to make them fit into the moral framework. We tend to think of this morals-first attitude as simply a mistake. This is one of the reasons we have trouble understanding Fundamentalists, for whom moral judgments are always primary and material facts secondary. Creationists feel justified in rejecting the conclusions of modern biology, because those conclusions don't square with the moral truths that carry ultimate conviction for them.

But the principle that values come before facts not only energizes the forces of creationism on the religious right; it is also the central axiom of the postmodern approach on the academic left. In a trenchant critique of the postmodern approach in cultural anthropology, Roy D'Andrade (1994) argues that the ultimate aim of this approach is the development of a moral model of the world, as opposed to the factual models elaborated by scientists who aim to understand how the world works. "The driving force of a moral model," D'Andrade concludes, "is the allocation of praise and blame, reward and punishment." In postmodern discourse, *good* and *bad*—or more precisely, *liberating* and *oppressive*—replace *true* and *false* as the elementary standards for evaluating what scientists say about the world. Since postmodern writers generally agree that claims to objectivity and assertions about the natural order are oppressive, science does not fare well by these standards.

If it does nothing else for us, the postmodern assault on the idea of natural law should make us appreciate the importance of biological anthropology for science as a whole. More than anyone else, we are the scientists who study and understand how the human condition emerged from the natural order. Our crucial contribution to the scientific world picture is our informed insistence that everything human has to be understood as the historical product of a reality antecedent to human hopes and fears and politics. We know, better than any other scientists know, that the human condition is an aspect of the animal condition; that people are animals and the descendants and cousins of animals, and that the seemingly unbridgeable gulf that separates us from other animals is an illusion due to the accidents of history. Unlike, say, physics or mathematics, our science forces us to acknowledge an inhuman reality as a necessary ground of our approach to the world. Postmodern skepticism about that reality as a social construct, and the associated superstition that we define and perceive the world exclusively through language—through *texts*—derives from the Cartesian intellectual traditions of France, which dismiss nonhuman animals as meat machines from Mars: alien, mechanical, and unintelligible. It is fundamentally at odds with what we do as anthropologists.

If the anthropological mainstream continues to embrace that skepticism, we have to divorce ourselves from it. We might do that in several ways. One would be simply to shuck off our social-science connections, repackage ourselves and our students as specialized biologists, and try to move off into clinical and biological settings in the American university system. In that *Science* article last September, Katharine Milton predicted some such future for the biological anthropologists at Berkeley, where the two-culture conflict seems have reached the point of no return. Of course, people have been moving out of physical anthropology into general

[2]The conventions that govern what scientists are supposed to do as scientists (formulate testable hypotheses, record all the findings and not just the ones that fit, avoid ad hoc explanations, and so on) place significant constraints on scientific concepts and theories, and are inextricably woven into the fabric of scientific discourse and the scientific world picture. It might therefore be reasonably objected that *ought* statements are just as fundamental for scientists as they are for creationists or postmodernists. The short answer to this difficult objection is that most of these scientific *oughts* are not moral imperatives but rules of practice, which we adopt because we believe (on the basis of experience or theory) that they are useful in learning to predict and control events. Nevertheless, the choice of that ultimate objective—or of any other ultimate objective—has inevitable moral dimensions.

biology and medicine for a long time, and they are sure to go on doing it in the future. But outmigration is one thing, and depopulation is something else. Our science will go on existing as a separate entity only so long as it distinguishes itself from the rest of biology by hanging on to the anthropological program of trying to bridge the gap between biology and culture.

SOME BIOCULTURAL OPTIONS

In borrowing the title of Dell Hymes's (1972) book *Reinventing Anthropology* for this talk, I had two sorts of reinvention in mind. The first is the reinvention that many cultural anthropologists have already carried through in severing their historical ties to the scientific traditions of the discipline. That reinvention began in the late 1960s, when young cultural anthropologists radicalized by the Vietnam war and the civil-rights movement began to reject the ideal of an objective, value-free social science and to try to recast their studies of human society and culture on the foundation of their shared moral and political beliefs. They found support for this move in the new philosophical ideas articulated by such people as Jacques Derrida, Jurgen Habermas, and Paul Ricoeur. The Hymes anthology from which I have purloined my title was an important milestone in that transition.

The waves of change that began in the late 1960s have transformed anthropology to such an extent during the succeeding quarter-century that many, perhaps most, cultural anthropologists now insist that they have nothing to contribute to the tradition of scientific and evolutionary thought in anthropology and do not wish to participate in it any longer. I think that we have to honor their insistence. If the human condition is going to be studied and understood in an evolutionary context, it seems clear that anthropology will have to be reinvented in a different way; and I suspect that biological anthropologists are going to be the ones who will take the lead in doing it.

How can we initiate that second reinvention? One option that I don't think we have is simply withdrawing—stomping out of the Triple-A in a snit and taking all our Darwinian marbles home with us. For most of us, "home" *is* the anthropology department. With a few exceptions like Duke and Cornell, universities are not going to set up new departments and programs just for us; and though some kinds of physical anthropology can flourish in other settings, we aren't going to encourage people to think about culture and biology together by cutting ourselves off from the students of culture. What we need is not withdrawal, but engagement: not shutting the alienated cultural anthropologists out of what we do, but drawing them—or at least their students—into it.

One way to start, then, is by encouraging graduate students in *all* the anthropological subfields to think about the human condition in a biological context. I don't think we can count on the traditional four-field approach to do this job any more. The four fields have gotten so Balkanized, and the economic pressures for early specialization have grown so powerful, that students will not long endure requirements for training in alien disciplines that they see as utterly irrelevant—or even actively hostile—to their own chosen specialties. We need to start looking for ways of cutting across the four fields in training future anthropologists.

There are many possible ways of doing that. Let me list and briefly sketch four available options suggested by exciting areas of current research.

One such area is the biology of language. By that I mean not just the old questions about what brain lesions produce which speech defects (Lenneberg, 1967), but also the new questions about the *comparative* anatomy and neurology and ethology of language. The contentious issue of language in early *Homo sapiens* (Schepartz, 1993; Lieberman, 1991, 1994) would offer a natural lead-in to the study of phonology and its biological correlates in graduate curricula in anthropology. Likewise, the semantic and syntactic components of language can and should be approached in our graduate programs through the current debates over whether semantic reference or syntactic structures are within the capacities of apes—or dolphins, or parrots (Bickerton, 1990; Pepperberg, 1990; Greenfield and Savage-Rumbaugh,

1990; Wallman, 1992). We must set to work with sympathetic linguists to ensure that future generations of anthropologists understand language both as the key biological adaptation of *our* species *and* as a superstructure built on the sometimes surprisingly humanlike abilities of other animals.

We should also consider similar biological approaches to the study of material culture. Just as in the case of language, we need to make our students understand that technology is first of all a biological phenomenon. We can give them an initial idea of the biological prerequisites of human technical skill by looking at the evidence that bears on their distribution in early hominids (Susman, 1988, 1994; Trinkaus and Long, 1990; Marzke et al., 1992). Some of the most exciting research in anthropology today involves the comparative study of tool-making and tool use in early hominids and living primates. The tools and techniques that wild chimpanzees make and use in getting food and water, sheltering themselves, and displaying add up to an impressive catalog. Properly motivated chimpanzees can produce and use all the tools they would need to have a material culture like that of early *Homo*. Yet these surprising abilities are irregularly manifested and of little adaptive significance among wild chimpanzee populations; and the even greater technical craft seen in captive orangutans is apparently put to no use whatever in the wild (McGrew, 1992; Schick and Toth, 1993; Boesch et al., 1994). It seems clear from all these studies that the crucial human capacities for language and technology originated in large part in an animal context, for unknown reasons not related to language or technology as such. We are not going to understand the meaning and scope of our distinctive humanness until we understand those reasons.

All this leads naturally into the related research area known as cognitive ethology. This is a relatively new discipline, which some trace to the 1976 publication of Donald R. Griffin's seminal book *The Question of Animal Awareness*. Primatologists have made important contributions in this area (Cheney and Seyfarth, 1990; de Waal, 1992), but the field has mostly grown up outside the purview of anthropology—partly, I think, because of the currently widespread conviction among social anthropologists that "animals have no thoughts" (Ingold, 1988:94). The questions addressed by cognitive ethology, which seeks to ascertain the reality and content of the consciousness and cognition of other animals, are issues that we need to bring into our programs of graduate study and research. They have enormous intrinsic fascination and importance, and they hold out a lot of promise for drawing in anthropologists interested in culture and cognition. They also offer an empirical check on the postmodern doctrine that we create the world through the construction of texts. If other animals inhabit the same world we do, that world isn't a social construct mediated by language.

A fourth possible basis for the reconstruction of a biocultural anthropology is human ecology. The ecology and demography of past and present human societies, and their impact on the health of those populations and the world's ecosystems, is a fundamentally biological topic, which nevertheless has cultural and political dimensions that make it attractive to social anthropologists. It also has an immediate practical importance that makes it attractive to governmental agencies and other funding sources. Some of the major research projects in this area (Baker et al., 1986; Friedlaender, 1987, 1990; Little, 1989) are familiar to most of us, and the study of human ecology has already been picked up as the focus of several interdisciplinary training and research programs—for example, at SUNY Binghamton, and here in Denver at the University of Colorado. The reinvention of anthropology is already under way at these and other institutions where biological anthropologists are joining with like-minded colleagues and students in other subfields to explore new ways of bridging the gap between culture and nature, without making either the old mistake of seeing all culture as biology or the new mistake of seeing all biology as culture.

I hope that those of you who are engaged in this sort of enterprise will find some way of letting the rest of us hear more about your successes and failures at future

meetings of the AAPA, so that we can spread the word around and all make progress together. Progress, of course, is not a notion that many postmodernists take seriously. It is nevertheless a meaningful concept. What makes it meaningful is the essentially Darwinian fact that our pet constructs sometimes get smashed up on the rocks of an antecedent reality. In both science and society, progress happens because we are forced by circumstances to give up beliefs and practices that don't work. I suggest that we need to start doing just that in anthropology.

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