Roy F. Ellen:

*Anthropology and its Subdivisions in Relation to Contemporary Human Science.*

The 'four field' system as it is known in the US has never really existed in Europe. Certainly, organizations such as the Royal Anthropological Institute have tried to foster an inclusive anthropology, and there has been intermittent intellectual engagement between the fields, as with social anthropology and linguistics, and palaeoanthropology and archaeology. Indeed, in some British university programmes and research groups the 'biological' and 'social', or archaeology and anthropology are quite deliberately connected, while Oxford is in the process of reinventing itself as being in the vanguard of 'holistic anthropology', though I have yet to discover quite what this term means. However, I regard these terms as convenient historical and administrative pigeonholes, which while pragmatic can sometimes be misleading, and which increasingly perpetrate a division of intellectual labour that is stifling of debate, that panders to intellectual laziness, and reproduce sterile conventional academic divisions.

While there have always been those who have striven for an integrated anthropology, who have tried to build bridges (and indeed departments); and an acceptance that our project must be simultaneously biological, social and cultural, as well as concerned with both historical and contemporary human populations; developments over the last two decades have altered the intellectual landscape in a major way. I think there is really something in the air that we breathe now, intellectually-speaking, that suggests major paradigm shifts and realignments, even if few can agree on their precise character.

On the one hand, there has been the Darwinian tendency. In Anthropology, in my working lifetime, this began with the human ethology of the 1960s (Robin Fox), followed by the sociobiology of the seventies (E.O. Wilson), and. more recently,
evolutionary ecology. Although the early postwar human ethology consensus was innocent of the new theories of behavioral genetics (largely associated with parental investment theory and kin altruism, and with the names of R.L. Trivers and William Hamilton), it was these latter who ultimately gave such interpretations their generalizing rigour and were, together with later developments, to connect the various historical incarnations of Darwinian social science that emerged during the second half of the twentieth century. One of the problems with these theories was always that despite the implication of 'genetic determinism', there was a gap in our understanding of the linkage between genes and complex human (particularly cultural) behaviours, a classic 'back box' to which social anthropologists could always point accusatively as a fundamental flaw in the project. With the promulgation by Richard Dawkins of the meme idea and the application of Darwinian theory to cultural variation and selection without the need of proposing linkage between gene and meme, these ideas acquired a new twist, which we find reflected in the evolutionary psychology and memetics of the last decade or so. It is in this context too that we can see the emergence of a new cognitive anthropology associated in various degrees of disconnection with the ideas of Maurice Bloch, Dan Sperber, Scott Atran, and in a rather different way with Harvey Whitehouse.

Understandably, social anthropologists tend to see the inroads of the biological paradigm pretty much as a one-way street. But, as it happens, I find this view difficult to defend. For during the very same period I have been referring to, the seemingly irreversible trend to molecular and genetic reductionism has been countered by a new anti-essentialist emphasis regarding the complexity of human socio-ecological systems, on the deconstruction of concepts of nature, on historical ecology, co-evolutionary models, context-agency models similar to Giddens' notion of structuration, the notion of biocultural diversity, and the mathematics of chaos and catastrophe. At the same time, Maurice Edelman and others have been demonstrating at the neuronal level the enculturation of the mind, developmental systems theory has shown that an engagement with biology need not be the same as a reduction to
genetics, while Tim Ingold has reworked classic Durkheimian anti-essentialism into a theory of the reproductive dynamics of social relationships with which many biologists would concur. Welcome to the wonderful world of complex 'emergent' adaptive systems!

Three recent examples, all from 2007, directly address the implications of these developments, and may therefore be helpful to us here. The first is an exchange between Alex Mesoudi, Andrew Whiten and Kevin Laland, and Tim Ingold, in a recent issue of *Anthropology Today*, following a paper by Mesoudi and his co-authors in *Behavioural and Brain Sciences*. The second is Ingold's own Radcliffe-Brown Lecture, and the third the Curl Lecture given by Daniel Nettle. The first was a model confrontation between the disarmingly ignorant and the irritatingly inflammatory, between the forces of consilience and evolutionary psychology on a mission to colonize the social sciences, and an angry, idiosyncratic and robust defence of the subject-matter of social anthropology and its methodologies. The second was a lecture by Ingold himself - this time holding the middle ground of a unified anthropology against those who would reduce it to the mere nuanced writing of ethnography of the kind that actually subverts the possibility of generalization and comparison. The third, Nettle's Curl Lecture, I want to say a bit more about since it is an attempt to bridge the gap, and to some degree reflects my own view.

Nettle, rather than attempting to swallow-up all explanations of socio-cultural patterns into a Darwinian totalizer, opts for a pyramid of nested theories and levels of explanation

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<th>Universal explanations</th>
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<td>Explaining co-variation in the properties of social systems</td>
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<td>Interpreting particular contexts</td>
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Nettle notes that despite the different claims made for these kinds of theory, all are based on certain universal assumptions about what we crudely call 'human nature' e.g. in the case of Geertz, say, assumptions about the universality of discourse construction, or what might a century ago have been called 'the psychological unity of mankind'. Nettle argues that explanations at these three levels are NOT alternatives, but do ultimately have to be consistent with Darwinism or else the systems they perpetrate will collapse.

But as we move from the base to the tip of the pyramid, our explanations and interpretation of our data must become increasingly simple to accommodate the forms of measurement that each level demands, and indeed they explain less-and-less of the very diverse patterns of human socio-cultural behaviour. The mathematics of population genetics are indeed elegant and powerful, but they require levels of data simplification that tend to drive out other features that are no less worthy of our attention as anthropologists and, indeed, may themselves contribute to Darwinian fitness despite being intractable to measurement.

I was trained as a social anthropologist in a Department which, in the 1960s was the very essence of 'British social anthropology' - the London School of Economics. I am painfully aware of the shortcomings of superficial short-term fieldwork trawling for the kind of data that keeps evolutionary biologists happy, and fully aware of the virtues of social anthropology as an approach using middle-range theory, and of methodologies that seek to contextualize and interpret rather than simply quantitatively measure. I am also aware how, by dividing-up and modularizing data to achieve explanations at increasingly higher levels of application, we suppress the network and systemic features of the data we begin with, and sometimes fail to appreciate the artificiality of the boundaries between those units and the patterns established by connections across them that cannot be reduced in the same way. And ultimately, though some anthropologists and evolutionary biologists are trying to address the same questions, most biologists are just not interested in the variety of
perfectly legitimate intellectual (and in every sense scientific) questions that anthropologists seek to ask of their data.

We may honestly disagree about how we define culture, though it would - I think - be useful to adopt a twin-track approach. By this I mean, to treat culture simultaneously as non-genetic information transmitted between biological individuals and its material manifestations, as well as some complex Geertzian network of language-mediated symbols. And in the study of its movement through social relationships it is no more or less real than atomic particles or the waves of quantum mechanics, and - along with the explanation of cultural diversity - lies at the core of what is distinctive about the anthropological enterprise and its theory. Everything in the end is about the transmission of non-genetic information over time and its development into increasing complex emergent systems of social relations, networks of biological, indeed biocultural interaction, from which we can read varying Darwinian valencies.

Some of my colleagues in social anthropology are clearly threatened by these developments, and their behaviour is at worse reflected in their ignorance about what is going on, and by being dismissive of any relevance to their own intellectual project. I am convinced that these are fatal reactions, and that we must engage in an informed and positive way to enable us not merely to serve as a source of data for the neo-Darwinians but to actively contribute new rules of engagement. I am not so naive as to suggest that we are on the verge of a 'new synthesis' where consilience will rule all. But I definitely detect a wind of change that is compelling us to be less inward-looking and challenging the forces of consilience to recognize that while the Darwinian paradigm is a meta-theory of enormous power, such that anything human has a potentially measurable signature of selectivity and adaptivity, at the same time we inhabit systems whose properties though refracted through Darwinian forces can never be reduced to them.
So, the subdivisions of the new anthropology are as much determined by the kind of theory we use as by the empirical characteristics of the phenomena we study. Theoretical differences are not a necessary impediment to collaboration and not necessarily an issue at all. Thus, my early work on human ecology drew on ecological energetics to compare different subsistence systems. Similarly, a student of mine, Rory McBurney - a nutritionist - draws on anthropological work on food categories to better explain nutritional data. There are a wide range of issues where social anthropologists work with other human scientists and must have some understanding of their thinking if collaboration is to work. I am thinking, for example, of the distinguished work of Igor de Garine and his students at the interface of human biology, nutrition and social science here in Paris. There is no reason why - and clearly plenty of evidence for - social anthropologists and palaeoanthropologists and linguistics collaborating to understand the condition of Neanderthal sociality. But by the same token, evolutionary biologists, social anthropologists and cultural theorists can all contribute to understanding teenage motherhood (another project in my own Department) without feeling that one approach must be reduced to the other, and should be able to constructively share our data. Hopefully, we might have have something to collectively say to the world of policy-makers as well.

Finally, we should value the presence of biological anthropologists, linguists and others in our departments, as they can constantly keep us on our intellectual toes, forcing us to translate into different scientific languages, and preventing us from being sloppy and complacent, and continually self-referential. What frightens me is the antithesis of this scenario, symbolically exemplified by the difference between the physical and intellectual distance between the two Max Planck Institutes of Anthropology, served by the same airport, the one in Halle (Social Anthropology), and the second 30 minutes away by train in Leipzig (Evolutionary Anthropology and Linguistics), but with very little or no intellectual engagement. My reason for being an anthropologist is precisely because it is not just another 'social science'. Indeed, it has always acquired its vitality (and I would argue, its distinctive identity) by being
critically conjunctural. Its pretensions to rise above the gaps of misunderstanding between subjects without falling into narrow disciplinary chauvinisms and conceits, are - it seems to me- wholly legitimate if we are to properly address those ultimate anthropological questions: what are the characteristics of culture?, what are the bases of sociality, and what constitutes humanity as a distinct life form?

Note. This is the text of a brief oral presentation. I would like to thank Tim Ingold for permitting me to refer to his unpublished Radcliffe-Brown Lecture, 'Anthropology is not ethnography', and Daniel Nettle for permitting me to use material from his unpublished Curl Lecture, 'Nature versus culture, or how is human behaviour to be explained?', delivered at the British Museum on 26 September 2007. The other publications explicitly referred to are: Ingold, T. 2007 The trouble with 'evolutionary biology', *Anthropology Today* 23 (2), 13-17; Mesoudi, A., A. Whiten and K. Laland 2006 Towards a unified science of cultural evolution, *Behavioural and Brain Sciences* 29, 329-293; and these authors' response to Ingold: 2007 'Science, evolution and cultural anthropology', *Anthropology Today* 23 (2): 18.