Human Kinds and Biological Kinds: Some Similarities and Differences

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This paper compares human diversity with biological diversity generally. Drawing on the pluralistic perspective on biological species defended in earlier work (2002, chs. 3 and 4), I argue that there are useful parallels to be drawn between human and animal kinds, as there are between their respective sources in cultural evolution and evolution generally. This view is developed in opposition to the insistence by sociobiologists and their successors on minimizing the significance of culture. The paper concludes with a discussion of the relation between cultural difference and individual difference, and the relation of the latter to conceptions of human freedom.

Hard-headed sociobiologists are inclined to insist that humans are just one species like any other, and just like any other species, they have a set of genetically determined dispositions to behavior. It will, of course, be admitted that the complexity of such dispositions will vary from species to species. The dispositions of a dolphin, say, are far more subtly attuned to the environment in which the animal finds itself, than are those of a flatworm. The dispositions of the dolphin will surely include details that are sensitive to the particularities of individual development. Years ago, Konrad Lorenz observed that the behavior of baby geese following their parents depended on the geese being exposed at birth to the right animal. If they were exposed to a middle-aged bearded ethologist rather than a mother goose, they would follow him as happily as they would a more appropriate leader. The sensitivity to upbringing of a dolphin or a chimpanzee is presumably a good deal greater. Still, all of this may be conceived of as happening within an extremely complex set of genetically determined parameters that dispose the creature to one kind of behavior rather than another. A proper account of such parameters for ants, elephants, or

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humans gives us an account of ant nature, elephantine nature, or human nature.

Less hard-headed (perhaps) opponents insist that there is a more fundamental difference than this suggests, between human nature and the natures even of our most sophisticated nonhuman relatives. Often this intuition is articulated in terms of the importance of culture. Culture is important because there are many different cultures. And if this is correct, then the generic identification of an organism as possessing human nature is only the beginning of an understanding of what kind of thing it is. We shall also want to know the culture, or cultures, to which it belongs.

The hard-headed (let us, for convenience, call them sociobiologists) are scornful of this move. Culture, they retort, is merely an evolved device, and would surely not have evolved if it did not conduce to the fitness of the individuals that took part in it; and it would hardly do this if it were not quite tightly constrained by the biological natures of individuals. At this point, the culturalists (as we may call the other participants in the debate, among whom I admit to counting myself) reply that this is unwarranted adaptationism—Panglossianism even—and the empirical fact is that culture has produced all kinds of behavior—celibate monasticism, suicide bombing, and so on—that is plainly not adaptive in a biological sense. Biology does not determine culture any more than (as I shall mention later) culture determines the behavior of individuals.

Another obvious reason for concluding that biology does not determine culture is simply to observe that there are many different cultures. Here we encounter a characteristically frustrating aspect of the debate, for the sociobiologists, while not exactly denying this, insist that cultures are not nearly as different as the culturalists pretend. Much cited, for example, is Donald Brown's list of several hundred human universals, said to be found in every culture (Brown 1991; an updated list is offered in Pinker 2002). This list, and its underlying presumptions, could be debated interminably. Some items on the list are rather unsurprising—false beliefs, for instance. Classification, and a dozen particular kinds of things classified, seem to add nothing to the fact that humans have languages, something that nobody, I suppose, would deny was a biological fact about us. Speaking as an Englishman, it is hard to imagine that any speaking creatures could fail to classify kinds of weather. At the other extreme there are some highly dubious universals. There is a reasonable doubt, I should think, whether any cultures exhibit the Oedipus complex, though perhaps if any do, all do. But the important point is that it is not even remotely surprising that such a list can be produced. We are—and this is not in dispute—all human, which is to say, all part of a single biological species, and it is to be expected that we will have very large numbers of features in common. In just the same way, it would be possible to list a very large

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number of features common to all mammals (some of these would appear on Brown's list). This hardly shows that there are no distinct species of mammals. So my point is that whether or not one accepts all or some of the cultural universals on the list has little to do with whether there may be legitimate kinds to be distinguished within the human species. If there are such kinds, this fact would point to one way in which a full biological account of what it is to be human fails to exhaust the classificatory moves relevant to understanding the nature of a particular human, and thus points to a respect in which the sociobiologists' claim misses something that the culturalist can grasp.

The culturalist objection to the picture sketched in my opening paragraph, then, might be that the human species was in some respects more like a genus encompassing a range of distinct cultural species. While being aware that there are obvious dangers in pushing this analogy too far—there are political advantages in stressing the unity of the human species—there are respects in which this analogy seems to me to be a useful one, not only theoretically, but also politically. There are also dangers in exaggerating the homogeneity of the human species, namely, that such an exaggeration gives license to the assumption (by powerful groups that have the time to reflect on human universals) that the characteristics they see around them are universal characteristics of humankind. Just as it is widely agreed that biological diversity is a thing of great value that should be preserved as far as possible, we should consider the possibility that cultural diversity may have comparable value. In fact, I think the parallel here is in many respects much closer than is generally supposed.

At any rate, my aim in the present paper is to explore the theoretical value of the analogy between biological diversity and human cultural diversity and to suggest some important similarities as well as some important differences. The place to begin this comparison is with some variably controversial views on the nature of biological kinds (the views summarized here I defend in greater detail in Dupré 2002, chs. 3 and 4).

The facts of biological diversity do not determine, though they very substantially constrain, the possible modes of classification. (By possible, here, I also mean sensible.) There are, of course, more or less controversial ways of expanding on this thesis. Almost entirely without controversy is the notion that different systems of classifications can draw boundaries in somewhat different places. In many cases, for example in the classification of many kinds of flowering plants, there is a fairly smooth continuum of intermediate forms; if classification succeeds in assigning every organism to a kind, it can only do so with a degree of arbitrariness. But of course, only a degree of arbitrariness. No one will be tempted to classify aardvarks in the same species with zebras, or even roses with lilies.

A more controversial thesis is that a unique principle suitable for clas-

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sifying all organisms does not exist. The dominant tendency in contemporary systematics is to suppose that taxonomy should reflect phylogeny, or evolutionary history. Given the common assumption that evolutionary history can be depicted as a diverging tree, mapping relations of descent, then it is suggested that every named taxon should represent an entire branch (or twig) of this phylogenetic tree. There are several difficulties with this proposal. One fundamental one is that it assumes that phylogeny can be represented by an only divergent, never convergent, tree. Convergence makes it ambiguous as to what should count as a branch. But it is increasingly clear that convergence is common. It need not consist of the merging of whole species—though that can happen—but merely reflects the fact that genetic material appears often to be transferred between taxa that may be at some phylogenetic distance one from another. The ancestors of a particular taxon may then be a motley crew. In the case of bacteria, in particular, the phylogenetic map seems likely to be highly reticulated, and phylogeny may give little guidance for classification. In practice, bacteria are classified on the basis of various morphological criteria, often pragmatically chosen on the basis of their relevance (pathological, agricultural, ecological, etc.) to human interests. This seems generally a good practice.

Despite this somewhat skeptical perspective, it is important to remember that there are also many species that show a striking coherence and persistence of form. One thing that contributes to this coherence is the ability of species to preserve reproductive isolation from other species, and there are a range of subtle mechanisms by which members of a species distinguish suitable sexual partners—members of the same species—thereby ensuring reproductive closure. These two observations ground familiar species concepts: the biological species concept, which until recently dominated systematic theory, and the mate recognition species concept. But it seems likely that there are other mechanisms—ecological pressures, developmental homeostasis, for instance—by which species maintain coherence, and this has led to the more catholic coherence species concept, based on the idea that species should be defined by whatever factors maintain their coherence. The full path to pluralism requires the recognition only that there are many areas of the biosphere in which species are not that coherent, and in which only purely morphological criteria are likely to be useful.

We have a general interest in classifying organisms, in being able to ask and answer the question of any biological individual, What kind does this belong to? The reliable availability of classifications is a prerequisite for the possibility of storing and retrieving information about the characteristics of particular kinds of organisms. And this general interest underlies the possibility that addressing the need to classify organisms may

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have to draw on different resources in different cases. The current popularity of pluralism about species derives from the fact that the concept of a species answers to two only partially reconcilable demands. On the one hand, we have evolutionary theory, which is inclined to assume that a proper answer to the question, "What is a species?," will provide us with the basic unit of evolutionary process. And on the other hand, we have the general classificatory interests. Experience suggests that any answer to the theoretical question will be applicable only to some subset of the actual biological diversity we discover. Consequently, the classificatory interest forces us to accept a variety of theoretical conceptions of what it is to be a species.

Let me now turn to human classifications, beginning with what I think is the most important difference from the general biological case. We have no general interest in classifying people. The question, "What kind of human is that?," without some much more specific context, is senseless. We classify people with regard to nation, gender, occupation, and sometimes race, but we don't just classify them, period. There is, therefore, no concept analogous to the species which answers to a general interest in classification. And this, finally, makes pluralism much less problematic. Our general interest in classification causes some discomfort with the idea that an organism might belong to two non-coextensive kinds, both of which lay claim to the concept of a species. We are obliged to choose one or other kind in the interest of classificatory uniqueness, but this will have the consequence that the same theoretical concept, when applied to one kind of organism will be a species, and when applied to another will not. This kind of problem has led me to argue that we should sharply differentiate biological classification from theory, and reserve the term species for its original use as a classificatory concept (Dupré 2002, ch. 4). But no such problems arise for humans because there is no concept applying to human kinds in the way species applies generally to biological kinds. Perhaps it was once thought that race had such a role, but this is certainly not so today. Without such a connection there is, of course, no problem in acknowledging that an individual is an Estonian, a male to female transsexual, and a dealer in exotic reptiles, without supposing that these categories are coextensive.

So much for the disanalogy, but what about the positive analogy? I suggest that, like biological kinds, human kinds often have some degree of coherence; that this coherence is maintained in ways comparable to the methods by which species coherence is maintained; and that, like human kinds, biological kinds must often be understood historically. Like biological evolution, cultural evolution often flows down more or less well-defined channels.

What is cultural evolution? For the purposes of the present argument

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it is best to be as noncommittal as possible. Culture consists of the phenomena studied by social scientists (and, in certain important respects, humanists) and its evolution is the process studied by history. I don't want to make any assumption about how strong an analogy can be drawn between natural selection and processes of cultural evolution, and I most certainly don't want to make any commitment about the ontology of cultural evolutionary processes as, for instance, is provided by the so-called science of memetics. All I need to insist on, rather noncontroversially I take it, is that innovations occur within culture, and innovations spread unevenly through human populations. New ideas and techniques in rap music, for instance, tend to occur among different groups of people, and affect the future behavior of different groups of people, from those affected by changes in the practice of military game theory. Society is segmented in multitudinous ways that determine the probability that certain kinds of cultural innovation will be transmitted.

There are two importantly different kinds of cases, and, no doubt, a spectrum of cases in between. At one extreme, a part of the human species will form a cultural kind most closely analogous to a biological species if it is very strongly isolated from the rest of humankind. This perhaps still applies to some "primitive" cultures and has been attempted by some totalitarian cultures. In the reasonably open societies in which most of us live, on the other hand, there is rather a very large number of microspecies, and any individual will typically belong to many of these. The fairly banal consequence is just that if you want to predict the behavioral phenotype of a human it won't get you very far to know just that they are human. As you discover more of the microspecies to which the individual belongs—Chinese, stamp collector, philosophy professor, and so on—you can make increasingly reliable predictions of behavioral disposition. (I won't address here the very interesting case—perhaps the most interesting case—of gender classifications (but see Dupré 2002, chs. 8 and 9). Here it is hotly disputed how much there are biologically grounded differences in behavioral dispositions, though it is surely noncontroversial that there are also culturally grounded differences.) The reason it is possible to make such predictions is that the various cultural streams distinguished by these classifications flow through, so to speak, this particular individual. And though something like this may be true to a very limited sense in other species that have rudimentary culture, in no species is it true to anything like the extent to which it is in our own. And to add one more banality, surely a large part of the basis for this unique feature of our species is the complexity of the languages that enable us to transmit complex cultures.

I have said that much of this is banal. Its significance is also widely minimized. To bring back the combatants with whom this talk began, the

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sociobiologist will of course admit that there are culturally transmitted differences in behavior, but he or she will insist that they are superficial. What may initially strike us as fundamentally different cultures will turn out, on closer inspection, to be no more than slight variants on the cultural universals mentioned earlier. The culturalist, on the other hand, will insist that the specificities of culture are fundamental to understanding human life and, insofar as the concept is even allowed, human nature. In contrasting these views it is necessary to bring in one further ingredient. Sociobiologists deny that there are important differences between members of different cultures per se, but they do not conclude that there are no significant differences between any humans. There is also individual variation within cultural groups (if any). It is not uncommon for the defenders of the more fundamental importance of biology than culture also to be very enthusiastic about the importance of individual difference. (I can't help thinking here of Margaret "there is no society" Thatcher. A slightly more intellectual version can be found in Stephen Pinker's *The Blank Slate* (2002).) Of course the culturalist does not deny that there is individual difference. But what I *do* want to argue, and this will be my final point in this paper, is that the culturalist has much more adequate resources for understanding these individual differences. And this I offer as one further compelling reason to favor the perspective of culturalism.

What, first of all, can the sociobiologist say about individual difference? On good days, anyhow, we can all agree that different environments will affect the development even of identical genotypes. So one explanation of individual difference is just environmental luck. Then there is genetic luck. Everyone agrees on any day that there is genetic variation between individuals, and if one believes that genes determine human nature, then it is to be expected that difference in genes will determine differences in nature—though perhaps only small differences if the unfolding of the human essence is not to be drastically derailed. So there is environmental luck and genetic luck. On reflection, this analysis may seem rather discouraging, but it should hardly be surprising that it is a widely held view. I have said myself that we should see the genome and the environment as interacting in the production of an individual, but in that case, good or bad outcomes in human development are presumably to be attributed to the genome, the environment, or a bit of both. Since people never choose their genomes and only choose their environments when it is largely too late, these determinants of good and bad outcomes can only be seen as good or bad luck.

Philosophers will notice that at this point we have run straight into a familiar aspect of the free-will problem, and it is likely to seem unimportant from the point of view of this problem whether we are inclined to emphasize genetic or environmental causes of human behavior, or a

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mixture of both. Although I cannot fully elaborate the idea here, I suggest that the interaction between the biological and the cultural is, in fact, exactly the place to look for a better explication of free will. (The following ideas are developed further in Dupré 2001, ch. 11.) As Kant explained, there is a crucial difference between action in response to a desire and action according to a principle. Although it is important, now following Hume, to distinguish a situation where we are free to act in accordance with our desires from those where, for reasons of constraint, incapacity, and so on, we are not, action following desire seems in no important way distinguished from the broader causal category that includes the instinctive behavior of lower animals and even the mechanical behavior of inanimate objects. Kant observed that accordance with a principle, especially if some objective standing can be granted to that principle, offers a different kind of grounding to action from this quasi-mechanical embedding in our particular desires.

A reductionist cast of mind, wedded to bottom-up explanation, will immediately respond that it makes no difference whether what is encoded in the individual brain is a desire or the commitment to a principle. I may refuse the glass of wine because I desire to avoid the pain of a hangover or because I have signed a temperance declaration; either way, something in my brain causes me to refuse the drink. Even if, for the sake of argument, I accept this much of the reductionist's position, there is a perspective from which these cases are quite different. A principle is a social object. Even a secretly embraced principle solely for my own conduct is—arguably, and I would argue this—something that is only possible through the medium of language. But leaving this contentious issue, most principles are public, and people come to embrace them as a consequence of public exposure to them. Thus, principles of conduct are devices whereby what exists socially can determine how individuals act. A widely accepted culture of politeness, for instance, will result in countless individual acts of politeness.

If we now consider differences between people we can see another way of distinguishing between two sources of these. There are the differences in taste so beloved of economists: you like snails, I prefer oysters. But there are also differences of principle. The pursuit of world peace or the preparation for the second coming structures my actions in systematic ways that make me affect the world in distinctive and quite different ways. Hence the existence of social structures imbues me with causal powers that I would not possess without the appropriate relationship to those structures. And finally, an individual, in the course of implementing or debating the principles on which she acts, may thereby bring about changes to these social structures, and thereby to the powers of herself and other individuals provided by those structures. At the risk of ro-

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manticizing intellectual work, this is perhaps the purest from of autonomous individual action.

It is characteristic of the free-will problem that it is always possible to push the hard questions back, so that part of the art of addressing the problem must always be knowing where to stop. Hence, someone will inevitably ask, "What determines the principles I decide to embrace?" And if that is not autonomously decided, then how can my actions, guided by principle, be held to be truly autonomous? The Kantian answer, that I am autonomous if I choose the objectively correct principles, is enormously appealing but, I fear, untenable. I think it is more promising to offer an answer to the question of where to stop, namely, this: we cannot decide who to be. I do not choose my genes and I do not choose my environment. Hence I do not ultimately choose who I am. But being who I am makes a particular kind of difference to the world I live in, and a difference that is teleologically structured by features of the society in which I exist. This is already something quite different from what is possible for a creature that lacks a society with any comparable structure. When, finally, we notice that acting in the ways characteristic for the particular individual I am may include influencing in some ways the conceptual structures that make me and others what we are, we have, I think, as much free will as is worth wanting.

Thus, finally, back to human kinds. Human kinds, I have said, reflect the streams of cultural evolution and create human diversity. But these streams of culture also provide the most interesting grounds for human action and human freedom. The human kinds to which people belong determine, in essential part, what they can do—not just in the sense of emitting behavior but in the sense of acting in the world and making a difference to it.

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