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Negotiating the gap

Four academics and the dilemma of human biodiversity

Abstract

This essay presents four academics—Richard Dawkins, Claude Lévi-Strauss, John Tooby, and Leda Cosmides—and how they negotiated the gap between personal conviction and mainstream discourse. All four came to the conclusion that human populations differ not only anatomically but also in various mental and behavioral predispositions. These differences are statistical and often apparent only between large groups of people. But even a weak statistical difference can affect how a society will develop and organize itself. Human biodiversity is therefore a reality, and one we ignore at our peril.

How, then, should one negotiate this gap? Of the above academics, Claude Lévi-Strauss made the fewest compromises, whereas the others chose various mixed messages, perhaps hoping that someone else would pick up the ball and run with it. Today, the question remains unanswered. How can one get the message across without being penalized?

There are no easy answers, and that may be part of the problem. Too many people are looking for answers that are easy—that cost little in terms of reputation, career prospects, or acceptance at the next cocktail party. Why not instead assume that everything worthwhile has a cost and then look for ways to minimize the cost?

Keywords: antiracism, Claude Lévi-Strauss, gene-culture co-evolution, human behavior, human genetics, John Tooby, Leda Cosmides, Richard Dawkins

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Foreword

Twenty-five years ago I met a professor from the medical faculty who had decided to go into anthropology. He was excited by the concept of gene-culture co-evolution and wanted to get in on the action. But he stressed the need for "prudence." He would first earn his credentials as an anthropologist before tackling this sensitive subject, and he would do so gradually and prudently.

He was already a man of a certain age, and I wondered whether he would have time for all of this, but I said nothing. He knew better than me how to plan his life. And his proposal for research on gene-culture co-evolution had been thoroughly worked out. This was no back-of-the-envelope thing.

Over the next quarter-century he carried out fieldwork and published journal articles, but he never touched the subject that had inspired his move to anthropology. Did he change his mind? I suspect the reason was less thought out. Once you begin your research from a certain angle, it is hard to break away and approach it from a totally different angle—you would have to find new sources of funding and make friends with new people. You would also lose friends. So you take the easy way out, for the time being. And you wait for the right moment, which never comes.

Charles Darwin himself had fallen into that trap. When a non-biologist anonymously wrote and marketed a book about evolution, *Vestiges of the Natural History of Creation*, the resulting controversy impressed on Darwin the need to become a reputable biologist before writing on the topic. So he bided his time and published, published, published … on other topics in biology. One day, however, fate forced his hand. Another biologist sent him a manuscript that set out the very theory that Darwin had kept under wraps for so long. The rest is history.

You may be thinking: "That was Darwin, and this is me. And my situation is different, very different. And this is a completely different issue. It's really important for me to wait until the time is right!"

I hear you. Maybe your situation is different. And who am I to judge?

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This essay presents four academics—Richard Dawkins, Claude Lévi-Strauss, John Tooby, and Leda Cosmides—and how they negotiated the gap between personal conviction and mainstream discourse. All four came to the conclusion that human populations differ not only anatomically but also in various mental and behavioral predispositions. These differences are statistical and often apparent only between large groups of people. But even a weak statistical difference can affect how

a society will develop and organize itself. Human biodiversity is therefore a reality, and one we ignore at our peril.

Yet most academics do ignore it, their ignorance being either real or feigned. It is easy to forgive the truly ignorant. But what about the ones who know better? What's their excuse? "I don't have tenure yet." "I'm not well enough known yet." "I don't have enough clout yet." Some will just say: "Please come into my office. Others may hear us talking in the corridor."

And so, among those who do know better, the common response is ... no response. But what else is there to do? How does one go about saying something that is offensive to most people? Is it better to do it gradually? Or all at once? Or is it better to say nothing at all and wait for someone else to speak out?

There are no easy answers, and that may be part of the problem. Too many people are looking for answers that are easy—that cost little in terms of reputation, career prospects, or acceptance at the next cocktail party. Why not instead assume that everything worthwhile has a cost and then look for ways to minimize the cost?

Once you accept that rule of life, everything will fall into place. This intellectual maturity became a source of strength for one of the above academics, Claude Lévi-Strauss, who had to face bitter criticism for what he said. There was an *énorme scandale*. People were upset and shocked. Yet he carried on as if nothing terrible had happened. Was he so fascinated by his ideas that he simply ignored what others might think? Perhaps. More likely than not, he pondered his dilemma, weighed the pros and cons, and decided that the only sensible thing was to speak out.

How will you decide? Will you speak out or remain silent?

Richard Dawkins. The price of collaboration?

Do human races exist? And if they do, what can they tell us about the human species? Or do they tell us anything?

These questions confront the evolutionary thinker Richard Dawkins in his essay "Race and Creation" (Dawkins, 2004). He begins with Richard Lewontin's finding that human genes vary much more within races than between them. In fact, 'races' account for only 6 to 15% of all human genetic variation.

Yet this leads to an apparent paradox. If we are to believe the data, any two human groups, no matter how separate geographically, will overlap genetically to a high degree. Yet our eyes tell a different story:

> Well, suppose we took full-face photographs of 20 randomly chosen natives of each of the following countries: Japan, Uganda, Iceland, Sri Lanka, Papua New Guinea and Egypt. If we presented 120 people with all 120 photographs, my guess is that every single one of them would achieve 100 per cent success in sorting them into six different categories.

This paradox has been noticed by others. I remember a writer who claimed that racism kept us from seeing the genetic overlap between Danes and Congolese. Actually, the same overlap exists between many species that are nonetheless anatomically and behaviorally distinct. It isn't racism that creates the discrepancy between the data and our lying eyes. It's just that genetic variation within a population is qualitatively different from genetic variation between populations. The more a gene has value, the more it will vary across a population boundary, since such boundaries usually coincide with barriers that separate different habitats, different environments, different means of subsistence and, hence, different selection pressures. Conversely, the less a gene has value, the more it will vary within a population, that is, among individuals who share similar conditions of life. The selection pressure is uniform but this uniformity will not level out the variability of such genes within the population—much as a steam iron will smooth a rumpled shirt—since this variability is less phenotypically significant, i.e., it produces fewer functional differences that natural selection can act on.

Yes, natural selection can sometimes increase variability within a population. If a heritable trait is more useful when heterozygous, or when relatively rare, a balanced polymorphism may develop. But these are exceptions. In general, variability is decreased and not increased by natural selection (Lande, 1976; Simpson, 1953, p. 148).

Dawkins uses Lewontin's paradox to show that human populations are more genetically different than they seem if one looks at the entire genome. But how relevant is this fact to recent human evolution? Hasn't cultural evolution replaced genetic evolution in our species? On this point,

Dawkins argues that the former has actually reinforced the latter. He draws an analogy with sympatric speciation:

> Some people think the initial separation has to be geographical, while others, especially entomologists, emphasise so-called sympatric speciation, meaning that the initial separation, whatever it is, is not geographical. Many herbivorous insects eat only one species of plant. They meet their mates and lay their eggs on the preferred plants. Their larvae then apparently "imprint" on the plant that they grow up eating, and they choose, when adult, the same species of plant to lay their own eggs.
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> [...] In the case of these insects, you can see that, in a single generation, gene flow with the parental type could be abruptly cut off. A new species is theoretically free to come into being without the need for geographical isolation. Or, another way of putting it, the difference between two kinds of food plant is, for these insects, equivalent to a mountain range or a river for other animals. I am suggesting that human culture—with its tendency to distinguish between in-groups and out-groups—also provides a special way in which gene flow can find itself blocked, which is somewhat analogous to the insect scenario I have just outlined above.
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> In the insect case, plant preferences are handed down from parent to offspring by the twin circumstances of larvae fixating on their food plant, and adults mating and laying eggs on the same food plants. In effect, lineages establish "traditions" that travel longitudinally down generations. Human traditions are similar, if more elaborate. Examples are languages, religions and social manners or conventions. Children usually adopt the language and the religion of their parents although, just as with the insects and the food plants, there are enough "mistakes" to make life interesting. Again, as with the insects mating in the vicinity of their preferred food plants, people tend to mate with others speaking the same language and praying to the same gods. So different languages and religions can play the role of food plants, or of mountain ranges in traditional geographical speciation. Different languages, religions and social customs can serve as barriers to gene flow. From here, according to the weak form of our theory, random genetic differences simply accumulate on opposite sides of a language or religion barrier, just as they might on opposite sides of a mountain range. Subsequently, according to the strong version of the theory, the genetic differences that build up are reinforced as people use conspicuous differences in appearance as additional labels of discrimination in mate choice, supplementing the cultural barriers that provided the original separation.

At this point, Dawkins winds up his essay, arguing that cultural differences in mate choice may explain many anatomical differences among human populations.

Fine. One point, though. Is mate choice the only human behavior that differs culturally? No, there are also differences in "languages, religions and social manners or conventions." Wouldn't these other differences generate selection pressures that likewise differ from one population to the next? And wouldn't these selection pressures act not only on anatomy but also on any trait with a genetic component, including behavioral predispositions, mental aptitudes, and personality factors? This

would all follow logically. Indeed, Dawkins hints at this when he states that "traditions" are no less a part of our adaptive landscape than food plants. Having dropped the hint, he goes no further. End of essay.

This is as far as Dawkins is willing to go, in this or in any other essay of his. He hints, and hints, and hints ... in the hope that someone else will pick up the ball and run with it.

Will he ever pick up the ball? To date, there has been no sign that he will. On Twitter, in 2013, he alluded to the argument that gene-culture co-evolution may have progressively raised the mean IQ of Ashkenazi Jews, but he was careful to add that the reason was “pure religion and culture” (Pontz, 2013). More recently, he has kept silent on Nicholas Wade’s book *A Troublesome Inheritance: Genes, Race and Human History*. Such silence is odd for an authority on genetics and evolution …

Claude Lévi-Strauss. The refusal to collaborate

French anthropologist Claude Lévi-Strauss is remembered as a leading postwar writer on antiracism. Racial discrimination entered his life in 1940 when his Jewish origins cost him his teaching post. Later, as an anthropologist in Brazil, he saw first-hand the dispossession of native peoples in the name of progress. These experiences shaped the views he expressed in a UNESCO booklet, *Race and History* (1952), where he pleads for the preservation of all human cultures, saying that even the most 'primitive' ones deserve to survive.

You may be familiar with this path of his intellectual development. Less well known, and branching off from it, is another path that is already noticeable in *Race and History*:

> There are [cultural] contributions that are systemic in character, i.e., corresponding to the specific way each society has chosen to express and satisfy human aspirations as a whole. These ways of life are undeniably original and irreplaceable, but since they represent so many different choices that are exclusive [to each society] it is hard to see how a civilization could benefit from another one's way of life, unless it renounced being itself.

By the early 1970s, he had become convinced that the emerging world system would eventually liquidate all cultures, and not simply those of the upper Amazon. He also felt that antiracism was being co-opted by this process. It was moving away from its role of defending the dispossessed and the marginalized, becoming in fact the very thing it had once denounced.

These ideas found their way into a lecture he gave to UNESCO in 1971, ironically to launch the International Year for Action to Combat Racism. In this lecture, he attacked the idea that "the spread of knowledge and the development of communication among human beings will some day let them live in harmony, accepting and respecting their diversity ":

> Nothing indicates that race prejudices are decreasing, and everything suggests that after brief local lulls, they resurge elsewhere with increased intensity. Hence the need felt by UNESCO to periodically restart a fight whose outcome seems at the very least uncertain. But are we so sure that the racial form of intolerance results primarily from false ideas that such or such a population has about the dependence of cultural evolution on biological evolution? Don't these ideas simply provide an ideological cover for more real conflicts based on the desire to subordinate and on the relative strengths of rival groups (*rapports de force*)?

In addition, he argued that cultural intermixture is advantageous only if some distance remains between cultures:

> [Humanity] will have to relearn that all true creation implies some deafness to the call of other values, which may reach the point of rejecting or even negating them. One cannot at the same time melt away in the enjoyment of the Other, identify oneself with the Other, and keep oneself different. If fully successful, complete communication with the Other will doom its creative originality and my own in more or less short time. The great creative ages were those when communication had increased to the point that distant partners stimulated each other but not so often and rapidly that the indispensable obstacles between individuals, and likewise between groups, dwindled to the point that excessively easy exchanges would equalize and blend away their diversity.

Going beyond a mere defense of cultural diversity, he advanced that such diversity often has a biological basis. Over time, cultural differences have produced biological differences:

> We cannot insist too much on one fact: although [natural] selection has allowed living species to adapt to the natural environment or to better resist its transformations, with humans the environment has ceased to be primarily natural. Humans derive their distinctive characteristics from technical, economic, social, and mental conditions that, through the operation of culture, create an environment specific to each human group.
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> [...] Among early humans, biological evolution may have selected for pre-cultural traits like capability to stand upright, manual dexterity, sociability, symbolic thinking, and ability to vocalize and communicate. It was culture, however, once it came into being, that consolidated these traits and propagated them. When cultures specialize, they consolidate and favor other traits, like resistance to cold or heat for societies that have willingly or unwillingly had to adapt to extreme climates, like dispositions to aggressiveness or contemplation, like technical ingenuity, and so on. In the form these traits appear to us on the cultural level, none can be clearly linked to a genetic basis, but we cannot exclude that they are sometimes linked partially and distantly via intermediate linkages. In this case, it would be true to say that each culture selects for genetic aptitudes that, via a feedback loop, influence the culture that had initially helped to strengthen them.

His lecture ended on a grim note. The population explosion, combined with competition for increasingly scarce resources, will push diverse populations together under conditions less than optimal for peaceful coexistence. Meanwhile, governments will carry on an "ideological struggle against racism," in the naïve belief that the rising tensions are being fueled by increasing ignorance.

> [...] the path that mankind is going down is building up tensions such that racial hatreds provide a pretty poor picture of the regime of heightened intolerance that may become established tomorrow, without even having ethnic differences to serve as a pretext. To circumvent these perils, those of today and those, ever more redoubtable, in the near future, we must persuade ourselves that their causes are much deeper-rooted than those causes that may simply be put down to ignorance and prejudice. We can place our hope only in a change in the course of history, which is much harder to bring about than progress in the course of ideas.

He pursued this line of reasoning in the ensuing discussions:

> Lévi-Strauss felt that UNESCO was going astray by wanting to reconcile two opposed tendencies: civilising progress leads to growth in populations, which encourages cultural exchanges, but the latter lead to the obliteration of cultural diversity, while at the same time demographic saturation causes its inevitable share of intolerance and hostility towards peoples that have become rivals. In this situation, Lévi-Strauss came to maintain the right of every culture to remain deaf to the values of the Other, or even to contest them. This amounted to replacing the conception — defended by UNESCO — of humans spontaneously open to the Other and brought to cooperate with their fellow humans, by a conception of humans naturally inclined to be if not hostile, then at least reserved towards the Other.
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> Xenophobia — in the very moderate form that Lévi-Strauss gave to it, that of insensitivity to the values of the Other — is here transformed from a fact of modifiable culture into a fact of ineradicable nature. As a result, for Lévi-Strauss the UNESCO project became partially ineffectual, as one cannot hope to change unalterable human nature by action taken on its social element, through education and the fight against prejudice.
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> These words shocked the listeners. One can easily imagine how disconcerted UNESCO employees were, who, meeting Lévi-Strauss in the corridor after the lecture, expressed their disappointment at hearing the institutional articles of faith to which they thought they had the merit of adhering called into question. René Maheu, the Director General of UNESCO, who had invited Lévi-Strauss to give this lecture, seemed upset. (Stoczkowski, 2008)

Eight years later, Lévi-Strauss recalled this event at another conference. He spoke even more candidly, calling antiracism a "trap":

> I believe we have fallen into traps. I remember, if you will let me inject a personal note into this debate, that in 1952 I produced at UNESCO's request a small booklet called *Race and History* in which I exalted collaboration between cultures, and in which I showed that it was only to the extent that cultures collaborated with each other willingly or unwillingly that larger, more solid ensembles would arise.
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> When UNESCO organized in 1971 the year against racism, I was asked to deliver the opening speech. So I said to myself: "No, all the same it's not possible. We can't go on year after year repeating nice sentiments and telling ourselves we're going to further the progress of humanity this way." And so instead of doing the same thing, like what I had done in 1952, I decided, and I assure you with no ulterior political motive, that I was going to do the opposite. I was going to show that the problems of nature and nurture were, after all, problems that existed, that it was not absolutely forbidden to look into them, and that it was not by affirming in the most sterile way that there were no differences between human groups and individuals that we would further the progress of humanity.

> I need not tell you that this set off a huge scandal but I had no feeling of doing anything different from what I had done nearly twenty years before. I wanted to show that we were facing difficult problems and that for me to stick my head in the sand and refuse to look at them was no way to solve them (Lévi-Strauss, 1985, pp. 43-44)

Lévi-Strauss stressed the need for a new paradigm. Through it, we would be better able to examine the reality of human differences and thus face the oncoming "difficult problems." As his other conference remarks make clear, he believed it would come from British and American evolutionary biologists, particularly those associated with the nascent field of sociobiology. In line with his 1971 lecture, he spelled out the form of this new paradigm: gene-culture co-evolution.

But it was not to be. I suspect he had too willingly believed the anti-sociobiology rhetoric of the late 1970s. In reality, few sociobiologists were interested in the subject of race, at least not openly, and most tried to distance themselves from it as much as possible. During the 1980s, the concept of gene-culture co-evolution did catch on among some scholars, notably L.L. Cavalli-Sforza and Pierre van den Berghe, but few were willing to go beyond innocuous examples, such as selection for lactose tolerance in dairy farming societies.

Eventually, in the late 1990s, a small group of social scientists began to propound something similar to what Lévi-Strauss had predicted. But by then Lévi-Strauss could do little to help. He was almost 90 and needed assistance just to go to the bathroom.

John Tooby and Leda Cosmides. Why not collaborate?

> The Standard Model therefore frees those in the biological sciences to pursue their research in peace, without having to fear that they might accidentally stumble into or run afoul of highly charged social or political issues. It offers them safe conduct across the politicized minefield of modern academic life. This division of labor is, therefore, popular: Natural scientists deal with the nonhuman world and the "physical" side of human life, while social scientists are the custodians of human minds, human behavior, and, indeed, the entire human mental, moral, political, social, and cultural world. Thus, both social scientists and natural scientists have been enlisted in what has become a common enterprise: the resurrection of a barely disguised and archaic physical/mental, matter/spirit, nature/human dualism, in place of an integrated scientific monism. (Barkow, Cosmides, and Tooby, 1992)

The above comes from one of several "founding texts" of evolutionary psychology. Its authors—Jerome Barkow, Leda Cosmides, and John Tooby—were denouncing an unwritten agreement that allowed study of every aspect of human biology ... except the human mind. Concretely, this *modus vivendi* denied safe conduct to those who wanted to investigate how genes influence the way the mind develops and functions, unless the animal is nonhuman.

To broaden the permissible scope of research, evolutionary psychologists felt they had to accept some limitations. A new *modus vivendi* was therefore proposed: academics would be free to study genetic influences on the human mind as long as these influences were not seen as differing from one human population to another. Anyhow, such differences could not exist, so there was nothing to study.

This opinion was justified on two grounds. First, the more complex the adaptation, the more genes it involves, and the more time needed to make all of the right changes to all of the right genes. Therefore, evolution has created only simple traits during the relatively brief presence of modern humans outside Africa (< 50,000 years):

> It is no more plausible to believe that whole new mental organs could evolve since the Pleistocene—i.e., over historical time—than it is to believe that whole new physical organs such as eyes would evolve over brief spans. It is easily imaginable that such things as the population mean retinal sensitivity might modestly shift over historical time, and similarly minor modifications might have been made in various psychological mechanisms. However, major and intricate changes in innately specified information-processing procedures present in human psychological mechanisms do not seem likely to have taken place over brief spans of historical time.
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> [...] For these and other reasons, the complex architecture of the human psyche can be expected to have assumed approximately modern form during the Pleistocene, in the

> process of adapting to Pleistocene conditions, and to have undergone only minor modifications since then (Tooby and Cosmides, 1989, p. 34).

There was a second justification for the new *modus vivendi*. Because the past fifty thousand years have seen our species diversify into a wide range of environments, recent traits should be adaptive in some environments but not in others. And their underlying genetic variants should proliferate in some populations but not in others. Yet such population specificity seems impossible. At almost any genetic marker (blood types, serum proteins, enzymes, mtDNA, etc.), a typical gene varies much more within than between human populations. And this is true not only for large continental populations but also for small local ones. The geneticist Richard Lewontin (1972) concluded that 85% of our genetic variation exists only among individuals and not between 'races.'

Tooby and Cosmides (1990, p. 35) referenced Lewontin's paper to make this point:

> Human groups do not differ substantially in the types of genes found, but instead only in the relative proportions of those alleles. [...] What this means is that the average genetic difference between one Peruvian farmer and his neighbor, or one Bornean horticulturist and her best friend, or one Swiss villager and his neighbor, is 12 times greater than the difference between the "average genotype" of the Swiss population and the "average genotype" of the Peruvian population (i.e., the within-group variance is 12 times greater than the between-group variance).

This is true but does not mean what one might think. The same genetic overlap exists not only between populations of one species, like our own, but also between related species, like canids:

> [U]sing genetic and biochemical methods, researchers have shown domestic dogs to be virtually identical in many respects to other members of the genus. [...] there is less mtDNA difference between dogs, wolves and coyotes than there is between the various ethnic groups of human beings, which are recognized as belonging to a single species. (Coppinger and Schneider, 1995, p. 32-33)

Nor is it true that genetic influences on behavior evolve over eons of time. As Henry Harpending and Gregory Cochran (2002) pointed out:

> Even if 40 or 50 thousand years were too short a time for the evolutionary development of a truly new and highly complex mental adaptation, which is by no means certain, it is certainly long enough for some groups to lose such an adaptation, for some groups to develop a highly exaggerated version of an adaptation, or for changes in the triggers or timing of that adaptation to evolve. That is what we see in domesticated dogs, for example, who have entirely lost certain key behavioral adaptations of wolves such as paternal investment. Other wolf behaviors have been exaggerated or distorted.

As we have already seen, Tooby and Cosmides themselves acknowledged that natural selection can modify existing psychological mechanisms over brief spans of historical time. If, for instance, humans react angrily to certain kinds of provocation, the threshold for expression of that anger can

be adjusted up or down over a matter of generations, depending on the local cultural context. Yes, this is a “minor modification” but the consequences are far from minor.

It is also odd that John Tooby would reference Lewontin’s 1972 paper. I remember attending a talk where Tooby expressed skepticism about that paper, saying that within-population genetic variation was inflated by disease polymorphisms and other junk variability. He also had a low opinion of Lewontin himself, as seen in an exchange in 2000 with *Slate* editor, Judith Shulevitz:

> In the mid-1970's, for example, Gould, Lewontin, and a few others injected heavy-handed moralizing, easy denunciation, the attribution of dubious intellectual genealogies, and an *ad hominem* attack-style into scientific debate in an effort to settle intellectual disputes by other means.
>
> [...] The most notorious tactic of Gould, Lewontin, and their allies during the early years was their attempt to drag the ideas they opposed under by manufacturing links to various repugnant doctrines. [...] More significantly, they did succeed in tarring the revolution in evolutionary biology in the eyes of nonbiologists, together with any serious attempt to think through the relationship between culture, human nature, and human evolution. This has perpetuated the antiquated status quo, during which social scientists have remained wary of the possibility of scientifically mapping human nature, and have remained almost totally ignorant of modern evolutionary biology. The cumulative harvest of suffering from this will not be small.

Why, then, did he accept Lewontin's findings on human genetic variation uncritically? Or was this acceptance merely window dressing?

There is no easy answer. By the late 1970s, few academics wished to discuss whether races exist, any more than people of another age wished to discuss whether Jesus had a biological father. There was only one acceptable view. Because a lot of dubious thinking went unchallenged, since any challenge might lead to accusations of racism, academics became used to having two sets of beliefs: those they really believed and those they believed for convenience. Over time, many could no longer tell the two apart.

Well, so Tooby and Cosmides fudged their beliefs a bit. Wasn't it worth it? Hasn't the academic environment become much less hostile to research on "the relationship between culture, human nature, and human evolution"?

The answer to the last question is 'yes'. It is less clear, however, whether Tooby and Cosmides helped bring about this gradual improvement in the academic environment. The causes probably lie in broader societal changes over the last quarter-century.

One was the decline of the far left. In the early 1980s, every college in my city had a Marxist-Leninist club. By the end of the decade, they had all disappeared. Marxists had become few and far between even at the university.

There was also the aging of the baby-boomer generation. In the early 1980s, every social science department was flush with young people who often had no idea why they were there. By the end of the decade, the baby boomers were gone and enrolment in the social sciences had fallen by over a half. The remaining students now tended to be cynical about politics and more narrowly focused on their studies.

Finally, the mid-1990s brought a new medium for intellectual exchange: the Internet. It became possible to discuss ideas outside the normal channels of conferences, peer-reviewed journals, and university publishing houses. This freer academic environment gradually replaced the one that had arisen back in the mid-1970s, when the bounds of discourse could more easily be policed because ideas flowed through fewer channels.

I suspect that Tooby and Cosmides deceived themselves into thinking they had received a safe conduct in exchange for a few trivial concessions. Far from trivial, these concessions have bound and tied evolutionary psychology, thereby preventing it from describing human nature in all its fullness.

Conclusion

People can change their minds. More importantly, they can learn to speak their minds. A good example is the collapse of the Eastern bloc a quarter-century ago. It collapsed so quickly because most people, including its ruling elites, had already lost faith in their ideology and were ready to think along different lines. Once it dawned on them that they could speak freely, they lost no time in doing so. It was just a matter of following the example of those who were least afraid.

Comparisons are hazardous. There are few precedents for the soft totalitarianism that has descended not only over academia but also over most areas of intellectual life. The closest precedent would be the role that Christianity once played in limiting debate on a wide range of questions. Is our world the center of the universe? Has it existed for more than a few thousand years? Did humans evolve from lower animals? In a sense, Christianity used to occupy a "moral space" that has since been filled by a new civic religion, which is proving to be no less intolerant than its predecessor.

Perhaps this may be why Richard Dawkins has devoted his remaining years to a crusade against religion. Perhaps his fans will realize that his arguments against religious dogmatism apply just as much to another target. Or perhaps not.

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