

**Quiggin, J. (2003), 'Trading blows in the evolutionary war: Review of Steven Pinker's *The Blank Slate: The Modern Denial of Human Nature.* ', *Australian Financial Review*, 24–27 January.**

The nature-nurture debate is not one with a tradition of fair play. Rather the standard practice has been to present a fairly complex and nuanced version of your own side of the debate, while setting up and demolishing a straw man as the opponent. In his latest contribution to the ongoing debate, Stephen Pinker cites numerous examples where his opponents adopt this strategy. However, he seems oblivious of the fact that he is responding in kind, beginning with his title, *The Blank Slate*. One might expect an author putting forward new ideas on a topic of such vital interest to choose a title giving an appealing characterisation of his own theory, rather than a pejorative label for the opposing viewpoint.

The setup is most evident in his opening chapter in which Pinker lumbers the nurturist viewpoint, labelled as 'The Blank Slate', aka 'The Standard Social Science Model' with two embarrassing allies, Rousseau's Noble Savage and Descartes' mind-body dualism, for which Pinker adopts Gilbert Ryle's derisive phrase *The Ghost in the Machine*.

Pinker admits that these ideas are not logically related, but says that, in practice they are often found together. That is true, but the Noble Savage and Ghost in the Machine ideas are also often found in combination with various forms of genetic determinism. In fact, Pinker's own position, labelled rather neutrally as 'evolutionary psychology', is essentially a more realistic version of the 'Noble Savage', with 'Noble'

replaced by 'Adaptive'. And in view of Pinker's later demolition of 'associationist' theories of knowledge, it seems odd to start off with a piece of guilt by association.

A second straw man tactic, adopted early on, is to mix logical and empirical critiques. Most of the time, Pinker wants to claim that 'The Blank Slate', is an empirically false theory about human nature. But he also adopts claims, beginning with Leibniz, that the Blank Slate theory is logically incoherent, so that it has no meaningful implications, true or false. The crucial point here is that there must be some sort of structure in the brain, or it could not receive any impressions from the environment. Of course, no-one on either side of the debate seriously denies this, but the straw-man version of the Blank Slate theory appears to.

Even more common in the debate is the tendency to put forward a strong version of a theory but, when it comes under attack, to retreat to a version so moderate and reasonable in its claims that no one can seriously object to it. In the case of the nature-nurture debate, the 'strength' of a position can be crudely assessed in terms of the percentage weights allocated to nature and nurture. In various defensive passages, Pinker appears to imply that his criticism is directed solely at '100 per cent' nurturists like the behaviorists Watson and Skinner and the most extreme proponents of postmodernism. But it is clear from reading the book as a whole, that Pinker wants to claim a dominant role for genes, at least in relation to issues of real social concern.

Conversely, Pinker attacks the most extreme version of the opposing view then assumes that all versions of that view have been refuted. An egregious example is his treatment of the claim that 'rape is about violence not sex' as opposed to the

sociobiological analysis of Thornhill and Palmer in which rape is presented as a strategy for reproduction common to many animals including humans.

Pinker asserts that the ‘rape-is-not-about-sex doctrine will go down in history as an example of extraordinary popular delusions and the madness of crowds’. However, he does not present any evidence against the doctrine in its general form. His critique focuses exclusively on the claim of Susan Brownmiller that rapists are acting on behalf of the collective interests of the male gender. This is combined with his standard defensive strategy in which the strong claim ‘rape is about reproduction’ is replaced by the much weaker ‘the motives for rape include sex’.

Such rhetorical sharp practice is par for the course in the nature-nurture debate. Rather than producing further examples, it seems more productive to consider Pinker’s model of human nature on its own merits, and not in relation to some straw man version of the nurturist hypothesis.

The ‘evolutionary psychology’ model put forward by Pinker is essentially a rebadging of the human sociobiology model, launched with great fanfare, in the 1970s. The basic innovation in sociobiology, as opposed to earlier Darwinian models, was a central focus on reproductive strategies, rather than on adaptations associated with the struggle for food and survival. Since sex and reproduction are central human concerns at all times, the application of sociobiological analysis to humans promised to find a genetic basis for central institutions of society such as marriage and the family.

Moreover, a focus on reproduction implies a focus on genes rather than organisms. The ‘interest’ of genes in reproducing themselves does not coincide with any obvious

notion of the interests of organisms. The 'genes-eye' view focuses attention on conflicts of interest between mates, between sibling and, most strikingly, between mothers and children. Using this perspective, sociobiologists promised to resolve many long-standing controversies about family structure, sex roles and so on.

There were some obvious difficulties with this enterprise. Unlike other animals, human societies display a bewildering variety of familial and social arrangements. Moreover, most humans see themselves as conscious agents pursuing a wide range of goals, of which reproduction is commonly not the most significant. Most saliently, there is the widespread occurrence of homosexuality and celibacy, behaviors not apparently conducive to the dissemination of one's genes.

A further difficulty was that, unlike with other animals, there was no satisfactory empirical data on which to base the model. If sociobiology is correct, human behavior today reflects optimal reproductive strategies in the prehistoric societies of the African savannah. But those societies are long extinct, leaving little behind from which to make inferences about the selection pressures they faced.

Hence, it is necessary to rely on observations of the cultural organisation of the hunter-gatherer bands that survived to the modern era, invariably in marginal environments that were slow to attract the attention of those with more advanced technology. Anthropologists rarely reach such bands before their traditional organisation has commenced radical change as a result of earlier contact with the advance parties of Western civilisation and the goods and diseases that accompany them.

In the first flush of enthusiasm, the advocates of human sociobiology promised that

these difficulties would be overcome. Homosexuality and celibacy were to be explained by hypothetical 'helper' genes, which reproduced themselves by assisting the reproductive success of family members.

Pinker sees this enterprise as having been highly successful, and certainly some of the more extreme critics look silly today. Nevertheless, there is a striking difference between the confident claims of human sociobiology and the relatively modest offerings of evolutionary sociobiology. On homosexuality, Pinker frankly concedes that we have no idea why some people are homosexual and others are not.

Similarly, with regard to the heritability of behavioral traits, Pinker suggests that about 50 per cent of the observed variation in individual character traits within modern societies is genetically determined. (This proportion is conditional on the amount of variation in environment for the population being considered, and would be much lower for comparisons between societies.) Pinker views this as a triumph over nurturists like Leon Kamin who asserted in the 1970s that there was no evidence to justify a non-zero estimate for heritability (not the same thing as saying the heritability is equal to zero). Pinker does not mention the fact that, at the same time, leading naturists like Eysenck and Jensen were claiming 80 per cent heritability, and makes Kamin look silly by not mentioning his main point, which was to show that the twin studies of Sir Cyril Burt, on which Eysenck and others relied, were almost entirely fraudulent, being based on fabricated data collected by non-existent collaborators.

Pinker is a linguist and takes the acquisition of language, more precisely, the acquisition by children of their native language, as the paradigm example of learning. It's

hard to disagree with the conclusion that children's brains are hardwired for the learning of language, based on the simple observation that two-year olds perform with ease a feat which most adults find exceptionally difficult.

But the exceptional nature of this feat should alert us to the dangers in using it as a paradigm. Language is the only characteristically human cognitive feat for which we are obviously hardwired (like most other complex animals, we are also hardwired for vision and other senses). For nearly everything else, the Blank Slate metaphor seems appropriate. Thanks to the environment in which I grew up, I can solve functional equations, swim the Australian crawl and perform many other tasks unknown to my putative hunter-gatherer ancestors. On the other hand, I can't make and throw a spear or distinguish edible from deadly forms of bush tucker.

A striking instance of the absence of hard-wired functionality relates to kinship systems. Pinker lays much stress on the cultural universality of kinship. Yet even a relatively simple kinship system such as that prevailing in modern Western societies presents a formidable learning task for most children, and puzzles of the form 'brothers and sisters I have none, but that man's father is my father's son' baffle many adults. There is little to suggest that the capacity to learn kinship systems is any more hardwired than the capacity to learn trigonometry.

In fact, with the exception of language and vision the evolutionary psychology model scores its biggest success by pointing to cognitive weaknesses rather than cognitive strengths. Psychologists like Kahneman and Tversky have observed a wide range of biases in reasoning suggesting that people work on the basis of heuristics rather

than rational calculation. The evolutionary psychology model suggests that our brains constitute, not general-purpose computing engines, but a set of special purpose gadgets, with modules designed for calculation involving small numbers, handling three-dimensional objects, thinking about living creatures and so on.

Interesting though these arguments may be, Pinker is not principally concerned with refuting the Blank Slate model as it applies to general cognitive abilities. His main quarry, signalled in the subtitle of his book, is 'human nature', that is, the ways in which human individuals interact with other individuals and with groups.

Thus, Pinker, following Donald Brown, posits a Universal People as a parallel to Chomsky's notion of a Universal Grammar. This idea is backed up by a long list of cultural universals. The length of this list might seem to refute older claims that with the exception of taboos on incest, rape and murder, there are no cultural universals.

The problem is that it is full of items such as 'decision-making' and 'ambivalence' that seem to be directly implied by the fact of human intelligence, and others such as 'childcare' which are obviously necessary to species survival. If items like this are to be considered as cultural universals, why not, as Gould and other critics have suggested, include eating and excretion as well? Pinker disarms criticism in advance by conceding that 'not every universal behavior arises from a universal component of human nature – many arise from an interplay between universal properties of the mind, universal properties of the body, and universal properties of the world.' But after all items of the latter class are deleted, a cynic might conclude that the only specifically cultural universal added to the traditional set of taboos is 'tickling'.

In summary, while Pinker claims to demolish the Blank Slate hypothesis, he does little more in this respect than to demonstrate the untenability of any absolutist position in this debate. Sophisticated advocates of the Blank Slate can simply turn Pinker's rhetorical devices around, and argue that while genes are undoubtedly important, we can't change them and, at present, can only make the most indirect inferences about how they work. Since on Pinker's own estimate, the social environment is just as important as the genes, and is amenable to policy action, we should concentrate our efforts there.

In fact, the most interesting parts of Pinker's book do not relate to human nature at all, but to his restatement of a pessimistic view of the human condition. In the process of this restatement, Pinker abandons his evolutionary psychology model without realising that he is doing so.

Take, for instance, his observation, following an approving citation of Hobbes, that 'violence is not a primitive, irrational urge, nor is it a "pathology", except in the metaphorical sense of a condition that everyone would like to eliminate. Instead, it is a near-inevitable outcome of the dynamics of self-interested, rational social organisms'. This is backed up by the work of political scientist who claim that war has generally benefited the aggressors.

Pinker may well be right, but his argument is inconsistent with the claim that violence is the product of genetic predispositions acquired by our distant ancestors, that is, of primitive, irrational urges specific to males. If the Hobbesian view is right, violence will arise as a rational response to this environment in the absence of any predisposition to violence or even in the presence of an instinctive aversion to violence, such as that

which evolutionary psychologists impute to women.

On the other hand, an environmentalist theory of violence such as that of Pinker in his Hobbesian mode has optimistic corollaries which he partly recognises. If the environment is such that violence is costly, a rational organism will choose the path of peace. Whatever political scientists may argue about the broad sweep of history, aggressive war has not been a profitable policy from World War I onwards. The aggressors lost both wars, and the victors reaped nothing but grief in their attempts to extract benefits from their victories. More recently, Saddam Hussein and Slobodan Milosevic have ruined their countries and, in all probability, themselves by playing the politics of war. The real threat today is neither the rational use of force in the manner of Clausewitz nor aggressive genes inherited from the Pleistocene past but the culturally-generated craziness of Osama bin Laden and Timothy McVeigh.

Ultimately, whatever contribution our genes may or may not make to our nature, there is not much we can do about them. Unless we are prepared to embark on large-scale genetic re-engineering, our only hope is to focus on those aspects of our condition that are amenable to nurture.