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Life on the hard wire

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Steven Pinker

THE BLANK SLATE

The modern denial of human nature

Steven Pinker is a man of encyclopedic knowledge and an incisive style of argument. His argument in *The Blank Slate* is that intellectual life in the West, and much of our social and political policy, was increasingly dominated through the twentieth century by a view of human nature that is fundamentally flawed; that this domination has been backed by something that amounts to academic terrorism (he does not put it quite so strongly): and that we would benefit substantially from a more realistic view. Pinker's exposition is thoroughly readable and of enviable clarity. His explanation of such a difficult technical matter as the analysis of variance and regression in twin studies, for example, would be very hard to better. He is not afraid of using strong language: "boo-word", "basket-case" and (for the technical term "psychopath") "evil"; in addition, parts of the book are delightfully funny.

The prevailing orthodoxy was once that "there is no such thing as human nature". We are all like putty, infinitely malleable and capable of any degradation or improvement that can be brought about by the reaction between ourselves and our social institutions. In extreme cases, society is an organic entity directly, totally and solely responsible for the psychic make-up and behaviour of its individual members. Perhaps this is what Margaret Thatcher was thinking of when she remarked "There is no such thing as society."

Pinker traces the roots of this to a trinity of doctrines. The first is the Ghost in the Machine, as originated by Descartes. This is the mind in a mind-body system, the conscious self, outside material causality and the site of free will.

The next tenet is the Blank Slate, proposed by Locke. The mind is conceived as a *tabula rasa*; it contains nothing at birth, no knowledge of course, but also no preferences, no tendencies, no instincts. Everything in it is written by experience.

The concept of the Blank Slate begat Rousseau's Noble Savage, full of peace and co-operation. This is the human in a natural state uncorrupted by post-tribal society and therefore, taught only communal values.

The Noble Savage is felled by comparative anthropology. Tribal societies have merits: they can probably bring pressure for cooperative behaviour - like not exceeding advisory speed limits - as can any village, because everybody can identify everybody else. But pre-state peoples are quite the reverse of pacific. In the last century, the nation states killed an unacceptable number of their young men in repeated vicious wars; but that proportion of dead is miniscule against the annual deaths in battle of the men in "unspoilt" tribal societies. Up to 60 per cent of the men in some tribes meet their end in this way. We think, rightly, that some of our cities are alarmingly violent. The murder rate among the hunter-gatherer !Kung, though, exceeds that of the US inner cities - we get the impression that the rates among hunter-gatherers are low only because the absolute numbers killed in their tiny populations are inevitably small.

Against the Blank Slate, Pinker marshals substantial evidence. The best, which he reviews extensively with considerable virtuosity, comes from experimental cognitive psychology, neuro-psychology and research on brain structure, and from psychopathology, both genetic and traumatic: the function of any part of the wiring is made plain when it stops working. Social practices which are universal across cultures, or which change in altered circumstances in a way that we would predict from evolutionary theory, are also strongly suggestive of some degree of hard-wiring. Oddly, one of the trinitarians' own arguments, that "there are no theory-free observations",

is inimical to the Blank Slate. Without some inbuilt theory, like a computer without its software, we could not get started. At birth we would recognize nothing, respond to nothing, learn nothing.

The importance of evolutionary theory, which is where sociobiology got started, is its power of explanation, rather than prediction: aspects of social behaviour that could appear arbitrary become as legible as three-dimensional depth perception. By itself, evolution is not conclusive evidence against the Blank Slate. It is difficult to know just what is the adaptive significance of even physical traits (why do we have a protruding nose?), and harder in a past we cannot inspect. The late Stephen Jay Gould devised a whole theory of evolution that is independent of natural selection, one of its functions being to pull out the rug from under evolutionary psychology (although Gould fervently maintained that this was a gross slander). Speculations about the adaptiveness of a component of psychology in the Palaeolithic are readily dismissed as "Just so stories". But even Gould had started to convert in his last years, admitting that the mind had inbuilt quirks (even though these were non-adaptive accidents), and suggesting that there were indeed elements in the structure of the brain, going far beyond the Palaeolithic and back to fish-times, which still ruled our behaviour: the tendency to dichotomize, the mechanism that obliges us to divide our fellow humans into "them" and "us", might, he thought, be just such an atavistic form of behaviour.

The problem for Blank Slate evolutionary theory is that it demands the mother of all Just so stories: "How the people lost their instincts". After billions of years of natural selection in favour of a nervous system that looked after Number One and Number One's posterity, and (for a lesser time) after Number One's close kin, what could have wiped out all this hard-wiring to create the Noble Savage, only for exactly that behaviour to be rewritten back on our Blank Slaters by our advanced social institutions? A weaker form of blank slate theory has therefore held that some of our behaviour is hard-wired (nobody seems to be in too much doubt about breathing), but that behaviour which "matters" is not. In fact we do have hard-wiring which is present at birth, only to switch itself off later: infants swim instinctively, toddlers must be taught. I would love to know what Pinker makes of the implications.

Arrigo Boito put the evolutionary view of human nature into the mouth of a villain in Verdi's *Otello* (1887). "In the degradation of a germ, or some vile molecule, my pedigree is rooted. For that I am a human I am a villain, and in myself I know the sins of the primordial mud." If the devil gets it, it must be a good tune, but the verdict of twentieth-century intellectuals was that this theory was indeed evil. Iago himself is a parody of a social Darwinist, or even a further comment on human nature: this is not a man following out a policy of simple self-interest, but obsessed by something altogether nastier who is using evolutionary psychology as a rationalization. As Pinker says, self-deception is a major capacity of the human brain, evolved because there is no bluff like the one you believe yourself.

It is easy enough to show that there is no necessary causal link between a particular theory of mind and supreme devilry. "The Great Dictator" took the innatist view, and slaughtered inconceivable numbers of people. "Koba the Dread" took the exactly opposite environmentalist view, and slaughtered as many or more. That Pinker needs to make this point, when it could be made by every high school philosopher, is a comment not on Pinker but on the level of sophistry in intellectual circles. Sociobiologists were widely accused of racism, even when they had written nothing about race. Labels like "Holocaust denier" and "Hitler" were freely bandied, troops of students disrupted lectures, demanded dismissals and, apparently with no sense of irony, started shoving-matches to prevent conferences on the roots of violence. The worst instance of this, according to Pinker, was the scandalously false libel, originated by an enthusiastic journalist, that two researchers who had cast doubt on the peacefulness of the Yanomami had been practising genocide against their subjects.

This could raise questions about the moral obligations of scientists themselves. A scientist has no more moral authority than the next person. When scientists speak out against a theory on moral grounds, the public is right to expect that they will use cool and balanced judgments in the area where they do have authority: the science itself. There is a strong *prima facie* case that some of the principals abrogated this obligation, using arguments that they ought to have recognized as fallacious, or even conjuring anthropological data out of thin air (Gould's belief in numerous "peaceful bands" of hunter-gatherers).

In part, the panic was based on two fallacies: that what was "natural" must also be "good", so that to suggest that violence was an aspect of human nature implied moral approval, and that there are no fact-free ethical principles;

a discovery that people are not factually equal would entail abandoning all policies of social fairness. It focuses as concerns over imperfectibility, inequality, determinism and nihilism: each of which has a chapter in *The Blank Slate*. Does Pinker claim "it's all in the genes, then"? We can take two paradigm cases, one from universal human nature, the other from the individual variations on it. First, as widely recognized, we are hard-wired for the hugely complex ability to speak and understand human language. But which particular language we speak is entirely down to our early experience. Second, from the now extensive studies of twins - fraternal and identical - and of siblings, raised together and apart, by their natural parents and by adopters, we now know that only half the variation between individuals - in such "important" things as intelligence and the major aspects of personality that can be measured by psychometry - results from genetic differences. Variations in parenting, which everyone confidently expected to account for the other half, account for next to nothing. Parents can, of course, make us more or less skilled (for example by providing or withholding musical instruments for the talented; think of Vivaldi smuggling a clavichord into the attic to wreck his father's hopes that he become a lawyer), and they have childhood happiness in their gift. But short of serious deprivation and abuse, children grow up the way they want to, to the delight or alarm of their parents.

What explains the other 50 per cent of the variation is still a mystery. One current candidate is the peer group. Minority cultures seem to recognize this implicitly: segregated religious schools will not simply teach all one should know of the parental faith; they will hold the children in their ancestral culture by limiting their exposure to an alien peer group. Alternatively, our brains may become individually different during their development because of thermodynamic noise, pure accidents in the way the neurones develop and connect with one another. This certainly isn't "genes", but it is not what we have come to think of as "environment" either.

The publisher's promotional material, announcing "Love, Hate, Lust, Envy, Fear", may help to sell the book, but gives an incorrectly negative impression of Pinker's views on human nature. He is actually a bit short in explaining really nasty behaviour. Violence he does not regard as an innate drive, but as a response we are all capable of when triggered: when ceasing to negotiate, and getting rough instead, would, at least once, have been to our advantage. This reaction may not be culturally malleable, but the trigger is. Herdsmen, he argues, are more sudden in a quarrel than farmers, because a farmer's wealth is not easily stolen, whereas in the absence of a strong central government, a herder's wealth is a year round sitting-bull, just waiting for a rustler. Herders need to leave everyone in no doubt that they are anything but a soft touch. Thus the adherence to codes of honour is much stronger in pastoral areas. Think, for light relief, about the mottoes of the English and Scottish royal houses: both have the same arrogant message, but translated into their respective vernaculars - "God backs my rights!" and "Wha daur meddle wi me" - there is no doubt which one has the attitude. There is, however, a problem: Confederates are more jealous of their honour than Yankees, as tragicomically related in *Huckleberry Finn*, and demonstrated at the University of Michigan in an experiment on gratuitous insults. But as Confederates are not notably cattle men, Pinker has to attribute this cultural tradition to a greater immigration into the Southern states from the Celtic areas of the British Isles.

Was the nature-nurture debate over already? The line that it was "a bit of each" has become commonplace, but usually with the rider that if the trait "matters" then it is all nurture. In Britain, nature seems these days to have a fairly good hearing: popular science programmes on the television discuss gender differences and talk frequently of human behaviour that is hard-wired. Lord Winston even began a recent *Child of Our Time* episode with a full eye-contact announcement to the viewer that "It is human nature to fight", and nobody started a riot. In America, Pinker, as an extreme liberal, is between the rock of (he says) a scientific and intellectual establishment dominated by the Blank Slate theory, and the anti-evolution hard place of the majority of the population, who believe in the literal truth of one or other of the revealed Books.

If we accept Pinker's position, there is good news and bad. People are not objectively equal, so the level playing field kind of equality is a bit of a sham (though it appeals to our, possibly innate, sense of fair play); and equality of outcome, given our tendency to look after our own interests, will be very hard to enforce. On the other hand, culture and history are "reduced" to biology only in the sense that football is "reduced" to particle physics. If the culture universals are hard-wired, nothing human can be made alien to us: people are, and will be, people, their cultures are all, and will all be, variants of the same theme: we can understand, recognize and respect each other. If some utopian reforms are circumscribed, so too are the possibilities for utopian dictators. If we cannot

engineer the perfect Napoleonic or Marxist state, we have instead realistic ways of improving our lot: we may not be able to reduce inner-city violence by banning rough-and-tumble between little boys, but we might make a lot of progress by letting young men have something to invest in besides their image on the street. And parents can enjoy, nurture and gladden their children without feeling great loads of guilt at the way they turn out. It is the oldest member of the trinity, the Ghost in the Machine, which dies hardest. This is a theory we devoutly crave: it gives us our ultimate personal freedom, it buffers us against the twin and warring determinisms of genes and environment, it apportioned our guilt. But it sits uneasily as a causeless cause in any causal system, and may all be a phantom of the mind ("So free we seem, so fettered fast we are"); while we can choose and alter our environments, and even aim chemical bullets at our genes, and thus choose what we do, entirely choosing what we are, particularly in the face of thermo- dynamic noise, looks like a hope beyond hope. Pinker thinks it is time to accept the concept of fate that we once personified as the Norns and the goddess Fortuna. Having disposed of the Ghost largely on the ground that he has no need of that particular hypothesis, he observes quietly that despite serious attempts by bona fide scientists like Alfred Russel Wallace, communication with the dead has never been achieved. He seems to agree with Iago's final conclusion that "Death is the Big Zero". This bit of his thesis will probably not catch on. But I do hope nobody tries to burn him at the stake.