



Book review

Intellectual Tour de Force

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A review of Steven Pinker, *The Blank Slate: The Modern Denial of Human Nature*, Allen Lane/Penguin Books, London, 2002, xvi + 509 pp., ISBN 0-713-99256-5 (Hb).

We are in the midst of a very productive phase concerning evolutionary studies of human behaviour. New and important books pop up regularly. Some challenge mainstream social scientists, some challenge the views of other evolutionary minded researchers, and some challenge assumptions held by intellectuals in general. They all have one thing in common, *human nature* is taken for granted and real. One of the most important books in 2002 is the psycholinguist Steven Pinker's *The blank slate: The modern denial of human nature*. Here he challenges several assumptions shared by a lot of persons of all stripes, from intellectuals on the left to creationists on the right.

The blank slate consists of 20 chapters, six parts and an appendix reproducing an updated list of Donald E. Brown's human universals (Brown 1991). Part I consists of five chapters about the ascendance of the blank slate idea (BSI) in modern intellectual life, and about the new view of human nature and culture that is beginning to challenge BSI. In succeeding parts Pinker presents the anxiety evoked by the BSI-challenge (Part II; Chs. 6–7) and how the anxiety may be assuaged (Part III; Chs. 8–11). Then he shows how a richer conception of human nature can provide insight into language, thought, social life, and morality (Part IV; Chs. 12–15) and how it can clarify controversies on politics, violence, gender, child rearing, and the arts (Part V; Chs. 16–20). Finally, he discusses how the passing of the BSI may be less disquieting, and in some ways less revolutionary than it first appears (Part VI).

The blank slate is written for a lay audience, but with extensive endnotes and a reference list, making it a valuable contribution to the field in general.

Pinker's main thesis is that there really is a human nature – a universal set of emotions and talents that all people share. He strongly rejects the competing view of BSI, that the mind is a “blank slate” that can be inscribed at will by society or ourselves. BSI is the prevailing doctrine in intellectual life at the beginning of the twenty-first century. It has governed how we think about every aspect of our lives and personalities, from sexuality and child rearing to crime, art, and the gender divide. BSI appears to be the decent and politically palatable view of the human condition. Pinker argues, however, that BSI is inconsistent not only with the latest biological facts, but also with common sense in general and the wisdom of the ages. He claims that leading intellectuals for more than a century have embraced BSI for political reasons – as a “lazy way” to justify ideas such as equality, social progress, and personal responsibility. The author argues that this is a mistake, showing that BSI weakens, rather than strengthens, progressive ideals by holding them hostage to tenuous claims about our psychological makeup. In addition, it ignores the dangers of denying human nature, such as authoritarian social engineering, the blaming of mothers for their grown children's problems, and a contempt for the principles of democracy and the rule of law. In the book Pinker systematically explores how BSI became so popular, and how it led intellectuals to deny our common humanity and our inherent interests. It will challenge many people, including influential political individuals in present society, to rethink their most fundamental beliefs about humanity.

The blank slate is in short about the moral, emotional, and political colourings of the concept of human nature in modern life. The author retraces the history that led people to see human nature as a dangerous idea, tries to unsnarl the moral and political rat's nests that have entangled the idea along the way. Pinker's goal is to explore why the extreme position – that culture is everything – is so often seen as moderate, and the more correct moderate position is seen as extreme. The moderate position is the all too sensible understanding that in some cases, an extreme *environmental* position is correct (e.g. which language one speaks), in other cases, an extreme *hereditarian* explanation is correct (e.g. inherited neurological disorders), but in most cases, the correct explanation will invoke a *complex interaction between heredity and environment*.

Pinker stresses that acknowledging human nature does not have the political implications so many fear. Instead, he is of the opinion that “the new sciences of human nature can help lead the way to a realistic, biologically informed humanism” (p. xi). I fully buy and applaud his argument that “An honest discussion of human nature has never been more timely” (p. xi).

At the heart of Pinker's analysis are three doctrines that are logically independent, but that in practice are often found together. The first is the “BSI” (empiricism) – the idea that the mind has no innate traits. The second

is “the noble savage” (romanticism) – the idea that people are born good and corrupted by society. The third is “the ghost in the machine” (dualism) – the idea that each of us has a soul that makes choices free from biology. According to Pinker, each dogma carries a moral burden, so their defenders have engaged in desperate tactics to discredit the scientists who are now challenging them. He dissects and rejects these doctrines, and then tries to persuade the readers that the anxiety about human nature are unfounded. This anxiety can be boiled down to four fears:

1. If people are innately different, oppression and discrimination would be justified.
2. If people are innately immoral, hopes to improve the human condition would be futile.
3. If people are products of biology, free will would be a myth and we could no longer hold people responsible for their actions.
4. If people are products of biology, life would have no higher meaning and purpose.

These are all highly important and basic problems, and Pinker spends one chapter on each. For each fear, he explains the basis of the fear: which claims about human nature are at stake, and why they are thought to have treacherous implications. He then shows that in each case the logic is faulty – the implications simply do not follow. However, Pinker does not just think that these fears about human nature are less dangerous than many people think. His main point is that the *denial* of human nature can be *more* dangerous than people think. In his own words, “This makes it imperative to examine claims about human nature objectively, without putting a moral thumb on either side of the scale, and to figure out how we can live with the claims should they turn out to be true” (p. 139).

Pinker tries to disentangle the political and moral issues from the scientific ones. In his opinion, equality, compassion, responsibility, and purpose have nothing to fear from discoveries about an innately organised psyche. He shows that the new sciences of mind, brain, genes, and evolution, far from being dangerous, are complementing observations about the human condition already made by millennia of artists and philosophers.

The blank slate is written in a lucid tone and is easy and entertaining to read. I find most of the book excellent, and it is a timely analysis and rejection of several ruling dogmatic doctrines. However, certain aspects are problematic. This is of course expected when one person covers impressively wide scientific fields. Had Pinker either read the literature more carefully or been more open-minded to criticisms of mainstream evolutionary psychology, some of these problems could have been avoided. Let me demonstrate this with three examples.

Nutrition and violence

In an otherwise excellent chapter on violence, Pinker is too positive and unnuanced in his dismissal of *nutrition* and *poisoning* as partly responsible causes of violence. He writes this about nutrition and violence (p. 310):

The sad fact is that despite the repeated assurances that “we know the conditions that breed violence,” we barely have a clue. Wild swings in crime rates – up in the 1960s and late 1880s, down in the late 1990s – continue to defy any simple explanation. And the usual suspects for understanding violence are completely unproven and sometimes patently false. This is most blatant in the case of factors like “nutrition” and “disease” that are glibly thrown into lists of the social ills that allegedly bring on violence. There is no evidence, to put it mildly, that violence is caused by a vitamin deficiency or a bacterial infection.

I am positive he is completely wrong here, and has not thought deeply or read carefully enough about this issue (see e.g. Schoenthaler and Bier 2000; Gesch, Hammond, Hampson, Aves and Crowder 2002; Mysterud and Poleszynski 2003). And this is not trivial, because such approaches pave the way to effective ways to reduce the incidence of violence and aggression, in addition to the social ones Pinker advocates (and which I also support and believe in). Malnutrition and heavy metal poisoning can lead to lowered threshold for aggression (Masters, Hone and Doshi 1998). No blank slate is involved here, only an argument that also factors in the environment that are of *chemical* origin (not only *social*) can influence our nature and potentially increase violence. This line of reasoning is fully compatible with mainstream evolutionary psychology, and will expand the explanatory scope of evolutionary studies (Mysterud and Poleszynski 2003). This might seem as a trivial criticism in some people’s eyes, but a rather serious one in other people’s eyes. But one important point is that Pinker creates unnecessary tension between some “environmental” approaches and evolutionary psychology. Instead I think we should try to make various approaches consistent and compatible with one another, something I know Pinker wholeheartedly agrees with in principle.

Too narrow evolutionary psychology

Another complaint is that Pinker does not even cite, nor discuss, David Sloan Wilson’s important corrective to and criticism of the “mainstream” Tooby and Cosmides version of evolutionary psychology in a book about *human nature* (Wilson 1994). Pinker takes for granted that all humans are equal in mental equipment, which is an *untested assumption* in mainstream

evolutionary psychology. If true, humans will be an exception in the whole animal kingdom. The book would have been much more nuanced if Pinker had devoted some space to this and other recent criticisms of mainstream evolutionary psychology (e.g. MacDonald 1991; Griffiths 1997; Sterelny and Griffiths 1999; Wilson 1999; Badcock 2000; Holcomb 2001). EP is a very young approach, and it is criticised by a lot of researchers who reject the notion of BSI, but who still want to *expand* evolutionary approaches to human mind and behaviour in various ways.

Experience influences brain structure

A few innocent comments about brain structure in reality show that Pinker should expand his conception of evolutionary psychology. On pages 44–45 he writes:

Indeed, until recently the innateness of brain structure was an embarrassment for neuroscience. The brain could not possibly be wired by the genes down to the last synapse, because there isn't nearly enough information in the genome to do so. And we know that people learn throughout their lives, and the products of that learning have to be stored in the brain somehow. Unless you believe in a ghost in the machine, everything a person learns has to affect some part of the brain; more accurately, learning *is* a change in some part of the brain. But it was difficult to find the features of the brain that reflected those changes and all that innate structure. Becoming stronger in math or motor coordination or visual discrimination does not bulk up the brain the way becoming stronger at weightlifting bulks up the muscles.

Similarly, he writes on p. 347 that “Learning and socialization can affect the microstructure and functioning of the human brain, of course, but probably not the size of its visible anatomical structures.”

The reality is that the brain in some instances actually seems to be influenced in its “visible anatomical structures” by being used systematically in certain ways over time. It is for example found that taxi drivers have larger hippocampi than control subjects who do not drive taxis (Maguire, Gadian, Johnsrude, Good, Ashburner, Frackowiak and Frith 2000). It seems that there is a certain capacity for local plastic change in the structure of the healthy adult human brain in response to environmental demands. It is fully possible to explain such data by evolutionary psychology, but then one has to expand the basic model (Heyes 2000; Heyes 2003).

Although I have clear reservations to Pinker's argumentation in certain cases, I find the majority of his presentation brave, entertaining, excellent and

timely. His chapter on “gender” is brilliant, and should be obligatory reading for all politicians and intellectuals. I hope his next book will follow up on the debates that currently rages *within* the research community of evolutionary researchers. *The blank slate* has shown how debates with intellectuals *outside* this community either should be ended or changed in focus. The doctrines of dualism, empiricism and romanticism should be left to the dustbin of history. Criticisms aside, my conclusion is that this is one of the most important books of 2002.

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