STRANGE STUFF INDEED

Jamie Horder

Jamie Horder reviews The Stuff of Thought *(London: Allen Lane, 2007) by Steven Pinker.*

Why is it that the English language allows me to either *smear paint onto a canvas*, or *smear a canvas with paint*, but does not let me *shake some food with salt* or perhaps happen to *spill the table with water*? This might seem like a trivial point of grammar, but for Steven Pinker, understanding smearing, shaking and spilling is key to understanding how the human mind works.

Pinker is a well-known cognitive scientist and linguist, currently Professor of Psychology at Harvard, and in his latest book, *The Stuff of Thought,* he aims to show how studying apparently obscure aspects of language can lead us towards fundamental truths about human thinking – truths which philosophers, amongst other people, are sure to find interesting. The book is appropriately subtitled *Language as a window into human nature,* and Pinker does an excellent job of leading readers 'down the rabbit hole', from the everyday phenomena of language into the depths of the mind. Along the way he covers the unique grammar of swearing (why is it that four-letter words are so versatile?), the question of why so many men his age are called Steve, and what Calvin and Hobbes have to tell us about semantics. Like all of Pinker's books, it manages to be a fun and accessible read while dealing with serious scientific and philosophical issues.

So – why can't we spill things with water or shake them with salt? After all, we all know what is meant by these expressions. Are we just dealing with some kind of arbitrary rule, one of those quirks of our language which seem designed to make life difficult for children and foreigners? Pinker doesn't think so. In his view, the problem with the sentence 'She spilled the table with water' is that it doesn't fit with the way our minds conceptualise objects. Smearing an object with paint involves applying a force to both the paint and the object, and this

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means that either of them can form the direct object of the sentence. However, spilling and shaking do *not* involve any force being directed at the object which ends up covered in water or salt. This is why we cannot spill tables with water, despite the fact that when I spill some water, the table does end up wet. Unlike with smearing, the getting wet is an *indirect* effect of the spilling, so it sounds wrong to make the table the direct object. And, Pinker says, it is very interesting that our minds make this highly abstract distinction.

Similarly, Pinker analyses our conceptions of cause and effect, saying that we see the world in terms of certain objects or actors having 'intrinsic' tendencies to do or act in certain ways, while other objects can prevent, allow or help them to do this – like little billiard balls pushing each other around. Accordingly we distinguish between scenarios which are, logically, equivalent: if I were to throw a marble at a coin which was about to fall onto heads, pushing it over onto tails instead, we say that I *'caused'* the coin to end up tails. However, we do not tend to say this if I intercept a marble which is about to push a coin over onto heads, which then ends up tails – although it's hard to find a philosophically satisfying way of justifying this distinction. We also talk about certain objects (often people) as being autonomous, uncaused causes – *'Anna broke the lamp'* – implicitly affirming our belief in free will. Our built in 'folk' philosophy of causality is, Pinker says, quite incompatible with what we know of the world through science: in reality, everything is part of one, interconnected causal web. This is why philosophers who have tried to provide a coherent account of causality which remains true to our intuitions have run into great difficulties. They have been trying to achieve the impossible, because our intuitions are not based on logic, but are just manifestations of the way our brains work.

So, Pinker claims that we can use language, along with evidence from experimental psychology and anthropology, as a means of uncovering the ways in which our minds conceptualise the world. We can map out the cognitive scaffolding, as it were, around which we build a picture of reality. This scaffolding is not hidden away in the unconscious, like the

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repressed memories of Freudian psychoanalysis. It is always with us, in the background, and the reason we are not more aware of it is because we are so familiar with it that we take it for granted. Philosophers will realise that Pinker's views here are essentially Kantian. Kant was an 18th century German philosopher who believed that our knowledge of the external world is structured according to our innate mental 'categories'. Space and time, or cause and effect, are not real things existing out there in the world, but instead are concepts which our minds impose on reality. They *appear* to be real and objective but, Kant claimed, there are philosophical arguments which prove that they are in fact 'ideal' – that is, mental constructions. It's not that there is no such thing as an external world – there is one, but we do not have direct access to it.

Pinker cites Kant approvingly, calling his theories 'strikingly modern'. Whereas Pinker's arguments are empirical and scientific, Kant's were logical and philosophical, but they both seem to converge on roughly the same point from two different directions. What modern science has to add to the Kantian picture is not so much philosophical innovation, but rather, an explanation of *why* we conceive of the world in the way which we do. This is something which Kant never really explained, with the result that his philosophy can seem rather mysterious, even mystical. Those who know Pinker's work will not be surprised to learn that he believes that the key to the whole deal is evolution. The human brain evolved to possess a number of different ways of thinking about the world, he says, because they helped our ancestors to survive and thrive in it. As researchers continue to accumulate evidence, our knowledge of how the mind works and why is sure to be revised and extended, so *The Stuff of Thought* shouldn't be seen as the last word on the details of human cognition. Nevertheless, Pinker does make a strong case for his general perspective on the mind, and provides some convincing refutations of a common alternative theory – the Sapir-Whorf hypothesis, that language, rather than reflecting thought, actually gives the mind its structure, so that people who speak different languages may conceive of the world completely differently.

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We might ask, however, what the wider implications of Pinker's theories are. If our concept of, for example, autonomous agency is ideal, rather than real, doesn't that make free will just a fiction of our minds – a kind of cognitive mirage, when all that really exists is a deterministic desert? This seems to suggest that we have no responsibility for our actions and that we're unjustified in blaming and punishing wrongdoers. Likewise Pinker suggests that an ideal concept of direct vs. indirect causality underlies our intuitions about morality – for example, that it's wrong to cause direct harm in order to provide benefit, like in the famous case of the surgeon who must kill one person in order to get the organs he needs to save five. Are our moral intuitions therefore invalid? These would be uncomfortable conclusions, ones which most people would dearly like to avoid.

Disappointingly, Pinker seems unwilling to really face up to these kind of concerns. He does recognise them, but swiftly dismisses them by claiming that we are right to reject the idea of causing harm for the greater good because anyone who did this would also be prone to do harm for their own benefit. In his last book, *The Blank Slate,* he similarly brushed aside the threat of determinism by saying that while free will may indeed be an illusion, we are still justified in blaming and punishing as we do because this is the best way to prevent people from acting in antisocial ways. These arguments seem rather too convenient. In fact, they look suspiciously like rationalisations: defences created in order to justify a belief which one already holds.

Indeed, this is not the only place in which he may be at the same time too conservative and too optimistic. *The Stuff of Thought* concludes with a chapter called 'Out of the Cave'(referring to Plato's famous metaphor of the Cave, which Pinker brilliantly describes as 'a kind of movie theatre out of the Flintstones'!), in which he says that while the way our minds work makes us prone to falling into certain errors, we also have the ability to transcend our limitations and come to think about the world rationally and scientifically. Through the process of education, we can overcome our instincts, and

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become more than just naked apes. This is an attractive idea, and surely Pinker is right that evolution has not left us completely unable to think straight. But isn't there a danger that our reason and science will be forever clashing with our more intuitive conceptions of the world? In this respect, couldn't our increasing knowledge of the world lead to us becoming less and less at home in it?

This is a prospect which troubles many people concerned with the increasing ability of science to explain natural phenomena. Indeed, the kind of Darwinian cognitive science and neuroscience which Pinker espouses is often itself seen as being reductionistic and alienating in its attempts to explain our emotions and actions in materialistic terms. This is worrying to many people who feel that there is something irreducibly unique about human beings. Yet if this book is anything to go by, this feeling may soon itself be explained away in evolutionary terms! This looks sure to make many people even more uneasy. It's disappointing that Pinker does not explore these kinds of concerns. Nevertheless, *The Stuff of Thought* is a thought provoking, humorous and thoroughly enjoyable exploration of some cutting-edge issues.

Jamie Horder is a student of neuroscience at the University of Oxford.

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