

***THE STUFF OF THOUGHT: LANGUAGE AS A WINDOW INTO HUMAN NATURE,***  
**BY STEVEN PINKER**

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*The Stuff of Thought* (2007) is Steven Pinker's fifth popular science book, designed to complete two different trilogies that explore language, the mind and human nature. All his books have, in some way, explored the nature-nurture debate: are we primarily products of our genes or products of our environment? In his first popular science book, *The Language Instinct* (1994), Pinker made the case for an innate language capacity: language is not learned in its entirety, much of it (particularly grammar) is already present in the determined structure of our mind/brain. In *Words and Rules* (1999), the regular ('bake – baked') and irregular ('buy – bought') forms of the past tense were used to explore how language might be represented in the mind; Pinker presents a middle way between the rationalists (who state that 'the mind has innate concepts') and the empiricists ('the mind is a blank slate'), with regular forms created by the application of an innate rule (rationalism) and irregular forms created through memorization (empiricism). These books were the first two in the 'language and the mind' trilogy. The other trilogy, beginning with the two books *How the Mind Works* (1997) and *The Blank Slate* (2000), deals with human nature. In both books, Pinker argues for innate cognitive abilities that are common across all human beings, and offers a psycho-evolutionary definition of human nature. Reviews of Pinker's books are always mixed, reflecting the fact that there is still disagreement in popular culture and in the scientific community on the nature-nurture debate (aside from the common understanding that human nature is some mixture of the two). Pinker's position represents an ideological attachment to nature and evolutionary design, and it often has a teleological narrative in which humans fulfil their impressive biological potential in the (somewhat under-described) world.

Steven Pinker is an evolutionary psychologist and linguist who believes that much of what makes us tick is built into the structure of the mind/brain. For him, our cognitive world is largely predetermined by evolution, because our in-built capacities are flexible and notions of biological nihilism or fate do not bind us. Never short of enthusiasm and rhetoric, Pinker masterfully presents his arguments about rationalism and modern Darwinian psychology. He has great fervour for his subject, and is clearly excited about the possibility of a 'theory of everything' for human nature, grounding psychology in a hard science (biology) that provides ready-made surety. His latest book, *The Stuff of Thought*, sets out on the grand quest to document some of these cognitive universals. Happily, for the reader, Pinker reverts to his real expertise, language, to guide the treasure hunt: 'the themes of this book are real discoveries about the mind, not just innocuous comments about it' (p.27).

The book divides human experience into several domains, or worlds, that 'connect our words': thought, reality, community, emotions and social relations. The chapters then pursue a dense and sometimes breathless chase through these domains of experience, throwing up idea after idea, pulling together numerous other texts and presenting several syntheses. Some of these ideas are original and interesting, such as the one that states how verb constructions (the grammatical classes into which verbs fall) present a particular version of reality. Pinker points out that language is a digital medium that uses features of meaning (such as agency, causation or spatial relations) that necessarily lose some information (such as the richness and complexity of sensory experience). These features show how language carves the world up in a way that reflects our human experience. For example, verbs such as 'to kill' and 'to die' show us that we make a division between an occurrence (dying) and the act of causing an occurrence (killing). This means there is an implicit understanding of agency, those events that must have an agent who causes them and those that do not. The distinctions which are visible in language make up a 'conceptual infrastructure' (p.78) with 'ethereal notions of space, time,

causation, possession and goals that appear to make up a language of thought' (83). It is the next step in Pinker's approach that is more problematic. Rather than seeing these distinctions as necessary simplifications which give language its power and represent the way in which thought is *translated* into language, Pinker treats the distinctions as ever-present aspects of thought. These distinctions bind us, causing us headaches when they don't match the way in which the world is experienced. For example, causality in language (and, he argues, in law) is a cut-and-dried matter of someone acting (or not) and bringing about some event (or not). This is very different to real life where, for example, 'a homeowner... slams the door in the face of a child fleeing a wild dog, leaving the child to be torn into pieces' (p.86); did the homeowner kill the child? For Pinker, our vexation over this scenario is produced by a *limitation* in the conceptual structures that represent causality in our heads. However, this law-school scenario is a sequence of events for which we must take into account an agent's intentions, goals and mental state at the time in order to establish responsibility for the death. It gives us a headache because it is a complex question, not because we have to overcome our crude language of causality. Pinker states that the modern world often clashes with the 'constituents of common sense' (p.83); for him, these constituents evolved when human life was (allegedly) simpler. However, they need not be innate elements of thought. They could, instead, be the basic building blocks of semantics (linguistic meaning) necessary for us to parsimoniously package events into language. These innate elements could also be learned since each has a corollary in our experience: space, time, causation, possession and goals. It is at this point in Pinker's argument where the lack of examples from other languages is most obvious.

Other chapters in *The Stuff of Thought* present theories on swearing and taboo (an extremely entertaining and provocative topic); how words are able to refer to things in the world (this section is difficult if one does not have a knowledge of philosophy, and it sadly lacks the current perspectives from psychology, cognitive linguistics and neuroscience); how things come to have the names that they do (this involves a dense discussion of cultural trends, etymology, aesthetics and individual choice); and how metaphor might shape the way we think (this is a very erudite chapter that could be read alongside the work of the idea's strongest advocate, George Lakoff). The breadth of topics synthesised in this book is remarkable, and Pinker writes with an ease, humour and pace that often belies the complexity of what he is presenting. However, the outcome is not often a resolution or realisation. In retrospect, one leaves the book with few solid conclusions, except that human beings have a breathtaking flexibility in how they can think about things, and that this flexibility often manifests itself in stable variants (such as our understanding of objects, time and space; the way metaphor makes abstract things concrete; and the way swear words follow particular rules). Whether these stable variants of thought are innate and basic parts of conceptual structure is a moot point. As yet, there is no convincing reason to argue that these variants are hardwired into our mind/brain, rather than learned. It is still entirely possible that they are present in our minds because they are present in our environment and our culture, and most importantly, because language *must* parcel up the world consistently in order to have 'infinite use of infinite means' as defined by Wilhelm von Humboldt.

The relationship between language and thought is far from settled, so it is brave to use language as a window into the mind. It is true that there are many aspects of human thought that are likely impossible without language; this is certainly true when it comes to dealing with abstract things (which do not exist as tangible objects in the world) or complex ideas (e.g. theoretical physics, literature or politics). However, these objects or ideas are very different from the fundamental building blocks of cognition, from the way in which our mind organises experience in terms of time, space, causality, agency, social relations and so on. It is precisely these fundamental concepts in which Pinker is interested, and language is certainly a tool to access them. However, a window limits your view and more worryingly, it may distort the things that you see. Pinker states clearly that language is not the same thing as thought; for example, we can describe the same event in many different ways – known as perspective taking – and Pinker deftly shows us how numerous arguments

in law and politics are based on different verbal descriptions of the same situation. He pays necessary heed to the contentious Sapir-Whorf hypothesis which states that the language one speaks determines the way one thinks (an arena of much historical and current debate), but he wants to expose those *basic* conceptual structures that are common across all languages, and therefore common across all people (unfortunately the book is too reliant on examples from English). Despite the fact that Pinker clearly separates language and thought early in the book (Chapter 3), the rest of the book only confuses this relationship, producing a strange circular argument. Language is separate from thought, but it does reflect ‘major kinds’ of conceptual structure (which are presumably innate) that have ‘real consequences in our lives’ (p.164), but these do not bind us because cognition is flexible. In this sense, the book is an interesting exploration of the way we think *when we use language*, but it is dressed up as an exploration of the way our mental world is organised *in its entirety*. More time should have been spent on the language-thought relationship, especially since Pinker is well placed to write a pop-science book about it. *The Stuff of Thought* certainly makes you think, but readers should know that it is a representation of Steven Pinker’s own perspective on the evolved components of human nature, rather than a presentation of scientific consensus.

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