Book review: the symbolic species. the co-evolution of language and the brain


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If you're interested in the origins and specificities of human language you are probably familiar with Chomsky's ideas and may have gone through Steven Pinker's *The Language Instinct*. You may also have read Robin Dunbar's *Grooming, Gossip, and the Evolution of Language*. If you're really interested, you may have the gumption to go through *The Symbolic Species*. It's worth it for the new perspective it brings, but it won't be an easy read.

In a nutshell, Deacon suggests that there is no "innate grammar" in human beings, as Chomsky suggests, nor are there specific "language modules" in the human brain, as Pinker elaborates (quite convincingly, I might add!). Instead, human languages arose and evolved with features that make it easiest for human brains, specifically the developing brains of children, to learn them. The human brain, in turn, has evolved as a result of human use of language, but the author is quite convincing when he argues that there is and can be no specific location for language or grammar, only locations for specific types of processing activities, whether applied to language or to other tasks.

As to the main reason for the original development of language, Deacon believes that it lies with an ancestral way of life that required reliable pair bonding and large-group living for infants to survive and thrive. Marriage is a symbolic function with very real effects beyond those of animal pair bonding, as its consequences are enforced not only by the two people directly involved, but also by the rest of the human group. It is also a simple enough symbolic function to have bootstrapped the development of language. This does not dismiss Dunbar's ideas altogether, i.e. the need for "gossip" to keep track of other group members' behavior and reliability when living in a large group, but Deacon suggests that gossip does not actually require the symbolic functions unique to human language, so it could not serve as the bootstrap. Although he takes pains to keep this from becoming yet another "just-so story" among the many effectively wielded in evolutionary studies, this section seems to me to be the weakest part of the book.

Be warned: the going may be rough. Pinker's book may be thick and heavy, but it's far more abundant in concrete examples and amusing asides, though many examples are very easily contradicted and there are frequent leaps of logic. Deacon is a far more careful writer, but his prose is more heavy-handed and abstract. He enters into a detailed discussion of brain anatomy and how
the brain develops; it helps if you can keep track of all the anatomical locations he mentions (quite frankly, I ended up taking a lot of it on trust!).

Interestingly to us, one of the examples he brings to bear is the way languages are "remapped" in the brains of simultaneous interpreters (or "simultaneous translators", as he unfortunately calls us). This is not a simple-minded argument for extreme brain plasticity (the "blank slate" position), but a subtle one against the idea of hard-wired language functions.

It helps if, in addition to reading about language, you are familiar with popular writing about neurology (not scientific journals, but books by authors like Oliver Sacks, Antonio Damasio or V. S. Ramachandran, to name but a few, who unlike Deacon provide plenty of thought-provoking stories in order to make their ideas more accessible to lay readers). A smattering of semiotics might come in handy, too.

Years ago I found *The Language Instinct* quite convincing in its general argumentation. Deacon's book painstakingly takes apart the points made there to suggest an alternative and more exciting, though less vivid, explanation for why it's so easy for children to learn language. I found it a rather exhausting read and at times I had to put the book aside after a paragraph or two, lean back and close my eyes. But I couldn't avoid picking it up again later on. I believe many colleagues will enjoy this book as much as I have.

Mary Fons is an AIIC member residing in Barcelona and recommends the following books to those interested in this topic.

**On language**

*The Language Instinct: How the Mind Creates Language*, by Steven Pinker  
*Grooming, Gossip, and the Evolution of Language* by Robin Dunbar

**On minds and brains**

*The Blank Slate: The Modern Denial of Human Nature* by Steven Pinker  
*A Brief Tour of Human Consciousness: From Impostor Poodles to Purple Numbers* by V. S. Ramachandran  
*Descartes' Error: Emotion, Reason and the Human Brain* by Antonio Damasio  
*Looking for Spinoza*, by Antonio R. Damasio  
*The Executive Brain: Frontal Lobes and the Civilized Mind* by Oliver Sacks  
*The Man Who Mistook His Wife For A Hat: And Other Clinical Tales* by Oliver Sacks  
*Seeing Voices* by Oliver Sacks  
*Anthropologist On Mars* by Oliver Sacks  
*A Leg to Stand On* by Oliver Sacks  
*Phantoms in the Brain: Probing the Mysteries of the Human Mind* by V. S. Ramachandran, Sandra Blakeslee, and Oliver Sacks

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**Recommended citation format:**