

**PINKER, S. *EL INSTINTO DEL LENGUAJE.
COMO CREA EL LENGUAJE LA MENTE.***

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El instinto del lenguaje deals with topics such as the function of language, how children learn language, how language is processed by the brain and how it evolves. The main tenet of the book is that language is a human instinct which has been embodied in our brain by means of evolution, just the way spiders have the instinct to spin their webs, or birds to build their nests. Pinker combines beautifully Chomsky's innate universal grammar with Darwin's theory of evolution in his attempt to establish the foundations of his so-called 'instinct'. The book consists of 13 chapters and a glossary where the fundamental terminology is explained.

The first chapter serves as an introduction. Pinker highlights his idea of language as the instinct to learn, speak and understand language. Taking Darwin's words¹ as the basic foundation for his approach, Pinker considers language to be an adaptation of evolution and asserts that this approach is compatible with Chomsky's theory of innate grammatical knowledge. On the one hand, from a biological point of view, this argument seems to be more feasible than the chomskyan posture and, on the other, the theory of the language instinct provides a conclusion to what the theories of evolution fail to clarify. However, nowadays it is widely accepted knowledge that language is not a result of such evolution², or at least that the latter is only a part of the story.

In the second chapter Pinker works out a line of arguments that leads from the 'jabbering' of modern people to the hypothetical genes of grammar. The main assumption is that the key to language lies in its universality, for children reinvent³ it generation after generation. The consideration of the child as linguistic genius is somewhat

1. Darwin defined language ability as "an instinctive tendency to acquire an art" (see Darwin, C. (1871: *The Descent of Man*)

2. "No plausible genetic mutation could be the organizing principle behind the very complex neurological changes which gave rise to human language." (Foley 1997:74)

3. This would be as real as stating that children reinvent their binocular vision -hence it is universal- Consequently, one should think about a number of problems that are adjacent (i.e. children that did not develop their retina because of several factors, critical development period, etc.) and parallel to those proposed by Pinker in the following chapters (i.e. ASL users).

overdone. On the one hand, children develop language in the same way they develop the rest of their cognitive abilities. On the other, the conception of a child as linguistic genius is one that is far too optimistic. There is no doubt that the genius is genetically endowed. However, there is a considerable need for linguistic immersion on the part of the child, just to attain a certain degree of intellectual development and to become a competent language user, not to speak of what exactly the linguistic wealth of a genius is. Throughout the whole chapter Pinker fails to mention the case of feral children that have grown up in isolation and consequently, have not developed their linguistic potential. Then, the following question arises: are they linguistic geniuses too?

In the third chapter mentalese is presented as an inner *lingua franca* and defined as the universal language of thought⁴. According to Pinker, knowing a language implies knowing how to translate mentalese into word sequences and vice versa. However, the language of thought does not necessarily resemble a linguistic communication system⁵. In addition to this, Pinker's criticism to linguistic determinism is quite excessive. The view that the basic categories of reality are not out there in the world but imposed by culture⁶ is ridiculed. He is largely influenced and biased by the English language and cannot see farther than its limits⁷.

In the fourth chapter, the author insists on reiterating Chomsky's ideas, a move that is not only unnecessary but also rather short-sighted as it is a rather debatable approach. Language is not a mathematical model and mental processing is not only logical but fundamentally analogical⁸. Pinker himself, when he defines grammar in computational terms, is unconsciously making use of this type of mental process.

The next chapter develops the idea that the child's mind is shaped by the logic underlying language. A fact that would appear contradictory to the previously mentioned idea that children reinvent language, which brings us to the following old, but fundamental question: is it mental design that shapes language or vice versa?⁹. In addition

4. See Vygotsky, L. (1986) and Grace (1987) for two good accounts of the complex relationship between language and thought.

5. Thus Jackendoff (1997): "... complex thought can exist without linguistic expression (i.e. Beethoven or Picasso, displayed a lot of intelligence and deep thought. But their thoughts were not expressible as bits of language.)" (184); he further adds: "... although language expresses thought, thought itself is a separate brain phenomenon. [...]" (185).

6. See Wierzbicka (1997) and Foley (1997), proponents of this view.

7. In this connection Sapir (1949:165) argues that the philosopher needs to understand language even if it is only for the sake of protecting himself against the habits of his own language. See also Shore (1996); Sweetser and Fauconnier (1996); Turner (1991:44) and Wierzbicka (1997).

8. According to Lakoff's "Spatialization of Form" hypothesis (1987:283), grammar, including metaphorical thought is spatial. That is, grammatical concepts are structured in terms of basic image schemas that are generally *embodied* schemas. See also Grace (1987:112); Lakoff & Johnson (1980) and Lakoff & Turner (1989).

9. Deacon (1997) is for the interdependence of both. Language adapts to the organisation of the child's brain in the same way the child adapts to language. Each evolves with respect to the other. Recent research in the field of neurology has proved that the brain develops according to the kind of operation it processes (i.e. the development of the hypothalamus in the case of London taxi drivers) See also Nelson (1997).

to this, Pinker observes that somehow the child guesses the correct meaning of a word and hence avoids the immoderately large number of possible meanings that, while being logically impeccable, are inadequate from an empirical point of view. This raises the following problem: is the correctness of word meanings an object of knowledge or scientific enquiry? One could hardly dispute the modern view, yet old enough, that meaning is not a static entity, and that children's learning is not merely a matter of chance, as Pinker seems to suggest, but just the result of a continuous immersion in a linguistic community in which, from early on, children are corrected and taught about the idiosyncratic irregularities of a particular language. After all, if everything in a language were irregular, children would surely refuse to learn.

In chapter six, the distinction between language, understood as a human ability (i.e. *lenguaje*), and language understood as a human communication system (i.e. *lengua*) seems to be blurred, especially by the author's continual claim that language is an instinct, whereas writing is not. But language (*lengua*) does not make use of a combinatorial system, as Pinker suggests, when he is referring to language as a skill. One could safely hold that speech is simply the oral expression of language (*lengua*), while writing is the visual expression of it, involving concrete of form-meaning pairings in both cases. The reason behind the apparent biological miracle lies in the fact that our cognitive system is better adapted to our audio-vocal channel apparatus¹⁰ than to our visual system.

In the seventh chapter the mind-as-a-computer metaphor reappears¹¹. The conception of our process in understanding a sentence by means of Pinker's "parser" would appear to be a fairly non-economic mechanism involving a process of finding subjects, verbs, objects and so on. In other words, language, perceived in this light, would consist in a type of processing parallel to computational programmes and grammar would simply be a protocol or static database. Yet, Pinker later recognises the fact that syntactic analysis is insufficient to obtain the complete meaning of a sentence, since language is thought to be structured as a pre-existing web of knowledge¹².

The next chapter reveals a strong belief in a Universal Grammar, which cannot be explained by historical or cognitive factors while being a theory that underlies language. This, from my point of view is a debatable question. In fact, grammatical universals¹³ do exist, but this does not imply that they are pre-existent in the brain. Rather, they seem to have originated spontaneously and independently of language evolution. They are a consequence of selection processes affecting language transmission. Pinker's conception of

10. Hewes, G. W. (in Landsberg 1988:84-85): "Studies of human fetuses indicate that during late pregnancy, fetuses overhear or eavesdrop on maternal speech- not of course with semantic understanding, but they attend to features of acoustic frequencies and prosodic patterning ... Human speech ... does not impinge on a new-born *tabula rasa*, but rather on an individual predisposed to attend the nuances of speech ..."

11. See Lakoff (1987:338-353)

12. See Nelson (1997:11). See also the concept of *frame* in Fillmore (1985); Jackendoff (1992); Johnson (1987); Lakoff & Johnson (1980).

13. See Deacon (1997:116).

a universal plan underlying all world languages is a question open to discussion if one takes into account the different parameters pointed out by him.

In chapter nine, Pinker asserts that six month babies are able to distinguish phonemes from any language¹⁴ while adults are unable to do it even after being trained. To my mind, this fact would, nonetheless, show to what extent cultural input¹⁵ is relevant. He explains the fact that it takes babies three years to learn all this by recalling that they leave the maternal womb before their brain is completely developed. Nevertheless, the opposite could also be true. That is, that they leave it because they have got lots to learn. At the end of the chapter, he explores the idea of the existence of a critical period for language acquisition¹⁶. However, as was pointed out above, this aspect is not exclusive of language¹⁷.

Chapter ten introduces the concepts of the organs of language and the genes of grammar. Pinker, despite the fact that he cannot prove the existence of such hypothetical genes¹⁸, bases his theory on them. He states that language is an autonomous¹⁹ mental organ. However, the biological approach is acceptable without going into the “mental organ” metaphor²⁰. Pinker concludes that nobody really knows where language is located²¹ in our brain.

In the next chapter he expounds his argument of language as part of the process of natural selection and points out that there is no reason to question the evolution of the language instinct. But in my judgement, there is no reason to do the opposite either, i.e. no to question it. Pinker argues that there is an instinct *exclusive*²² to the human being, just like there is a trunk exclusive to the elephant. He considers enlightening the analy-

14. Jakobson (1940) already stated that children are able to produce such phonemes

15. See Foley (1997); Shore (1996); and Wierzbicka (1997).

16. Deacon (1997:137) argues that this aspect is a relevant proof of the advantageous limitations that an immature nervous system has for the type of learning required in language acquisition.

17. See Lieberman (1984:332); and Jackendoff (1997:184).

18. Lieberman (1984:333): “The biological bases of human language are subject to the same principles that govern other biological systems. There is no linguistic ‘gene’, nor is there a language ‘organ’ that can be localised in the human brain.” See also Sweetser & Fauconnier (1996)

19. Basically this chapter presents us a modular conception of the mind, which implies that linguistic knowledge is not integrated within other cognitive systems (Katz, Fodor and Chomsky agree with this approach). In contrast, the connectionist model argues that the language areas do not constitute an unitary module but a complex overlap of functions (cognitive approach).

20. See Segalowitz (1983:3)

21. Deane (1997:364) argues that the inferior parietal lobe, a region of the brain cortex placed over Wernicke’s area and behind Broca’s area, seems to be the critical region for the functioning of language where there is an interaction with other cognitive faculties. Givón (1995) states that our linguistic ability comes from an evolution of the visual processing system.

22. What differentiates us from the rest of species is, on the one hand, our ability for abstract reasoning, that is, the ability to create and grasp meaning extensions independently of their experiential correlate. It is what Deacon (1997:41) calls symbolic competence and cognitivists call analogic thought. On the other hand, our self consciousness (see Jerison, (1988:8-9); and Dennet (1991)).

sis of the sign language of chimpanzees, pidgins, creole²³, and even child language in the two-word stage in order to understand Bickerton's *proto-language*.

Chapter twelve presents the concept of linguistic norm as something absurd and poses the question of how languages may be in such a calamitous situation if language is to be perceived as an instinct. Correctness is not completely arbitrary, as Pinker states, but motivated by the linguistic community in which one is immersed²⁴.

The last chapter highlights the challenge that the existence of this instinct poses to language. Pinker refers to evolutionary psychology, alternative to relativism, according to which all faculties of the human mind, including language, require a universal design. In addition to this, he points out that the perception of sameness²⁵ is an innate mechanism for grammar learning and obeys the principles of natural selection. This contrasts with Greenberg's thesis (presented in chapter 8) which Pinker criticises for establishing interlinguistic comparisons through taking subjective impressions of sameness as the main criterion. Analogy or sameness are terms which are subjective or perceived by their own nature. From the ubiquity of complex language in all individuals and cultures, and taking into account the underlying structure common to the different surface rhythms, Pinker concludes that we all have the same minds²⁶. A misguided conclusion due to his possible misunderstanding of the mind-brain distinction²⁷. While it is true that we all have the same inborn capability, our brain changes as it acquires our language. Therefore, one could say that we all have the same brain and different minds. But this would involve taking a more conceptualist approach, which Pinker does not.

The author is certainly courageous enough to meet the challenge of defending innatism in the dawn of the twenty first century. On the one hand, the absence of a satisfactory explanation of how grammatical knowledge can be incorporated into a child's mind from the outside brings Pinker to the conclusion that it does not come from the outside at all. Hence the so-called instinct is described only in terms of its consequences. On the other, his attempt to approach the question from the point of view of cognitive science is weak as he seems to be unaware of many of the premises of this endeavour, such as the grammar-lexicon interface, or the interaction between

23. Boretzky (1990:323-338) argues that in the way creole languages are born there is little of universalism. Therefore creole languages can contribute little or nothing to reconstruct the first stages of human language.

24. Cf. Shore (1996) and Wierzbicka (1997).

25. Cf. Grace (1987) Shore (1996) and Wierzbicka (1997).

26. Deacon (1997) even states that in the case of bilingual people, the various languages involved can be configured in a different way and separately, even at times not restricted to the cortical area. He further adds, that even if there was only one module or grammatical organ, its parts would be organised in a rather different way depending on the type of underlying mental operation for a certain grammatical function. Hence different languages may be the cause of a different brain configuration in speakers of different linguistic communities.

27. See Turner (1991).

language and the rest of cognitive systems. He also seems to ignore the key role of semantics and pragmatics, the complex relationship between literal and figurative meaning, and the fact that language is inextricably linked to conceptual thought. He tries to convince us that one can understand human cognition, and psychology in general from the point of view of the English language hence neglecting the empirical study of human languages as a gateway to social cognition. (Idea to be clarified) This aspect makes his theory ethnocentric. His standpoint is anthropocentric as well, since he takes human language as a background model to confront other communication systems. Language is a mental dynamic system, and the product of a mind in a human body in a human environment. That is, there is little doubt that our conscious mind lives in the nuance. In other words, the influence of language on our thinking habits is so strong that it is easy to ignore the fact that the conventions we use are part of the air we breathe. However, this should not empower one to neglect and belittle the importance of other communication systems and the differences among human languages. To end with Wierzbicka's words: "Pinker's book is fundamentally biased in all respects."

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