

# The Language Instinct

*Steven Pinker*

June 18 - June 26, 2004

Mans uniqueness in the universe has during recent history suffered many setbacks, the latest of them being the contention that not even his language ability sets him apart from his biological cousins - the Apes. Pinker easily debunks such claims as so much media-hype and wishful thinking. Clearly if the apes would have the potential for language, they would have discovered it and exploited it for their own purposes a long time ago. In fact in actual experiments deaf observers noted far fewer incidents of true handsigning than the more gullible normal-hearers, who charitably tended to interpret any movement of the hands as imbued with intentional symbolism. True, apes do communicate with each other, by sound as well as signs in the wild, but the purported incidents of language use, were invariably repetitive and shallow, no match to the sophistication of toddlers.

Man learns to walk and talk without any explicit instruction. So remarkable and so universal is the effortlessness of the acquisition that it is natural to consider it as instinctive. When it comes to locomotion such claims are uncontroversial, while when loquaciousness is concerned it is more disputable. Pinker presents as evidence for an innate language ability the phenomena of pidgin and creole. When people are thrown together with no common language, a pidgin inevitably emerges. This is a primitive and provisional language, using tidbits of vocabulary from ambient tongues pasted together using a rudimentary makeshift syntax. Young children exposed to pidgin instinctively make a real language out of it, imposing syntactic rules and thus rendering it expressive. Such spontaneously created languages are referred to as creoles, and linguists speculate whether this is an essential process in the historical development of languages. The contention is that all languages share a common grammar, not a prescriptive grammar of bad or good usage, such are only conventions; but a grammar of generative principles, using the familiar concepts of nouns and verbs etc and the recursive process of making entire phrases assume the positions of noun and verbs, often suitably qualified, as described by a combinatorial tree-structure. Those ideas were, as most of us know, elaborated into impressive technical detail by Chomsky, although the basic principles are easy to grasp. It is thus claimed that all human languages are equally expressive, indicating that there is some natural limit to the human mind, but maybe a limit beyond recognition from within.

The point of the innate theory is that literally only the prepared mind can learn. One should contrast the naturality of speaking and understanding with the historically recent cultural adaptation of written codification. People who cannot speak are in fact brain-damaged, while illiteracy is still wide-spread and merely a manifestation of a lack of opportunity. Learning a language has to take place during a certain period of an infants life, the acquisition of a second-language is of course not impossible, but it has to be made in an entirely different way, in which the mother tongue will serve as a more or less appropriate model. While the native speaker picks up grammatical niceties idiosyncratic of the tongue in question, the foreign speaker never achieves the same ease of competence.

Most noticeably this is manifested in speech, in which the formation of certain sounds and tones has to be made early and a late-comer, no matter how well he masters the vocabulary and syntax of his adopted tongue, will always be marred by a tell-tale accent. The human use of the vocal apparatus and the concomitant audial interpretation is remarkable. In fact if there would be a 1-1 correspondence between phonemes and sounds, it would be impossible to pick up the information as fast as it is actually done. The pronunciation of a phoneme actually depends on many parameters, and thus are smeared out over time, so the mind picks up simultaneously many clues, completing some sounds anticipating some others. This shows in fact that there is no such thing as logical spelling, phonemes are actually pronounced differently in a continuum depending on their positions within words (the tongue is only so flexible and makes compromises in its movements). In fact idiosyncratic spelling, like in English, only affects marginally its written acquisition.

As noted above, prescriptive grammar has very little to do with basic universal grammar. In fact most of the rules of syntax are implicit and those are never sinned against. The author presents some examples of innate grammars, by pointing out that the construction 'mice-infested' is acceptable to the linguistic mind, but not 'rats-infested' instead of 'rat-infested', the explanation being that the plural of mouse being irregular the brain conceives it as a different word, while the regular plural of 'rat' is not conceived as a different word, just as a derivative, and thus not available in the making of the compound. Tests on toddlers seem to confirm it, as they supposedly never make any mistakes although they presumably has never been instructed. However, one should worry how universal this principle actually is languagewise, although its restriction of English and related tongues (like Scandinavian) should not compromise its innate character.

Language is formal. This is most obviously illustrated by the arbitrariness of its signs, like the various words for concrete nouns that do not carry any relationship at all to what they signify. Part of this formality of language is not fully appreciated. The concept of grammatical gender has nothing to do with sexual identification. 'Man' can denote both man and human, and the use of the word 'man' to refer to human carries no hidden agenda, pace modern day feminists. Thus constructions like 'chairperson' rather than 'chairman' are not only awkward and pedantic but totally superfluous, more the result of simple superstition than language hygiene.

If language is a wiring of the brain can we not see it? Sophisticated imaging of working brains are now available and researchers have some fair ideas of what geographical regions of the brain are involved in language, but as with psychiatry, there is a large gap between the neurological treatment by pills and the more circumspect psychotherapy, however studies of aphasia and other brain lesions yield tantalizing insights. The act of cursing, to take one example, is not a language use, in spite of the vocal tracts being very much involved. People suffering from aphasia, unable to speak properly syntactically have no problems cursing. Thus the latter should be thought of as 'howls' not terribly unlike those uttered by animals.

It is part of scientific materialistic orthodoxy that language resides in the brain, yet so far there is no way we can manipulate language directly from neurological insights. The emergence of language, both embryologically and evolutionary, is by the same orthodoxy a foregone conclusion, although the details of which remain hidden, and thus eligible for

speculation and 'just-so stories'

Languages are like species, the metaphor is so common as to have developed into a misleading platitude. True languages develop from parent languages from which they split, and historical trees have been laboriously constructed by the joint efforts of linguists all over the world. But unlike biological species, distant languages can interact (cf creolization), and even the most superficial of linguistic reflection reveals that many grammatical constructions are shared by widely separated languages, although absent in closer relatives. Nowadays we are aware of the rapid extinction of languages, a loss of diversity that in many ways can be thought of as more painful than the analogous loss of biological. With the loss of a language a whole culture, and a whole way of looking at the world is permanently gone. There is no reason to doubt that this did not happen in the past, and that the antiquity of the lineages we can trace are in fact far shorter than the temporal span of our linguistic ability as a species. Languages also are not genetically transmitted, something which is of course obvious, but whose straight-forward implications are not. In particular the fact that the language we speak have been spoken by our ancestors in historical times, does not allow us extrapolations beyond. In particular the Indo-European linguistic expansion does not need to have been effected by conquering invading tribes coming from the Asian Hinterland, but could more have been in the nature of ripples on the human sea, propagating without lateral movement, just as many other cultural adaptations, like farming.

July 3, 2004 **Ulf Persson:** *Prof.em, Chalmers U.of Tech., Göteborg Sweden ulfp@chalmers.se*