

ALVAR ELLEGÅRD

Chomsky Made (More) Intelligible

Review article

Pinker, Steven, The Language Instinct. The New Science of Language and Mind. London: Allen Lane The Penguin Press, 1994. ISBN 0-713-99099-6. Price: £20.00 (hardback).

The title of Steven Pinker's book is provocative: *The Language Instinct*. Nobody is likely to agree that people talking, writing, or arguing can be seen as similar to spiders spinning their characteristic webs, or to squirrels collecting and storing nuts each autumn. For while instinctive behaviour is typically stereotyped, and not monitored by conscious plans or purposes, speech is eminently conscious: it expresses what we think.

But it is naturally not what we think and say that is governed by instinct. Instead, it is the process of converting our thoughts into language that, for the most part, we are not conscious of. When I say the simple sentence, *Do you not know who he is?* I do not give a split second's thought to how I manage to produce it. Yet the process is clearly quite complex. The relevant words have to be retrieved from a memory store, and have to be arranged in the order required by the rules of English grammar. The verb *know* has to be provided with the auxiliary *do*, whose form has to agree with the subject *you*. The word order in the subordinate clause *who he is* has to have the subject *he* before the verb, not vice versa, as in a direct question: *who is he?*

It is quite obvious that the large majority of speakers of English have not the slightest idea what such grammatical categories as I have mentioned here are. All the same, their speech proves that they manage to conform to the rules remarkably well. Their ability to do so is good *prima facie* evidence that human beings have a built-in capacity for extracting the grammatical structure of the language they have learnt to use, without knowing either *that* they are doing so, or *how*. Here we have a clear analogy with the spider spinning its web. "Grammar", of course, in this context does not mean a book containing explicit rules, such as a school grammar, but the implicit grammar that a speaker builds up, unconsciously, on the basis of his use of the language, and which linguists discover when they observe and analyse what a speaker actually says.

We can adduce much more evidence for the "language instinct" in the sense just explained. And Pinker brings it out effectively, wittily, and with a mass of well-chosen and often drastic examples. For let it be said from the outset that Pinker is both an extremely competent linguist and an unusually able writer, presenting his subject with unabated zest, making the reading of nearly 500 pages quite a hilarious experience.

Let us look at another piece of evidence, also mentioned by Pinker. During the last couple of decades there has been much interest in pidgin and creole languages. Those two categories, hardly distinguished from each other half a century ago, are nowadays usually defined as follows. A pidgin language is a make-shift language that arises when people with different mother tongues have to communicate with each other as adults. Typically, the vocabulary base of a pidgin is the language of the dominant group, for instance, that of a colonial power. A creole language, on the other hand, is the mother tongue of people who have grown up in a community using a pidgin language as their primary means of communication. The remarkable thing that happens in such a community is that the children inject a grammatical structure into the pidgin language. They do this by giving new meanings to suitable parts of the vocabulary, thus creating function words like prepositions, conjunctions, auxiliaries, etc. In effect, the children create a new, fully-fledged language, which the parents find as difficult to learn as any foreign tongue. The children, for their part, we may presume, use their language processing capacity to recognize the rudimentary language they hear, while the adults are past the age when that capacity can be easily put to use.

The above are common sense arguments for an innate, genetically dependent capacity for fitting a grammar to the language we use. But Pinker goes further. Building on the insights of Chomsky – presented with brilliant pedagogical clarity in a thumb-nail sketch of a few pages – he shows how even Chomsky's very abstract, and seemingly abstruse X-bar theory, and the "trace" theory can be given a neurophysiological interpretation. At this point Pinker has to take issue with Chomsky himself, who has consistently refused to connect his theory with any psychological or physiological phenomena. Pinker, a psycholinguist by training, is very well informed about neuroscience and biology in general, and makes a strong case for his own view against Chomsky's at this point.

For instance, though Chomsky and Pinker agree that the language capacity must be innate, they disagree as to how it came into being. Chomsky maintains that it cannot have arisen through the gradual evolution assumed by Darwin's theory of natural selection. His stand on this point, by the way, has earned him the applause of people who are otherwise unconvinced by his language theory. Pinker, for his part, can derive support both from recent advances in neuroscience, and from refined experimental designs in psycholinguistics.

The essential part of Darwin's theory of evolution is the natural selection theory. That continues to be the main stumbling-block for theologians, as well as for philosophers inclined to a Plato-inspired dualistic world view – not to speak of the general, unphilosophical public. In this connection one is reminded of Darwin's nineteenth century opponents, who often used the wonderful complexity of the eye as an example to ridicule the very idea of

natural selection as an explanation for the evolution of the world of organic beings. However, in the modern, mathematical version of Natural Selection, it is possible to show how even a very marginal improvement of the light sensitivity of epithelial cells – a matter of a 1% advantage in survival fitness for individuals possessing the genes responsible for the improvement – would be able to create quite a good eye out of common cells in a few thousand generations. That is not long on the paleontological time-scale.

A similar argument can obviously be applied to the natural selection of the language capacity. But in this case the product is not a physical organ, like the eye, but mainly a system of nerve-cell connections in the brain, ultimately caused by the finely tuned production of various proteins, different for different classes of cells, a production that is in its turn steered by the DNA molecules in the cells.

Pinker is well aware of the risk of being misunderstood when he asserts that language is an instinct. Everybody knows that instincts are innate, in other words, that they depend on our genetic set-up. Likewise, everybody knows about the contrast between heredity and environment as factors in the shaping of behaviour. But here the trouble starts. It is a common misunderstanding that a certain characteristic is *either* inherited, *or* it is shaped by the environment. At most, people may concede that, say, 70% is due to inheritance, and 30% to the environment. However, both these ways of looking at the matter are misconceived. Everything is shaped by the two factors *working together*. If the environment of the organism is sufficiently extreme, its genetic set-up may have no chance at all to influence its development. The organism simply dies prematurely. Conversely, with no genetic set-up to start with, no organism will come into being at all. Further, if the genetic set-up of two organisms is identical (as with identical twins), any *difference* between them will have to be ascribed to differences in their environment, or to chance.

Yet the misconceptions are curiously persistent, being constantly fed by the simplifications broadcast by press, radio and television. Pinker gives a telling example. The case of a brother and sister, both normally developed intellectually, but with one peculiarity in their language development, was discussed at a scientific conference. Their language deficiency was an inability to master the inflection system of their mother tongue, English. For instance, they might say *Susan is cry* instead of *Susan is crying*, *the child play* instead of *the child plays*, *many girl* instead of *many girls*, etc.

Reporting the conference, one newspaper ran the headline "BETTER GRAMMAR THROUGH GENETICS". Another said "POOR GRAMMAR? IT ARE IN THE GENES". Pinker comments: "No grammar gene was identified; a defective gene was inferred, from the way the syndrome runs in the family. A single gene is thought to *disrupt* grammar, but that does not mean a single gene *controls* grammar (Removing the distributor

wire prevents a car from moving, but that does not mean a car is controlled by its distributor wire). And of course, what is disrupted is the ability to converse normally in everyday English, not the ability to learn the standard written dialect in school." Unfortunately such reasoned rebuttals find no place in the media.

This example also illustrates the deep-rooted prejudices of the general public – in fact almost everybody, except the linguists themselves! – about what "grammar" is. Therefore Pinker devotes a whole chapter to what he calls the "language mavens", that is to say the people who write about correct usage in newspapers (*maven* is a loan from Yiddish, and means "expert"). Pinker is not impressed by them. "Maven, shmaven!" he says, derisively, again using East-Coast Yiddish slang. He gives numerous examples both of their pontificating style and of their inability to appreciate linguistic creativeness, if it results in word-forms or constructions that infringe on the rules they once absorbed from their schoolmasters, perhaps half a century ago. They take these rules to be *the* grammar of English, and are unable to grasp the fundamental principle of linguistics, that the grammar of English has to be inferred from the language that people use.

This also means that every variety of English has, to some extent, its own grammar. Using a different variety does not imply having no grammar, but simply having a different grammar from that taught in schools. (Of course it sometimes happens that people make mistakes, breaking even their own implicit rules. And a real pidgin, as I said, has hardly any grammar at all).

It is interesting to compare Pinker's American mavens with the language experts employed by Swedish newspapers. There is one very noticeable difference. Whereas in America the language mavens seem to be mainly well-educated amateurs with an interest in matters of language and style, practically all their counterparts in Sweden have a background as linguistic scholars. However, to judge from the correspondence columns in the newspapers, the opinions on language found among the general public in Sweden are well in line with the attitudes of the American mavens, and presumably their public. In Sweden the correspondents in fact often express their exasperation at the lenient and forgiving attitude of the experts towards infringements on conventional rules of grammar.

It is interesting to see that these Swedish guardians of old-fashioned linguistic purity sometimes evoke the style handbook of a "language maven", active some 50 years ago, Erik Wellander. They obviously assume that he took a no-nonsense, true-blue conservative stand in matters of grammatical correctness. In reality, Wellander, as a good linguistic scholar, had a far more liberal and sensible attitude towards innovations than most of his readers realize. His successors in the Swedish newspapers still have the same problems as he had; to explain, on grammatical grounds, that a construction which their correspondents condemn may in fact be regarded as an elegant

solution of a real grammatical problem.

I have touched upon only a few of the topics that Pinker treats in his rich and thought-provoking book. He is never boring, even when very abstract matters are up for discussion. In addition to his masterly presentation of some of the essentials of Chomsky's linguistic theories, his use of genetics and brain science throws new light on many aspects of language. As I have myself tried my hand in this field, by writing a book (in 1984) on *Language and the Brain* (in Swedish), I know something about the difficulties of presenting these matters to the general public. The fact that I agree with Pinker on most points, both in regard to linguistics and in regard to science in general, has of course not been without influence on my high appreciation of his work. To put it simply: this is the kind of book that I should have been very proud of having written myself.

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THE ELF PROJECT

The Swedish Scholastic Aptitude Test (*högskoleprovet*), is a test aimed at ranking candidates who wish to obtain a place at university. Candidates can take the test twice a year. In the spring of 1992, the National Agency for Higher Education decided to replace one of the six subtests with an English reading comprehension subtest. The new subtest was introduced on the grounds that English is an international *lingua franca* and that it is important for Swedish university students to be able to read textbooks in English. The task of constructing the test was entrusted to the Language Teaching Research Unit, Göteborg University, where a project (the ELF project) was set up.

The English reading comprehension test consists of a number of items based on non-fiction texts representing various domains, e.g. economics, history, medicine, science. Items are constructed by a group of test writers working for the project. The Department of Educational Research of Umeå University is responsible for the try-out and for integrating the subtest into the total test. Every trial run is followed by comprehensive and thorough statistical analyses. Statistical and other data are submitted to the test writers, who modify the test items, if necessary, and then present the first draft of the test. On the basis of this preliminary version a national reference group elaborates the definitive test. Research focuses on different aspects of validity, in particular gender differences as a function of testing method.

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The Deconstructed Arrow of Time: Returning to the Past in Contemporary British Fiction

Dwelling on "the extratemporal" (Ricoeur 1985:144), that is, dealing simultaneously with different historical settings and swiftly shifting the time perspective, has become something of a fashion mode in British literature in the 90's. Provided there is no interference with "the logic and causality of temporal sequence" (Lodge 1992:205), experimentation with the time dimension can be perpetrated with success. It has been confirmed that the very act of reading involves a certain freedom in respect of temporal boundaries, since "like Janus, the reader is always looking backward as well as forward" (Martin 127) in order to comprehend the author's line of thought. The use of "external analepsis" (Martin 124), i.e. the supplying of a background prior to the starting point of a story, is one way of extending the time dimension. Blending the past with the present means moving one step further in the direction of an effectual "suspension of time" (Ricoeur 1985:144). The "temporal elements" (Ricoeur 1984:59) within a narrative can be manipulated without disturbing the cohesion, since parallel actions may skilfully be kept apart, while at the same time being made complementary.

Doubtless the development of literary theory has left its mark on the production of literature today. Writers who have concentrated on writing about the academic world, the "university novelists", seem to have amalgamated theoretics into their own creative work. Their works bear the stamp of post-modernism, their subjects implying an extra awareness of what is taking place on the literary scene.

By alluding to; and using, thoughts and ideologies of the past, writers can efface the boundaries of time and reassert the influence of history. The approach used by David Lodge in *Nice Work* (1988) can be termed "academic" in that it severs "mimesis" (Ricoeur 1984:xi), the depiction of contemporary reality, from historical reference. At the core of this work, which is unequivocally set in the 1980's, lies a profound knowledge of literary theory as well as a deep familiarity with the 19th century "industrial novel." By quoting the responses to industrialization of Dickens, Gaskell and Brontë, Lodge is in fact launching an attack on contemporary society. In the present-day action several motifs are borrowed from the industrial novel, such as the visit of an uninitiated person to a factory, individualist solutions to extensive social problems and the doctrine of female mollifying influence.