

## Book Reviews

*The seeds of speech: Language origin and evolution.* Jean Aitchison. Cambridge: Cambridge University Press, 1996. Pp 281.

Jean Aitchison's book is advertised on the cover as a "non-technical overview" of what is an increasingly popular area within both scientific and lay communities. Over the past five or six years, a number of different theories of language evolution have been promoted in the academic press and in book form for a more general audience. Aitchison's contribution is to synthesize the field with a timely and thoughtful literature review. This ambition has been well met.

This is not to say that Aitchison's coverage is atheoretical. The book promotes no radical thesis, but comes down strongly on the "language as communication" side of what is an interesting divide. In constructing an evolutionary theory of language, one has to decide where the appropriate selective pressure will operate – did language convey a communicative advantage that effected group dynamics, or were there more radical cognitive benefits to individuals from a computational system, such as language being instated within a hominid brain? Aitchison argues that language is not simply an information communication system, but a system that allows for a certain amount of social manipulation; as such, she buys into social intelligence models of the sort recently suggested by Dunbar (1993, 1996; cf. Dickins, in press).

Aitchison effectively supports her commitment to a social brain hypothesis by citing the relevant work in the field. However, the commitment does lead her to neglect important aspects of the cognitive gain arguments. She spends chapter 4 ("Distinct Duties – Is Language an Independent Skill?") arguing that language is an autonomous system, not tied to other cognitive capabilities. One of the case studies she chooses to illustrate her position is that of Brother John. Brother John suffered from epileptic episodes that would sometimes prevent him from speaking properly. Although he would produce nonsense words, he was able to think and carry out other duties while waiting for his language production to improve. He was aware at the time of saying odd things and getting it wrong. Aitchison concludes, "Brother John therefore shows that language can be detached from other mental skills" (p. 40).

At the level at which Aitchison is discussing Brother John's abilities, it seems fair enough to conclude this, but there are some more interesting things she fails to say at this point. The language production difficulties that Brother John had are by no means the whole of language. Aitchison

seeks to tell a modular story about a “language faculty” – one which ignores the different parts of language skill. A deficit in a production module may not affect a separate module for comprehension. More importantly, this type of evidence has no bearing on a story about language being involved in thought. Bickerton (1995) recently pointed out that one of the crucial stages in language evolution was the development of a symbolizing brain. He explained how this could be derived from Pavlovian associative learning. According to his argument, the onset of language (specifically, naming) awaited the capacity for symbolization, which arose in the brains of our early hominid ancestors, giving us our representational “minds.” This accords primacy to a broad cognitive gain. Brother John’s lack of productive skill has nothing to say about the type of symbols he was using to think with or what type of computations ranged over them – which could just as well be syntactic ones (as Bickerton, in fact, argues). A thinking system could be closely related to linguistic systems other than those involved in production.

Of course, Aitchison gives cases where good production is accompanied by cognitive deficiencies. Such cases still do no damage to a more subtle story of linguistic involvement in cognition, as it is possible to claim that the system of language modules is incompletely integrated. Indeed, Aitchison does not mention a supramodal cognitive mechanism, which would be necessary to link her language module with any form of thinking system. This would be essential if she were right about language autonomy – for how could we successfully communicate our thoughts otherwise? Nonetheless, these cases, and others like them, do require addressing. Thus, Aitchison’s summary of this interesting area leaves out some important arguments.

The book covers language diversity, hominid migration, and ideas about the development of prepositions, among other things that bear on the field. This is a good reason for reading the book, particularly by someone coming fresh to the subject. Each chapter takes the reader through many ideas and then neatly summarizes them at the end. This facility, combined with an excellent reference section, provides a useful education. The one thing that appears to be lacking, however, is a detailed look at evolutionary modeling itself, particularly in this essentially new and psychological realm. Aitchison gives four rather loose maxims for language evolution at the end of the book, but some account of the principles for determining relevant selective pressures would have been desirable. It is perhaps by the evolutionary principles they put to work that the various models of language phylogeny can best be judged. The exposure and clarification of these underlying assumptions would better guide future research.

Aitchison presents an analysis of the distinction between the psychologists’ and linguists’ input to evolutionary models (pp. 209–210):

In general, linguists pay attention to the relatively unchanging basics, the components which are available for use, and how they interact in principle. They are less concerned with how they are actually used. . . .

Psychologists, on the other hand, are more concerned with the moving aspects of language, the way in which people learn it and process it in day-to-day usage.

Aitchison seems happy with this division of labor, but it seems to me that the psychologists' interest in usage and processing is crucial to any evolutionary modeling. We cannot hope to get near the structure of something as invisible as language mechanisms without appreciating the constraints of function. Cosmides and Tooby (1994) eloquently defended this principle of evolutionary theorizing. They claimed that it is easier to design a Walkman<sup>TM</sup> when we know that it is a personal stereo system that is big enough to hold a cassette, yet small enough to carry comfortably on a belt; without such functional information, we may build a fine sound system from valves that fills up a whole living room. Such a point is not far removed from Dennett's conception of "cognitive wheels." He suggested that, if we set a team of cognitive scientists to work on the problem of human locomotion, they would apply scientific principles of parsimony and come up with the wheel, even though we have legs. We need to pay attention to what has gone on before as well as what it will be selected for. Evolution posits its own principle of parsimony. It may well be that much of contemporary linguistics has been an exercise in inventing cognitive wheels (see Clark, 1986, for a discussion of Dennett's cognitive wheels).

Plenty of other issues from this book could be discussed, which is a good sign. Although Aitchison has not tackled the central issues of evolution, she has certainly highlighted the issues that require study and has attempted to relate them to one another. For anyone looking around for a new and fruitful research project, reading this book will stimulate a host of questions. Aitchison concludes with this comment:

The origin and evolution of human language cannot be recreated in any detail. But the general outline of events is slowly becoming clearer. The remark made by Jakob Grimm in 1851 is still relevant today: *The veil which conceals the origin of speech is lifted but not fully raised*. Hopefully, future generations will raise it further still. (p. 221)

An overview at this stage in the history of the subject is bound to lead to such remarks. Perhaps it is now time to consider what sort of methodologies should be used and what we would consider a satisfactory outline, if not a final explanation.

## REFERENCES

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*History of linguistics: Classical and medieval linguistics*. Giulio Lepschy (Ed.). London: Longman, 1994. Pp. 400.

This book is the second volume of the English edition of *Storia della linguistica*, a large publishing project of the Società editrice il Mulino, which took 10 years to prepare and began to appear in Italy in 1990. The English edition is organized in four volumes, of which two have appeared: the first, on the Eastern traditions of linguistics, and the second, on classical and medieval linguistics. Forthcoming are the third and fourth volumes, which will focus on Renaissance and early modern Europe and on the nineteenth and twentieth centuries, respectively.

The aim of *History*, as the editor points out, is to provide “information about ideas on language, in different periods and societies, which are not easily (and in some cases not at all) accessible elsewhere” (p. xii). The present volume is successful in this respect. It is of interest to all those who seek to introduce themselves to the study of ancient grammars in particular and to the renewed area of linguistic historiography in general. In addition to a comprehensive presentation of an enormous amount of information, each author provides the reader with endnotes that suggest further sources for research. Unfortunately, the use of endnotes is a cumbersome format; given their importance, extension, and frequency, it would have been more convenient if they had been presented as footnotes.

The book is organized into two lengthy chapters, each including numerous subsections. The first (pp. 1–133), by P. H. Matthews of Cambridge University, is about Greek and Latin linguistics. The second, on medieval linguistics, was written by Edoardo Vineis of University of Bologna (pp. 134–272) and Alfonso Maierù of University of Rome la Sapienza (pp. 272–315). The chapters provide the reader with the means to evaluate the changes in important theoretical points from one period to the other, notwithstanding the different internal structures of the chapters.

The introduction to Chapter 1 is exemplary in its warning of the traps into which a linguist could fall when trying to write a history of linguistics for a period previous to the nineteenth-century term “linguistics.” “There is . . . a temptation to see the history of linguistics as equivalent to the history of grammar” (p. 1), but in fact none of the disciplines in the trivium (grammar, rhetoric, and dialectic) cover exactly what linguistics does nowadays. The actual meaning of the terminology in its original context and the delimitation of the subject are not the only difficulties to face when working