

Evolutionary Psychology

www.epjournal.net – 2011. 9(2): 189-192

Book Review

Language as an Emergent Property of the Increasing Complexity of the Human Socioecology

A review of Mike Beaken, *The Making of Language* (2nd Ed.). Dunedin Academic: Edinburgh, Scotland, 2011, 239 pp., US\$32.00, ISBN 978-1-906716-14-1 (paperback).

Justin M. Grainger, Department of Psychology, University of South Alabama, justinmgrainger@gmail.com (Corresponding author).

Peter K. Jonason, Department of Psychology, University of South Alabama, pjonason@usouthal.edu.

Dr. Mike Beaken updates the first edition of *The Making of Language* in order to address the changing scene in the study of language. In the second edition, he explains how the past few decades have given archaeology, anthropology, psychology, and even musicology, let alone linguistics, reason to understand and investigate the factors involved in the origin of language use and languages themselves. Among the revisions between the first and second editions are changes in accepted ideas regarding the origins of language including the belief that behavior and language are related in human beings, that animal and human communication is not as different as once believed, and that language development was likely a long and grueling evolution rather than a sudden phenomenon. Furthermore, as part of this update from the first edition, Beaken credits both recent discoveries in the area of linguistics in addition to his personal rediscovery of writers dating as far back as two centuries ago as sources of inspiration for the second edition.

In the first chapter, Beaken builds a foundation for *The Making of Language*. It is here that the historical and current perspectives in linguistics are outlined, including both factual accounts of the past and current trends in the research. For example, he describes this collective interest as historically fluctuating between high and low intensities, with the most recent peak in interest before the current one being the first half of the 19th century. For example, the process of reconstructing the “Proto-Indo-European” language was a major aim of European linguists during this period. Following this period of intense interest in linguistics, a decline in interest occurred. Beaken describes how Darwin’s *Origin of Species*, in light of the discovery of the first Neanderthal fossils in the second half of the 19th century, did little to stimulate the inquiry into linguistics. In fact, the opposite seemed to occur; the discoveries did little to further the interest in linguistics as questions, in general, turned away from those originally asked. Chapter 1 cites this time as the beginning of a stretch of relative disinterest in linguistics.

It was not until Noam Chomsky's entrance into the study of linguistics that the field would see another surge in stimulation. Specifically, by hypothesizing that language enables the study of the human mind, Chomsky bridged a stagnant field of linguistics and a flourishing field of psychology to kindle the more modern questions seen in linguistics. Simply put, Beaken defines Chomsky's major contribution as inciting a shift of focus from differences between languages to similarities between them. Despite this credit, Beaken is still highly critical of the idea of a Universal Grammar as first proposed by Chomsky but more elaborated by Pinker. He is more concerned with the way social processes create language and language ability. In so doing, he takes a pragmatic approach saying that language abilities cannot predate actual language modules. Instead, he implies that language is an exaptation that co-opts other mechanisms interacting with the socioecology.

Chapters 2, 3, and 4 outline the role of social processes in the study of linguistics. First, in Chapter 2, Beaken explains labor's relevance to the study of language; that labor is central not only to the traditional processes of obtaining food and survival but also a critical component of social relations, organizations of society, and reproduction. Consequently, while artifacts and fossils do little to reveal the sounds of language, they do show the evolution of labor, and therefore provide some insight into the study of language.

Chapters 3 and 4 examine interspecies communication between animals as a means to better understand human language. Beaken explains how a more "open-minded" willingness to consider that animals other than humans may be capable of communicating using language has opened many avenues of interest in the examination of languages among animals. Some findings explained here include reports from Gombe that Chimpanzees in the wild spend half their time in social interactions. Coupling this with the claim that chimpanzees and humans share 99% of the same genetic material, the book justifies the translation of language in chimpanzee studies to human relevance. Furthermore, Beaken bridges linguistic interests with psychology in describing how Piagetian "egocentrism" is involved in chimpanzees' use of symbols in communication. He uses this concept, among others, to explain how chimpanzees cannot be trained to perceive others as an audience; they can show objects and symbols to others but they cannot easily engage in turn-taking communication – a critical component of language development in humans. It is these systems and more that are co-opted in language.

While these findings explain the communication of sound between animals, Chapters 3 and 4 also examine the role of behavior, or gestures, in language. Specifically, the author explains findings that support the idea that gestures were our ancestors' first methods of communication. First, he defines the "gesture theory" of language origins and provides supporting evidence for it. One piece of such evidence is the chimpanzee's ability to willfully control their gestures towards one another but not their vocalizations. Chimpanzees are noteworthy for their emotionality and impulsivity; it was the control of these that set humans apart from other apes in social systems that would give rise to language. Furthermore, Beaken cites parent-child interactions before the age of nine months as evidence for the gesture theory given that during this time parents can understand cues as subtle as the infant's eye movements and facial expressions. It is here that the author also explores weaknesses to gesture communication including the examination of natural selection's role in the gestural language and eventual disappearance of Neanderthals.

By Chapter 5 the author transitions from a more theoretical perspective to a more literal focus on the creation of humans. The timeline of evolution is traced in an attempt to provide a framework for understanding language development as it applies to each step of change. It should be noted that this part of the book is not a mere history of evolution but rather a bridge between language and evolution; the various stages of the evolution towards *Homo sapiens* is examined in the context of relevant language factors. For example, the evolution of anatomy is related to locomotion, which affected changes in hunting styles and therefore presented novel challenges of communication between members of the same species. Towards the latter end of the chapter, the focus shifts towards a more community focus, examining concepts such as the hunter-gatherer role and the development of the tribe and their impacts on language.

The making of speech, from biological underpinnings to the need to adapt to environmental change, is referenced in Chapter 6 following the timeline of evolution. Beaken explores what appears to be the instinctual drive to babble as a biological base for language, though he admits that little more regarding language can be associated to instincts as definitively as babbling can. The author also addresses questions about the reasoning behind the replacement of gesture languages and provides suggestions for such questions. For example, fossils dating back as far as 500,000 years ago display anatomical brain development equivalent to the modern human. This level of development is linked to certain neural processes such as mechanisms involved in the tongue, vocal cords, and larynx, all of which have obvious relevance to the study of linguistics. By comparing these fossil records to the timeline of languages, the author makes great strides to support the biology related to the evolution of speech in humans. From a more social role perspective, the author evaluates the increased role of cooperative efforts for hunting and child-rearing as factors that advanced the need to replace gesture language with a more sophisticated and complex one.

According to Chapter 7, music is a topic that scientists interested in language have become much more interested in recently. Beaken explains how music's presence across cultures spanning history, despite having different characteristics, provide a common ground by which language can be studied. In other words, though all cultures' music has different meaning, words, and sounds, they all have music and this in itself offers clues about each respective culture's language. For example, the fact that mothers sing to children in all cultures, that there are five universal notes that exist in all music, and that the basic human emotions can be evoked through the use of music all fuel the more recent interest in music in understanding language.

The Making of Language begins transitioning toward more modern focuses by examining grammar and the more recent advances in linguistics. Chapter 8 credits the development of grammar to the increasing amount of communication between our ancestors; specifically, as our ancestors became part of larger social systems in order to survive, grammar became more necessary. Alison Wray provides one view, for example, that early speakers likely uttered single sounds that had a wide variety of meaning. While this may have come nowhere near our complex languages that exist today, people with this view believe that it marked the beginning of the long evolution from gestural language to language involving grammar. Beaken explains how this accounts for introduction of nouns and verbs into human language. Adjectives and adverbs, however, seem to have come later. Chapter 8 describes how these grammatical structures are commonly seen as a natural tool

developed to bridge the nouns and verbs that were created. In other words, while a leap occurred between gesturing and sounding out nouns and verbs, the use of adverbs and adjectives seemed to come relatively easy with the increased need for communication between humans.

The final chapter of the book questions whether there is progress in language. In chapter 9, Beaken explores many concepts including whether or not any language is more advanced than another. On one hand, linguists have long been bound by the tenet that no language is more or less primitive than others but on the other hand defining “equal” is quite challenging. While it does seem that most humans have the same biological capability for language, that does not necessarily mean that all languages are the same; it is in this lack of similarity that the book is concerned. For example, research suggests that color terminology is positively correlated with advances in a society’s cultural and technological advances. However, we find this to be a rather superficial criticism. To say that there is cultural variability has never been a convincing – albeit popular – reason to discount the possibility that there is a human nature and in this case innate language abilities.

The Making of Language successfully bridges many concepts related to the study of linguistics. By incorporating ideas from many disciplines including psychology and archaeology, for example, Beaken draws interest from a diverse audience. Additionally, with a combination of scientific research and philosophical musings, he presents his findings in a fashion that is likely to appeal to readers from varying levels of knowledge. He provides an overview on many topics that would likely educate a novice in the area of linguistics, yet he also provides in depth explanations of the processes involved in many newer concepts which would likely be of interest to the more advanced reader. Lastly, by simultaneously respecting the contributions from various scientific disciplines, Beaken provides a means for professionals from many fields to see the making of language from new perspectives.

In short, Beaken challenges work by Pinker and others like him who would argue that humans have an evolved tendency for language. He argues that language is an emergent property of the ever-increasingly complicated and interdependent social systems of humans. In some ways, he takes a biosocial and even Marxist perspective on the question of the origins of language. He documents not only how language ability evolved and emerged but also how it is still evolving today. So like organisms continue to evolve by selection to fit in one’s environment, we people use language in just the same way, excluding antiquated or unneeded styles of speech or words. Beaken provides competition for the field of evolutionary language studies that should itself lead to new understandings being more fit.