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Singing and Speaking

We are now approaching the question that was raised in the first chapter of this book in relation to the distribution of vocal polyphony and monophony all over the world: why are some regions of the world almost entirely polyphonic, while other regions are mostly monophonic? If we take into account what was said in the second and third chapters of this book, the question must be formulated in a different way: if our distant ancestors took similar loud and dissonant choral singing with them to different regions of the world, why are some regions of the world polyphonic while other regions are monophonic?

I suggest that the answer to that question can be found in the origins of articulated speech.

Let us remember: according to the majority of scholars, language and speech are different phenomena, and language was most likely developed earlier than speech. Speech, as a much more efficient medium of communication, replaced pitch-based vocal communication at some point in human prehistory. The crucial question is when did this happen? I suggest that ***in different regions of the world this happened in different epochs***.

Let us look at the possible chronology of related prehistoric events:

- About two million years ago: our hominid ancestors made a crucial change from non-questioning hominids to questioning humans; Dialogical communication, the new revolutionary ability to ask questions, mental cooperation, and a self-developing brain was born. The only feature that differentiated archaic Homo sapiens from anatomically modern Homo sapiens was articulated speech and a few facial morphological features derived from the capacity of articulated speech.
- About 1.8 million years ago: early humans started spreading out from Africa. The first strong evidence of this early spread is the presence of early humans in Caucasia, contemporary Georgia (accidentally about 60 kilometers from the city where I was born). The first human groups that came out of Africa already had human dialogical language and the ability to ask questions, but did not have articulated speech (See also the box 'Speech Origins and Chimpanzee Laughing')[1]

[1] **Speech Origins and Chimpanzee Laughing**

Of course, it is widely known that humans' closest living relatives do not have speech, but if we ask whether they have any elements of speech the situation suddenly becomes a little unclear. I do not think that all scholars would agree on where exactly to draw the dividing line between speech and non-speech communication, but I know that Roman Stopa argued in the 1970s that some of the words

- Grover Krantz suggested (and I have not seen anyone criticizing this idea) that the shift to articulated speech was signaled by the appearance of important morphological changes on the human face. Therefore, if different human populations shifted to articulated speech in different epochs, we should anticipate the appearance of so-called 'morphological continuity' between the fossil populations and contemporary facial details in the different regions of the world as well. Let us see what paleoanthropological materials say about different regions of the world.
- About 350 000 years ago: the earliest case of the appearance of morphological continuity between the fossil and contemporary populations is in East Asia, between the Hominids from the Zhoukoudian cave and contemporary populations of China.
- About 200 000 years ago: possibly the next chronologically earliest case of morphological continuity is among the so called Ngandong (Solo) fossil from Java which is similar to the morphology of contemporary Australian Aborigines.
- About 120 000 – 100 000 years ago: morphological continuity appears between the fossil materials from the Middle East and West Asia (sometimes known as 'progressive Neanderthals') and contemporary West Asian Caucasoid populations.
- About 40 000 years ago: Morphological continuity appears in western Europe as soon as the long ice age is finished, and contact between western Europe and the rest of the world becomes possible.
- About 11 000 years ago: Although sub-Saharan Africa is the cradle of humankind, the regional continuity between the fossils and the contemporary local population here is historically the shortest. The earliest finds that show the regional continuity are the so called Iwo Eleru skullcap from Nigeria (11 000 years old) and the skeleton from Asselar (6 400 years ago) in eastern Mali.

According to this chronology (which is based on the works of Wolpoff and Cavalli-Sforza), articulated speech must have appeared first in East Asia, among the ancestors of contemporary East Asians, then among the ancestors of Australian Aborigines, then among the ancestors of West Asian and European Caucasoid populations, and then among the ancestors of the sub-Saharan African populations.

in human languages (for example, a word for strong laughing) has parallels in chimpanzee vocalizations during their laughing. You do not need to read Goodall's or Stopa's publications to notice that chimpanzees, Japanese macaques and some other primates do employ "kh" and "k" consonant-like sounds in their vocalizations. These consonant-like sounds have long since been recognized as a part of primate vocal communication. Therefore, there are no grounds to deny that at least a few consonants were present in the mostly pitch-based communication of Australopithecines. All contemporary human languages still use vocal communication based on the same two elements: (1) consonants and (2) prosodic (tonal) elements, based on vowels. An increase in the importance of consonants and vowels, and the decrease of the pitch component during the evolution of human communication resulted in the emergence of fully articulated speech. The wide distribution of tone languages in the contemporary world suggests that speech can still include fair amount of pitch element as an integral part.

Time differences are huge (from 350 000 in East Asia to 11 000 in sub-Saharan Africa).

Taking into account the general tendency of losing the traditions of vocal polyphony, it would be logical to suggest (as I did in my 2006 book), that ***the disappearance of the choral singing traditions started after the appearance of articulated speech***. As articulated speech became the leading medium of communication, the adaptive importance of good musical abilities also gradually declined, so people with good articulation gained the advantage, as they were favored by the new social conditions.

In this connection the above mentioned chronology is crucially important for understanding the uneven distribution of the traditions of choral singing in different regions of the world. If some populations shifted to articulated speech a long time ago, they would have had much more time for the gradual disappearance of choral polyphony than those populations that shifted to articulated speech later.

East Asian and Australian Aboriginal populations, according to this chronology, shifted to articulated speech the earliest, and as we may remember from the first chapter of this book, East Asia and Australia are the two most monophonic regions of the world. On the contrary, Europe and particularly sub-Saharan Africa are the two most polyphonic regions of the world, and this fact perfectly suits the chronology about the possible late shift to articulated speech in Europe and particularly in sub-Saharan Africa.

Multiregional and Recent African Models of Human Evolution

Some readers educated in paleoanthropology might object to my logic, claiming that my model is not justified by the most accepted evolutionary model today. They would argue that the most accepted contemporary model of the human origins would not agree with such a chronology involving hundred of thousands of years of differences in developing any traits in different populations. They will be right. According to the 'Recent African Model', contemporary human populations are not connected to the archaic local forms of Homo erectus, who spread from Africa about two million years ago. The 'recent' model suggests that our direct ancestors evolved in Africa only about 100 000 or 200 000 years ago and that they replaced archaic Homo erectus populations all over the world. This model has strong support from molecular biology, but apparently this support is not enough to settle the argument. Besides, the methods of molecular analyses of the proponents of the 'recent African theory' have also been criticized (Templeton, 1993).

There is also another model for the human origins, known as the 'Multiregional Model'. According to the supporters of this model, the common ancestor of all humans came out of Africa about two million years ago, and after reaching several regions of the world (East Asia, Southeast Asia, West Asia, Australia, and Europe) they continued their evolution in different ecological conditions, maintaining sporadic contacts with each other.

The debate between these two conflicting models is far from being over. It is difficult to know when this debate will be resolved, or what the outcome will be, but I want to say that the distribution of polyphonic and monophonic singing traditions supports the multiregional model (See also the box '"Multiregional Evolution Model" or the "Ancient African Model"'?).[2]

The model of the asynchronous shift to speech in different populations creates a whole set of new and unusual suggestions about the different aspects of speech in different human populations. The next section of this book discusses one such aspect in particular, links between choral singing and… stuttering.

[2] **'Multiregional Evolution Model' or the 'Ancient African Model'?**

Despite the fact that my model fully supports the 'Multiregional Model', I want to note that I find the term 'Multiregional Evolution Hypotheses' confusing. At the very first sight it gives, to an uninitiated reader, an impression that the proponents of this theory suggest that different human populations evolved into Homo sapiens several times in different regions of the world. This is particularly obvious when a multiregional hypothesis is confronted with the competitive hypothesis, titled as 'Recent Single-Origin Hypothesis'. The reality is that the proponents of the Multiregional hypotheses also suggest that Homo sapiens had a single origin: in Africa. The main difference between the 'multiregional' and 'recent single-origin' hypotheses is the huge time difference for the origin of *Homo sapiens* (2 million years against about 200 – 100 thousand years), and of course the suggestion of the recent hypothesis proponents of the total replacement of the earlier groups of humans. Interestingly, in a 2007 letter to me, Milford Wolpoff agreed with my suggestion that the name 'Multiregional Evolution hypotheses' may be giving a wrong (and politically unpopular) impression, although he was reluctant to consider a name change to the hypotheses to avoid unnecessary confusion. Another term for the Multiregional Evolution hypothesis, 'Network Theory', used earlier by Weidenreich in his unpublished notes, is sometimes used by the proponents of Multiregional Evolution hypothesis. It se3ems to be much more precise and devoid of unnecessary political overtones.