

A Conjecture on the Origin of Language, with many helps from Friedrich Nietzsche

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ARTICLE INFO

Available Online March 2014

Key words:

Language evolution;

Friedrich Nietzsche;

Eternal recurrence;

overmen and Lake Toba.

ABSTRACT

It is agreed upon that among all the living things that have existed, only humans can speak. However, we do not know yet since when we have spoken. We find that Nietzsche left distinctive ideas on the origin of language. Reflecting on “eternal recurrence” and “overmen”, the concepts that Nietzsche made popular, we found out that he would agree on dating the origin of language from some 70,000 years ago when the human population shrank drastically to as low as 2,000 in the wake of the super-volcanic eruption at Lake Toba. At that time, the eternal recurrence that had shackled our ancestors for a long time suddenly disappeared and the small band of surviving members could not help becoming overmen or supermen of entire human species. We ascertained the conjecture with the latest development in evolution theory, archaeology and anatomical analysis on human fossils.

1. Introduction

It is agreed upon that among all the living things that have existed on the earth, only humans can speak. However, we are still uncertain when human-beings acquired this facility.

It is known that some 150,000 years ago, the so-called Mitochondrial Eve embarked on the journey out of Africa and that we are all her descendants. If she had not spoken before, language could never be more than 150,000 years old. Sumerian is believed the oldest language with written account, dating back around 2900 BC. Under the condition that the Mitochondrial Eve did not have linguistic capability, if we stick to the evidence, human-beings began to speak between 5,000 to 150,000 years ago, we can say. Unfortunately, the others still remain in wild guess.

2. Previous Studies

The gestural theory, assuming gesture to be the premier initiated the development of language (Cosmos Magazine, May 1, 2007), has not helped us much in tackling the puzzle. It is largely centered on that the natural communication of apes may hold clues about language origins, especially because apes frequently gesture with limbs and hands (Pollick&de Waal, 2007:8184). The conjecture is also supported by the finding that human sign language is a distinct, full language, using the same kinds of grammatical machinery found worldwide in spoken language (Pinker,2000: 24). However, as (1) indicates, the gestural theory turned out not so useful. Speaking as well as gesturing chimpanzees neither have been found nor reared up yet.

(1) Monkeys and apes possess many of the faculties that underlie language. They hear and interpret sequences of sounds much like people do. They have good control over their vocal tract and could produce much the same range of sounds as humans. But they cannot bring it all together...Yet monkeys have been around for 30 million years without saying a single sentence...Chimpanzees can read each other's goals and intentions, and do lots of political strategizing, for which language would be very useful. But the neural systems that compute these complex social interactions have not been married to language. (The New York Times, Jan 12, 2010)

That all the experiments attempted so far to recreate the evolutionary process regarding language have failed points out that the factors to have been claimed helpful for the development of linguistic capacity of

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prehistoric men, including gesture, might not have led to the birth of language naturally. This reasoning suggests that to answer the puzzle when we human-beings began to speak, we had better look for something extraordinary rather than ordinary, tracing back our past evolutionary passage to the present.

The self-domesticated theory viewing language as a by-product materialized in the process of self-imposed domestication by *Homo sapiens* intimates us what kind of extraordinariness we should look for. It argues that in some point in their evolution, human ancestors took the road of domesticating themselves and began to assign new functions on some behavioral traits that turned out useless or irrelevant, one of which happened to be linguistic capability. Recently, it got a boost from Okanoya (2006), who contrasted the Bengalese finch in cage having undergone about one thousand generations of breeding for two hundred and fifty years to those still in natural environments. He found that comparing with the natural ones, the domesticated Bengalese sing highly unconstrained songs and male birds, as chicks, are highly adept at learning the song of another male in their enclosure (Goodenough, 2010). Deacon (2010) infers that while the Bengalese finch have been bred only for aesthetic purpose to humans, its song might become irrelevant to species identification, territorial defense, mate attraction, predator avoidance, etc.

We can deduce a minimum qualification for the extraordinary setting for language evolution from what those Bengalese finches underwent. First, it must be concerned with a small number of individuals. Not all of the Bengalese finches survived the process of domestication and not all of the domesticated ones succeeded in acquiring the capacity to sing. It is likely that the singing Bengalese finches have descended from common ancestors. Second, there should be a catastrophe-like abrupt change almost conducive to mass distinction. The Bengalese finches that were put in captivity apparently underwent a drastic severance from the environment that they had been familiar with. Although placing the finches in a cage might appear not so serious to humans, for the birds, it could be a life and death situation that fell on them from nowhere.

3. Hypothesis

Friedrich Nietzsche (1844~1900) stands out in philosophy with his exhortation that we should question all the values and objectives of truth we have espoused dear. In this regard, it is not too much to date back post modernism to him. We find that he also left some important ideas supporting the extraordinariness provision we brought up above.

Between 1869 and 1870, Nietzsche specifically pointed out three things on the origin of language as follows:

- (2) 1) All conscious thought is possible only with the help of language...The deepest philosophical insights are already implicitly contained in language...
- 2) The development of conscious thinking is harmful to language...The formal element, which has philosophical value, is damaged...
- 3) Language is much too complex to be the work of a single individual, much too unified to be the work of a mass; it is a complete organism. (Sander, et al, 1989: 209)

The first suggests that only with the birth of language, civilization could flourish. The second tells us that although language made it possible for us to think, we have never been satisfied with remaining to be its slaves. The third means that language was invented by a small group of conscious individuals. Concerning the conjecture, the third statement sounds to correspond well with our small-number-of-initiators condition.

In *The Gay Science* (1882), he concluded why human-beings had obtained the ability to speak through the following:

- (3) Where necessity and need have long compelled men to communicate with their fellows and understand one another rapidly and subtly, a surplus of the power and art of communication is at last acquired, as if it were a fortune which had gradually accumulated, and now waited for an heir to squander it prodigiously. (Part V. Aphorism, No. 354, *The Gay Science*)

Necessity is the mother of all invention, to which language must not be an exception. It explains why we have not seen speaking chimpanzees yet. In the experiments intended to awaken the chimpanzees or other apes in captivity to their latent linguistic, or believed so, capacity, human-beings unconsciously acted almost as if they were a god who tries to bestow the subjects a new faculty. However, as Nietzsche, who declared

death to God², reminds us, any seemingly creative aptitude of living-things, including human-beings, was acquired, not given, and in the process, only their strong sovereign will to get it might matter. Therefore, the scientific trials or observations were to fail not because we were a weak god but because those anthropoids did not have or develop the intention to speak.

Nietzsche is the most renowned for making the word “eternal recurrence”³ and “overmen(supermen)”⁴, its accompanying but antithetic concept, popular, as well. According to him, human-beings are destined to maintain their lives under the eternally recurring events but only a few overmen or supermen are capable of overcoming this curse. Without overmen or supermen, they are doomed to be bored forever. Through these extraordinary men or individuals, human society has acquired new values and developed, or shifted itself continuously to the new cycles of eternal recurrence, we can say. Although Nietzsche did not clarify when overmen or supermen arrive, we can easily make sense that in extraordinary than ordinary situation, they emerge more likely. Among the many extraordinary settings we can imagine, it needs no detailing that when human-beings have been on the brink of extinction, we might have seen overmen or supermen come out the most, which legitimizes why we should look for the great catastrophes concerning the development of language.

Some 70,000 years ago, in the wake of the super-volcanic eruption at Lake Toba⁵, the human population is claimed to have shrunk drastically to as low as 2,000. What happened after the calamity looks compatible with the extraordinariness condition. That is, facing the possible extermination, the remaining small number of human species was to become and behave like “overmen” unexpectedly to determine to develop a new means of communication, language. Consequently, we can assume the following:

(4) Nietzsche would answer that human-beings acquired the linguistic capability just after the Toba catastrophe, because only at that time the eternal recurrence that had shackled our ancestors for a long time abruptly disappeared and the small band of surviving members could not but act as overmen or supermen of entire human species.

4. Proof

To ascertain the conjecture that we developed with Nietzsche, we should prove at least three things. One is that evolution may occur abruptly. Another is that human civilization followed the Toba crisis, not preceded it. The other is that human-beings developed the necessary physical capacity to speak after the incident. The first one is more concerned with how we should deal with the idea of evolution. To that extent, it is rather circumstantial. Nevertheless, the others are not.

First, among the latest studies following the idea that evolution might have taken through revolutionary leaps, two especially attract our attention. Schwartz, et al (2006) succeeded in showing that molecular change is brought about only by significant environmental stressors, such as rapid temperature change, severe dietary change, or even physical crowding (Science Daily, Feb 12, 2007). Venditti, et al (2010), by analyzing the lengths of the branches of the evolutionary trees over 101 groups of plants and animal species, found that the Red Queen Hypothesis, of species arising as a result of an accumulation of small changes, fitted only eight percent of the evolutionary trees (Physorg, Dec 11, 2009). Therefore, the supposition that human-beings suddenly acquired the linguistic capacity about 70,000 years ago never seems farfetched.

Second, archaeological studies have shown that “Modern Behavior” of humans, also known as the traits of civilization, dates back only around 50,000 years ago, which the Toba incident obviously precedes. We can infer how completely our ancestors have metamorphosed themselves during that period from Klein (2002):

² The famous statement “God is dead (Got ist tot, in German)” appears three times in Section 108, 125 and 343 of *The Gay Science* written by Friedrich Nietzsche.

³ Please refer to No. 341, *The Gay Science*.

⁴ Please refer to *Thus Spoke Zarathustra*.

⁵ On the details, including the consequence, of Toba Catastrophe, you may refer to “Toba catastrophe theory” from Science Daily.

(5) We can say that fully modern behavior appeared only 50,000~40,000 years ago. Prior to that time, geographically far-flung populations progressively anticipated living people in their behavior, but they remained uniformly non-modern in many important, detectable respects, including their relatively unstandardized (informal) artifacts, the remarkable uniformity of their artifacts assemblages through time and space, their failure to produce unequivocal art or ornaments, the simplicity of their burials, their failure to build structures that retain archaeological visibility, and their relatively limited ability to hunt and gather. (17)

If human ancestors had not thought differently, or, more specifically, viewed the surroundings differently, the revolutionary change could not have occurred. But for language, it could have never been possible, as indicated by the Wittgenstein (1922)'s famous remark that "The limits of my language mean the limits of my world."

Third, recent findings on the human fossil records also suggest that the origin of language go back around 50,000 years ago, which postdates the Toba incident. By analyzing the structure or remnants of the fossilized skulls and bones of prehistoric human-beings, Lieberman (2007) reached the conclusion that human language is about 50,000 years old.

(6) Human speech involves species-specific anatomy deriving from the descent of tongue into the pharynx...Speech also requires a brain that can "reiterate"—freely reorder a finite set of motor gestures to form a potentially infinite number of words and sentences...The starting points for human speech and language were perhaps walking and running. However, fully human speech anatomy first appears in the fossil record in the Upper Paleolithic (about 50,000 years ago) and is absent in both Neanderthals and earlier humans. (39)

5. Conclusions

Borrowing from Nietzsche and referring to the recent progress in biology, archaeology and anatomical analysis on human fossils, we could show that human-beings acquired linguistic capability after the Toba catastrophe that happened about 70,000 years ago. This reasoning is an off-shoot of the self-domesticated theory, resolving how our ancestors could domesticate themselves, the doubt that frustrates many. However, it does not contradict the gestural theory either. At the moment of disaster, those overmen might have been equipped with the necessary grammatical machinery for language that they had developed through gesture. This framework even helps us understand Dunn (2011) who alleged that cultural evolution is the primary factor that determines linguistic structure (79). In (2), Nietzsche stated: "The development of conscious thinking is harmful to language...The formal element, which has philosophical value, is damaged..." When we substitute 'conscious thinking' with 'culture' and 'formal element' with 'linguistic structure,' we can paraphrase Dunn's idea through Nietzsche. Although the latest study by Perreault, et al (2012) claimed that language was never born earlier than 100,000 years ago, based on phonemic diversity, it does not contradict our conjecture. They premised phonemes to have changed at set rate, which we are challenging. We believe that following the dawn of language, the closer it was to the Toba eruption, the more rapidly phonemes were diversified, like the explosion of stars just after Big Bang. Actually, due to Perreault, et al (2012), this research became timelier, because it seems to be the only way to bridge the gap between theirs and the archaeological as well as anatomical findings having maintained that language is not so old.

In practice, this inference allows us to prognosticate those experiments that have been conducted with the chimpanzees in captive. It does not deny that we may find some genius chimpanzees who can communicate with human-beings freely someday. However, it negates the possibility that we see some of those chimpanzees communicate among themselves in language someday. The issue hangs on whether those chimpanzees are the overmen of their own species, which only nature can answer.

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