## Introduction Origin and Evolution of Language: a Close Look at Human Nature

Francesco Ferretti<sup>†</sup> francesco.ferretti@uniroma3.it

*Ines Adornetti*<sup>‡</sup> ines.adornetti@uniroma3.it

Understanding the origin and evolution of language has been defined – rather provocatively – as the hardest problem in science (Christiansen & Kirby, 2003). To be sure, the study of the development of language is a subject that consistently generates great interest and controversy. The interest is largely dependent on the fact that a great part of Western theoretical investigation has attributed the "uniqueness" that characterizes our species to our "talking nature": language constitutes the element that, more than any others, defines what it is to be human. The controversies relate to the methodological difficulties involved in investigating this topic. Language does not leave (literal) fossilized traces (or, at most, it leaves very indirect traces): it is not possible to reconstruct the origin and evolution of language in the same way in which we reconstruct the origin and evolution of other important human characteristics, for example the emergence of bipedalism and standing in an upright position. Moreover, what is considered valid evidence differs from discipline to discipline, also because language itself is rather difficult to define (or, at least, there is not a unanimous understanding of what constitutes language). Because of such difficulties, the Linguistics Society of Paris in 1866 in the Article 2 of its statutes banned any kind of debate among its members about the topic of language origins: "The Society accepts no communications concerning either the origin of language, or the creation of a universal language". Following the edict of Paris, the Philological Society of London in

 $<sup>^\</sup>dagger$  Department of Philosophy, Communication and Visual Arts, Roma Tre University, Italy.

<sup>&</sup>lt;sup>‡</sup> Department of Philosophy, Communication and Visual Arts, Roma Tre University, Italy; Department of Human Sciences, University of L'Aquila, Italy.

1872 took a similar decision. The scholars of the time, in fact, intended to avoid intractable arguments and disputes that the speculations on the origin of language, based on fragile empirical evidences, would have undoubtedly generated (cf. Müller, 1861).

The ban on such discussion and investigation along with the attitudes which underlie it had an enduring impact on research on the origin of language in the following 100 years, as linguists focused almost exclusively on how language works in its fully fledged form in modern humans, avoiding consideration about how it may have evolved. After nearly a century of silence, interest in these questions have been revived in modern linguistics, starting in the 1950s, thanks to the abundant collections of language data, comprehensive understandings on the behaviors of humans and other animals, and significant contributions from many other disciplines (cf. Gong, Shuai, & Comrie, 2014). Nevertheless, even if over time the situation has considerably changed, and the emergence of Darwinian evolutionary theory has allowed scholars to address the topic scientifically and systematically (cf. Tallerman & Gibson, eds., 2012), the old ban continues to engender among contemporary researchers the idea that the topic of the origin of language is not worth too much effort. Emblematic in this regard is the position of the most influential contemporary linguist, Noam Chomsky, according to which the study of the origin of language «is a complete waste of time» (Chomsky, 1988, p. 183). Despite these considerations, in our opinion the reasons that continue to fuel the ostracism against investigations into the origin of language are of an ideological kind rather than empirical. First of all, these reasons are linked to the suspicion with which the humanities view the theory of evolution (and the theory of evolution is, from our perspective, the only proper way to take into account the origin of language). But, above all, the motives behind the hesitancy to consider the origins of language as a research to take into account seriously are connected to a specific way to interpret language and its role in the constitution of human nature.

One of the most important ideological impediments to the recovery of studies on the origin of language is the Cartesian tradition that continues to influence some theoretical models within the sciences of mind and language (e.g. Chomsky, 1966; Fodor 1983, 2008). According to Descartes, the rational soul is the foundation of the *qualitative difference* between human beings and other animals: for many contemporary perspectives on human communication, language (which has taken the place of the soul) is a feature

Introduction V

that makes human *special* in nature. From these perspectives, human beings' uniqueness is not akin to how one animal species is different from another animal species; rather, human beings are *wholly* different from animals. Indeed, from Cartesian perspectives, humans are not animals at all. As consequence, the study of the origin of language is a complete waste of time «because language is based on *an entirely different principle* than any animal communication system» (Chomsky, 1988, p. 183, our emphasis). Language is the Rubicon which divides man from beast, and no animal will ever cross it (Müller, 1873).

From the perspective adopted in this special issue of *Humana.Mente* devoted to the origin and evolution of language, the fact that we can be proud of the extraordinary abilities that characterize our species does not contradict the notion that, indeed, these abilities can be attributed to the animal nature of human beings. The study of language in the Darwinian framework, then, starts from very opposite presuppositions than those of the Cartesian tradition. If it is true that human individuals are liable to numerous, slight, and diversified variations, which are induced by the same general causes, are governed and transmitted in accordance with the same general laws, as in the lower animals (Darwin, 1871), then it must be recognized that the differences existing between *Homo sapiens* and other animals, great as they are, are differences of degree and not of kind (Darwin, 1871). Language does not make an exception to this rule. Of course, there are differences between human language and animal communication. Nevertheless, these differences, however great, are interpretable in quantitative terms and not qualitative. A consequence of adhering to a framework of this kind is that language is not conceived as a special character that places our species apart from the rest of nature, but rather as a *specific* trait, just as the echolocation of bats used to navigate or the trunk of elephant used to manipulate objects are specific traits. It is in reference to an operation of this kind that Darwin's teaching-that conceives human beings as animals among other animals—is fully realized. When such a shift in perspective is accomplished, the question of the origin of language becomes congruent with the Darwinian tradition and becomes fully legitimate.

The articles collected in this special issue reflect the inherently interdisciplinary nature of research on the origin and the evolution of language. The volume provides a comprehensive survey of the most recent and advanced studies in language evolution investigation, bringing together the major perspectives on the topic, as shown in the primary fields represented:

archaeology, cognitive sciences, cognitive semiotics, evolutionary biology, linguistics, neuropsychology, neuroscience, paleoanthropology, philosophy, primatology, psycholinguistics, and psychology. In addition to providing an overview of the various ways in which it is possible to analyze the topic of the origin of language, the articles in this collection give a clear sense of the great intellectual strength and the propelling force that currently characterize this area of research. This leads us to think that the famous Paris ban definitely should be considered as something that belongs to the distant past. Despite the bad reputation of those who deal with the topic of the origin of language, the efforts of the participants in this volume cannot certainly be branded as "a waste of time".

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Introduction VII

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