

THE PROBLEM OF THE ORIGIN OF LANGUAGE IN WESTERN PHILOSOPHY AND LINGUISTICS

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I. INTRODUCTION

In this paper I will sketch out a comparison between some contemporary approaches and others that were worked out over approximately the past 250 years. In particular, I will focus on some speculations about the origin of language formulated in the period between the middle of the 18th century and the beginning of the 19th century. Such earlier attempts to explain the origin of language are often subjected to rather unfair evaluations, not to say ridiculed, by today's scholars: this is, for example, the attitude of Botha (2003, p. 3). Botha says that the total lack of any evidence of a factual sort in works about the origin of language in the late 18th – early 19th century was the essential reason why mid 19th century linguists assumed a skeptical attitude with respect to the problem of language origin. Such an attitude found its most clear and extreme formulation in the bylaw, Article II, adopted in 1866 by the Linguistic Society of Paris: «La Société n'admet aucune communication concernant, soit l'origine du langage, soit la création d'une langue universelle».

My view is that historical events and processes were in fact more complicated than in Botha's opinion, and that rather the Parisian «ban» had its roots in the paradigm of linguistic research which was dominant during the 19th century, as I will try to show. But I will also try to show that some attempts in earlier epochs to explain the origin of language, if certainly not all, are less ridiculous than they seem to be. To do so,

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one must be careful to keep their intrinsic points of interest distinct from other aspects which are bound to the specific time in which they were worked out. Furthermore, if such attempts surely lack factual evidence, also the majority of today's works in this same field suffers from the same defect (as is clearly apparent from Botha's book, incidentally).

The present paper is organized as follows: in section II, I will briefly outline the history of the debate about language origin from the end of the Renaissance period until today; it will be shown that the interest of scholars in this topic gradually diminished, reaching its lowest point around the middle of the 20th century, while it experienced a sudden revival in the 1990s. In section III, some aspects of the current debate on the topic of language origin and evolution will be presented: in particular, «adaptationist» and «exaptationist» approaches will be compared. In section IV, we will turn again to history, considering in more detail some hypotheses about language origin worked out by scholars from the 18th and 19th centuries (Condillac, Rousseau, Süssmilch, Herder, Humboldt, Steintal): the aim of this section and of the immediately following one (section V) is to show that many problems on which the current discussions focus were already confronted more or less two centuries ago. In the final section (section VI), the question is asked if the problem of language origin is a real problem or, rather, a «pseudo-problem»: no conclusive answer is given, but some suggestions are hinted at, mainly on the basis of the historical comparison between the «old» and the «current» debate outlined earlier. The general aim of the present investigation is to show how a knowledge of past research in a field can teach us something about our present problems (in this case, the field is that of language origin).

II. THE ALTERNATING HISTORY OF A DEBATE

The debate on the origin of language «exploded» around the middle of the 18th century. It carried on throughout the 19th century, despite the «ban» by the Linguistic Society of Paris in 1866 cited in the preceding section (as is clearly shown by Auroux 1989): indeed, the greatest number of works about language origin dates from the 19th century. The debate rapidly diminished during the last decades of 19th century and started again after a gap of about one hundred years.

What are the possible reasons for such an oscillating interest? One possible answer could be suggested by the weight alternatively given to

two different meanings the word «language» has in English, or the word *Sprache* in German: on the one hand, «language» (*Sprache*) means a faculty, a cognitive capacity (this is the meaning, e.g., of It. *linguaggio*, or Fr. *langage*); on the other hand, «language» means what can be defined as the «totality of expressive means shared by a linguistic community» (this is the meaning, e.g., of It. *lingua*, Fr. *langue*). The duality of meaning of the word «language» bears on our present topic quite directly.

In fact, if we compare the 18th century debates with those of the Renaissance times (mainly of the 16th century) we can clearly observe a shift of focus. The debate shifts from the origin of languages to the origin of language: namely, from the idea of *Ursprache*, largely discussed in the Middle-Ages and in Renaissance times (which was the parent tongue of all World languages? Hebrew? Greek? Latin? or some other one?) to language meant as a cognitive capacity. Therefore, a breakthrough between the Renaissance and the 17th-18th century approaches is clearly apparent. What is the reason for such a breakthrough? In my view, the fact that from the 17th century language begins to be considered as the «analytical tool» of thought. This difference between the epistemological attitude of the Renaissance and that of the Classical Age was stressed by M. Foucault in the 1960s (cf., e.g. Foucault 1966, ch. 4).

This nature of language as the «analytical tool» of thought is clearly expressed in the opening page of the paradigmatic work of «general grammar», namely Port-Royal *Grammaire générale et raisonnée* (I ed. Paris, 1660; I quote from III ed., 1676): «Parler, est expliquer ses pensées par des signes que les hommes ont inventés à ce dessein». Port-Royal did not investigate the problem of the origin of language: the debate developed only in the following century. But the leading idea of such a debate was that language allows us to analyze our thought, and that to investigate the origin and the development of language means to investigate the origin and the development of our ideas. It is important to note that the most significant 18th century scholar dealing with the origin of language, namely Condillac, sketched a development of grammatical categories which has as its outcome exactly the system found in Port-Royal *Grammaire* (see also section IV, below)¹.

¹ The essential continuity between Port-Royal *Grammaire générale* on the one hand, and 18th century attempts at explaining the origin of language on the other has already been stressed by Aarsleff (see, e.g., Aarsleff 1982). I don't agree, however, with every detail of Aarsleff's interpretation of 17th-18th century linguistics.

Things radically changed again during the 19th century. As has already been hinted, in this century the problem of the origin of language ended by appearing as a pseudo-problem which nonetheless attracted the interest of a large number of scholars. The reason for this seemingly paradoxical result possibly lies in the fact that the meaning of «language» as *langue* (namely, as a system of elements shared by a community) was again prevailing over that of *langage* (namely, as cognitive capacity): this shift of focus with respect to the preceding century surfaces with the beginnings of historical-comparative grammar in the early 19th century and extends at least until Saussure (see again Auroux 1989). Even Jacob Grimm's essay on the origin of language (*Ueber den Ursprung der Sprache*, Berlin 1851) actually is, maybe even against or beyond the purposes of its author, more an essay on the origin of Indo-European *Ursprache* («original language», where «language» means *langue* and not *langage*) than on the origin of the language faculty. For example, Grimm, in order to show that language cannot be innate in the child, states that if a child born from a French or a Russian mother were to be found on a battlefield and then educated in Germany, that child will develop neither French nor Russian, but German. Language is no longer considered as a cognitive capacity: the interest only focuses on its elements.

What were the reasons for such a kind of attitude? A possible explanation (suggested to me by L. Formigari) is that the rise of historical-comparative linguistics during the 19th century shifted the «professional» investigation of language from philosophers to philologists. Philologists «naturally» incline to investigate concrete languages rather than an abstract language faculty: hence, their interest centers on the reconstruction of a hypothetical parent tongue, not on the speculation about the origin of such a faculty. Whatever the reasons for it, a virtual lack of interest in the origin of language also characterizes the structuralist era, namely the first part of the 20th century.

But the 20th century debate on language origin experienced a powerful revival during its closing decades. It has been seen that the triggering factor for the interest in language origin in the 18th century was the idea that language is the «analytical tool of thought»; this idea was first formulated in Port-Royal *Grammaire*, which however did not deal with language origin. In the late 20th century, the triggering effect was the shifting from «language» in the sense of *langue* to language in the sense of *langage*: in Chomsky's terms, from E(xternal)-language to I(nternal)-language. In other words, a more «philosophical» approach to

the study of language reappeared, replacing a «philological» one. Nevertheless, Chomsky's interest in the problem of language origin remained limited. This happened in spite of the fact that Darwinian theory of evolution completely changed the framework of reference for biological sciences after the middle of the 19th century. Chomsky's skepticism on the matter is anticipated by that of his «Mentor» concerning the «biological foundations of language», namely Eric Lenneberg. Lenneberg (1967) reviewed some proposed evolutionary accounts of the origin of language, showing their essential groundlessness. Furthermore, he clearly stated that the available empirical evidence for reconstructing language origin is extremely poor (for example, fossil skulls can give us some information about the brain of primitive hominids, but it is impossible to draw from them any certain inferences about their language). Lenneberg also rejected the view that a «discontinuity» theory about the origin of human language would necessarily imply a Creationist position. As is well known, and as will be shown later, these positions are very similar to those still held today by Chomsky.

The situation radically changed with the appearance of Pinker & Bloom (1990). To show the impact of Pinker and Bloom's paper, it could be enough to remark that a bibliography on the subject «origin of language» I have downloaded from Internet lists 684 items in chronological order since 1960 until the present day (October 2004): Pinker and Bloom's article is only n. 22! The secret of its success was perhaps that it argued for investigating a problem which Chomsky had, more or less implicitly, dismissed as irrelevant (that of the origin of language) while at the same time continuing to share a Chomskian view of language capacity. One is tempted to trace a parallelism between Port-Royal *Grammaire* and Chomsky on the one hand, and Condillac and Pinker & Bloom on the other, or, if you prefer, between Port-Royal and Condillac in the 17th and 18th centuries and Chomsky and Pinker & Bloom in our time.

Of course, not every work prompted by Pinker and Bloom's article adopted its essentially Chomskian view; and not every Chomskian linguist (beginning with Chomsky himself) agrees with Pinker and Bloom's perspective. Let us therefore take a (partial) look to the contemporary debate.

III. A LOOK AT THE CURRENT DEBATE

In the currently developing debate about language origin and evolution, which for the most part originated with the appearance of Pinker & Bloom (1990), three (at least) different positions can be singled out: first, those which can be dubbed «anti-Chomskian»; second, positions which try to reconcile the Chomskian view of language with an evolutionary, «adaptationist» point of view; third, Chomsky's, and other scholars', views on the subject, which reject an «adaptationist» perspective and adopt an «exaptationist» one. I will shortly investigate these three different positions, in the order I have listed them. I will mainly refer to some commentaries on Pinker and Bloom's article which appeared in the same issue of *Brain and Behavioral Sciences* and to some of the contributions to Hurford, Studdert-Kennedy & Knight, eds. (1998).

As was reasonable to expect, one of the effects of Pinker and Bloom's article was even to strengthen anti-Chomskian positions. In fact, some of the comments published in the open peer commentary to it raised the objection that the two scholars had not fully developed their argument: if they were consistent, they should have rejected not only Chomsky's discontinuity hypothesis about the origin of language, but also Chomsky's assumption of a Universal Grammar innate in the child (see, e.g., the commentary by Bates & MacWhinney in the Open Peer Commentary to Pinker and Bloom 1990, pp. 727-8). In general, comments of this kind insisted on the necessity of assuming a greater continuity between the system of communication of apes and human language, as well on the importance of social factors for the origin and the development of language. Also the first part of Hurford & al., eds. (1998), decidedly argues for a «socio-communicative» view, but in a decidedly «neo-Darwinian» framework. An origin of language from gestures and/or from cries is often assumed: see, e.g., the commentary by Catania to Pinker & Bloom (1990) and C. Knight's contribution to Hurford & al., eds. (1998). According to Knight, language would have originated from gestures, then conventionalized into vocalizations; then the intervention of metaphor would decidedly have extended such primitive forms of language; syntax would have developed not *ex abrupto*, but gradually. M. Ujhely (in Hurford & al. eds, 1998) maintains that monkey and ape calls, which show a certain amount of variants, are the ancestors of human systems of communication. M. Studdert-Kennedy (id., p. 170) writes: «As Ujhely herself remarks, however, «syntax» implies clear differences of meaning between

call variants or different call combinations, and these no one has yet demonstrated». J. Locke (id.) distinguishes between *speaking*, whose goal is to provide information, and *talking*, which aims at creating social cohesion. *Talking* precedes *speaking*. In general, these contributions do not seem especially interested in explaining why human language shows the special features it has, instead of other possibly conceivable ones.

Let us now turn to the second group of positions alluded to at the beginning of the present section, namely those trying to reconcile an «adaptationist» view of language origin and evolution with the basic tenets of the Chomskian approach to language. Besides Pinker and Bloom, several other linguists basically share such an approach, namely they accept the hypothesis of an innate Universal Grammar, while at the same time they stress the importance of explaining language origin by means of evolutionary theory. One can dub the positions of such linguists «adaptationist Chomskian positions». Once again, I will mainly refer to the open peer commentary on Pinker & Bloom's article and to Hurford & al., eds., (1998; especially part III).

For example, F.J. Newmeyer (in Hurford & al. eds., 1998) openly rejects the anti-evolutionary bias of Chomsky and his closest followers; according to them, the «non-functionality» or «non indispensability for communicative function» of some specific traits of human language (such as structure-dependency or ECP) would show the difficulty, if not the impossibility, of explaining the origin and the evolution of language itself according to a Darwinian or neo-Darwinian model. According to R. C. Berwick, there has been an evolutionary «jump» in the development of language and in the birth of syntax: the appearance of the operation called *Merge*, which, however, «cannot tell us everything we need to know. It does not say how words came to be, and will have little to say about the word features particular to each language» (Berwick, in Hurford & al. eds., 1998, p. 338).

It is also to this group of scholars that Jackendoff belongs. In his comment to Pinker & Bloom (1990), he openly declares his loyalty to Chomsky's program, but he evaluates as a «rhetorical strategy» involved in Chomsky's defense of generative grammar his refusal to take into account «evidence from outside grammatical competence». Arguments from evolutionary theory clearly come from outside grammatical competence, and so Chomsky dismisses them. In attempting to sketch an account of the evolution of human language, Jackendoff (p. 738) hypothesizes a first stage of a «rudimentary sound-meaning mapping». This leaves the origin

of syntax unexplained. Therefore Jackendoff suggests that syntax «has evolved as a refinement and elaboration of a preexisting informational link between phonological and conceptual structure» (ibid.).

D. Bickerton's positions also look rather similar to those of the «Chomskian adaptionists». Bickerton (in Hurford & al., eds., 1998; see also Calvin-Bickerton 2000) hypothesizes that the «evolutionary jump» between the communication systems of primates and human language took place in the transition from «protolanguage» to language; such a transition would be therefore due to a sudden genetic mutation. All primates have protolanguage: according to Bickerton, it consists in the capacity of linking sounds with meanings. In Bickerton's words, protolanguage is something like «the productions of apes who have been taught to use signs or other symbols», or «early-stage pidgin languages (roughly: at about the «*Me Tarzan – You Jane*» level of development)», or «the speech of children under two» (Bickerton in Calvin-Bickerton 2000, p. 29). According to Bickerton, protolanguage emerged as a response to two different needs: 1) to communicate the availability of forage; 2) to instruct children (cfr. Calvin-Bickerton 2000, pp. 114-5). What neatly distinguishes protolanguage from language is the emergence of syntax in the latter: protolanguage does not show any syntax. In Bickerton's reconstruction, syntax emerged when humans became able to give a linguistic realization to «thematic analysis»: namely, to indicate 1) the people involved in an action; 2) the performed action; 3) the roles of each individual involved in the action (e.g., «agent», «patient», «goal», etc., the so-called «thematic roles» of generative linguistics); cfr. Calvin-Bickerton (2000, pp. 126-7). Bickerton states that «protolanguage and thematic analysis coexisted within hominid brains, yet remained quite unconnected with one another» (Bickerton in Hurford & al., 1998, p. 351). The only difference would therefore lie in the fact that apes, unlike humans, are not able to express such relations in words. The «evolutionary jump» would have consisted in the linking of the brain area corresponding to thematic relations to that for the phonetic representation of words, namely in acquiring the capacity of verbalizing such relations.

In general, approaches such as Jackendoff's and, especially, Bickerton's are characterized by the following assumptions: 1) a «conceptual», «symbolic» structure exists not only in humans, but in all primates; 2) not only humans, but other primates as well have developed a «protolanguage», which consists of several, isolated words which allow individuals to transmit their thoughts to each other, but which involves no syntax;

such a «protolanguage» would be similar to modern pidgins, to the rudimentary form of «languages» which language-trained apes seem to be able to learn, to the «language» of grammatic aphasics, to the «home signs» invented by the deaf children of non-signing parents.

Let us now turn to the third group of positions listed at the outset of this section. Such positions essentially stress the insufficiency of adaptationist, strictly evolutionary theories of language origin and evolution to account for the highly complex structure that human language actually shows. Furthermore, many of these features clearly seem «disfunctional». These views have been held by Chomsky and, among others, by the cognitive scientist Massimo Piattelli-Palmarini.

Chomsky has repeatedly expressed his skepticism about evolutionary theories of human language. In an interview published in 2001 and dating back to 1999, he says: «It appears to be a fact that language is biologically isolated» (Chomsky 2001, p. 186). It «doesn't fit in» with the taxonomy of communication systems such as primate calls, bird songs, etc. «You can use language to identify yourself, for reproduction, for warning about predators. But you can't study language seriously in these terms» (ibid.).

Piattelli-Palmarini (1989, p. 25) maintained that «survival criteria, the need to communicate and plan concerted action, cannot account for our *specific* linguistic nature.» He restated and developed this position in his comment on Pinker & Bloom (1990), by presenting, among other things, some empirical examples of how human language is sometimes overtly «disfunctional» (see Pinker & Bloom 1990, pp. 753-4).

But, if these and other facts show that human language cannot be explained in exclusively adaptationist terms, how can its origin be explained without resorting to a creationist hypothesis, as has been sometimes been put forward as an objection with regard to Chomsky (cf. e.g. Catania in the Open Peer Commentary to Pinker & Bloom 1990, p. 729)? Chomsky (2001, p. 184) maintains that ««God or natural selection» - taken literally, it's worse than Creationism». Concerning language, he states (p. 189) that

we know that something emerged in an evolutionary process and there is no indication of any evolutionary change since it emerged. It emerged once, as far as we know, very recently. (...) The emergence seems to be fairly sudden, in evolutionary terms, in an organism with a very large brain, which was developed for whatever reason, and conceivably through some reconstruction of the brain that brought into play physical processes that led to something that works close to optimally, like a virus shell.

This way of approaching the problem is standardly dubbed «exaptationism», a term coined by the paleontologist S. J. Gould in the early 1980s: it is important to note that primarily it does not refer to language origin, but the problem of evolution in general. According to Piattelli-Palmarini (1989, p. 13) «the very essence» of exaptation lies in the fact that «[m]any traits can be shown to have acquired survival value after they have been selected for other reasons». Therefore, «most of the difference between evolutionary explanations based on adaptation and those based on exaptation» would lie in «the simple consideration» that «[i]t is one thing to assess the current utility of a biological trait, and quite another to explain the origins of this trait in terms of its current utility» (Piattelli-Palmarini 1989, p. 18). In the case of language origin, as Botha (2003, p. 49) writes, an exaptationist view holds that «language or some of its features – it should perhaps be stressed – emerged initially as a consequence or by-product of something else». Recently, some exaptationist accounts of language origin have been worked out. For example, Hauser-Chomsky-Fitch (2002) hypothesize that what they call the «faculty of language in narrow sense» (FLN), hence, essentially, recursive syntax, «may have evolved for reasons other than language, hence comparative studies might look for evidence of such computations outside of the domain of communication». Piattelli-Palmarini and Uriagereka (2004) have proposed a theory of the emergence of language (in the sense of FLN) which has a similarity to the origin of the immune system. Interestingly, Piattelli-Palmarini and Uriagereka also assume a «protolanguage» phase, as do Bickerton and others. I will return to this feature. Now let us return to the history of our problem, in order to compare some views held in the past centuries with some current ones and to inquire if there are any real differences between them.

IV. A CLOSER LOOK AT HISTORY

As was said in section II, the view of language as an «analytical tool» for thought characterizes the speculation about language during the 17th and 18th centuries. The French philosopher E.B. de Condillac, the leader of the so-called «sensualistic» trend in philosophy, whose main goal was to investigate the sources from and the ways in which ideas originate within the human mind, devoted ample space to the origin of language, explicitly borrowing some conceptions, such as that of *langage d'action*,

from earlier scholars, especially the English philosopher and theologian William Warburton.

According to Condillac's speculation, *langage d'action* is the first form of language (cf. *Essai sur l'origine des connoissances humaines*, 1746, part II, sect. I, chap. 1, § 1 ff.; cf. also Condillac's *Grammaire*, 1775, part I, chapters 1-8). Condillac describes the following scenario: two children in a desert have some perceptions: e.g., the perception of a need is linked to an object which could satisfy it. When one of the children has such a perception, s/he starts shouting and gesticulating. The other child is therefore stimulated to satisfy the need of her/his partner by providing her/him with the object s/he desires. As time elapses, the children began to link such shouts and gestures to the desired object: this is the first form of language, the *langage d'action*. The signs of *langage d'action* became familiar: the children «imperceptibly succeeded in doing by means of reflection what they had only done by means of instinct» (*Essai*, id., § 3)². Signs belonging to *langage d'action* allow us to establish and to extend the knowledge given to us by perception (the only source of knowledge, according to Condillac). With the subsequent generations, *langage d'action* was gradually replaced by a much more complex means of communication, the *langage des sons articulés* («language of articulate sounds»; id., § 8 ff.). Condillac outlines the development of languages, starting from the most ancient ones known to him (Biblical Hebrew and Greek), in order to show the persistence in them of elements of *langage d'action*. He also outlines (id. ch. 9) the development of the parts of speech, stating that the first one to appear was the noun, since it referred to entities from which senses draw their perceptions. Then the adjective and the adverb appeared, to indicate «the different tangible qualities of objects» and «the circumstances where they could lie ». Verbs appeared later on: the first of them «to express the condition of the soul when it is acting or suffering» (id., § 83); on the same lines, other verbs were coined. Initially, verbs had only an infinitival form. Formerly, the object preceded the verb, since the noun was the most familiar sign: people said, e.g., «fruit want». To express different time relations, some words were put after verbs, indicating past or future: such words later were fused with the verbs, originating inflected verbs. The verb «to be» was adjoined to the adjectives which were combined with nouns, bringing about *af-*

² All translations of French or German quotations are mine, except where otherwise indicated.

firmations (id., § 93). Eventually, the verb «to be», inflected after tense, number, mood and person, became «properly the only verb» (id., § 98).

Rousseau, in his *Discours sur l'origine et le fondement de l'inégalité parmi les hommes* (1755), refers to Condillac's work as that which gave him «the first idea» of how language originated. Rousseau, however, adds some comments to Condillac's scenario which, more or less directly, were to greatly influence subsequent research. First of all, Rousseau assumed that language was not necessary for the man in *état de nature*: since in that state there is no need for communication, Rousseau maintains, also no language is needed. Language originated when humans began to develop reciprocal relationships, so leaving *état de nature*. Rousseau therefore sees the essential nature of language in its social origin and its main use in its being a means of communication. His view of primitive language is not very different from that of Condillac's *langage d'action*: it would have consisted of «unarticulated cries, a lot of gestures and some imitative noises». The signs of this language would have been «holophrastic»: they would have expressed «the sense of a whole proposition». Rousseau, moreover, raises a fundamental problem, that we can dub after him «Rousseau's problem»: «(...)if humans needed speech to learn to think, they had even more need to know how to think in order to find the ability to speak» (*Discours etc.*, 1755, Part I). Several scholars attempted to solve this problem in the last decades of the 18th century.

The German demographer Johann Peter Süssmilch, in his *Versuch eines Beweises, dass die erste Sprache ihren Ursprung nicht vom Menschen, sondern allein vom Schöpfer erhalten habe* («An attempt to prove that the first language did not have its origin in men, but only in the Creator», 1766), presented a solution which is very traditional in its outcome (language is created by God), but which is arrived at through very skillful argumentation. Süssmilch argues for a non-human origin of language, but he states that it has not to be grounded «on history or on the Bible», but on rational arguments. He proceeds by a comparison of wholly alternative hypotheses. Either language has been invented by man or created by God. If it has been invented by man, it should be present either in the instincts (which men share with animals) or in reason. But the cross-linguistic differences show us that human language is not based on animal instincts, since animal means of communication are the same all over the world. These cross-linguistic differences are due to the arbitrariness of the relationships between sounds and the objects denoted by

them. This arbitrariness, however, is not a product of chance, since in this case languages would be chaotic, while they show a clear «design» (to use a modern term). Therefore, language cannot be a product of instinct: so it is necessary to conclude that it is a product of reason. But the use of reason is impossible without the use of signs (Süssmilch wholly shares the view of language as the «analytical tool of thought» typical of his era): therefore, only God can have created language.

The German philosopher Johann Gottfried Herder, in his essay on the origin of language (*Abhandlung über den Ursprung der Sprache*, 1771), tried to solve what I have dubbed «Rousseau's problem» without resorting to any creationist hypothesis, on the one hand, and without assuming a gradual development of language, on the other. He therefore explicitly rejected both Süssmilch's and Condillac's solutions. According to Herder, humans could be said to have language just because of the fact that they are animals. But this kind of «language», which looks rather similar to Condillac's *langage d'action* and which is «the natural law of a sensitive machine», cannot explain the origin of human language proper. Condillac, Herder says, treated beasts as humans; Rousseau, humans as beasts. Animals are only led by instinct: this can be marvelous (as in the case of bees or spiders), but it is always restricted to a limited sphere. Humans have no instinctive language of such a kind. The newborn is mute, apart from the shouts of its instinctive mechanism. The difference between animals and humans is not of grade, but of kind. Man is devoid of animal instincts; on the other hand, Man is endowed with a particular disposition, called *Besonnenheit* («reflection», «consciousness», «awareness»). Human language is therefore a product of *Besonnenheit*, or, possibly, it is identical with it. For example, a man sees a (she)-lamb: he is not led by instinct, as is the lion, or the ram, but he aims at realizing his *Besonnenheit*. This realization consists in finding a mark: and this mark is the sound of the lamb, namely bleating. This bleating, perceived by the man as the mark of the lamb, becomes the *name* of the lamb itself. According to Herder, the first part of speech to appear is the verb, since it is from watching actions that language originates; the child names the lamb since it is a bleating creature, not since it is a lamb. How were words derived which cannot be equated with sounds? According to Herder, this is the product of our *sensorium commune*, of several synaesthesiatic processes. I will not deal any further with Herder's solution, which received both praise and a number of criticisms in the subsequent decades; he himself, in a later period of his work, seemed rather inclined to abandon

it in a favor of a more «transcendent» solution. I have quoted it in this context only as an example of a tentative solution to Rousseau's problem, which insists on the «discontinuity» of human language with respect to animal systems of communication.

In his later works, Condillac, too, implicitly looked for a solution to Rousseau's problem. In his *Grammaire*, he says that «(...) if we are conformed to speak *langage d'action*, so we are also to speak the language of articulate sounds» (Condillac, *Grammaire*, 1775, part I, ch. 2). In Condillac's *Logique* (1780, chap. 2), the *langage d'action* is said to be innate: Condillac, while restating his decidedly empiricist approach, which leads him to resolutely reject innate ideas, is nonetheless bound to hypothesize a linguistic ability innate in our nature.

Some decades after Condillac and the other scholars considered here, Wilhelm von Humboldt shows a radical change of perspective: the origin of language became for him a meaningless problem. He maintains: «Man could not become man except by language; but in order to possess language he needed already to be man» (*Gesammelte Schriften* IV, p. 16; transl. by W.D. Whitney). Language is not «invented» by humans: it must «be considered as immediately put in the man» (id., p. 14). What are Humboldt's arguments for such a conclusion? For example, he notes that no language empirically attested shows a «developing» grammar (in other words, «primitive» languages do not exist). So the hypothesis of a development of language from a less to a more mature form, as held e.g. by Condillac, would have no empirical support. Therefore, the question of the *temporal* origin of language is not interesting for Humboldt: the real philosophical question concerns «from where it «springs out»», i.e. it relates «to the «continuous» origin of language» (Trabant 1989, p. 509). Moreover, Humboldt rejects the idea that language originated as a response to «needs».

Humboldt's heir, Heymann Steinthal (who, in the second part of the 19th century reshaped Humboldt's linguistic doctrine in a psychological framework, essentially derived from Herbart) summarized Humboldt's change of perspective with respect to the 18th century scholars as follows: «he [Humboldt] identified the origin with the essence and changed the «whence» into «what»» (Steinthal 1877, p. 69). Thereafter, the problem of explaining the origin of language is equated with that of explaining its acquisition.

It is interesting to note that, in the third edition (1877) of his book about the origin of language, Steinthal explicitly recognizes that Darwin-

ian theory makes his former Humboldtian assumptions insufficient. He asks himself (p. 304) if «the germ of language» is given to man «through an act of creation» or if it has originated through the development of the animal mind. He had adopted the first position, and this was legitimate «twenty years earlier», but now «the thing sounds fanciful». «When the emergence of language was investigated on the basis of today's child, the kind *homo* was presupposed. So the task is always to show how the plant developed from the given germ, the chicken from the egg. But where is the germ from? This remains uninvestigated» (p. 305). And further: «I only taught how a child learns to speak, not the origin of language. (...) The germ of language is surely innate to the child; but not to the primitive man. In the primitive man the germ has to shape itself» (p. 309). The solutions Steinthal offered to the problem are not especially enlightening, mainly since they are based on the biological work of his time which often *pretends* to follow Darwinian methods of explanation rather than actually following them: but he seems to have caught the importance of the problem and the structures of his master's (Humboldt) position.

V. SKETCHING A COMPARISON BETWEEN OLD AND CURRENT THEORIES

One first remark is that the scenarios assumed for describing language origin by many contemporary scholars are not very different from those assumed by Condillac and/or other 18th century scholars. The importance given by many of today's scholars (such as, e.g., the first group of those dealt with in section III, above) to gestures and cries as the primeval form of language, or to the language function as «social bond» could be a case in point: the first scenario reminds one of Condillac, the second one of Rousseau. Especially interesting is also the stress on the notion of «protolanguage» (Bickerton, Jackendoff, but also Piattelli-Palmarini and Uriagereka 2004), i.e. the form of language without syntax and without morphology: this sounds very similar to Condillac's assumption that «originally, languages were only a supplement to *langage d'action*, and they only showed words such as «tree», «fruit», «wolf»; and the only possible sentences were such as «fruit eat», «wolf escape», «tree see» » (*Grammaire*, part I, ch. 8).

What for Condillac was a kind of «thought experiment», modern

scholars draw from actual research (e.g., the study of pidgin), but their arguments do not seem to differ greatly in force. Note also the criticisms raised by Botha (2003, ch. 15) about such kinds of data (the so-called «degraded» language) as genuine evidence for a theory of language origin and language evolution.

A second parallelism is suggested by the relationship that scholars assume (or do not assume) between the analysis of language in its actual form and the hypotheses about its origin: in other words, some contemporary scholars are interested in investigating the origin and evolution of *actual* linguistic structures, whereas others are not. The main issue, in this connection, is the emergence of syntax: while both the «Chomskian adaptationists» and the «exaptationists» consider the emergence of syntax as, possibly, the *key* problem to solve, it does not seem to bother those defending adaptationist «anti-Chomskian» positions too much. In this case one can again observe a parallelism between the 18th century debate and the contemporary one. On the one hand, Condillac aimed at showing the derivation of grammatical categories as they were listed and defined in Port-Royal *Grammaire*: nouns are assumed to originate before adjectives and verbs, and only one «real» verb is assumed, namely *to be*. On the other hand, Herder, for example, does not seem to be especially interested in describing the relationships between the origin of language and the actual structure of language: contrary to Condillac and Port-Royal tradition, he assumes that verbs precede nouns, but no general framework of grammatical categories is given.

A certain difference, however, distinguishes today's approaches from those of the 18th century with respect to the language/thought relationships and the origin of symbolic function. This does not necessarily mean that contemporary research is more advanced than that of more than 200 years ago. In fact, it has been remarked that for several 18th century scholars, such as Condillac, language is an «analytical tool» of thought: language and thought develop together. The sounds of Condillac's *langage d'action* obtain their symbolic value when the original cries and gestures are consistently associated to given animate and inanimate beings (cf. above, section IV). Herder's rather obscure notion of *Besonnenheit* is at any rate an attempt to account for the origin of symbolic function. Today's researchers in general assume that cognition is already given (for primates, and *a fortiori* for Man). How the link between sound and cognition originated is today mostly treated as a mystery:

The first steps toward human language are a mystery. (...) If I were forced to think about intermediate steps, I might ponder the vervet monkey alarm calls (...) But I admit that this idea has no more evidence in its favor than the ding-dong theory (Pinker 1994, pp. 351-2).

Bickerton (in Calvin-Bickerton 2000, p. 199) speculates that «a few elements of the original call system, linked with gestures, pointing and communicative tricks, might have played a part in the early forms of protolanguage»: this does not sound very different from what Condillac maintained in the 18th century, although Bickerton refers to Darwin's guesses. It would seem that this tentative explanation regularly occurred throughout the centuries: in the 18th, in the 19th and in the 20th. Surprisingly, even two «exaptationist» scholars like Piattelli-Palmarini and Uriagereka (2004) assume a position rather similar to Condillac's:

One can speculate that, other than signaling for individual or group identifiers, or frozen calls of the sort known to be sophisticated in rhesus macaques (signaling food, predators, or similar basic entities), this «proto-language» allowed for elementary grounded messages, involving indexicals (or names) combined with immediate locations, or even salient characteristics.

It could be also interesting to rethink Humboldt's and Steintal's positions, especially for an understanding of Chomsky's. Humboldt's statement that «Man could not become man except by language; but in order to possess language he needed already to be man» has essentially been the guideline for Chomsky's position. In fact, after having discussed the way in which Rousseau raised his problem about the origin of language (see section IV, above), Chomsky remarked that this «Gordian knot» was cut by «the Cartesians» by assuming that there was

no need to explain the origin of language in the course of historical evolution. Rather, man's nature is qualitatively distinct: there is no passage from body to mind. We might reinterpret this idea in more current terms by speculating that rather sudden and dramatic mutations might have led to qualities of intelligence that are, so far as we know, unique to man, possession of language in the human sense being the most distinctive index of these qualities (Chomsky 1973, p. 176).

Chomsky does not explicitly refer here to Humboldt, but his reference to the needlessness of explaining «the historical evolution» of language to understand its structure clearly reminds us of what was said about Humboldt in section IV above. One could say that Chomsky has reformulated the old «Cartesian» problem in a framework which takes Darwinian theory of evolution into account, although not resorting to it as an explanatory tool. One could trace a parallel between Steinthal on the one hand and Pinker and Bloom on the other: the former, after the publication of Darwin's work, felt unsatisfied with the Humboldtian view he had formerly held; the latter, aimed at supplementing the Chomskian view of language with a Darwinian concept of evolution. The following quotation from Pinker (1994, p. 353) is however highly significant, in my view: «It is hard to believe that they [i.e., the first individuals of the species *Homo sapiens*] lacked language, given that biologically they *were* us, and all biologically modern humans have language». This statement could be considered as a restatement of Humboldt's dictum in biological terms. Of course, Pinker (just like Steinthal) would ask how the «germ of language» had originated.

VI. ONE FINAL QUESTION: IS THE ORIGIN OF LANGUAGE A PROBLEM OR A PSEUDO-PROBLEM?

I do not think that the famous «ban» that the Linguistic Society of Paris issued in 1866 against works dealing with the problem of language origin was inspired by a «neo-positivist» attitude such as the title of this concluding section might seem to suggest. Rather, the problem seemed uninteresting to scholars living in an intellectual climate where it was the research about language as *langue* (or E-language) which was largely prevalent over that about language as *langage* (or I-language): see above, section II. Nevertheless, we can adopt such a neo-positivist attitude today and ask ourselves if the problem of the origin of language is a real scientific problem, or rather a pseudo-problem, i.e. a problem to which no solution can in principle be given. I do not have any ambition to answer such a question in a definitive way, but I think that the lessons from history sketched in the preceding sections can at least be profitable to some extent.

1) Humboldt's dictum still preserves its whole significance: one cannot assume a qualitative difference between stages of the linguistic history of *homo sapiens*. There are no «primitive languages». This implies, for example, that one cannot assume that ancient languages (such as Hittite, or Homeric Greek, etc.) or languages of «primitive» peoples (e.g., Warlbiri) lack recursion or subordination (which can be defined as «recursion in narrow sense»): simply, we are not able to detect it in the available corpus of written texts or of collected spoken utterances. But it has been well known since the beginnings of generative grammar, at least, that the grammar of any language is not to be constructed on the basis of a corpus.

2) The striking similarities between the scenarios assumed for language origins by the 18th century scholars such as Condillac or Rousseau on the one hand and by some contemporary scholars on the other hand might raise the suspicion that nothing new has really been discovered. This does not necessarily mean that the origin of language is a pseudo-problem: but it could mean that scenarios of this kind, if they are conceived as a way of answering it, are a path which leads nowhere.

3) As a consequence, new directions should be explored. But they should probably follow new paths. After all, what Pinker and Bloom suggested was that an adaptationist view of language origin was strongly commended, but they did not actually offer any detailed one. Perhaps it will appear in the future. On the other hand, some of the most recent «exaptationist» views (such as Hauser-Chomsky-Fitch 2002, or Piattelli-Palmarini and Uriagereka 2004) seem to me promising. I do not mean that any «adaptionist» or «preadaptionist» approach could not also be promising. I do not even have the necessary biological competence to make such a statement; this conclusion rather comes from the fact that the most recent works in evolutionary biology revise the «classical» adaptationist approaches to a rather large extent; see, for example, the first part of Piattelli-Palmarini (1989) and, more recently, Boeckx and Piattelli-Palmarini (to appear), with the references cited there.

4) One final point I would like to stress is the issue of «protolanguage». As has been seen throughout this paper (see especially sections III and V), this notion is crucially resorted to by some «adaptionists» (e.g., Bickerton) and by some «exaptationists» as well (e.g., Piattelli-Pal-

marini and Uriagereka). In fact, such a system of communication, called «telegraphic speech», has already been sketched by Chomsky (1980, pp. 53 ff.), and speculatively attributed to aphasic speakers and to apes. The status of the notion «protolanguage» is, however, far from clear. Is it to be considered a *species-specific* or a *cross-specific* capacity? Namely: is it to be considered as a set of conditions (necessary, but not sufficient) to acquire fully developed language («faculty of language in the narrow sense», FLB, according to the label in Hauser-Chomsky-Fitch 2002) and is it therefore shared by both humans and other animal species as well? Or is it to be considered as a stage «internal» to the development of the language faculty and therefore species-specific to humans? The key problem, in this connection, is that of the «emergence of syntax», which, according even to an adaptationist such as Bickerton, represents an «evolutionary jump» between protolanguage and language in the strict sense. What does it mean, therefore, that protolanguage «does not have any syntax»? One alternative is that it lacks any means of combining words: this view would be more consistent with the assumption of protolanguage as a cross-specific capacity. The opposite alternative is that it lacks the possibility of embedding clauses («recursion in narrow sense»), but not that of «merging» elements («recursion in broad sense»; see Tomaselli 2005). Tracing again our historical parallelism, we could say that 18th century scholars like Condillac were looking for protolanguage (possibly, in the sense of a cross-specific capacity), while Humboldt or Süßmilch before him were looking for fully developed language. This does not mean, however, a denial of the importance and the possible fruitfulness of any research aiming at establishing the link between these two different means of communication, once their respective features have been clearly defined.

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SOMMARIO: In questo saggio sono poste a confronto alcune ipotesi contemporanee sull'origine del linguaggio con altre formulate nel Settecento e nell'Ottocento. Da questo confronto, risulta che molte delle idee di oggi sono sostanzialmente una riproduzione di ipotesi già elaborate nel passato, soprattutto per quanto riguarda i cosiddetti approcci «adattazionisti» e «continuisti» al problema. Anche gli approcci «discontinuisti» rappresentano una replica di posizioni precedenti: è

il caso, ad esempio, di Chomsky rispetto a Humboldt. Tuttavia, se integrato con un'ottica «transadattazionista» (exaptationist), questo secondo tipo di approccio può rivelarsi più innovativo del precedente. Il problema è comunque ancora aperto: nella parte finale del saggio, si suggeriscono alcune tematiche verso cui la ricerca attuale sull'origine del linguaggio potrebbe orientarsi (in particolare, quella del «protolinguaggio»).