

THE INFLUENCE OF 'CATASTROPHISM' ON HISTORICAL LINGUISTICS (2004)

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1. Linguistics and ideology

Just as the historians of archaeology make a clear distinction between scientific archaeology and a "legendary or mythological prehistory" preceding it [Daniel 1962, 127], the history of linguistics distinguishes scientific linguistics from its pre-scientific phase [e.g. Tagliavini 1963]. But where the two disciplines differ sharply is in their relationship to ideology. Modern archaeology has for some time focused its attention on the important role played by ideology in its history, and as a result of that 'cleansing bath' it has freed itself from its cumbersome heritage. All the recent historical discussions of archaeology devote much space to this subject. And almost all the handbooks of archaeology contain some important statement to that effect. The author of a recent synthesis of European prehistory, for example, feels it necessary to stress the risk of ideology at the very beginning of his study: "We should not assume that archaeology is a neutral subject - either that it can be studied 'objectively' without any reference to its social context, or that the archaeological record exists as a body of facts that can, if prompted by the act of discovery, tell its own story" [Gamble 1986, 3]. This lucid observation applies, of course, to any historical-interpretative science, and consequently, to historical linguistics, too. But we look in vain for similar observations in the institutional publications, either old or recent, of historical linguists. The history of linguistics abounds only in references to various forms of innocent crankiness; there seem to be no transgressions of a more serious kind. Historical linguistics still holds on to the illusion that all its results are free from ideological prejudice and that, consequently, they represent sacrosanct truth.

An evident and recent example of how ideology can affect historical and comparative linguistic research can be found in the proceedings of the 23rd International Congress of Linguists held in Tokyo in 1982. Some Japanese linguists argued there that Japanese belonged to the IE family! It is difficult to find a clearer example of ideologized scientific thought, in this case prompted by the wish to belong to the dominant world group.

Of course, ideology can manifest itself not only as a wish to belong to the dominant world group, but also as an assertion, more direct and closer to racism, of the presumed superiority of the dominant group. For example, the thesis that we have just discussed, according to which the formation of the IE phylum is supposed to be the result of an overwhelming superiority of the Indo-Europeans in relation to the presumed autochthonous population, is inspired by this type of ideology. A superiority so much more fictitious, and consequently so much more vitiated by ideology, as the Indo-Europeans were, according to this theory, only shepherds and therefore not much advanced in comparison with the presumed pre-IE farmers. Moreover, modern research has demonstrated that the great classical European and non-European civilizations developed on the economic basis of a mixed cereal-oriented agriculture, and not on pure stockbreeding.

There is also the ideology which is not satisfied with participating in the 'glories of the

¹ . A more recent treatment of some of the topics of this chapter is now in Alinei [in press]. *Darwinism, traditional linguistics and the new Palaeolithic Continuity Theory of language evolution*, in Proceedings of the Conference on Evolutionary Epistemology, Language & Culture (EELC) (Brussels: May 26-28, 2004), in press.

family', but which aspires to be its fountainhead, i.e. the ideology which is often manifested in the search for the *Urheimat*.

That an approach so strongly coloured by ideology cannot produce great results is obvious enough, for it is well known that ideology sheds more light on its upholders than on the object it purports to explain. But I do not intend to discuss again the results of the traditional research in this chapter. My primary aim is to offer a more detailed analysis of ideology.

In order fully to understand ideology it is necessary, in fact, to make a thorough study of its constituting elements: processual archaeology justly emphasises "the dominant social relationship" [Gamble 1986, 3]. And it has already become quite apparent what role is played by this dominant social relationship in the colonialist, racist, invasionist and hyper-diffusionist ideology. In addition to these more obvious aspects of ideology, there is, however, another aspect, which is less apparent and more ensconced in the history and nooks of scientific thought, but which, in my opinion, might have exercised a strong influence on historical linguistics in the period of its formation as a science. What I have in mind is 'catastrophism'.

2. Catastrophism in the history of natural sciences

The concept of catastrophism originated in the early 19th century, during a historical discussion whose outcome marked the birth of geology, of palaeontology and, generally, of all the historical sciences. My thesis is that because of these circumstances it was also able to influence and leave its mark on the nascent historical linguistics.

Until the beginning of the 19th century the duration of the earth and of life was still considered to be that set down by the Bible, according to which history began with the end of the Flood. To scholars following the Book of Genesis in the Bible the dates of Creation and of the Flood seemed very near and easy to calculate, so that the more important of the two, the date of Creation, was fixed with great precision by theologians. Among these we should mention first the English theologians, because the main advances in modern science - above all the theory of evolution of Charles Darwin (1809-1882) - were made in England in the 19th century. It was particularly James Ussher, the Archbishop of Armagh, who, in the early 17th century, calculated the precise date of the creation of the earth on the basis of the Bible: it was exactly 4004 BC. Published in Ussher's *Annals of the Ancient and New Testament* (1650), that year was soon adopted as the official date, so that it was even inserted in the margin of the published editions of the English Authorised Version of the Bible. After that endorsement, the date 4004 B.C. came to be considered as inspired by the sacred text itself [Daniel, 1962, 18]. Other studies, particularly those by Dr. John Lightfoot, offered even more detailed information: it was concluded that the sky and the earth were created, together with man, at the same moment, exactly at nine of clock in the morning of the 23rd of October 4004 B.C. [ibidem, 19]. As late as the Victorian era, in the late 19th century, it was held that the earth and mankind were 6000 years old [ibidem, 51], and the idea that only a few generations separated Moses from Adam and the creation of the world was still quite common [ibidem].

Accordingly, it was the theological vision of nature that dominated the period which saw the emergence of sciences of the historical type, including historical linguistics. This gave rise to a sharp division between the majority of scholars, who interpreted terrestrial documentation in conformity with the Book of Genesis, and a minority, which studied it in terms of natural phenomena. Obviously, if only the 6000 years of Moses' chronology could be reckoned with between the present and 4004 B.C., nothing short of a catastrophic event could explain the process of geological accumulation and change; and the Flood provided an exceptionally effective example of such a catastrophe [ibidem, 33].

On the other hand, it should be recalled that until the early 19th century the entire human prehistory was reduced, as a result of the Biblical chronology, to the so-called "Four Monarchies" - Persian, Assyrian, Greek and Roman. From that point of view, the 4000 years before Christ were not too few; on the contrary, efforts had to be made to fill them, since the four monarchies covered

only a small part of that period [ibidem, 19]. Before these four monarchies there was only impenetrable fog, and before the year 4000 was the supernatural. Historical linguistics, born in this early 19th century cultural context, located the Proto-Indo-Europeans where there was previously impenetrable fog, associating them directly with the four great civilizations and representing them even as their forbears.

In its first, still timid phase, science interpreted the observed phenomena which did not agree with the inherited knowledge as catastrophic events, which were also understood as ‘miracles’, or results of supernatural intervention. Thus the fossils, which became - and still are - the basis of palaeontology, were interpreted, always and solely, as testimonies of the Flood [Pinna 1992, 18]. We may mention by way of example the absurd interpretation of fossilized salamanders by Johann Jacob Scheuchzer, who identified them in 1726 with "the man who witnessed the Flood" (*Homo Diluvii Testis*) and considered them as "one of the rarest relics we have of that cursed race which was buried in the waters" [ibidem, 16].

The struggle to free the explanations of the evolution of nature from catastrophism represents therefore a chapter of fundamental importance in the history of science, written almost wholly by geologists and biologists, in a cultural context which gave rise to Darwin's celebrated synthesis a few decades later. In order to understand the ‘danger’ posed by the new science to the dominant culture it is useful to recall that immediately after the publication of Darwin's book in 1859 female students (!) were discouraged from attending the lectures in geology at King's College in London [Daniel 1962, 152].

3. Affirmation of ‘uniformitarianism’: The continuity of the present and the past

As regards palaeontological fossils, the traditional view laid stress on discontinuity of stratigraphic sequences, and assumed that each discontinuity corresponded to a catastrophe, i.e. to an act of supernatural intervention.

The representatives of the innovative view maintained, on the other hand, that discontinuity in nature was only apparent and, in the case of fossils, mistakenly inferred from scant documentation [Pinna 1992, 44]. Consequently, they affirmed the continuity of changes in nature and explained them as a succession of slow and gradual modifications, taking place even today, but spread over extremely long geological periods, so that they are noticeable only in geological documentation [ibidem, 44]. The principle on which this view was based was called *uniformitarianism*, and later, when it was slightly modified, *actualism*, because it explained the process of continuous development by constant and uniformitarian principles derived from the study of the present. It is this uniformitarianism which led first to the *transformism* of Jean Baptiste Lamarck (1744-1829) and then to the *evolutionism* of Darwin (1809-1882) [ibidem, 43].

The two opposed views came into conflict in France and had as protagonists Georges Cuvier (1769-1832), natural historian, geologist and founder of the palaeontology of the vertebrates [Daniel 1962, 33], but also the chief upholder of traditional catastrophism, and Jean Baptiste Lamarck, a precursor of Darwin's evolutionism and the main representative of the uniformitarian and transformationist school. Cuvier rejected completely the gradual transformation of species and he saw the biological past of the earth as a succession of catastrophes and extinctions, each followed by a new act of supernatural creation [Pinna 1992, 45]. Lamarck considered extinctions as only apparent, in so much as species did not actually die out, but were merely transformed from one into another. Consequently, Lamarck's basic premise was that there were no extinct species, but only existing species in which the old species, too, are preserved in a transformed form. Apart from the fundamental differences between the chief representatives of the two schools, some technical reasons may also help to clarify their contrasted positions: Cuvier was interested in the fossils of the vertebrates, while Lamarck studied primarily the fossils of the molluscs. Now, while the modalities of the preservation of the vertebrates are such that very discontinued series of fossils are extant, the molluscs can be easily arranged in neat stratigraphic sequences which show the

transformation of one form into another. As a result, Cuvier had greater need to assume a series of catastrophes in order to explain the discontinuities in the phenomena he studied than Lamarck, whose evidence was easier to reconcile with the view that there was no extinction, but slow transformation of one form into another and that species were not extinct, but lived on in their present and transformed descendants [ibidem, 45-46].

Besides, while Cuvier considered the palaeontological evidence quite sufficient, Lamarck thought that it was incomplete and inadequate to document all the transformations. According to him, this evidence might be used as a general proof of the progressive variation of the organic world, but it certainly did not document each stage in that variation [ibidem, 47]. Neither could all organisms be preserved in fossilized state, nor were all ambiances of sedimentation conducive to fossilization; therefore the remains which had come down to us represented merely a fraction of the complex fauna and flora living in each epoch and in each natural ambience [ibidem, 48]. Darwin himself, when he came to deal with the problem of palaeontological documentation, concluded that it must be discontinuous since it did not preserve all the forms of gradual transition that can be inferred from contemporary evidence [ibidem, 47]. In order to express this view, he availed himself of a linguistic metaphor borrowed from his predecessor Lyell, whom we shall discuss presently:

“as for myself, I consider the memories of natural geology as a history of the world imperfectly preserved and written in a variable *dialect*; of that history we possess only the last volume, which directs us to two or three regions only. Of that volume, only an occasional brief chapter has come down to us; and we have only a few scattered lines of each page” [Origin of Species, p. 296; cf. Pinna 1992, 49, emphasis mine].

Now, it is not by chance that Darwin expressed these methodological considerations concerning natural fossils in linguistic terms. For they are doubtless also applicable to the dialectal continuum and to the fossil dialects, and can be of great help for their understanding. Even the present dialectal continuum is incomplete in comparison with that of prehistory, but it does preserve traits sufficient for the reconstruction of a basic outline of linguistic prehistory. The dialectal (semantic) fossils, too, even though they are actually alive, represent a continuation of very archaic cultural strata, which have been preserved only thanks to some particular conditions of sedimentation, which the dialectologists have not thoroughly studied yet, owing to the mistaken chronological horizon within which they are accustomed to operate.

The first scholar to give a theoretic formulation of uniformitarianism was James Hutton (1726-1797), an Englishman, who published the two volumes of his Theory of the Earth with Proofs and Illustrations in 1795 [Pinna 1992, 31]: "No processes are to be employed that are not natural to the globe; no action to be admitted except those of which we know the principle" [Daniel 1962, 36]. Here we already have *in nuce* the basic principle of uniformitarianism. But the mortal blow to catastrophism was dealt by the English scholar Sir Charles Lyell (1797-1875), who set out his theory in a classic study of the history of science, the title of which is a programme in itself: *Principles of Geology, being an attempt to explain the former changes of the earth's surface by reference to causes now in operation*, published in three volumes in London from 1830 to 1833 [Pinna 1992, 32]. We are now at a moment of crucial importance both for the evolutionist theory and for historical and comparative linguistics. In 1833 Bopp began the publication of his *Vergleichende Grammatik*, which was completed in 1852. This was also a period of major importance in the career of Darwin, who published his *Origin of Species* in 1859. Lyell's book had a profound impact on Darwin [Daniel 1962, 32-33, 36]. Lyell's uniformitarianism was in fact more explicit and more rigorous than Hutton's, since it was not based on a simple application of current observations but on a general study of the history of the earth, within which the involved geological forces could be considered as uniform and constant in time [Pinna 1992, 32]. This point should be emphasised because geological changes are not directly observable and can be reconstructed only inductively. When geology refers to the present, it does not refer to a present of the 'human' type,

but to a 'geological' present, which is a very different concept. If we do not make this distinction, and consider the present in the human sense, we shall reduce the principle of uniformitarianism to a banality and render legitimate the projection of any contemporary historical episode upon the past. This was probably one of the errors made by the linguists of Lyell's and Darwin's age.

4. Catastrophism and uniformitarianism in linguistics

How did historical linguistics react to the polemic between catastrophism and uniformitarianism? It is still not possible to give a definitive answer to this question because historians of linguistics have only recently begun to study thoroughly and systematically the relations between linguists and natural historians in the 19th century [Nerlich 1990, 54].

The first results of these studies, however, seem to indicate that the 19th century linguists not only knew uniformitarianism, but that almost all of them adhered to it. They also show that this adherence was favoured and facilitated by the strong interest which the leader himself of the uniformitarianist school took in linguistics. The twenty-third chapter of another book of Lyell's - *The Geological Evidence of the Antiquity of Man, with Remarks on Theories of the Origin of Species by Variation* -, written in 1863, thirty years after his *Principles*, was actually dedicated to linguistics. This chapter bears the significant title "Origin and development of languages and species compared" and merits to be read and pondered even today for its notable and intuitive dialectological remarks. But Lyell was not the only one. His precursor William Whewell (1794-1866), the scholar who coined the term uniformitarianism in 1840, was a linguist as well as a theologian, and a member of both the Philological Society of Cambridge in the 1830s and of the Philological Society of London, which was founded in 1842 [Christy 1983, 2, who quotes Aarsleff]. Naturally, not all the linguists of the time evince equal knowledge of and adherence to uniformitarianism [Nerlich 1990, 56 ff.]. The American scholar William D. Whitney (1827-1894), one of the most intelligent linguists of the 19th century, was one of the staunchest supporters of Lyell, whom he admired and cited many times and by whom he was profoundly influenced [ibidem, 9, 31, 58, 64; Christy 1983, 78-88]. The French scholar Michel Bréal (1832-1915), the founder of semantics as a linguistic discipline, expressed himself frequently in clearly uniformitarianist terms, although he did not refer to Lyell explicitly [Nerlich 1990, 9, 58, 65]. The brilliant but superficial Max Müller (1823-1900) was perhaps the first to formulate the uniformitarianist principle in linguistics [ibidem, 41]. As far as we know, only Heymann Steinhilber (1823-1899) continued to favour explicitly catastrophism as an explanation of change [ibidem, 33, 57]. Even August Schleicher (1821-1868), in spite of his concept of 'organic linguistic change' (which placed this phenomenon outside the scope of knowledge), expressed his belief not only in 'gradual transformation' - which was compatible with his organic evolutionism - but also, and in contradiction to himself, in the identification of causes cognizable by observation [Christy 1983, 36]. The *Lautgesetzen* ('laws of phonetic development') of the neo-grammarians were actually, as it has been shown [ibidem], an obvious translation into linguistic terms of the 'laws of nature', discovered first by geology and then by biology, whose validity and regularity in (geological and biological) time was confirmed by the principle of uniformitarianism.

But what made 19th-century linguists' adherence to uniformitarianism more harmful than useful, and therefore deserves our closest attention, is the fact that it was based on a total mystification of the epistemological nature of Darwinism, with the consequent assumption that also language was a living organism. The fatal mistake that 19th-century linguistics made, and which has been inherited by linguistics until now, was the *reification* of languages into living organisms, each of which has a birth, a life and a death, and it evolves as all natural organisms, following laws that are similar to laws of nature. Laws which - as we have just seen - have been called *Lautgesetzen* or *phonetic laws*, and which have been assumed as a given of nature, escaping knowledge, precisely as biological change. This is why the most typical principle of the new historical linguistics was and is the so called *linguistic organic change*, and this is also why most 19th-century linguists considered themselves as supporters of the principle of uniformitarianism, since the idea that language evolved

following natural laws looked exactly like what the uniformitarianists had discovered about nature.

It is, therefore, apparent: A) that at the time when historical linguists adhered to the principle of uniformitarianism, those among them who were destined to become the dominant group - Schleicher and the neo-grammarians – based their adhesion on the misconception of language as a living organism, thus accepting the organic interpretation of linguistic change which mystified it and placed it outside the scope of knowledge and critical study. B) More importantly, that the organic change of language, unlike geological and biological change, was situated in a chronological horizon which was in fact still postdiluvian. While geology, biology, archaeology and anthropology, freed from the concept of catastrophism, were making the antediluvian period the very object of their study and opening widely its abysmal depths to observation and research, linguistics still regarded prehistory as a period of absolute darkness, and the rapid ticking of the organic clock by which – according to them - language was measured, compelled scholars to clutch at straws trying to make things fit. Having gone out at the door, catastrophism re-entered through the window.

In other words, the concept of catastrophe was not only retained, but it was even interpreted as a blitz-invasion by the Indo-Europeans resulting in the extermination of the pre-Indo-Europeans, while the antediluvian antecedents of the ‘cursed race’ were transformed into an obscure pre-Indo-Europeans people. The application of the uniformitarian principle was thus degraded to a simple recourse to the present for the study of the most recent prehistory in terms of contemporary human history and could be therefore made to serve, depending on the current circumstances, any dominant Eurocentric ideology - invasionist, colonialist, or racist.

The support given by the neo-grammarians to uniformitarianism was, therefore, a cosmetic operation. Uniformitarianism was quite a different thing. It was a principle which affirmed the uninterrupted continuity of species from their origins, in spite of their transformations and the incompleteness of contemporary evidence. This is precisely the lesson which, as it seems to me, linguistics and the other humanistic sciences have failed to learn. Historical linguistics has tended, by and large, to attribute the greatest importance to extinct species, and, moreover, to a completely imaginary extinct species (pre-IE), while it might have come to the conclusion, if it had followed the method of Lamarck and Darwin, that the present languages are, with the exception of some cases of partial extinction, the outcome of a transformation of archaic languages.

Naturally, today there is no historian who is not aware of the validity of the uniformitarian principle. I myself learnt it as a student in the 1940s, in the unusual form given to it by my professor of classical history Gaetano De Sanctis: he was fond of repeating that truth was not expressed only by the Ciceronian dictum *historia magistra vitae*, but also by its opposite: *vita magistra historiae*.

In modern linguistics the uniformitarian principle was later explicitly adopted by the American scholar William Labov, the founder of sociolinguistics. This affirmation of uniformitarianism by sociolinguistics was very important because it provided a sound basis for the projection of the results of Labov's original studies of the sociolinguistic origins of linguistic change upon the recent history of linguistics [particularly Labov 1966]. Naturally, one should avoid the risk, very real in our time, of projecting upon all human past a social model involving a conflicting structure, which, as regards prehistory, may at the most be applied to the stratified societies of the metal-working ages, but would exclude all earlier developments.

As regards the basic issue, i.e. the assumption of a past beyond the scope of knowledge whose insurmountable threshold coincides with the beginning of the metal-working ages or, at the earliest, with the Neolithic, historical linguistics has in my opinion continued to adhere to the concept of catastrophism because of ideological influences.

5. Other indications of catastrophism in the history of linguistics

There are also other indications which seem to confirm the existence and persistence of the principle of catastrophism in linguistic studies.

5.1. The 'forbidden' study of linguistic origins, the obscurity of linguistic prehistory

The most important confirmation is perhaps to be found in the censorious attitude of linguistics, precisely during its initial scientific phase, to the study of linguistic origins. As it is known, this censorious view was upheld by the prestigious *Société Linguistique de Paris* from its foundation in 1868. The date is symptomatic, because it is clearly associated with the perspectives opened up by Darwinism. The statute of the SLP did not admit "aucune communication concernant ... l'origine du langage" [*Mémoires de la SLP*, 1868, 1, 111; cf. Nerlich 1990, 39], which defines a position which is singular indeed and which would merit careful historical reconstruction. To begin with, when it was condemned, the study of the origins of language was not in its initial stage, but it could boast of a long series of scholars, including some of the most distinguished representatives of European culture: Locke, Adam Smith, Lord Monboddo, Steward, Müller in England, Condillac, De Brosses, Court de Gébelin, Rousseau, Rénan in France, Heerder, F. Schlegel, Jakob Grimm, Jaeger, Steinthal, Süssmilch, Geiger in Germany, Gian Battista Vico in Italy [Nerlich 1990, 82]. The advent of Darwinism gave rise to a new wave of studies of the origins of language by the linguists and scholars of the epoch [ibidem, 82-83]. Why was this admirable line of research, of which even the scholars in France must have been proud, cut off?

Here again we are faced with a consequence of the radical difference between the position of linguistics and the attitude of natural sciences of the historical type, such as geology, biology, palaeontology, anthropology and archaeology. For these disciplines, as we have seen, the rejection of catastrophism opened the door to the study of prehistoric past and marked the beginning of their scientific phase. In 1871 the anthropologist Edward Burnett Tylor (1832-1917) could in his classic *Primitive Culture* invoke uniformitarianism as the "doctrine of permanent principle" and the "fundamental principle of ethnographic research" [Christy 1983, 11]; and, in an article written for the *Encyclopaedia Britannica* in 1878, he spoke of it in terms of an "instant revolution in all accepted theories of man's antiquity, substituting for a chronology of centuries a vague computation of hundreds of thousands of years" [ibidem, 8]. In 1874 the archaeologist Boyd Dawkins could celebrate the beginning of archaeology as a science by declaring that it was finally able to see "real places, real men, real facts", where there had previously been the impenetrable mist of the antediluvian period [Daniel 1962, 70]. To linguistics, however, these doors which were being opened on prehistory were barred by an act of express prohibition. Why? Why historical linguistics, at the beginning of its scientific period, found it necessary to forbid, almost in a dictatorial manner, the study of the origins of language and to exclude it from the sphere of institutional research? The explanation is certainly not the one that is usually offered - the proliferation of dilettantish studies. It has never occurred to anyone to prohibit etymological research because of the intense activity of dilettante etymologists. There must be something much more serious behind this decision.

The only plausible explanation, to my view, should be sought in the continued adherence to the ideology of catastrophism, in spite of the recent cosmetic operation meant to demonstrate a superficial adoption of uniformitarianism. It could not have been anything else but the wish to salvage at any cost the nucleus of catastrophism that made these scholars refute, in an institutional and administrative manner, the possibility of the study of linguistic prehistory and thus re-establish that total discontinuity between the phenomenology of the present and the historical past on the one hand and the phenomenology of prehistoric past on the other hand, which had been typical of the opposition between the postdiluvian and antediluvian periods. What we are dealing with is a simple, though subconscious, attempt to disguise catastrophism.

The prohibition also betrays fear of innovation and reveals the dogmatic character of the position that is being defended. A truth that is dogmatic, no longer subject to free discussion, is in fact always destined to transform the pursuers of truth into 'defenders of the established order'. Research into the origins of language, evidently, posed a threat to the new, neo-grammatical version of the theory of catastrophism, which had already become predominant in historical linguistics.

It should be also recalled in this context that according to the traditional theory, and

particularly according to its more canonical versions, the Indo-Europeans did not know the Palaeolithic or Mesolithic. It was thought that the Indo-Europeans, as we know them, had never been barbarians, or, even less, savages. They were supposed to have been born civilized, and that they had from the beginning wheeled vehicles, kings, mounted warriors, priests, tripartite religions, acquisitions, compensations, credits, rents, prices and salaries! The Indo-Europeans could not have had anything to do with the 'cursed race' associated with antediluvian fossil salamanders. Mallory has an observation which is illuminating in this context: "Only by assuming the preposterous notion that the PIE language originated simultaneously with human speech itself can we imagine it to have been anything other than a segment of the overall continuum of human speech in Eurasia" [Mallory, 1989, 145]. The idea that modern languages have some connection with the birth of *Homo loquens* - an idea now accepted by many interdisciplinary scholars - appears "preposterous" to him. Why? In fact, each language must derive, in one way or another, from the origins of language, just as each individual and each human aspect must derive, in one way or another, from the evolutive line common to all mankind. The hypothesis is "preposterous" simply because it rebuts the dogma that IE is of a very recent and privileged character and that it cannot have participated in the prehistory of mankind.

5.2 "Reliquiae diluvianae" or: Pre-IE

I have already discussed in the preceding chapter the ideological aspect inherent in the concept of a blitz-invasion of the colonizing type by a superior race. The theory of catastrophism brings to light another ideological aspect underlying that concept. The 'pre-Indo-Europeans' were not merely acculturated by the supposed invasion, but obliterated, wiped out from the face of the earth. We are dealing, consequently, not only with the ideological aspect which concerns the IE rulers, which is now generally recognized as colonialist, or Aryan, or Eurocentric, but also with a more archaic ideological aspect, which concerns the 'dominated', even the 'damned', which has not been given sufficient attention in historical research. If we consider that the IE masters, as a superior race, were deservedly triumphant, we should also think that the pre-Indo-Europeans, as a damned race, were equally deservedly obliterated from the face of the earth in a catastrophe. This catastrophe, according to this view, was unique and unrepeatably, unequalled in the entire human history. Naturally, the concept of an event unique in the history of mankind shows in itself that it has not been arrived at by means of uniformitarian methods. Consequently, if we bear in mind the period in which this ideology was formed, it is not hazardous to suppose that it had taken root and grown in the soil of the preceding catastrophism, to be later transformed into the maniacal dream of the extinction of all the indigenous populations and of their languages by a superior race. Naturally, in the present context the colonialist dream has vanished, and the scenario has had to be partly revised. But the deposits of dogma die hard and can continue to exercise their influence by the sheer force of inertia.

5.3. The 'diluvial' dating of the arrival of the Indo-Europeans

Vestiges of catastrophism are also noticeable in two different aspects of the traditional dating of the IE diaspora.

The very low dating accepted for IE is in sharp contrast with the dating, proposed much later by historical linguistics for the other linguistic phyla. In the case of the linguemes of the Australian aborigines, for example, it is accepted without a shade of doubt that they are a continuation of those of the earliest inhabitants of the continent, who populated the island 40,000 years ago. Forty thousand years of continuity! In the case of the indigenous linguemes of the Americas, too, no one doubts that they represent a continuation of the languages of the earliest immigrants, who came to the New World, most likely through the Bering Strait, at a controversial date, but probably not before 23,000 BC. The mind boggles at these figures, compared with the 6,000 years supposed for IE! As regards most of the other Old World, African, Sino-Tibetan or other Asian phyla, there are no sufficiently elaborated theories of their origins, but neither is there anything to prevent us from thinking that they are associated with the earliest settlement of these territories. It is only for the

Indo-Europeans – as well as for the remaining typically European language phyla, as we shall see shortly - that a diluvian chronology is reserved! What are we to think of this difference between the age of IE and that of the other linguistic phyla? Here too, the explanation seems irrefutable: the IE languages *must* be recent, simply because only they are civilized and therefore they must be born perfect, like Athena from forth the head of Jove. It is not by chance that there are constant references to the presumed ‘perfection’ of IE in the historical linguistics of the initial period. Obviously, this schizophrenic conception of linguistic history, which allows very early dates for the languages of the ‘savages’ and imposes very recent dates for the languages of the ‘civilized’ populations, is based on the racist ideology, and, moreover, on one of its more archaic versions, which divides mankind into the saved and the damned.

5.4. The recent dating of the arrival of Uralic and Altaic people

A similar piece of evidence of this refusal of prehistory can be found in the choice of the same explanatory model also for the origin of the Uralic people (earlier limited to the European Finno-Ugric): until two decennia ago, also these were seen as invaders in the Iron Age, coming from an unknown area and replacing unknown people. As to the Altaic (Turkic and Mongolian) people, even now they are still seen as even more recent, in fact Medieval, invaders, coming from nowhere and replacing earlier IE invaders, in the typical merry-go-round that characterizes the traditional ethnogenesis of Eurasia. In short, the languages of the modern civilizations that influenced the formation of Europe could not have anything to do with the ancient prehistory of savage people.

5.5. Pictet's "antediluvian palaeontology"

A final indication of the residues of catastrophism is noticeable in the name itself of *linguistic palaeontology*. This term was introduced by Adolphe Pictet (1799-1875), who used it in the title of his powerful and still useful work, published in 1859-1863. As we know, 1859 was also the year of the publication of Darwin's *Origin of Species*. It is therefore quite possible that Pictet was still sailing in the waters of catastrophism when he chose the term "paléontologie arienne" to indicate a field of studies which he compared, significantly enough, to the studies "du naturaliste qui étudie les regnes *antediluviens*" (emphasis mine).

Pictet was perhaps one of the most profound scholars studying Indo-European antiquity in the pioneering period, and his views are certainly not very representative of the dominant Aryan ideology of his time. But it is enough to read again what he writes about the Aryan race in the opening pages of his book to see how near he is to that ideology:

"une race destinée par la Providence à dominer un jour sur le globe entier [...] Privilégiée entre toutes les autres par la beauté du sang, et par les dons de l'intelligence, [...] cette race féconde travaillait à se créer, comme puissant moyen de développement, une langue admirable par sa richesse, sa vigueur, son harmonie et la perfection de ses formes."

It is this mixture of residual catastrophism and pre-racist ideology that seems to me to be at the base of the theory of discontinuity and of language replacement, which the later generations of scholars came to accept by sheer inertia.

6. Conclusion

By adopting the beginning of the Metal Ages as a rigid *terminus post quem* for the end of PIE, traditional linguistics continued, without wanting or knowing it, the line of pre-scientific studies, whose *terminus post quem* was the Flood. The enormous, almost infinite chronological span revealed by scientific research, which demolished the Biblical myth of the Flood as the beginning of natural history and gave rise to innumerable achievements in the field of geology, biology, genetics, archaeology and all the sciences studying prehistory, has never been really laid open for the historical and comparative linguistics of IE. The traditional catastrophic view arrested the development of IE linguistics at positions typical of the pre-scientific stage of the 19th century,

positions which became as dry branches, incapable of rejuvenation and destined simply to fall off.

How can we explain the survival of these residues of a pre-scientific ideology up to the present in spite so many other advances in scientific research? In my view, the principal causes of this survival lie, on the one hand, in the ideology itself, which tends, by its very nature, to operate by inertia, and, on the other hand, in the assumption that language is governed by the law of organic change.

Ideology - veiled by arguments which might have seemed scientific - has actually continued to make a distinction between the Indo-Europeans and the other populations of the world which have a prehistory as savages and which are, therefore, destined to remain such. This distinction is based on the view that the autochthonous populations of prehistoric Europe - wholly similar to the savages of the other continents - could not have had anything to do with historic and modern Europeans, and that consequently the prehistory of the Indo-Europeans belonged to a kind of obscure and impenetrable limbo, a sort of scientific substitute for the dogma of creation.

On the other hand, the law of linguistic change of the organic type made the ignorance of the remote history of the Indo-Europeans legitimate, because it made it possible to regard the reconstructed PIE as the first cognizable and recent shot in a film about evolution, the earlier pictures of which could not be reconstructed in any way and were therefore beyond the scope of science. In pursuing this line of thought, the rigid model of invasion and language replacement was made use of to account for the contradiction between the linguistic continuity of the greater part of the populations of the world and the discontinuity of the Indo-Europeans.

It is possible that my diagnosis is only partly correct. On the methodological level, however, it does seem quite clear to me that once historical linguistics is freed from the idea of catastrophic discontinuity - and from the concomitant rejection of European prehistory as the Europeans 'own' prehistory and of the dogmatic belief in a total language replacement - any theory of the origins of European languages must converge upon that of the linguistic origins of the other continents, and it must have an unlimited chronological horizon not different from that of archaeology and the other prehistoric sciences.

It seems to me equally clear that once this new chronological horizon is recognized the theory of the origins of European languages will be inevitably transformed into a generalized Theory of Continuity.

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