

THE INDO-EUROPEAN HYPOTHESIS IN NINETEENTH CENTURY
PHYSICAL ANTHROPOLOGY

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In 1858 William Ripley recalled an important nineteenth century assumption:

In our school days most of us were brought up to regard Asia as the mother of European people. We were told that an ideal race of men swarmed forth from the Himalayan highlands, disseminating culture right and left as they spread through the barbarous West. The primitive language, parent of all the varieties of speech--Romance, Teutonic, Slavic, Persian, or Hindustanee--spoken by the so-called Caucasian or white race, was called Aryan. By inference, this name was shifted to the shoulders of the people themselves, who were known as the Aryan race.¹

This assumption of Indian origins for modern Europeans is called the Indo-European, or Aryan hypothesis. I would like to trace its history, explain why it appealed to anthropologists, and show how it delayed their acceptance of evolution.²

Background.

The Aryan race was created by eighteenth century linguists who became aware of structural similarities between Persian and classical Greek, Latin and German. In 1786 William Jones demonstrated the affinity of all these languages with Sanskrit, the language of ancient India, and extended Europe's linguistic ties even farther east. Then in 1820 J. C. Rhode reasoned that because Sanskrit was more rudimentary than European languages, it was closer to the Indo-European mother tongue. Rhode fixed the Aryans' homeland in the mountainous central plateau of Asia. From here, theoretically, they had emigrated when temperatures fell drastically. Linguists Julius von Klaproth, Christian Lassen and August Pott

elaborated on the central Asian theory and Franz Bopp finally elevated it to the rank of philological dogma in Grammaire comparée.³

This dogma was reinforced by linguistic paleontology, a technique that employed language vocabulary designata to reconstruct extinct cultures, producing elaborate pictures of Indo-European life. A. Kuhn attributed plant domestication to the Aryans, Jacob Grimm added pastoralism, and Adolphe Pictet painted the most flattering portrait in Les origines indo-européennes et les Aryas primitifs, essai de paleontologie linguistique. Pictet romanticized the Indo-Europeans in Bactracia, where he placed their homeland on the basis of floral, faunal and geographical references in Sanskrit. Pictet's ideas were readily adopted by European anthropologists, especially Max Müller, who became the dean of Sanskritists. By mid-century the Aryans were cast in near heroic proportions, making their descendants, modern-day Europeans, seem degenerate in comparison. A contemporary astutely noticed that this relationship was the opposite of evolution:

In 1873 the linguist Fisk, in a book about the Original Unity of the Indo-German Language of Europe, described the primitive civilization of the Aryans with the same idyllic colors as Pictet, accusing those who thought otherwise on this subject of being kind to Darwinism. Only a Darwinist, that is to say a man for whom the idealist philosophy is a closed matter, would think of finding the origin of the history of the Aryans a miserable material state, a rude and coarse state. Fisk, after Pictet, had found the key to paradise.⁴

The appeal of Aryanism.

Today anthropologists scoff at the Indo-European hypothesis, but during the nineteenth century it was attractive for several reasons. First, it was based on the popular equation of language with race. Early

anthropologists correlated linguistic and other behavioral differences with race, even if they did not explicitly reduce the differences to biology. Undoubtedly these anthropologists were excited at the possibility of reducing so many languages and races to a common source. Language phylogenies preceded racial phylogenies in the history of science and may even have served as their model.

Second, the East attracted Westerners who thought that it was the fountainhead of Western civilization. Subsaharan Africa, the Americas and Oceania were eliminated because they were the homes of non-Caucasians, whereas the Aryans were "white" and therefore possible bearers of Western civilization. Asian plateau was also the location most central to the radiation of Indo-European peoples and tongues. Central Asia was also unexplored; thus, there was little ethnographic evidence to contradict the assertion that Aryans could have lived there. Finally, the East was the locus of Biblical activity, so familiarity with and acceptance of the hypotheses were achieved by retaining this reference. Physical anthropologists today place the origin of modern Caucasians in the same region, seeming to believe that "older" means "farther east".⁵

Third, because many races were excluded from the Aryan family, Aryanism was appealing as a doctrine of racial separateness. Racial determinism was popular in the nineteenth century, and historian Léon Poliakov interprets the Indo-European hypothesis as contradicting the Biblically-inspired unity of man thesis:

Thus, the most diverse authors and disciplines concurred in situating the cradle of the whole human genus between the Indus and the Ganges. It remained to linguistics to give its word, which it did in a decisive yet ambiguous manner: on the one hand in clearing the fog of

venturous suppositions, but on the other hand in making a new supposition just as weak--that it was not the whole human genus, but one particular race, a white race, that by succession became Christian and descended the mountains of Asia to colonize and fertilize the Occident. All this happened as if the Europeans of the scientific era, liberated from the conventions of the Noachian genealogy and objecting to the common father Adam, looked for new and special ancestors, without breaking all that much with the tradition that placed their origin in the fabulous Orient. Linguists allowed them to design these ancestors by opposing the Aryans to the Hamites, the Mongols--and the Semites.⁶

This interpretation has many facts to support it and has been pursued by other anthropologists.⁷

The Indo-European hypothesis appealed to anthropologists in the nineteenth century who undertook to debate it seriously and at length.

The anthropological debate.

The Indo-European hypothesis developed before fossils and artifacts began to suggest that Europeans were indigenous. Then in 1859 scientists officially acknowledged Boucher de Perthes' archaeological discoveries as proof of man's coexistence with antediluvian animals, opening up a whole new period in prehistoric studies. In the same year Charles Darwin published his epoch-making Origin of Species and inspired doctrines of human evolution. Groups of scientists soon met to discuss the effects of human antiquity and human evolution on traditional views. These men were anatomists and physicians by training and called themselves "anthropologists" rather than "ethnologists", who had older ethnographic and culture-historical orientations. Three main professional organizations became the forerunner of physical anthropology today: the Société d'Anthropologie de Paris (1859), the Anthropological Society of London

(1863) and the Deutschen Gesellschaft für Anthropologie, Ethnologie und Urgeschichte (1870). The Paris Society, like French anthropology in general, was paramount.⁸

Almost all anthropologists accepted human prehistoric antiquity and many accepted human evolution. Some reformulation of the Indo-European hypothesis was called for. The image of Indo-Europeans as the original colonizers of Europe gave way to their image as recent immigrants transmitting civilized traits to indigenous European barbarians. Agriculture, animal husbandry and metallurgy were among the progressive elements supposed to have been imported by the Aryans. The mounting evidence of man's prolonged European habitation forced linguists to move the Aryan homeland closer to Europe. Because bibliolatry was practiced longer in Britain than on the Continent, British anthropologists were somewhat reluctant to desert the Eastern focus, but in Germany and especially in France, where anthropology's popularity was partially due to its anti-clerical thrust, the new formulations were embraced enthusiastically. The manifold Indo-European hypothesis was a major plank of the French anthropological platform, as J. J. d'Omalius d'Halloy observed in 1864:

The most eminent men there for thirty years have given their complete approval . . . There is no one at the Society of French Antiquaries or at the Academie of Inscriptions and Belles-lettres who questions it. To attack it is, in a word, to attack science itself.

After mid-century anthropologists began to question the Indo-European hypothesis as originally formulated. The Bible was losing control over science, and scientists grew skeptical of the race-language equation. Also, there was anthropological debate over paleontological and archaeological facts: did bones and artifacts support an Eastern

origin of Europeans or not?

Back in the 1840's Anders Retzius introduced the cephalic index measurement, a breadth-length ratio of the skull in norma verticalis position. Retzius called long-heads dolicocephalics and short-heads bracycephalics (an intermediate category of mesocephalics was added later) and claimed that bracycephalics had lived in Europe before dolicocephalics. This idea was widely accepted and grafted onto the Aryan hypothesis; thereafter the indigenous Europeans were to be bracycephalic and the Aryan immigrants dolicocephalic. Such an interpretation was welcomed by anthropologists from northern Europe, where people, quite willing to be honored with an Aryan ancestry, were predominantly dolicocephalic. Anthropologists from France and central Europe, where many people were bracycephalic, fought for Aryan affiliation either by claiming a larger proportion of long-heads or by rejecting Retzius' theory. Thus, anthropological nationalism infected answers to the question of who came first, bracycephalics or dolicocephalics?¹⁰

These themes emerged early in the 1860's at the Paris Anthropological Society, where d'Omalius d'Halloy attacked the orthodox Indo-European hypothesis and sparked a long debate. Using historical data, d'Omalius d'Halloy argued that Asia was a European colony. Pointing to Europeans' successful global conquests in history, he reasoned that prehistoric Europeans, although less technologically advanced than their modern counterparts, nevertheless could have penetrated at least as far as central Asia. Also, races could share the same language without sharing the same racial origin, so that the Aryan tongues could have come from either Europe or Asia:

I add also that the ordinarily progressive march of civilization inclines me to believe that it is more probable that the Europeans, still barbarians, carried their language into Bactracia, where they became civilized enough to write the Veda and the zen documents, than that the civilized people of Bactracia went to Europe to lose their civilization to the point that the Slavs and the Germans could not write at the time of Tacitus.¹¹

Paul Broca supported d'Omalius d'Halloy with his argument that racial and linguistic origins did not necessarily coincide. Impressed with the antiquity of European racial diversity, he suggested that European languages developed in Asia but that European races were aboriginal. Broca reasoned that if a single race had colonized Europe, then there should be correlations between variations in the European environment and modifications induced in various populations of this race. There was no such evidence. Broca diagnosed many similarities between prehistoric and historic Europeans and therefore concluded that even if the Aryans supplied Europeans with their language, they did not make a major physical contribution:

What's more, if one takes the people from Asia in the stages that they have achieved here and there along the way, one is able to prove that they belong to a dolicocephalic race; but before their arrival on our continent there were at least a bracycephalic race and a dolicocephalic race, and this can be demonstrated by examining the human remains of the most ancient sepulchers. Moreover, who is able to say if in the distant past the differences which one sees between the contemporary races don't exist just as marked? For me, I am of the opinion that the Asiatic invaders found themselves faced with a human fauna that did not differ sensibly from the present day, in detail or on the whole.¹²

D'Omalius d'Halloy and Broca were still in the minority in the early 1860's, when Franz Pruner-Bey spoke for the majority against them. His argument was based on his belief that nations always drive for the sea and thus that in Eurasia migrations have been eastward rather than west-

ward. Pruner-Bey also observed that Europeans had not been as successful colonizers as, say, the Magyars and Turks. Analyzing the folk histories of many Europeans, he concluded that they came from outside Europe in spite of the fact that their legends portrayed them as native. Any indigines inhabiting Europe when the Aryans arrived were unimportant in modern European ancestry:

It follows from that which preceded that, except for one part of Iran (which I think is one of the most eloquent proofs of the true cradle of our family), the Aryan is found everywhere he has taken domicile in contact with the inhabitants of the land more ancient than he. This is as true for India as for Greece and Italy, as certain for France and the British Isles as for the Iberian peninsula. In effect, although they consider themselves autochthonous, the Greco-Italians mention many times in their accounts the barbarian people they consider to be the first occupants of the land, and it is the same with the Hindoos.¹³

In 1873, C. Royer made use of the northern European characterization to combat the Indo-European hypothesis. Royer did not mind linking European and Asian languages and races, but she did object to the assumed direction of migration, arguing strongly for a European origin:

I believe, on the contrary, to be able to establish that all the proofs, all the historic and prehistoric facts, lead to an absolutely opposite conclusion: that is to say, the Aryans were born in Europe and spoke primitive Aryan in Europe; also that they gave as a cradle to the white race, blond or brunet, the geographical center that they still occupy and that they rule in exclusive and absolute mastery, absorbing all the ethnic elements that come to invade them; and finally that the general direction of Aryan migrations had been from the Occident into the Orient, from Europe into Asia.¹⁴

Royer cited research conclusions that most Europeans were born with blond hair, some of which darkened later, and that brunet children never turned blond. Since blondness also predominated in race crossings, Europeans

were basically light-haired and therefore more Aryan than were Indians. By this time anthropologists were more receptive to such ideas and saw the wisdom of locating the Aryan homeland farther west: Martin placed it in Turkestan; Topinard in the Caucasus Mountains and Pietrement at Lake Balbach. Royer's thesis also led to lengthy discussion about the origin of animal and plant domestication and metallurgy, also attributed to the Aryans.¹⁵

Discussions like these continued throughout the century in France and elsewhere, while paleontological evidence pointed to a diversity of prehistoric racial types, contradicting Retzius, and while an increasing number of nations claimed that they were the "true" Aryan heirs. The result was confusion in Aryan studies, as Ripley noted in 1899:

. . . the present status of the Aryan question among philologists is somewhat as follows: Some--Delbrück, for example--deny that any parent language ever was; some, like Whitney, refuse to believe that its centre of origin can ever be located; some with Fick and Hofer, still cling to Pictet's old theory of Asiatic derivation; some, notably Sayce, have been converted from this to the European hypothesis; Max Müller is wavering; while Brinton and Keane urge the claims of northern Africa; and some, following Latham and Schrader, have never found good cause for denying the honour to Europe from the first.¹⁶

This quandry was not really settled until the National Socialists in Germany made Aryanism a dogma. But in the meantime the hypothesis had other effects.

The effect on evolution.

The Indo-European debate coincided with the debate over evolution. Anthropologists kept these two issues separate because one focused on the origin of Europeans from other races, whereas the other focused on the

origin of man from an animal. But Aryanism influenced the fortunes of evolution. Time and energy devoted to the Indo-European hypothesis could not be devoted to evolution, and paleontological and archaeological facts brought to bear on the hypothesis were not brought to bear on Darwinism. Anthropologists who accepted human evolution tended to reject the Asian origin of Europeans, being less inclined to follow the Bible and more inclined to treat fossils as proof of indigenous development. Broca, Royer and Topinard were among those adopting this view. Anthropologists who were traditional in their adherence to the Indo-European hypothesis also tended to be traditional in their skepticism about evolution, like Pruner-Bey.

Adherence to the Indo-European hypothesis clearly retarded anthropologists' acceptance of evolution. Anthropologists did not perceive fossil remains as potential missing links but as bracycephalic or dolicocephalic individuals and thus as potential pre-Aryans or Aryans. They were so preoccupied with the racial diagnosis of Engis, Neanderthal, Naulette and Cro-Magnon that they hardly considered whether or not these forms were transitional.¹⁷ The most authoritative paleoanthropological work of the century was Armand de Quatrefages and E. T. Hamy's Crania ethnica (1872-1883), an inventory of fossil races written by two non-Darwinians whose purpose was to dispose once and for all of Retzius' theory. No attention was paid to evolution. This static framework was employed with few exceptions until the end of the century, so there were few genuinely evolutionary attempts to analyze fossil man.¹⁸

Adherence to the Indo-European hypothesis retarded the consideration of human evolution because it phrased European prehistory in terms

of racial succession by replacement rather than by transformation. Even the few anthropologists who believed that Neanderthal evolved into Cro-Magnon stopped short of accepting the upper Paleolithic Cro-Magnons as lineal ancestors of the Neolithic, historic races of Europe. More often Cro-Magnon and Neanderthal were classed together as prehistoric barbarians while the Neolithic races were associated with Aryan immigrants. There was a clear gap between the Paleolithic and the Neolithic or civilized period when the transition--but not transformation--from prehistory to history took place. Anthropologists assumed the existence of this gap so widely that they did not feel the need to explain it, and it persisted even after many of them had accepted evolutionary relationships among the "lower" races. Thomas Henry Huxley recognized the implications of this attitude:

If these old men of the sea, the heights of Hindoo Koosh-Pamir and the plain of Shinar, had been less firmly seated upon the shoulders of anthropologists, I think they would long since have seen that it is at least possible that the early civilization of Europe is of indigenous growth; and that, so far as the evidence at present accumulated goes, the neolithic cultures may have attained its full development, copper may have gradually come into use, and bronze may have succeeded copper, without foreign invention.¹⁹

As long as anthropologists clung to the Indo-European hypothesis they could safely acknowledge human prehistoric antiquity and even human evolution up to the prehistory-history border, without entailing the supposition that modern Europeans had evolved from such brutes. The "high" European races had to come from the even higher Aryans until the concept of development from lower forms was grasped and fully accepted. The Indo-European hypothesis itself was one reason why this understanding was delayed.

NOTES

¹Ripley, 1899, p. 453.

²Following continental usage, I use "anthropologist" to mean physical anthropologist.

³Reinach, 1892, p. 9ff.

⁴Reinach, 1892, p. 23. My translation. See also Schrader, 1890.

⁵See, for example, Carleton Coon's, The origin of races and David Pilbeam's, The ascent of man.

⁶Poliakov, 1971, p. 188. My translation.

⁷See, for example, Marvin Harris', The rise of anthropological theory.

⁸Erickson, 1974, pp. 39-57.

⁹d'Omalius d'Halloy and others, 1864, p. 370. My translation.

¹⁰Retzius, 1859, p. 209ff; Retzius, 1909, p. 288; and Holtzmann, 1970, p. 44ff.

¹¹d'Omalius d'Halloy and others, 1864, p. 240. My translation.

¹²d'Omalius d'Halloy and others, 1864, p. 196. My translation.

¹³d'Omalius d'Halloy and others, 1864, pp. 234-235. My translation.

¹⁴Royer, 1873, p. 906. My translation.

¹⁵Royer, 1873, p. 906ff; Henri Martin and others, 1879, pp. 185-214; and P. Bataillard and others, 1879, pp. 344-357 and 443-447.

¹⁶Ripley, 1899, p. 48.

¹⁷For a detailed analysis of the interpretation of early fossils,
see Erickson, 1974, pp. 140-182.

¹⁸Erickson, 1974, pp. 182-230.

¹⁹Huxley, 1895; p. 314.

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