



Anténor Firmin

THE Equality OF THE HUMAN RACES

Anténor Firmin

Translated by Asselin Charles

Introduction by Carolyn Fluehr-Lobban

University of Illinois Press
Urbana and Chicago

Preface

There is an element of chance in all human endeavors. When I arrived in Paris, it never entered my mind to write a book such as this one. I am predisposed, both by my profession as a lawyer and by my studies, to concern myself with questions pertaining to the moral and political sciences. I had no intention, then, of entering a field in which I could be considered a layman.

Most of my friends even thought that I would take advantage of my stay in Paris to study for the licence and the doctorate at the Faculty of Law. That would certainly have suited my ambitions, had it not been for the exigencies of such studies and my family obligations. Nevertheless, if without having had the good luck of growing up in Europe one has worked conscientiously in one's country in order to earn one's title, I believe it is useless to recommence studies in a field of knowledge already more or less successfully covered. The mind has other needs that must be met as well. Meeting those needs largely compensates for the lack of a highly desirable degree, especially as the absence of such a degree in no way depreciates the work done outside European universities.

I will now explain how the inspiration for this book came to me. Dr. Aubertin, whose liberal and congenial character I can never praise enough, met with me a number of times. He was good enough to find our several conversations interesting, and one day he graciously offered to submit my name for admission to the Paris Anthropological Society (*Société d'anthropologie de Paris*). My academic background was such that I could immediately benefit from the works of this society within which so many eminent men gather in order to discuss the loftiest and most in-

interesting questions imaginable, that is, to study man. It is with gratitude, then, that I accepted an offer, which I appreciated particularly because it had been so spontaneous.

My candidacy, under Dr. Aubertin's sponsorship, was successful. I was introduced by him, Mr. De Mortillet, and Mr. Janvier, and I was elected a member of the scientific society at their meeting of the 17th of July of last year [1884]. I take this opportunity to express to these gentlemen my deep gratitude.

I do not have to hide it. I am always shocked whenever I come across dogmatic assertions of the inequality of the races and the inferiority of Blacks in various books. Now that I have become a member of the *Société d'anthropologie de Paris*, such assertions seem to me even more incomprehensible and illogical. Does it make sense to have seating as equals within the same society with men whom the science which one is supposed to represent seems to declare unequal? At the opening of our meeting at the end of last year, I could have requested a debate about the issue within the Society in order to elucidate the scientific reasons why most of my fellow scientists divide the human species into superior and inferior races. But I risked being perceived as an intruder and, being ill-disposed against me, my colleagues might have rejected my request without further thought. Common sense told me I was right to hesitate so. It was then that I conceived the idea of writing this book. I urge the specialists to meditate on its content, while at the same time I beg their indulgence. Whatever they find good in it is due to the effectiveness of the positivist methodology which I have tried to apply to anthropology, founding all my inductions on the principles already recognized in the established sciences. It is such an approach that imparts an uncontested validity to the study of anthropological questions.

Such a subject requires long and laborious studies. The haste with which I undertook the project undoubtedly has affected its execution. The fact is, I could not count on finding sufficient free time in the future. Time was of the essence, and I was not sure that any of my Black colleagues had both the good will and the patience one needs in order to construct, combine, and present the arguments and the research materials in the way I strove to do.

Have I succeeded and written a book with the clarity, precision, and all those other attractive qualities that captivate the mind, a book that exerts the fascination of those works designed to propagate ideas which are correct but yet contested and misunderstood? I cannot be certain that I have. I have never trusted my talent as a stylist. Furthermore, as I devel-

oped my thesis of the equality of the races, I was in such a depressive mood that my thinking was affected. Such circumstances are not conducive to stylistic elegance and vigor, qualities which come through only when the mind is healthy and the heart expansive.

I may have written an awkward phrase here, an incorrect sentence there. I beg my readers' indulgence, asking them to consider the difficulties inherent in the issues I had to tackle and the haste imposed upon me by circumstances. Perhaps I overestimated my strength. I did feel that way sometimes. Only the thirst for truth and the need for light sustained me in my work. Nevertheless, whatever the outcome, I will never regret having undertaken this work. "Within this floating mass of humanity," writes Mason, "there is an ordered movement. Our small circle is part of a larger circle, and our mind gains a measure of temporary satisfaction as it glimpses a new truth. The pursuit of that truth strengthens our intelligence. This is how natural selection works for the mind. While some tire and cannot go further, others advance and become stronger by exerting themselves."¹

In arguing the thesis at the core of this work, I wanted essentially to justify the warm welcome I had been given by the *Société d'anthropologie de Paris*. I hereby pay homage to each of its members, my honorable colleagues. I often happen to challenge most anthropologists and to harbor opinions contrary to theirs, but I still respect and honor their great intellectual worth. I fervently hope that they will reflect on the various controversial points I have raised and that they will reconsider their opinions regarding the abilities of my race. I do not presume to have excelled at the task I had undertaken, but I believe that it suffices to present a set of ideas to educated and intelligent men to have them acknowledge their shiningly obvious truth: "*Verum animo satis hoec vestigia parva sagaci sunt.*"²

I am Black. Moreover, I have always considered the religion of science as the only true one, the only one worthy of the attention and infinite devotion of any man who is guided by reason. How could I reconcile the conclusions some seem to draw, on the basis of this same science, with respect to the abilities of Blacks with this deep and passionate veneration which is, for me, an imperative need of the mind? Could I withdraw from the ranks of my congeners and consider myself an exception among other exceptions? I have too logical a mind to accept such a distinction which I consider vain, specious, and mad. There is no fundamental difference between the Blacks of Africa and those of Haiti. I could never understand how, whenever mention is made of the inferiority of the Black race, the allusion would apply more to the former than to the latter.

Should I be tempted to entertain such a false and inept idea, reality itself, which never lies, would make me realize every minute that the systematic contempt hurled at the African reaches me in my entire being. If Caribbean Blacks show evidence of superior intelligence, if they exhibit abilities unknown to their ancestors, it is nonetheless to these ancestors they owe their original intelligence, which selection would later strengthen and increase.

Haiti must serve to the rehabilitation of Africa. It is with this thought in mind that I have chosen my examples solely from the Haitian Republic each time I needed to illustrate the moral and intellectual qualities of the Negro race. From Blacks to mulattoes there are many different anthropological mixed bred types. I have cited many names, regretting that the limits of my book and the fear of monotony kept me from citing many more. Thus I would like to name, among other specimens of the Haitian race, Alfred Box, Anselin, Nelson Desroches, Edmond Roumain, Georges Sylvain, and Edmond Cantin. I would have mentioned many other brilliant young minds but for the fear of committing the fault I tried so hard to avoid throughout this book.

Does Haiti constitute a sufficiently edifying example in favor of the race she is proud to represent among the civilized nations? What evidence does she offer that she possesses the qualities that are denied in African Blacks? To respond satisfactorily to these questions one needs to construct a new thesis, an interesting and captivating one which can be developed in no less than a large tome. Many of my countrymen have already brilliantly sustained such a thesis. One needs only read their works to realize how much sophisticated logic and elegant science go into the arguments they draw from sociology and the philosophy of history. The question must be asked, however. Is not the dogma of the inequality of races, which fosters the most stupid prejudices and nurtures the most malevolent antagonism among the different elements of the Haitian people, the most obvious cause of the dissensions and internal conflicts that have repressed and indeed annihilated the best natural aptitudes of the young and proud nation? Is not the inconsiderate belief in her inferiority responsible for the lack of any real support for her social development? Are not all the calamities that have afflicted her due to the ever ridiculous pretensions of some and the often indelicate claims of others? The Haitian race will achieve all that it is capable of achieving only when all these prejudices, which constitute stumbling blocks on the path to progress, are eliminated through education, to which the masses will have been given unlimited access.

Such a time will undoubtedly come. Other peoples, and older ones at that, have experienced long and painful periods of anarchy and barbarism; yet, at the hour marked by destiny, the sun of progress and regeneration rose over their national horizon, its radiance inextinguishable. I find in these examples, so eloquent and so significant, a source of consoling strength and unshakable hope.

I do not wish, however, to give the impression that I embrace wholesale the practice of invoking historical comparisons in order to justify some error, or to excuse unfortunate practices, in the life of a young nation. Such comparisons have a rational foundation when they are made in order to show that all nations and all races that have achieved civilization, have inevitably experienced, *en route*, a period, long or short, of trial and error and of inferior organization. They are dangerous, though, if they are used in defense of abuses which may have historical precedents, but which are known to be harmful to social progress. Used for such a purpose, the study of the past does not benefit young nations, which need to be encouraged in their quest for beauty, truth, and good. To the contrary, it fosters in those nations a pernicious apathy, a deadly nonchalance, which impedes all initiatives for reform and progress. We must immunize ourselves against such an error. While recognizing that the Black race in Haiti has progressed with an astonishing rapidity, I cannot deny that today it still needs to do its best to break with certain habits that can only hold it back. When one is late, one cannot afford to dawdle *en route*.

I take myself neither for a hero nor for a scientist. I bring only my sense of dedication and my good will to the cause of the truth I wish to defend. But I will take enormous pride in knowing that all Black people, those living today and those to come, read this work and become convinced that their imperative duty is to work hard and to improve themselves in order to wash away the unjust imputations that have weighed on their race for so long. I will be very happy to see the people of my country, for whom I harbor infinite love and veneration precisely because of their misfortunes and laborious destiny, understand at last that their country has a very special and delicate duty, which is to show the whole world that all human beings, Blacks and Whites, are equal in terms of both their qualities and their rights. I am deeply convinced, indeed I entertain the radiant and active hope, that my wish will come true.

The very laws of evolution inspire and justify such an aspiration. The ineluctable destiny of all human societies is to go forward, to persevere on the road of progress once the first step has been taken. Once all

paralyzing constraints have been removed and the society's moral energies, the very soul of progress, have been liberated, the gradual and harmonious movement of progress will occur as a result of the natural elasticity proper to all social organisms. All young and vigorous peoples must look to freedom as the very principle of their salvation. All natural and organic laws combine to proclaim this truth.

In Haiti as elsewhere, the Black race can progress and prosper only if it enjoys freedom, real and effective civic and political freedom. If slavery horrifies Blacks, so must despotism. For despotism is nothing but moral slavery; it allows one's hands and feet to move freely, but it chains and muzzles the human soul by repressing thought. But it is worth remembering that the transformation, redemption, and rehabilitation of a race result from the inner action of the soul, operating under the impulse of a will that is free, enlightened, and unconstrained by tyranny.

From De Gobineau, a man blinded by passion, to Bonneau, a man often impartial, too many have too often repeated that "the Black man does not understand the idea of government without despotism." Too many have abusively invoked this opinion, corroborated by unfortunate examples, to assert that the moral inferiority of the Ethiopian man keeps him from rising to a precise understanding of the concept of respect for the human individual, without which individual freedom is no longer sacred.

The wish I formulate for the people of my race, wherever they may live and govern themselves in the world, is that they turn away from anything that smacks of arbitrary practices, of systematic contempt for the law and for freedom, and of disdain of legal procedures and distributive justice. Law, justice, and freedom are eminently respectable values, for they form the crowning structure of the moral edifice which modern civilization has been laboriously and gloriously building on the accumulated ruins of the ideas of the Middle Ages.

The example must come from Haiti. Have not Haitian Blacks already given evidence of the highest intelligence and the most forceful drive? Statesmen and writers, young and old, all will soon realize that the regeneration of the African race will be complete only when each individual is as respectful of the freedom and the rights of others as he is of his own freedom and rights. Only from this will the splendor of moral dignity come to crown the Ethiopian's head, as with an aureole that adorns and transfigures us, the only natural nobility that elevates to the same heights all human beings and all races.

Dignified and proud, intelligent and industrious, full of vital energy,

may the Black race grow prosperous and scale the rungs of progress to the greatest heights. There will never be enough workers to help it in its ascension, nor enough dedication to its cause. This book is a humble and respectful offering I make to the race in a religious spirit. Others will do better than I some day, but no one will ever hope more for its regeneration and wish for its glory than I do.

Anténor Firmin

Paris, May 11, 1885

NOTES

¹ *L'anthropologie, son domaine et son but*, in *Revue scientifique* (1er décembre 1883).

² Lucretius, *De natura rerum*, Book I, line 396.

The traveler wandering through Belgium arrives unexpectedly in the peaceful Brabant countryside. There he sees the region's typical peasants walk by, breathing in the fresh air of the flagrant plain, their faces reflecting the good humor of those people who live in peace. Surprised, the traveler wonders then if this is the very same land where, only seventy years earlier, masses of men drunken with blood and gunpowder had rushed madly at one another in an impious destructive undertaking. Yes indeed, this is the very same place where the genius of Napoleon hesitated before destiny and the courage of the braves succumbed under the weight of superior numbers in a horrific fracas. But now everything is calm. The land is cold; the birds are singing in the dense foliage of the trees. The fields of Waterloo, fertilized by the bodies of the heroes, are green. Without an awareness of history, the traveler would simply walk through with indifference and would not even remember the great battle which decided the fate of the world. Such is the peace now reigning over the field where, in bygone days, men of science and virtue fought over all those questions with such belligerent humor. Today things have changed. The more enlightened minds prefer to be intelligently circumspect. One remains calm as one enters those discussions in which the sharpest minds face unsurmountable difficulties and stumble over the common places littering such crooked and shifting paths.

NOTES

¹ Blumenbach, *De varietate generis humani nativa*.

CHAPTER 4

Monogenism and Polygenism

Ipsius enim et genus sumus.
(Acts of the Apostles)

1. THE LAST TWO CHAMPIONS

Despite all the writings on the subject and all the attendant debates, scientists who still talk about species, in one way or another, are no closer to having a clear understanding of the meaning of the term.¹ Yet such a lack of certainty about what properly constitutes a species has prevented no one from going to battle about whether or not human beings constitute a single species or several species. As no side can win such a battle, we will overlook this noisy clash of thundering words in which the cleverest of the antagonists win but an ephemeral victory. Still, the arguments for or against the unitarian doctrine constitute for the most part the very source from which, like Minerva from Jupiter's head, sprang fully armed the theory of the inequality of the human races. We must therefore pay close attention to them.

I must confess that I have no natural predilection for the unitarian doctrine as its proponents have developed it, nor do I have any particular repugnance for the polygenist doctrine. Whether the human species is one or many, my thesis will be no more nor less difficult. It does not matter to me at all that some people consider the Black race, my race, a distinct species from the White, Yellow, and Red races, or from the sixteen different categories based on specific colors and shapes identified by the whimsical imagination of the polygenists. Whatever taxonomic distance

may separate my race from all the others, I know that it holds an unchallengeable place in the world and has nothing to envy in any other race in terms of intelligence, virtue, and will power. Still, despite my indifference to both the polygenist and the monogenist schools, I can appreciate the strength or the validity of the arguments each musters in support of its cause.

Let me now return to the question I asked earlier: Is there a single human species, or are there several? This is what Georges Pouchet says about the issue: "The problem is of no small importance. It is surely now one of the greatest questions in science, perhaps greater than the question which preoccupied scientists in Galileo's days, threatening to overthrow ideas that were as old as the world and were supported by the testimony of an incontestable authority. We are dealing here with a dogma and not with an accessory fact. Science here clashes with religion, just as astronomy did in the past. The shock could not be any more violent and the consequences could not be greater."²

No orator could deliver a more gripping exordium. The solemn tone of the remarkable intellectual athlete standing proud in the arena compels us to silent attention as we await the revelation of some great truths. Georges Pouchet and the famous Broca were indeed the most zealous champions of the polygenist thesis. They are not mere nomenclature designers. They are, rather, obstinate theorists who see no reason above their system and miss no opportunity to corroborate it, strengthen it, and provide it with a solid foundation that would resist time and revolutions. Perhaps my comments apply less to Georges Poulet than to Broca, but their respective arguments overlap to such an extent that I am compelled to consider and evaluate them together.

Before going any further I will conduct a quick survey of the period when the polygenist theory took on such a remarkable ascendancy and was supported by proponents of such competence that science was forced to take it into account despite the scandalized protests of the establishment.

In 1856, an idea was abroad in the new world, invading and obsessing many a mind. The great star-spangled republic, whose sudden and superb material development had astonished political scientists, philosophers, and economists, felt on her body the opening of an ugly, horrible wound. The nature of morality is such that no specious arguments can ever totally obscure its authority. Eventually, it awakes to assert its sovereignty and to trouble the individual conscience at war with itself. The American people finally understood that they were living a flagrant con-

tradiction. It was true that liberty, though coupled with slavery, did flourish under the pagan sky of Attica, when industry was considered an occupation unworthy of the citizen. But could it be the same in this Yankee civilization, where the great millionaires, who have erected their fortunes by working with their hands, are considered the most worthy, the most deserving of citizens? Could the mores of the factory adapt itself to the mores of the agora? Voices were raised to denounce this illogical state of affairs and to protest against the exploitation of man by man, echoing in the United States the generous aspirations of such men as Wilberforce and Macaulay in England, and of Gregoire and Broglie in France. Wendell Phillips, John Brown, and a multitude of thinkers and men of action, all inspired by the great and generous thought, would give themselves to the cause and fight to the death for its triumph. Still the selfish slave owners would not relent. The Southerners rallied around their flag against the abolitionists. Before facing off on the battlefield, the adversaries confronted one another in the press and in the field of science. The debate turned bitter and passionate, and the attacks became extreme. All the arguments laying dormant in so many peaceful minds came back to life in an indescribable tumult. The theories of the likes of Morton, Nott, and Gliddon clashed with those of the likes of Prichard and Tiedemann. Do Negroes have the same nature as Whites, that is, notwithstanding their skin color, do they have the same organic constitution, the same intellectual abilities, and the same moral aptitudes? Such were the issues at the core of the debate. Invoking the polygenist doctrines, which they had little trouble adapting to their immoral system, the slavers affirmed that Negroes belong to a different species from Whites and could not be considered their peers. Once the least natural tie of solidarity between the chained Ethiopian and the proud Caucasian was thus ruptured, the latter was free to treat the Black man like any other animal for whom one could well feel pity but no sense of justice. As for the abolitionists, they strove to prove that Negroes had an anatomical and physiological constitution similar to that of Whites, except for a few secondary and insignificant differences.

The rumble crossed the ocean. The intense and irreconcilable debate reached Europe where each side drew its contingent of supporters. Curiously, though, while French scientists carried out the debate with the same febrility as their American counterparts, they had an altogether different objective. Whereas transatlantic polygenists, noisily militant and aggressive, struggled for no other reason than the maintenance of slavery at any costs, the French polygenists pursued a different goal: the inde-

pendence of science and its separation from the tenets of religion. So some polygenists were fighting to free the human spirit from the shackles of faith, while others were trying to hobble the same human spirit by chaining the body. Still, they met on common ground. Such a conclusion may sound bizarre and my interpretation may seem arbitrary or fantastic, but the evidence is there. Whether the speaker is Broca, Georges Pouchet, or some less prominent polygenist, he always tries to suggest that in the debate about polygenism and monogenism the issue is really the conflict between science and religion.

I cannot pronounce myself on the sincerity of these polygenists, but I must say that they are smart. They understood early that free thought was the wave of the future and that the old philosophical formulas of intransigent spiritualism had rotted and were about to crash under the repeated blows of science. They could not have made a better decision than to link their cause to the new ideas whose irresistible current overwhelmed everything in its path.

Besides the unquestionable influence exercised on the scientific movement by the great issue of the abolition of slavery, the two scientists I have selected as the most authoritative interpreters of polygenism, one as specialist and the other as popularizer, were led to this scientific doctrine by a current of opinions and an intellectual legacy, which explain even better their doggedness in their struggle against the unitarians.

Felix Archimede Pouchet, the father of the author we are studying, was one of those bold-minded men of science who aspired to eschew dogma at any cost in explaining natural phenomena. Not only was such an aspiration eminently laudable, but it was also sustained by a most disciplined mind. All the efforts of scientists today are aimed at achieving this very goal which radiates in the sky of the future like the shining cloud lighting the way of the Hebrews toward the promised land. But the road is fraught with pitfalls and one advances only by trial and error. This scientist, who was already famous for a number of achievements, engaged in one of the most interesting scientific polemics of the century with the eminent experimental scientist who had just capped his wonderful career with the discovery of the microbe. Sharing the opinion of Duges and Burdach, Pouchet had admitted the scientific possibility of heterogenesis or spontaneous generation. This scientific doctrine, the proof of which would turn every theological tradition topsy-turvy by making the intervention of some supernatural creator unnecessary, goes back to Aristotle.³ But it was so contrary to the teachings of the Church that it could be seen only as an error. It was quite a different matter when

a first-rate scientist undertook to demonstrate the validity of this scientific theory before the Academy. The whole scientific world followed in suspense. For quite a while, from 1858 to 1864, experiments were conducted which seemed to verify the arguments of the heterogenists, that is, until other equally ingenious experiments came to demolish the evidence. After considerable hesitation the Academy of Sciences adopted Pasteur's position on the basis of a report by Coste, the physiologist whose collaborative works with Baer had made clear the nature and function of the female's egg, corroborating once and for all Harvey's physiological axiom, "*Omne vivum ex ovo*."

It is to be noted that in the course of that debate, which is so important in the history of the Academy of Sciences, the argument of the Catholic faith and universal belief lurked under every sentence, even though it was never explicitly uttered. Not only was it detectable between the lines, but public opinion never lost sight of it. Certainly the scientific community never gave in to the temptation of an argument of this sort, so I am simply noting a coincidence. Those who have studied Pasteur the man know also that he is one of those rare scientists who never lose sight of their religious faith despite their unabashed devotion to science. No one can say which of these two motivations, faith or science, prevailed in this struggle which he fought with all his heart and his intelligence.

Georges Pouchet followed this magnificent campaign and, like everyone else, he must have felt how much the influence of received ideas weighed in the balance. One understands, therefore, his determination to argue a new thesis the proof of which might ruin this very religious tradition that had such a powerful hold over people's minds. In sum, in both its scientific bases and theoretical considerations, polygenism is an extension of heterogenesis, for both acknowledge nature's spontaneity and *sui generis* creative energy. *Natura naturans*, whose inherent force is equally active everywhere in the world, may very well have transformed some materials into spontaneous ovules such as Haeckel's *monera*. Would she not be capable of producing human beings in more than one place? If we agree that the *bathybius* originated in several places, why could we not admit that man too may have originated in several places, whatever reservations we may have about such a possibility? Such is, in my opinion, the reasoning behind Georges Pouchet's embrace of polygenism. At this level the elegance of scientific theory is liable to tempt an ambitious mind.

I will now attempt to do a psychological examination of the motivations that may have led Broca to militate with such fervor at the head of the

polygenist school where, even as he spread a number of theoretical errors, he contributed considerably to our understanding of comparative anatomy and general physiology, a field in which he was a first-rate master.

Dr. Broca was a man of the greatest intellect. No professor ever occupied a chair with as much flair and competence as did the erudite physiologist when he regaled the Parisian public with his fascinating seminars in which his probing mind, leaning on an always unwavering reason and proceeding with the most elegant method, held forth with great brilliance. His place in the history of science is secure. Scientific progress and our steadily increasing understanding of phenomena will no doubt deal a death blow to all the conclusions he reached in his anthropological works. He will not be praised in the future as a great craniologist nor as a brilliant and systematic ethnologist. He will be recognized, rather, as the sagacious experimenter who, building on Cullen's studies and extrapolating from Bouillaud's discovery, was able to locate definitively the organic lesion responsible for aphasia in the third circumvolution of the left frontal lobe.

Mere happenstance drew this elite man into the heated debates between monogenists and polygenists. It happened under the following circumstances. The famous scientist had successfully bred a rabbit with a hare and called the hybrid offspring a *leporid*, which is its now generally accepted name. When Broca first saw this animal produced by cross-breeding two different species, he was deeply impressed, particularly as this mixed species had remained continuously fertile over seven generations. After taking all necessary precautions in order to verify that this was indeed a case of hybridity, he decided to present to the Biological Society this animal of which he was twice the godfather. He was expecting unquestionable success, but he was told that this was an impossible fact because it was inconsistent with the law of species. Without further investigation, it was concluded that he had been mistaken in his identification of the mixed characteristics of leporids.

The erudite professor himself tells this story, but his calm tone belies the fire of his bitter memory of the incident. Spurred on by his wounded self-esteem and above all by his devotion to science, Broca asked Isidore Geoffroy Saint-Hilaire to look into the case. Upon examination of the animal, Saint-Hilaire concluded that the leporid was a true hybrid. The Biological Society was appraised of Saint-Hilaire's opinion, the authority of which had to be taken into account from then on. When the great naturalist later announced to Broca that the leporid had been impregnated by a rabbit, the triumphant Broca communicated this new development to the Soci-

ety. A stunned silence greeted the news. As Broca tells it, "After the meeting, an eminent colleague, who shall remain anonymous, told me, 'The fertility of leporids now seems somewhat probable; if it is confirmed, we should conclude from it that the hare and the rabbit belong to the same species.'" Until then Broca had never considered seriously the subject of species. He probably thought that this sacred word had too much of a hold over the minds of scientists. Rather than admitting the possibility of the eugenic hybridity of species, scientists preferred to combine two species into one, thereby robbing him of the glory of a new scientific achievement.

Broca's intelligence rebelled and his mind took up arms against this disgraceful orthodoxy to which all scientific research and all scientific truths must be adjusted as to a Procrustean bed. His indignation is understandable. His type of intellect would not easily tolerate the yoke of dogma, whether religious or scientific. Unfortunately, though, once he had himself become a prince of science, Broca in turn went on to dogmatize. If, at the height of his scientific career, someone had brought him a Negro's skull with a capacity of over 1,600 cubic grams and a facial angle of 80 and some degrees, he would have answered doctorally, like his old Biological Society colleagues, that this cranium could not possibly be that of a Negro, because the phenomenon would be inconsistent with the laws of anthropology. The human mind is so easily roused, but it is also so forgetful.

Broca resolved finally to demolish the authority of this so-called law of species, which loomed so powerful in the minds of scientists. This law, which was first proposed by Wray⁴ and especially by Candolle,⁵ recognized the possibility of unconditional fertility only among individuals of the same species. The monogenists latched onto it and made it the cornerstone of all their arguments in favor of the unitarian theory. One had to dispose of them first before disposing of the theory itself. Broca knew it and could not hide his impatience. "We can say without hesitation," he wrote, "that if the unity of the human species was so obvious as to be beyond challenge, no one would ever have thought of assembling all dogs into a single species and to have all these disparate types descend from one original type".⁶ It is understandable, then, that this intrepid fighter would attack his adversaries in all their positions, particularly those held by their most redoubtable champions. Besides, it must be said that Broca took great delight in imagining himself of an altogether different species than those repulsive beings he describes in these words:

The physiognomy of Negroes, besides their complexion, is characterized by a narrow and sloping forehead; a flattened nose with flared nos-

trils; bulging eyes with a brown iris and a yellowish sclera; extremely thick lips hanging forward and outward; and, finally, prominent snout-like jaws supporting long, slanting teeth. Such are the main traits which give the Ethiopian face its very special cachet.⁷

Is this an accurate description? *O miseras hominum mentes, o pectora seca* ! Yet, however ugly a picture of my race the erudite polygenist has painted, I hold him no grudge. Where others would have been justified to express a righteous anger, I see only an opportunity for reflecting seriously on the subject and a timely reminder to stay humble if ever I am vain enough to think of myself as a scientist. The fact is, the eminent professor, the great anthropologist, who spent all his life measuring craniums and discoursing on the human types, was more often than not totally ignorant about what he was talking about with the self-assurance of an expert. But then again, very few have done better than he did in their rush to formulate those ambitious generalizations which can sometimes be the evidence of the greatness of the human mind, but are more consistently proof of its vanity.

2. STUDIES OF THE MORAL DIFFERENCES AMONG HUMAN GROUPS

We are now well acquainted with the two famous defenders of polygenism. I have placed them under the spotlight because, by their very scientific fame, they are the most authoritative representatives of those scientists who divide humanity into several species. To let them argue their case themselves, I will now examine separately the kind of evidence each one seems to privilege. Broca emphasizes physical evidence, whereas his emulator prefers intellectual and moral proof.

"Genuine anthropology," writes Pouchet, "to the extent that it considers Man as whole, cannot neglect his psychic and psychological dimensions. Although craniology is really an indirect way of evaluating them, no one had thought until these last few years of considering the purely intellectual attributes of the different races as criteria of classification. Yet these constitute a more rational basis for classifying human beings than the material manifestations of these differences. In adopting these views today without reservation, the American school has put moral categories back in their preeminent position in craniology, granting them precedence over the material differences which are simply their manifestation."⁸

Because Pouchet accepts this criterion of classification, which is so contrary to those used by most anthropologists, one would think that he also accepts the notion of the unity of physical organization among human beings and that the only differences he acknowledges among them are differences in intellectual and moral attributes. But he has the scientist's passion for formulas, and so he has articulated a rule with categorical terms that are as concise as the most elegant geometrical theorem: "Two similar organisms have similar mental attributes." So the author of *The Plurality of the Human Races* seems to believe that to demonstrate that the races have different psychological traits is to prove at the same time that they have different origins.

As was to be expected, Pouchet broaches the religious issue, a sensitive question the mere mention of which troubles people's conscience and triggers passions. Evoking an oft repeated and therefore trivial truth, he rejects the unity of the human spirit based on a putative universal belief in some supreme being. "The idea of God," he writes, "is not universal, as was believed for so long by many and is still believed by those who do not hesitate to see the proof of God's existence in the consensus of all the earth's peoples. . . . The fact is, besides the peoples of Asia, Europe, and America, where religious ideas and civilization seem to have developed simultaneously albeit in different directions, there are peoples without religious ideas whatsoever, without gods, without religion. Three vast regions on earth seem to have remained up to now free of religious beliefs: Central Africa, Australia, and the northern lands."

Notwithstanding the authority wielded by Pouchet, who is today a professor of comparative anatomy at the Museum of Paris, I think that the absence of religious beliefs among a particular race has no bearing at all on the issue of the unity and plurality of the human species. But besides the insignificance of this fact in the debate between monogenists and polygenists, the study of religion is so complex and so vague that neither side can find in it adequate support for a scientific thesis. Despite the understanding brought by the remarkable works of Burnouf, Draper, and other scientists who have recently become interested in the field, it still remains imperfect and confused. The study of primitive civilisations, which alone can help by making possible the adroit comparison and intelligent grouping of the facts, is only about half a century old and is still negotiating the difficulties of its own investigations.

But there is one incontrovertible fact that can be acknowledged without being either for or against the unitarians. Wherever Man is found, he always shows a positive ability to represent to himself absent realities for

a variety of reasons. To think abstractly is to be able to evoke absent realities and to keep them before the mind's eyes, that is to abstract. It is the ability to see in objects not only tangible matter but also the impalpable form which stays in the mind and can be evoked by some stimulus. This faculty cannot be denied to some human beings, since some philosophers and even the polygenists themselves grant it to some animals that are clearly inferior to Man. Once we agree on this point, how can we then suppose that not all human beings are capable of imagining some form of religion, whether it is called fetishism, totemism, animism, or deism? Every scholar who has studied the development of religion, which seems to be a natural stage in the development of the human mind, has remarked on the diversity of its manifestations. Whether the rituals are refined or primitive, whether the belief system is absurd or rational, every religious manifestation springs from the same fount.

Here is one example among thousands. The Veddahs, one of the Black peoples of Ceylon, are regarded, rightly or wrongly, as real savages. Several eminent scholars have long maintained that this particular people had no religion whatsoever. Yet Belley records the following ritual which he has observed among them. A Veddah sticks an arrow straight into the ground, then walks slowly around it, dancing and chanting this invocation to an almost musical rhythm:

*Ma miya, ma miy, ma deya,
Topang Koyichetti mittigan yandah! . . .*

Friend who has abandoned me,
friend who has abandoned me, my god,
Where are you going a-wandering?

The ethnographer continues his description in these words: "They seem to make use of this invocation to request the help of the spirits in cases of illness, in preparing for the hunt, and so on.

Sometimes they prepare food, place it in a dry river bed or in some other out-of-the way spot, then call their dead ancestors by name, 'Come and partake of this food. Give us sustenance as you used to in the other life. Come, wherever you are, on a tree, on a rock, in a forest, come!' Then they dance around the offering, half chanting, half shouting the invocation."⁹

Before the wonderful studies of Tyler, John Lubbock, Herbert Spencer, and Girard de Rialle, it would have been possible to say that the same Veddah is a man whose sluggish mind is incapable of rising to

some notion of religion, simply because he would answer negatively to a traveler's question about the existence of God. Today everyone knows that one of the most widespread primitive forms of religion is ancestor worship. The savage Veddah came by it quite naturally, for those who no longer exist still live in his mind. His religion is as valid as any other religion. For my part, I find it more touching, more imbued with poetic sadness and tender effusion than many a liturgical ceremony which would often cause laughter were it not for a sense of respect and, most of all, a sense of delicate discretion to be observed vis-à-vis any act of faith.

But Georges Pouchet does not stop at the religious question, which he actually develops at great length, propping up his thesis by means of thousands of little facts that have been so often refuted or are so controversial that they are not worth discussing here. The scholar also considers morality. He enters the field with bold statements, which are questionable despite the assurance with which they are made. Thus he writes, "The moral inequality of the races is now an accepted fact, as Renan has shown. Morally, even more than physically, races are different from one another, and those unbridgeable differences make each one a distinct entity. These *profound and inalterable* differences alone justify the classification of the races into clearly defined and separate categories. When we examine humanity from this angle, one curious fact becomes evident: the same mountains, the same rivers which separate the human races also separate their various religions. Armed with the sword or with the more peaceful weapon of persuasion, the followers of every faith have always stopped at certain boundaries which they understood they could not cross. The Semite understands God as something great, very great, and that is all. We are not capable of such an understanding of God. Pure monotheism, which originated in the East, could conquer the West and the Iranian races, the Indo-Persian races, only by adapting itself to these races. The race which flourished in Athens and Rome accepted Christianity only after stripping it of its original character."¹⁰

Close examination of Pouchet's ideas makes clear that while he eschews theological dogma, he unintentionally confuses the moral aptitudes of the races with their religious system. Such a confusion is particularly aberrant since morality, as we understand it in our free-thinking and positivist times, is not within the purview of religion nor is it actually supportive of religion at all. But is it true that certain races, because of their very organic constitution, are more able or more disposed to conceive a religious idea? No presumption could be more easily challenged.

All scholars recognize today that Orientals do not take to monotheism any more naturally than do Westerners. Jules Baissac¹¹ and Jules Soury¹² have both shown that the Semites had not always understood God as an all-encompassing entity as Pouchet surmises. The Hebrew people themselves engaged in the worship of idols and the worship of the original gods before transforming their Yaweh into that thundering god whose countenance Moses could not behold and whose radiance still blinds us in the poetry of Isaiah.

I must confess that this category of arguments offers few advantages to the defenders of the polygenist thesis. This is actually the reason why the much wiser Broca has never used them, even though his superbly supple mind and great skills with dialectics would make it easy for him to wield such arguments. The weakness of Georges Pouchet's argumentation is quite evident. The most profound science, the keenest intelligence, the broadest erudition are not enough to prove a theory which is not based on reality. When Pouchet put pen to paper and called upon all his resources as a writer to produce these two hundred remarkable pages for the purpose of establishing the plurality of the human races, he no doubt believed he was working on a project of the utmost importance. He must have indeed, for his very protests betray the efforts that, as a man of conscience, he must have made to remain at the heights, or even to transcend the heights, which he believes science must occupy. "The scientist," he writes, "must put aside, whatever the cost to the man, those infinitely honorable sentiments of equality and brotherhood which a noble heart must feel toward all human beings regardless of their origin and their color. Such instincts honor those who harbor them, but they can only harm science if they are allowed to interfere with it" [No reference].

I admire such a devotion to science that enables the erudite scientist to repress to the depths of his heart those generous impulses which ordinary men and women call the voice of nature, so that he can contemplate only the imperturbable goddess worshipped by the Egyptians under the name of *Tauth*.

But should we not see in Georges Pouchet's words a regrettable absence of any philosophical thought? How can he find honorable and noble sentiments which are so contrary to the truth that the scientists must discard them? Since when have beauty and goodness become the opposites of truth? We will see by Pouchet's conclusion the negative result drawn from science through such a deviation from all wholesome philosophical notions. In the meantime, let us turn our attention to another polygenist, one who is much more skillful and much more intransigent, namely, the eminent Broca.

7. CONSTITUTIONAL UNITY OF THE SPECIES

At this point I can attempt to draw a conclusion without being suspected of acting under any other motivation than science. Science has been my only guide, and I have neither the need nor the desire to stray from it. So, are there several human species or is there only one? Does monogenism tell the whole truth? Or is the truth to be found, rather, in polygenism? What must the answer be?

Everything suggests that there is only one human species, if we understand the term as it is defined by most scientists. However, while admitting the unity of the species, we absolutely reject the separate idea of the unity of origin, Adamic or not, according to which all human beings descend from a single couple. This idea seems so contrary to reason and to the very history of our planet that it does not deserve discussion.

It is important then to distinguish between the unitarian theory and monogenism. The unitarian theory is a wholly scientific deduction based on the physical and moral qualities of the different human races, whose characteristics present no specific difference. Its conclusions are based on the evidence that the anatomical distinctions between the different human groups are easily explained by the influence of environmental factors and

of other factors which we will discuss later. As for monogenism, it is an article of faith drawn from theological traditions, and its authority rests solely on a religious belief. We would have no reason to criticize the polygenists had they confined themselves to the purely etymological sense of the word by which they designate their theory and argued only that human beings do not all descend from a single ancestor or originate from a single geographical location, as averred in the Biblical tradition.

In any discussion, confusion arises always either because the points that need elucidation are not effectively presented, or because an ill-defined word is used wrongly or in a way that stretches its meaning. Thus, the unity of the human species is a clear and intelligible fact for anyone who studies it from the point of view of the natural sciences. But as soon as one brings in the word *monogenism*, one introduces unawares an arbitrary and non-demonstrable notion which considerably weakens whatever truth there is in the original fact. Unfortunately, most of the defenders of the unitarian theory are naturalists who are very much attached to religious ideas. They cannot separate the interests of faith from those of science, and to save the former, they compromise the latter.

"The difference in origin," says Broca, "in no way implies the subordination of certain races. It implies, to the contrary, only the idea that each human race appeared in a specific region of the world and that it was, in a manner of speaking, the crowning of the fauna of that particular region. . . ." ⁴⁹ I wholly support this view, but I must add that different origins in no way imply specific differences among the human races.

In fact, assuming that the human species appeared in several different regions on earth, there is nothing to suggest that it has not sprung everywhere with the same organic constitution, thus confirming the existence of a single blueprint which gives to each creation its typical character. When we study the five geographical zones that make up the earth's surface, we find at various intervals a multitude of points where the geological, atmospheric, and magnetic conditions are identical. We will not return to the isotherm and isocline lines randomly traced by nature. The coincidence of certain magnetic phenomena at remote points located at various distances from the equinoctial line is a striking fact. It is not known, actually, whether the isoclinic isodynamic curves already existed and were constant during the antediluvian periods. There are enough reasons, in fact, to doubt it. Nevertheless, we can only study the evolution of earth to find the evidence we need to support the various, more or less valid, hypotheses we formulate on the original constitution of the human species.

Geologists have observed the accumulation, intersection, and intersection of earth layers of different compositions over the entire surface of the planet. A sedimentary layer of the azoic period, for example, may be found in Europe, Africa, Asia, America, and in the larger Pacific islands. The same is true for layers identified with the paleozoic, secondary, tertiary, and quarternary periods. From the Triassic formation to the Cretaceous formation, from the Silurian layer to the subapennine layer, in every region the earth has a varied structure. The parts that are similar are scattered here and there, randomly spaced islands.

Paleontologists have shed some light on this apparent chaos thanks to their study of both animal and vegetal fossil species, vestiges that testify to the existence, in an immemorial past, of countless generations that have since disappeared. The works of Brongniart, Cuvier, Blumenbach, D'Orbigny, Lyell, Pictet, Gaudry, and a whole legion of ingenious scientists, have made of paleontology a source of enlightening information about the history of life on the surface of our planet. Representatives of the 25 000 species of fossil animals discovered so far are found in every part of the world. Certainly many of these are still identified with a particular continent or region; however, as our knowledge of the earth increases, we realize that the same type of activity has taken place everywhere with similar results.

It is on the basis of the similarities among fossil species found in abundance at various places on earth that it has been possible to establish a rational chronology with respect to the different geological formations. When we study the paleontological fauna everywhere, we observe the striking fact that there is always a serial gradation in the types of animals. Rising from the lower layers to the diluvium of the quarternary epoch, we successively come across organisms placed increasingly high on the zoological scale, from the trilobites of the paleozoic period to Man, whose appearance on earth crowns the work of creation.

Let us suppose that the species is the natural division *par excellence*, as all living beings complete their evolutionary cycle within it, with no possibility of stepping outside its boundaries. However, given that the species determines the limits of reproduction, by which organisms perpetuate themselves, we must also suppose that its serial constitution corresponds to a certain evolution of life on our planet and that the species entertains with the environment a relationship of direct dependence, which can logically be considered a relationship of cause and effect. As evolution occurred simultaneously or successively in several areas on earth, each species arose with a particular constitution that was much the

same everywhere. Once that species came into being in its recognizable form, the various groups of its member individuals around the world continued to live in the particular places where they originated.

In time and under specific circumstances, conditions changed in those various milieus. From being originally absolutely similar, they then became different from one another. As environmental changes necessarily have an impact on living beings in a particular habitat, the individual members of a species were variously affected. But since the component groups of a species have, as it were, a uniform organic blueprint, they underwent only simple variations in forms, colors, and physiognomy.

Under the persistent influence of these same circumstances, a curious struggle took place. While heredity tended to maintain the general and primitive physiognomy of the species, the no less powerful principle of adaptation, joined with the self-preservation instinct, fostered the development of increasingly distinct physiological and psychological characteristics in the variety, including its capacity for resistance.

As can easily be imagined, at the end of a struggle of hundreds of thousands of years, as the primitive heredity continuously weakened, each group was able to acquire habits, physical characteristics, and forms which were sufficiently distinct and such an integral part of their very being that these became in turn a new heredity to be transmitted to their descendants. These facts are naturally consistent with the elegant laws of natural selection formulated by Darwin, even though the transformation occurs only within the limits of the species, after its constitution.

This hypothesis is particularly plausible when we consider that environmental changes, which must have been responsible for the sharp differentiation among human races, are due to climate differences that were much less marked in past geological eras than they are today. Man first appeared on the earth at a time when temperatures around the globe were uniform, a situation that began to change quickly only after the first ice age. Until the second ice age, which coincides with the era of the reindeer, the atmosphere was still saturated with an excessive amount of water vapor; the great mountain ranges had not yet fully emerged, nor had some of their peaks collapsed to form the valleys. Our species, then, must have witnessed the greatest cataclysms that occurred on the planet.

Dispersed over areas at opposite ends of the earth, from which its constituent groups could sally forth only after reaching a certain level of development, our species is predictably as varied as its diverse habitats. In time, as these varieties perpetuated themselves, they became the principal races of humanity. But the inner constitution of these diverse races

carries the proof of the unity of the species. Whatever has been said about it, there is not a single zootaxic difference among human beings besides hair and skin color. These two traits are actually of such insignificance that the black Indians sometimes have more beautiful hair than the white Russians. If it were possible to conduct an experiment, spread over twenty generations so as to discount ethnological influences, no noticeable transformation would occur in either the hair or the skin color of the different races. An experiment of five or six hundred years seems long, but this is really not much when we consider the hundreds of thousands of years the human species has existed on earth.

Let us now return to reality. My hypothesis, albeit not a new one, seems very bold. As far as I know, it has never been presented in this guise before. The reason for this is simple. Those who would have an interest in formulating it in this way in order to reconcile the theory of the unity of the human species with the evidence of varieties that have existed since times immemorial, do not accept the autochthonous origin of the great human races. Those who admit a plurality of origins do not accept the idea of the unity of the species. Unconsciously or not, the latter still let themselves be influenced by the definition of the species as the totality of individuals descended from an *original couple* or a *primitive group*, and they overlook the fact that such a definition is monogenic. But that is how the human mind works.

The notion of centers of creation imagined by Agassiz approximates perhaps what I have suggested as a reasonable explanation for the plurality of origins of the human groups, which is consistent with the idea of the unity of the species. But in the theory proposed by the famous Swiss naturalist, the human races are supposed to have emerged *ab ovo*, with all the distinctive traits they have today. They would then constitute as many formally distinct creations and could be considered true species, with nothing in common, essentially inconvertible.

In order to give a rational explanation for this hypothesis, it would be necessary to determine when these diverse groups emerged and how the periods of their successive creation coincide with different phases of the evolution of life on earth. It would be necessary to reconsider the old problem of the order of emergence of the different groups, that is, whether blacks preceded whites or vice-versa, or whether the protogenesis of the yellow man does not explain better, by way of a divergent deviation from the primitive type, the diversity of existing races. All these great questions are as controversial as the question of the unity of origin. Besides such purely speculative propositions, it seems impossible to

identify the different centers of creation. Doing so is at least so difficult and requires such complex studies that Agassiz himself, despite his great intelligence, has not been able to delineate such centers with enough clarity to satisfy the most indulgent critic.

Certainly anything that can ever be said or written about the constitution and the nature of the *species* can only be conjectural and hypothetical. We will perhaps never know the true nature of things, *interiora rerum*. It is so beautiful to see human intelligence soar to the most abstract conceptions and project brilliant flashes on the dark history of past eras as man tries to lift the veil that covers the secrets of nature as it did ancient Isis. On the other hand, it is no less reasonable to acknowledge the frequent failure of man's noble efforts. As soon as we reach the greatest heights of science, we are surrounded by an atmosphere of doubt and discouragement that would be sufficient to destroy the human spirit, had it been destructible. But nineteenth century man, as Taine so admirably put it, has an ambitious brain. The more he learns, the more he wants to know. We can only hope that this burning quest for science, light, and truth will lead to impressive results. Until then, we must be circumspect and simply wait and see.

I will now invoke the words of Wilhelm von Humbolt, as the learned philologist reaches the same conclusion respecting the human species as I do, albeit from a different angle. This is what he says on the subject:

Neither history nor tradition suggests that there was ever a time when the human species was not divided into separate groups of people. Whether this had been the case since the beginning or the situation evolved later, history does not allow us to decide. Isolated legends of independent origins, found in various parts of the world, contradict the first hypothesis and suggest that the entire human species descends from a single original couple. This tradition is so widespread that it has sometimes been seen rooted in the collective human memory. But these very circumstances would prove, rather, that there is no historical basis for this view and that it simply has to do with "the universality of human thought," which has led human beings everywhere to a similar explanation for an identical phenomenon.⁵⁰

Let us now sum up the various logical conclusions that arise from the preceding discussions. The human species, with its unique original constitution and organic uniformity, which results from the fact that it is based on a single blueprint, appeared in various parts of the world, under

strictly identical conditions, at a certain point in the evolution of life on this planet. However, the species later diversified into distinct peoples and races as soon as the climate began to affect markedly the various environments in the different ways it usually does. Primitive man, the first prototype of the species, was but the rough product of animal evolution, upward from the protozoan but still a far distance from his subsequent achievements. There must have been very little resemblance between him and the most advanced human populations of today. In terms of his physiognomy and his intelligence he was undoubtedly worse than the purest savage. He was simply a bestial creature.

Man had to go through a series of evolutionary steps before he could develop these attractive features that make of him not only the most elevated being in creation, but also the most beautiful product of nature. Whatever transformations the different human groups have undergone under various influences, they all retain the primordial, constitutional, imprint of the species, bearing the same intellectual and moral traits inscribed in the original common human blueprint. "The unity of intelligence is the ultimate and definitive proof of the unity of humanity," writes Flourens.⁵¹

To embrace the concept of the unity of the species involves, through the exercise of a great keenness of mind, rejecting all the false ideas that the existence of diverse races might inspire and seeing, instead, only the essential characteristics that make of all human beings a community of beings capable of understanding one another and of joining their individual destinies into a common destiny. That destiny is civilization, that is, the highest level of physical, moral, and intellectual achievement of the species. There can be no greater and more salutary source of fraternal sentiments among the different races and peoples than such an understanding of the idea of the unity of the species.

It is the innate, essential, belief in this unity that makes man sacred to man, without one's having to invoke vague, irregular, and inconsistent notions of speculative morality, the foundations of which change according to the time and place. At this point, we consider the idea one of those primordial truths which serve as postulates to all social principles. The idea of the unity of the human species elevates those principles, and its influence thus tends to attenuate competition and conflict within nations.

Does acknowledgement of the idea of the unity of the species suffice to resolve, directly or indirectly, the equally controversial issue of the constitution of the human races and their respective attributes? Yes, if we

confine ourselves to the philosophical heights occupied by the two Humbolts, Florens, César Cantu, and so many other names which bring honor to science and to humanity. No, if we move within the sphere of most other scientists where, to the contrary, more burning questions and passionate controversies are raised.

Let us now consider what is meant by race. Let us see whether it is possible to show what makes a race a distinct group of people, with a clearly defined nature and constitution which separate it from other groups, making it so special that it can be studied by itself and can never be confused with any other group of individuals of the same species.

FOOTNOTES

¹ At the July 17, 1884 meeting of the Paris Anthropological Society, De Quatrefages and Sanson, two eminent professors, two veterans of science, could not agree on this question, which they persist in examining through the lens of either monogenism or polygenism. It is curious to see how passionate and vehement these usually calm men become whenever these issues are broached.

² Georges Pouchet, *De la pluralité des races humaines*.

³ *De Animalium Generatione*

⁴ John Wray, *Methodus plantarum nova*.

⁵ Candole, *Physiologie végétale*.

⁶ Broca, *Mémoire d'anthropologie*, Vol. III, p.344.

⁷ Idem, *Ibidem*, Vol. III, p. 393.

⁸ Georges Pouchet, *loco citato*, p. 192.

⁹ Belley, in *Ethnological Society of London's Review*

¹⁰ Georges Pouchet, *loco citato*, p. 110.

¹¹ Jules Baissac, *Les origines de la religion*.

¹² Jules Soury, *Études historiques sur les religions*, etc. Compare as well Ewald, *Geschichte des Volkes Israel*.

¹³ Hybrid of the donkey and the horse found in Tibet (translator's note).

¹⁴ See in François Lenormant's *Histoire ancienne de l'Orient* (Vol. I, p. 111) the engraving of the four human races recognized by the ancient Egyptians, as depicted in the paintings in the tomb of Seti I at Thebes. One will notice with surprise that the portrait of the *nahasiou* or African Negro does not in the least correspond to the description given by the erudite Broca. Either he has never seen that particular Egyptian painting, about which he speaks with such confidence, or he has allowed his thesis to blind him.

¹⁵ See Simonin, in *Revue des Deux-Mondes* (April 1861).

¹⁶ Alexander von Humbolt, *Asie centrale*, Vol. III, pp. 147-148.

¹⁷ Elisée Reclus, *Nouvelle géographie universelle*, 54e srie, p. 16-18. Virey, *Histoire du genre humain*.

¹⁹ *Paradise Lost*, Book I, lines 65-69.

²⁰ Littré and Charles Robin, *Dictionnaire de Médecine*.

²¹ Franz Leydig, *Anatomie comparée de l'homme et des animaux*.

²² Dr. Topinard mistakenly states that Jacquinot has adopted Cuvier's unitarian classification of humanity into three races. In identifying three different races, this naturalist gives to the word race the same meaning as Georges Pouchet.

²³ Jacquinot, *Zoologie*, Vol. 2, p. 18.

²⁴ Paul Topinard, *loco citato*, p. 404.

²⁵ Ritter, *Erdkunde, Asien. Lassen, Indische Altherthumskunde*, Vol. I, p. 391.

²⁶ Ritter, *loco citato*, Vol. II, p. 1044.

²⁷ Idem, *Ibidem*, Vol. IV, p. 1131.

²⁸ Ephinstone, *Account of the Kingdom of Cabul*, p. 493.

²⁹ Benfey, *Enceyclopoed. Ersch. und Gruber, Indien*, p. 7.

³⁰ Broca, *loco citato*, p. 397.

³¹ Louis Figuier, *Les races humaines*.

³² Beaunis and Bouchard, *Anatomie descriptive*.

³³ Longet, *Traité de physiologie*, Vol. II, p. 5.

³⁴ De Quatrefages, *loco citato*.

³⁵ Beaunis and Bouchard, *loco citato*.

³⁶ Franz Leydig, *Histologie comparée*.

³⁷ Franz Leydig, *loco citato*.

³⁸ Longet, *loco citato*.

³⁹ Nicolas Emeric, *Directoire d'inquisition*, quoted in Salveric's treatise, *Des sciences occultes*.

⁴⁰ *Métissage* translates into various usages as "race mixing" or "race hybridization." The noun *métis* translates as "mixed race" or "mixed blood" (Translator's note).

⁴¹ Broca, *loco citato*, p. 521.

⁴² Quoted in Broca, *Mémoires d'anthropologie*, Vol. III, p. 521.

⁴³ Topinard, *loco citato*, p. 373.

⁴⁴ Haller, *Elementa physiologiae*.

⁴⁵ A *griffe* is a Black person with Europeanized features, a black skin, and wavy hair, as opposed to a mulatto, who has a light skin and straight hair (Translator's note).

⁴⁶ *Bulletin de la Société d'anthropologie* (March 1860), quoted by Broca.

⁴⁷ Bory de Saint-Vincent, *loco citato*, Vol. II, pp. 37-38.

⁴⁸ The *sciences camérales* (*Kameral Wissenschaften*) include all the administrative sciences, particularly political economy and the body of knowledge one needs to manage public finances.

⁴⁹ Broca, *loco citato*, Vol. III, p. 506.

⁵⁰ Wilhelm von Humbolt, *Ueber die Kavi Sprache auf der Insel Java*.

⁵¹ *Eloge historique de Tiedemann*.