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RACIAL INTERMARRIAGES:
" THEIR SCIENTIFIC ASPECT.

Parsees
Juddin

Specially compiled for the consideration of Parsees in
connection with the Juddin question.

U.S. GEOLOGICAL SURVEY
WASHINGTON, D.C.

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Carpentus

Full titles of the books quoted from, for which abbreviations have been used in this brochure, with their respective abbreviations.

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2. Hutchinson, History of Nations ... "Hutchinson's History of the Nations—The Phœnecians and the Carthaginians." By Dr. J. P. Mahaffy, C.V.O., D.D., D.C.L.
3. Darwin, Animals and Plants ... "The Variation of Animals and Plants under Domestication." By Charles Darwin. Edited by Francis Darwin. (Popular Edition, 1905).
4. Darwin, Origin of Species ... "The Origin of Species." By Charles Darwin. (R. P. A. Cheap Reprints, Watts & Co., 1903).
5. Darwin, Descent of Man ... "The Descent of Man and Selection in Relation to Sex." By Charles Darwin, M.A., F.R.S. (London, John Murray, Albemarle St., 1909).
6. Wallace, Darwinism ... "Darwinism.—An Exposition of the Theory of Natural Selection with some of the Applications." By Alfred Russel Wallace, LL.D., F.L.S., etc. (2nd Edition, Macmillan & Co., 1890).

7. Thomson, Heredity ... "Heredity." By J. Arthur Thomson, M.A., Regius Professor of Natural History in the University of Aderdeen. Author of "The Study of Animal Life," "The Science of Life," "Outlines of Zoology," "The Progress of Science," "Herbert Spencer." (John Murray, Albemarle St., W., 1908).
8. Mendel's Principles of Heredity ... "Mendel's Principles of Heredity." By W. Bateson, M.A., F.R.S., V.M.H., Fellow of St. John's College, Professor of Biology in the University of Cambridge. Cambridge University Press, 1909).
9. Le Bon., Psych. of Peoples ... "The Psychology of Peoples—Its Influence on their Evolution." By Gustave Le Bon. Author of "The Crowd." (T. Fisher Unwin, London, 1899).
10. Spencer, Sociology ... "The Principles of Sociology." By Herbert Spencer, Vol. I., 1876.
11. Ivan Block, Sexual Life ... "The Sexual Life of our Time, in its Relations to Modern Civilisation." By Ivan Block, M.D. Translated by Eden Paul, M.D. (Rehman, Ld., London, 1908).
12. Chaos ... "The fourth chapter—The Chaos—of "The Foundations of the Nineteenth Century." By Houston Stewart Chamberlain. A Translation from the German by John Lees, M.A., D. Lit. (Edin.), with an Introduction by Lord Redesdale, G.C.V.O., K.C.B., &c. (London, John Lane, The Bodley Head : MCMXI.).

FOREWORD.

The rise, growth and decay of nations constitute a study as interesting as it is useful, and when large and far-reaching questions, touching the well-being of a race, arise and call for practical solution and especially when such questions crop up in connection with a race like ours, ancient, very ancient, but small in number, it is of the utmost importance and utility that the principles underlying such questions, biological, sociological and racial, should be thoroughly studied, that the lessons taught by the history of nations should be brought home with accuracy and insight, and that material, scientific and historical, be gathered for helping a correct solution of the points at issue and for preventing misguided ideas from leading the race to physical wreck and moral ruin. For the Parsee community such a question has for some years past been keenly and hotly discussed. It is the question of admitting non-Parsees into the community. Since the discussion has not been merely academical but the community has been called upon to face a practical issue, it is pre-eminently desirable that the principles underlying racial formation, evolution and decay should be clearly gathered from authoritative sources, and the arguments advanced in favour of this change of policy—a change that would seriously affect not only the well-being but the very existence of the community—should be thoroughly sifted and examined, and their proper value determined in the light of scientific and historical facts.

An attempt at such examination has been made in the following pages. This booklet is merely a compilation. The opinions of known authors on the various issues involved are gathered together and an attempt made to classify the main ideas they adumbrate.

The quotations are printed in different type from the compilers' remarks. Those that are not inclined or cannot spare the time to go through the quotations will thus have the facility of perusing the compilers' remarks which embody the gist of the quotations. It is, however, hoped that all Parsees who are interest-

ed in the growth and advancement of their community—and which Parsee is not?—will spare a few hours to the perusal of the following pages, which are expected to help him in forming his judgment on an issue of supreme importance to the future of his small but illustrious community.

It is also hoped that the pamphlet will be of use to those members of other races, who believe that intermarriages between the various communities that inhabit this vast continent would be a means—and a useful means—of promoting nation-building in India.

It may be mentioned for the information of those not familiar with the controversy that was current some time ago in the Parsee Community that the word Juddin means an alien in faith.

The italics in the quotations appearing in this brochure are mostly ours.

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PRELIMINARY.

1. Ever since the marriage of a French lady to Mr. R. D. Tata, the question of the conversion of aliens to Zoroastrianism and of their admission into the Parsee community (erroneously known as the Juddin question) has been the subject of much debate and acute controversy in our community. It is a well known fact that with the exception of a very small number, the community as a whole has most strenuously and keenly opposed the admission of outsiders into the community. In the year 1903, upon the requisition of a considerable number of influential Zoroastrians, the Panchayat Trustees convened an Anjuman meeting which appointed a large and representative committee to report on the question, "whether taking into consideration our present condition, religious, social, etc., it was advisable to admit Juddins into our community." This question was discussed from various viewpoints in sub-committees and having ultimately come on for report before the committee, the latter, after prolonged and patient deliberation, answered it in the negative by a large majority. This report was unanimously adopted by another Anjuman meeting held in 1905.

2. Despite this well considered decision of the Anjuman the few that have all along held pro-Juddin views have continued advancing various oft-repeated arguments in favour of their view of the question. While some of them insist on implicit obedience to a religious injunction about conversion to Zoroastrianism, as if it also implied admission into the Parsee community, others talk of improvement of the race by the importation of rich foreign blood, of the benefits of crossing, etc. It is therefore necessary that these arguments should be carefully examined and an attempt made at a clear understanding of the issues involved and their gravity, affecting as they do the well-being and even the very existence of our ancient race.

THE NATURE OF THE JUDDIN QUESTION.

3. At the outset it must be stated most definitely and emphatically that the Juddin question (as it has been inaptly called) comprises two entirely distinct and important questions, viz., the

conversion of aliens to the Zoroastrian religion (a purely religious question), and the admission of foreigners into the Parsee community (a purely racial question). Great confusion of thought and much mixing up of issues have resulted from a failure to distinguish and to keep apart these two questions. The pro-Juddinists have tried to ignore altogether the second factor (that of admission into the community) and to induce the community to believe that the Juddin question is entirely a religious one. The very name 'Juddin question' carries such a mistaken implication and is therefore a misnomer. A moment's thought will make it clear that the two questions are quite separate and distinct and have to be treated and decided upon independently. Theoretically there may be conversion to Zoroastrianism without the converts being admitted into the Parsee community so as to be able to inter-marry Parsee Zoroastrians. In practice, however, this is not feasible in our present condition, so that conversion into our faith brings in its wake admission into our community, and the solution of the Juddin question therefore depends upon a decision both of the religious question of conversion and the social or racial question of admission into the community. This has been borne in mind in the language of the question above cited which was submitted by the Anjuman to the Committee. Note the words 'taking into consideration our present condition religious, social, etc.' It must also be noted that the verdict of the large majority of the community has rested on a consideration of both these issues, religious as well as social. The Anjuman's verdict has been this, "although the Zoroastrian religion enjoins conversion of such Juddins as are inspired solely by love of Zoroastrianism and not by any worldly motives, the admission of people of various races and sub-races into the small Parsee community and their inter-marriage with Parsee Zoroastrians (results which would under present conditions inevitably follow conversion) would bring about degeneration and a destruction of those valued traits of character that have distinguished and ennobled the Parsee race, and would threaten even its very existence. The so-called Juddin question should therefore be answered in the negative." Too much stress cannot for these reasons be laid on the fact of two distinct and important issues, one religious and the other racial, being involved in the Juddin question, making it quite clear that it is on a consideration and well-informed decision of both these issues, and not merely the religious

one (as has often been contended), that a proper solution of this all important question could be reached.

THE RELIGIOUS QUESTION.

4. Much space need not be devoted to a consideration of the religious question. It is curious that those who are loud in clamouring for religious reforms of all kinds on the ground that we are a progressive community, and must move with the times, even in matters strictly religious, would, on the Juddin question argue that the religious enjoinder for conversion should be carried out to the letter. It must also be remembered that religion only enjoins conversion to the faith under certain circumstances. It does not enjoin and is not concerned with admission into the community. For the satisfaction of those who would like to know what our scriptures have got to say on this vexed question we quote a passage from a report made by the Sub-Committee of Avesta scholars to whom the question framed by the Anjuman was referred by the Committee. These scholars were asked to report on the question of conversion from the religious standpoint only and the gist of their opinion is contained in the following paragraph:—

“જે બીજી દીનવાલા કોઇ, પોતાની રાજ ખુશીથી, સારા હેતુથી, નેક નિષ્ઠાથી, પોતાની જરથોસ્તી તરીકે ગણાવવા બાબેની લાયકાત બતાવીને આવવા માંગે, અને તેના આવવાથી ખુદ જરથોસ્તી મજદયસનોને કોઈબી રીતનું નુકસાન નહીં પહોંચતું હોય, તે તેને ઘટતી પુછપરછ અને ખાતરી પછી લેવા, એ દરસ્ત દિસે છે, અને તે ધર્મની શીખવણીને અનુસરતું છે.”

“If any person professing another religion seeks admission (into the Zoroastrian religion) of his or her own free will and accord, from a pure motive and with good intentions, and after having established his or her worthiness to be reckoned a Zoroastrian, and if by his or her admission no harm of any kind would be caused to the Zoroastrian Mazdayasnans themselves, then and under those conditions it seems proper to admit him or her, after due inquiries and proper satisfaction and this is also in accordance with the teachings of the religion.”

5. The Sub-Committee besides expressing its opinion on the religious aspect of the Juddin question had gone into details and made various suggestions in its report as to the procedure whereby the conditions necessary for conversion could be fulfilled, etc.,

and the dissenting minutes of three out of the ten signatories hereto were principally against the procedure and ceremonies prescribed in the report. To the main condition precedent to conversion laid down in the report, viz., the candidate's pure motives, even the dissenters agreed. Note what the late Mr. K. R. Cama says “એક વખતે તેનું દીલ આપણા ધરમ ઉપર ખરેખર ચુસ્ત રીતે લાગ્યા છતાં” (in spite of his heart having once been really and fervently attached to our religion), and the late Ervad Sheriarji Bharucha's words સત યજીનથી અને પુરની દીલસેાજથી” (with true conviction and sufficient sympathy).

6. This report which was exhibited in the Panchayat case was confirmed by the Court as we find from the following passages in the Judgment:—

“To sum up this part of the case on the question of conversion, the conclusions which I have arrived at on the evidence before the Court are:—

V. That although conversion is permissible by the religion, there are certain conditions which the candidate must fulfil before becoming eligible for admission. The conditions are that it must first be satisfactorily established that he or she, in applying for admission is animated by a good object and actuated by pure intentions, in other words, that he or she seeks admission from religious convictions and not from other considerations, and further, that the candidate is in all other respects fit to be admitted to the Zoroastrian faith.

VI. That such an admission of a person born outside of the religion is only permissible if it is established that by such admission ‘no harm of any kind would be done to the Zarthosti Mazdayasnans themselves.’—*Davar J.'s printed judgment*, p. 91.

7. It is plain, therefore, *that even from the religious standpoint*, the most important condition to be fulfilled, before conversion to our faith may be permitted, is that the candidate for conversion must be inspired by a pure religious motive and not by a worldly one. It must be clearly established that love for the Zoroastrian religion and devotion thereto are alone influencing the conversion. If change of religion is merely sought as a means to a worldly end—marriage, money or any other—the conversion is *wrong and bad even from the religious standpoint*. When it is borne in mind that in almost all the cases of conversion that have come to the fore, marriage with a Parsee has been the real and ultimate object, the importance of this condition at once forces itself upon us and we realise that such conversions are against the injunctions of the Zoroastrian religion.

8. In this connection it may be noted that in Yesna XII. which is the Avestan confession of faith, the undertaking is solemnly given—"not to do any act whereby harm would be caused to the fold" (Speigel). When therefore the principal object of the convert is, for his own selfish and worldly purposes, to intrude into a community, an overwhelming majority of whose members do not wish to have him, not only is his motive impure and therefore his conversion bad, but he breaks one of the chief promises he makes on his admission, viz., 'not to cause harm to his co-religionists,' which he does by bringing strife and discord among them.

9. It may be mentioned in passing that various ceremonies are essential for conversion according to the report above referred to and that the High Court Judgment in the Panchayat case confirms the report in this respect also. The Court finds:—

"VII. That the ceremonies necessary to be undergone by the candidate for admission are: (a) Navjot, (b) Burshnum, and (c) a repetition of the Investiture ceremony of Navjot after Burshnum.

VIII. That only those persons who have undergone these three ceremonies are entitled to the full rights and privileges of a Zoroastrian."—*Davar J.'s printed judgment, p. 91.*

THE QUESTION OF NUMBER.

10. It has been sometimes argued that our community is very small in number and that therefore a movement like that of conversion which tends to increase our number should, for that reason alone, be welcomed. It is quite evident that this argument has regard to quantity or number alone and disregards quality or qualifications entirely. It cannot be seriously contended that the greatness of a race or nation depends merely upon its number. Number without character would mean next to nothing. Nay the very fact, so patent to every one of us, that we, Parsees, despite the fact that we are a mere handful, a few thousands all told, have, through strength of character and high morals, kept ourselves in the forefront in this vast land of India amidst the teeming millions of sister communities and have exercised a palpable influence for good, ought to scatter to the winds any argument which goes solely by arithmetic and disregards utterly those noble virtues that alone exalt a nation. Those admirable qualities of head and heart, charity, enterprise and dash, integrity, energy,

and intelligence which have made the Parsee well-known in the civilised world are the quintessence of the soul of our community and it would be very short-sighted policy indeed that would endanger our very soul (as we shall see later on) by an admixture of alien blood, merely with a view to increase our number. Instead of reducing ourselves to a half-caste or no-caste community numbering lakhs but *sans* all that has made the Parsee name famous in history, it would be far preferable to perish altogether and to leave behind us on the sands of time the footprints of a nation that rose to fame by its virtues and preferred death to the annihilation of its character, footprints that might be of immense value to the nations of the future.

11. In this connection the following remarks of known writers will be of interest. They confirm the view that for a race quality is far superior to quantity and that many a little nation with a high character has made its mark in the world:—

“Any intelligent survey of the globe from a historical point of view will show at once how far superior is quality to quantity. For the nations that have been famous seldom owned a great area till they subdued it by arms and arts; some of the greatest never did, so that the largest changes in human civilization have sprung from the smallest beginnings. Of these Palestine and Greece and Venice and Holland are examples; they are petty indeed on the map, but vast in their influences. Even Great Britain, in comparison with the Empire she has acquired, is but a petty spot on the globe, and possibly the size of the United States of America is rather an obstacle than an aid to their greatness. For they have been described, not without reason, as the materials of a great country lying about. These considerations apply eminently to Phoenicia—a fringe along the coast of Syria, between mountains and the sea, which consisted of a small string of cities along this coast and a few hundred thousand inhabitants; and yet, even if we exclude Carthage, her one great and real colony Phoenicia and Phoenicians were a household word in all empires that arose in Asia and Europe for twenty centuries. They were in contact with Egypt, Assyria, and Babylonia, Greece, Rome, not to speak of the barbarians of Spain, Gaul and Britain; and their solid contributions to the world’s comfort and luxury—the alphabet (not a syllabary), glass vessels and purple garments—kept them wealthy and respected down, at least, to the days of the traveller Strabo.”—*Hutchinson’s History of the Nations.*

12. Mr. Lloyd George in a speech delivered in the Queen’s Hall on Saturday, 19th September, 1914, thus expressed himself on the question of little nations:—

"The world owes much to little nations and to little men. This theory of bigness, you must have a big empire and a big nation and a big man—well, long legs have their advantage in a retreat. Frederick the Great chose his warriors for their height, and that tradition has become a policy in Germany. Germany applies that ideal to nations. She will only allow six-foot-two nations to stand in the ranks. But all the world owes much to the little five-foot high nations.

"The greatest art of the world was the work of little nations. The most enduring literature of the world came from little nations. The greatest literature of England came from her when she was a nation of the size of Belgium fighting a great empire. The heroic deeds that thrill humanity through generations were the deeds of little nations fighting for their freedom.

"Ah, yes, and the salvation of mankind came through a little nation. God has chosen little nations as the vessels by which He carries the choicest wines to the lips of humanity, to rejoice their hearts, to exalt their vision, to stimulate and to strengthen their faith, and if we had stood by when two little nations were being crushed and broken by the brutal hands of barbarism our shame would have rung down the everlasting ages."—*Public Opinion*, September 25th, 1919.

13. Viscount Bryce, till lately our Ambassador to the United States, in a long article to the *Daily Chronicle*, controverts the poisoned teaching of General Bernhardi:—

"It is only vulgar minds," he says, "that mistake bigness for greatness, for greatness is of the Soul, not of the Body.

"In the judgment which history will hereafter pass upon the forty centuries of recorded progress towards civilisation that now lie behind us, what are the tests it will apply to determine the true greatness of a people?

"Not population, not territory, not wealth, not military power.

"Rather will history ask:

"What examples of lofty character and unselfish devotion to honour and duty has a people given?

"What has it done to increase the volume of knowledge?

"What thoughts and what ideals of permanent value and unexhausted fertility has it bequeathed to mankind?

"What works has it produced in poetry, music, and the other arts to be an unfailling source of enjoyment to posterity?

"The small peoples need not fear the application of such tests.

"The world advances not, as the Bernhardi school suppose, only or even mainly by fighting. It advances mainly by thinking and by a process of

reciprocal teaching and learning, by a continuous and unconscious co-operation of all its strongest and finest minds.

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“What are the teachings of history—history to which General Bernhardt is fond of appealing?

“That small peoples have done and can do as much for the common good of humanity as large peoples.

* * * * *

“The small States, whose absorption is now threatened, have been potent and useful—perhaps the most potent and useful—factors in the advance of civilisation. It is in them and by them that most of what is most precious in religion, in philosophy, in literature, in science, and in art has been produced.

“The first great thoughts that brought man into a true relation with God came from a tiny people, inhabiting a country smaller than Denmark. The religions of mighty Babylon and populous Egypt have vanished; the religion of *Israel* remains in its earlier as well as in that later form which has overspread the world.

“The Greeks were a small people, not united in one great State, but scattered over coasts and among hills in petty city communities, each with its own life, slender in numbers, but eager, versatile, intense. They gave us the richest, the most varied, and the most stimulating of all literatures.

“In modern Europe what do we not owe to little Switzerland, lighting the torch of freedom 600 years ago, and keeping it alight through all the centuries when despotic monarchies held the rest of the European Continent? And what to free Holland, with her great men of learning and her painters surpassing those of all other countries save Italy?

“So the small Scandinavian nations have given to the world famous men of science, from Linnaeus downwards, poets like Tegner and Biornson, scholars like Madvig, dauntless explorers like Fridthiof Nansen. England had, in the age of Shakespeare, Bacon, and Milton, a population little larger than that of Bulgaria to-day. The United States, in the days of Washington and Franklin and Jefferson and Hamilton and Marshall, counted fewer inhabitants than Denmark or Greece.”—*Public Opinion*, October 9th, 1914.

14. “Almost everything which is most precious in our civilisation has come from small states; the old Testament, the Homeric poems, the Attic and the Elizabethan drama, the art of the Italian Renaissance, the common law of England. Nobody need to be told what humanity owes to Athens, Florence, Geneva or Weimar. The world’s debt to any one of these small States far exceeds all that has issued from the militant monarchies of Louis XIV., of Napoleon, of the present Emperor of Germany.”—*The Value of Small States*, by H. A. L. FISHER, Vice-Chancellor of the University of Sheffield, Minister of Education.

15. "We, little men, are confronted as never before with bigness. We blunder on, mystified yet hopeful, trembling yet trustful. We discovered machinery and we believed that it would save our labour and give us ease from toil; yet everybody seems to work harder than ever. We mastered the sea, the mountains and the air; yet we are still the slaves of destruction. We go on making bigger ships, bigger factories, bigger fortunes, bigger Empires, bigger guns, and how are we profited?"

"Has happiness been found? Has the heart been slaked and the soul been set at peace? Far from it. Everywhere is bitterness and unrest, everywhere strife—sexual, industrial, national.

* * * * *

"This is why some men are praying that peace may bring back our minds to smallness, that it may destroy our demented worship of the huge and may call us once again to consider our scheme of values.

* * * * *

"From the extreme devotees of the small and the personal, a society which has been utterly given over to the vast and the mechanical has everything to learn.

* * * * *

"It is conceivable that the war itself, that triumph of material Bigness, may be the chief cause of the dethroning of Bigness, and of a new devotion to quality, not quantity, to life and not to matter."—*The Nation*, quoted in *Public Opinion*, March 3, 1916.

16. "States hitherto have measured their worth in terms of population, territory and power. That estimate leads them inevitably to war. For while they are governed by it they must always desire to expand at the cost of one another. Every war in Europe since the wars of religion may be traced to this cause. And even the wars so-called of religion were really wars for power. The wars of nationality in the nineteenth century were reactions against this false ideal. Yet the nations that reacted have not discovered or pursued a truer one. There can be no peace, not even genuine desire for peace, until men realise that the greatness of a people depends upon the quality of life of the individual citizens.

"A city like Athens and Florence is worth all the Empires that have ever been. A state of a few thousands amongst whom is found a Socrates, a Michel Angelo, a Goethe, outweighs beyond all calculation one whose gross insignificant millions shall be dragooned by the drill sergeant and sophisticated by the University professor."—*The Atlanta Monthly*, quoted in *Public Opinion*, March 28, 1915.

17. "Each Nation, each race, has a genius of its own, and by that fact a contribution to make and a service to render to all humanity. Hitherto the richest treasures have been the gifts of the smallest nations. Naturally so,

because in a small nation unity of life, identity of interest, and a common danger and destiny make patriotism at once more vivid and more creative. Judea was no larger than Iowa, and yet it gave to the race its loftiest and truest religion, the moral manual of civilization, and the strongest, whitest and sweetest soul the earth has known—in whom we see what God is and what man is to be. Greece was a tiny land girt in by violet seas and ever hung by soft skies, but it added immeasurable wealth of art, drama and philosophy to the world. Rome was only a city, but her jurisprudence still reigns, and our laws follow the path of the great Roman lawyers. Thus we might call the role of races and nations, finding in each something unique, particular and precious, without which the world would be poorer. As Greek art blessed the world, and Roman law ruled it, so the genius of the Hebrews was dissolved in the Cup of the universal communion.”—*Religion and Patriotism, a Sermon by REV. JOSEPH FORT NEWTON, (The Christian Commonwealth).*

18. “A little people and poor, which is willing for sacrifice, can stand in arms against the might of a Great Empire. Sacrifice, we mean, not on the field of battle but in the long-drawn preparation which makes a nation fit to win. The Germans before 1870, were a poor people; the Boers and Japanese were both poor peoples. The curse of wealth, uncontrolled by a national spirit of sacrifice, is that it divides a nation against itself. For wealth, in its visible expression, is the wealth of individuals.

“The nations which rise are the nations in which distinctions of class and wealth are sunk in a common effort for the country’s good, in which every man is ready to give what he has to the country’s cause, and in which it is recognised that of him to whom much is given, much is required.”—*The Pall Mall*, quoted in *Public Opinion*, November 1st, 1912.

THE MAIN PURPOSE OF THIS BROCHURE.

CONSIDERATION OF THIS QUESTION FROM THE SCIENTIFIC

STANDPOINT.

19. Vague ideas of the benefits of crossing and the improvement of race or breed by conversion and inter-marriage, and the importation or transfusion of rich foreign blood, etc., have been put forward now and again in connection with the Juddin question and it is the main object of this brochure to show how groundless these ideas are and how opposed to the true teachings of science. For this purpose it will be best to begin by an elucidation of the main principles of the art of breeding.

THE ART OF BREEDING (PLANTS AND ANIMALS).

THE MAIN PRINCIPLES UNDERLYING THE ART.

The three main principles—heredity, variation and selection—underlying the art of breeding so far as plants and animals are concerned are thus discussed by Mr. Francis Darwin in his article on breeding in the *Encyclopædia Britannica*:—

“The art of breeding consists in changing the condition of life and regulating the reproduction of animals and plants. Since a breed is a domestic variety, it implies the existence of a group of individuals marked off from their congeners by the possession of certain characters which are transmitted to their offspring. It is this transmission of peculiarities which is the essential characteristic of a breed. For any collection of domesticated organisms could be divided into groups of individuals distinguished by certain points, but such groups would not necessarily form breeds. It is evident then that the law of heredity which asserts that ‘like begets like’ must hold good or the existence of breeds will be an impossibility. Again, if it were absolutely true that like begets like; that is, if the offspring were in all cases identical with the parent, it is evident that neither by man’s interference nor by the operation of nature could a breed or race arise. It seems then that were it not in the nature of all organic beings to reproduce their kind in the manner formulated in the principle of heredity, and were it not for the continuous slight infringement of it expressed by the principle of variability, breeds could not have arisen. It is, therefore, necessary to examine these two principles as part of the subject under consideration.

“Whatever views we may entertain respecting the origin of our domestic animals and plants, *there can be no doubt as to the matter of fact that breeders have always proceeded on one principle—select the best individuals in each generation and pair them.* Now we have found that the qualities of organic beings (forming in a certain sense the material on which the breeder has to work) can be generalized under two principles—heredity and variability. And in the same way the art of breeding is itself capable of a kind of generalisation under the principle of *selection*. There are thus *three great principles or laws—heredity, variability and selection—the last relating to the art of man, the other two to those qualities of organic beings which render the art practicable.*”—*E. B., Vol. IV., p. 245.*

20. In another article in the *Encyclopædia Britannica* the following statements as to the laws of heredity and variation and their application to man occur:—

"Heredity is the tendency of every organism to produce its like or more exactly to produce a set of new forms varying slightly from it in many directions—a group, of which the parent form is the centre."—*E. B., Vol. I., p. 87.*

"Evidence has been adduced by Mr. Darwin to show that the tendency to vary is itself hereditary, so that, so far from variations coming to an end, as some persons imagine, the more extensively variation has occurred in any species in the present, the more likely is it to occur in the future."—*E. B., Vol. I., p. 87.*

"The general laws of heredity and variation have been proved to apply to man as well as to animals and plants."—*E. B., Vol. I., p. 88.*

21. "Charles Darwin's *Variation of Animals and Plants under Domestication (1868)*' was the starting-point of exact knowledge on this subject; when it appeared, it contained not only the best collection of empirical facts, but the only rational theory of the facts. . . . The possibility of establishing a breed depended, therefore, in the first place on the natural variability of wild animals and plants, then on the variations induced in animals and plants under subjection to the new conditions brought about by man's interference, next on the extent to which these variations, natural or artificial, persisted through the series of generations, and *finally on man's intelligence in altering or maintaining the conditions of the environment, and in selective mating.* The theory of breeds and breeding depends, in fact, on knowledge of variation, on modification by the environment, and of heredity. Any attempt to give an account of what actually has been done by man in establishing breeds would be little more than an imperfect summary of Darwin's work. The articles *Heredity, Mendelism* and *Variation and Selection* show that what may be called the theoretical and experimental knowledge of variation and heredity is far in advance of the practical art of breeding. Even horticulturists, who have been much more successful than those who deal with animals, are *still far from being able to predict the result of their selections and crossings.* None the less it may be stated definitely that such prediction is already so nearly within the power of the practical breeder that it would be a waste of time to give a summary of the existing rules of thumb methods. The art of breeding is so immediately destined to become a science of breeding that existing knowledge and conceptions must be dismissed as of no more than historical interest."—PETER CHALMERS MITCHELL, M.A., D.Sc., LL.D., F.R.S.. *Encyclopædia Britannica, Vol. IV., p. 487. (11th Edition, 1910-11).*

22. It is apparent from these quotations that the *art of breeding consists in bringing to bear the principle of human or artificial selection on the natural principles of heredity and varia-*

tion. By the operation of these two laws of nature varieties are constantly produced in each generation with heritable characteristics and the breeder "selects the best individuals in each generation and pairs them" so that, ultimately through continuous careful selection in a particular direction, *e.g.*, size, strength, fleetness, colour, etc., a breed possessing the desired qualities is produced and made comparatively permanent. Heredity, variation and selection are thus seen to be the three important elements in the art of breeding.

REVERSION OR ATAVISM.

23. In this connection may be mentioned another fact in nature which besides the general fact of variation calls for a most vigilant and careful selection, viz., reversion or atavism, the re-appearance in some of the offspring of a particular generation, of the characteristics—not of either parent or progenitor—but of remote ancestors. This tendency of reversion to primitive characteristics is one of the greatest obstacles in the way of good breeding and has to be continuously counteracted by very careful selection, if the process of breeding is to achieve the desired result. Says Francis Darwin in the article above referred to:—

"The possibility of characters existing in a latent condition is of the utmost moment to the breeder since upon it depends the possibility of reversion or atavism. Reversion is a matter of extreme importance to the breeder, for it is one of the serious hindrances to the progress of his art. Since the time of the famous Blackwell during the last century, Leicester Sheep have been bred with the *most scrupulous care* yet grey-faced, black-spotted or wholly black lambs occasionally appear. In this case *the most careful selection* has been necessary to battle against the tendency of the original colouring of the Sheep to re-appear. And in all cases of selection it is this tendency that has to be struggled against by the breeder. On this principle the gardener looks over his beds and weeds out the 'rogues.'" —*E. B.*, Vol. IV., p. 247.

SELECTION.

24. "Selection may be defined as the process by which the procreators of each fresh generation are chosen out of the preceding one. But with reference to the formation of our improved breeds something more than that is meant by the term. The modern development of the art which has been distinguished by Mr. Darwin as *methodical selection always implies that the*

breeder has before his mind an ideal form, a model on which he attempts to mould his strain."—E. B. Vol. IV., p. 249.

25. Charles Darwin in his admirable work on "Animals and Plants under Domestication" thus expresses himself on the principle of methodical selection and its remarkable effects:—

"It may be worth while to give a few examples of *methodical selection* with plants; but in fact the great improvement of all our anciently cultivated plants may be attributed to selection long carried on, in part methodically, and in part unconsciously.—DARWIN, *Animals and Plants*, p. 229.

"What man has effected within recent times in England by methodical selection is clearly shown by our exhibitions of improved quadrupeds and fancy birds. With respect to cattle, sheep, and pigs, we owe their great improvement to a long series of well-known names—Bakewell, Colling, Ellman, Bates, Jonas Webb, Lords Leicester and Western, Fisher Hobbs, and others. Agricultural writers are unanimous on the power of selection: any number of statements to this effect could be quoted; a few will suffice. Youatt, a sagacious and experienced observer, writes, *the principle of selection is 'that which enables the agriculturist, not only to modify the character of his flock, but to change it altogether.'*—*Ibid*, pp. 221-2.

"What methodical selection has effected for our animals is sufficiently proved, as already remarked, by our Exhibitions. So greatly were the sheep belonging to some of the earlier breeders, such as Bakewell and Lord Western, changed, that many persons could not be persuaded that they had not been crossed."—*Ibid*, p. 226.

"The London dray-horse, which differs so much in appearance from any natural species, and which from its size has so astonished many Eastern princes, was probably formed by the heaviest and most powerful animals having been selected during many generations in Flanders and England, but without the least intention or expectation of creating a horse such as we now see."—*Ibid*, p. 245.

ISOLATION AND IN-AND-IN BREEDING.

26. It is evident that the principle of selection necessitates that the domesticated breeds must be kept separate and *not allowed to pair promiscuously or to cross* with distinct races, discriminate pairing being another word for artificial selection, as we have already seen. Darwin thus expresses himself on this point:—

"Hence, to preserve our domesticated breeds true, or to improve them by methodical selection, it is obviously necessary that they should be kept separate."—DARWIN, "*Animals and Plants*," p. 197.

“On the principle which makes it necessary for man, whilst he is selecting and improving his domestic varieties, to keep them separate, it would clearly be advantageous to varieties in a state of nature, that is to incipient species, if they could be kept from blending, either through sexual aversion, or by becoming mutually sterile.”—*Ibid*, p. 211.

“The only other directive evolution-factor that biologists are at all agreed about besides selection, is isolation—a general term for all the varied ways in which the radius of possible inter-crossing is narrowed. As expounded by Wagner, Weismann, Romanes, Gulick, and others, isolation takes many forms—spatial, structural, habitual, and psychical—and it has various results.

“It tends to the segregation of species into sub-species, it makes it easier for new variations to establish themselves, it promotes prepotency, or what the breeders call ‘transmitting power,’ it fixes characters. One of the most successful breeds of cattle (Polled Angus) seems to have had its source in one farm-stead, its early history is one of close inbreeding, its prepotency is remarkable, its success from our point of view has been great. It is difficult to get secure data as to the results of isolation in nature, but Gulick’s recent volume on the subject abounds in concrete illustrations, and we seem warranted in believing that conditions of isolation have been and are of frequent occurrence.”—THOMSON, *Heredity*, pp. 536-538.

“In order that selection should produce any result, it is manifest that the crossing of distinct races must be prevented; hence facility in pairing, as with the pigeon, is highly favourable for the work; and difficulty in pairing, as with cats, prevents the formation of distinct breeds.”—DARWIN, *Animals and Plants*, p. 271-2.

“The effects of free or uncontrolled breeding between the members of the same variety or of closely allied varieties are important; but are so obvious that they need not be discussed at much length. It is free inter-crossing which chiefly gives uniformity, both under nature and under domestication, to the individuals of the same species or variety, when they live mingled together and are not exposed to any cause inducing excessive variability. The prevention of free crossing, and the intentional matching of individual animals, are the corner-stones of the breeder’s art. No man in his senses would expect to improve or modify a breed in any particular manner, or keep an old breed true and distinct, unless he separated his animals. The killing of inferior animals in each generation comes to the same thing as their separation. In savage and semi-civilized countries, where the inhabitants have not the means of separating their animals, more than a single breed of the same species rarely or never exists. In former times, even in the United States, there were no distinct races of sheep, for all had been mingled together.”—*Ibid*, pp. 76-77.

27. Attention must at this stage be drawn to the fact that so far there is no question of "crossing or of infusion of foreign blood." *Rather are we confronted with the necessity of preserving "purity of blood" and preventing crossing or infusion.* Full advantage is taken of the principle of heredity of 'like begetting like' and *by a careful and continuous selection* of the individuals in each generation that are allowed to pair, *remarkable results are achieved.* On this point Darwin states:—

"Until lately, cautious and experienced breeders, *though not averse to a single infusion of foreign blood*, were almost universally convinced that the attempt to establish a new race, *intermediate between two widely distinct races, was hopeless*; "they clung with superstitious tenacity to the doctrine of purity of blood, believing it to be the ark in which alone true safety could be found."—DARWIN, *Animals and Plants*, p. 91.

28. Enough stress cannot therefore be laid on the point that promiscuous pairing, even amongst the offspring of the same parents, *is studiously avoided by the breeder*, and the separation or isolation of such offspring and the selection of such individuals as shall be allowed to pair are the very essence of the art of breeding. Where therefore even the offspring of common parents are not allowed to breed promiscuously, it is quite plain that crosses and infusions of foreign blood are out of question altogether and that methodical selection amidst very closely related individuals is really the key to the remarkable improvements of breed that are noticeable in our domesticated plants and animals. *The notion therefore that improvement of breed is due solely or even chiefly to crossing is an entirely mistaken one.* 'Select at each step the best parents for the next generation, continue carefully and methodically thus to select for several generations and the results will be most remarkable.' Such is the quintessence of the art of breeding.

"In this way all our fine sorts of vegetables, fruits, and flowers have been obtained, all our choice breeds of cattle or poultry, our wonderful race-horses, and our endless varieties of dogs. *It is a very common but mistaken idea that this improvement is due to crossing and feeding in the case of animals, and to improved cultivation in the case of plants.* Crossing is occasionally used in order to obtain a combination of qualities found in two distinct breeds, and also because it is found to *increase the constitutional vigour*; but *every breed possessing any exceptional quality is the result of the selection of variations occurring year after year and accumulated in the*

manner just described. *Purity of breed, with repeated selection of the best varieties of that breed, is the foundation of all improvement in our domestic animals and cultivated plants.*—WALLACE, *Darwinism*, pp. 84-85.

29. Notice the correction here made of the common but mistaken idea that improvement in breed is due to crossing and feeding in the case of animals. It is this mistaken idea that has been much exploited by pro-juddins in support of their contentions.

CLOSE IN-AND-IN BREEDING INDISPENSABLE.

30. It follows from what has been previously discussed that continued breeding between very closely related individuals known as "*close in-and-in breeding*" with continuous selection, is the foundation stone of the art of breeding and is necessary for obtaining that fixity of the desirable and desired characteristics that is the final goal of the breeder. It is generally believed, however, that this close in-and-in breeding tends in the long run to loss of constitutional vigour, size, and fertility. It will be seen, however, that it is not interbreeding in itself that is responsible for this result and, moreover, these slight disadvantages are far outweighed by the great benefit it produces in the fixing and retention of character. The following quotations have bearing on the nature of this close in-and-in breeding and its ultimate effects:—

"There is no difficulty in defining what is meant by a cross; but this is by no means easy in regard to "*breeding in-and-in*" or "*too close interbreeding*," because, as we shall see, different species of animals are differently affected by the same degree of interbreeding. The pairing of a father and daughter, or mother and son, or brothers and sisters, if carried on during several generations, is the closest possible form of interbreeding. But some good judges, for instance Sir J. Sebright, believe that the pairing of a brother and sister is much closer than that of parents and children; for when the father is matched with his daughter he crosses, as is said, with only half his own blood. The consequences of *close interbreeding* carried on for too long a time, are, as generally believed, *loss of size, constitutional vigour, and fertility, sometimes accompanied by a tendency to malformation.*"
--DARWIN, *Animals and Plants*, p. 114.

"It seems well established that some stable and important breeds of cattle—*e.g.*, polled Angus—have arisen under conditions involving in the early stages extremely close breeding, and it is well known in horse-breeding that very valuable results have been reached by using the same stallion repeatedly on successive generations."—THOMSON, *Heredity*, p. 393.

“Just as we have seen that intercrossing is not necessarily good, we shall be forced to admit that close *interbreeding is not necessarily bad*. Our finest breeds of domestic animals have been thus produced, and by a careful statistical inquiry Mr. George Darwin has shown that the most constant and long-continued intermarriages among the British aristocracy have produced no prejudicial results. The rabbits on Porto Santo are all the produce of a single female; they have lived on the same small island for 470 years, and they still abound there and appear to be vigorous and healthy.”—WALLACE, *Darwinism*, p. 326.

“*It appears probable, then, that it is not interbreeding in itself that is hurtful, but interbreeding without rigid selection or some change of conditions.*”—*Ibid*, p. 327.

“Charles Darwin devoted much attention to the question of inbreeding (see especially his *Animals and Plants under Domestication*), and his conclusions were: (1) “The consequences of close interbreeding carried on for too long a time are, as is generally believed, loss of size, constitutional vigour, and fertility, sometimes accompanied by a tendency to malformation”; (2) “The evil effects from close interbreeding are difficult to detect, for they accumulate slowly and differ much in degree in different species, whilst the good effects which almost invariably follow a cross are from the first manifest”; (3) “It should, however, be clearly understood that *the advantage of close interbreeding, as far as the retention of character is concerned, is indisputable, and often outweighs the evil of a slight loss of constitutional vigour.*”—THOMSON, *Heredity*, p. 329.

“It should, however, be clearly understood that the advantage of close interbreeding, as far as the retention of character is concerned, is *indisputable*, and often outweighs the evil of a slight loss of constitutional vigour.”—DARWIN, *Animals and Plants*, p. 113.

“*Inbreeding in animals*—that is, the breeding together of closely related individuals, in a single instance or at long-separated intervals, *has been one of the most important means of improvement of our famous breeds of live-stock. It has seldom or never resulted in evil effects* but continuous in-and-in breeding is claimed by some to result in a predisposition to disease, a lack of fecundity and a delicacy of constitution. *No matter what may be said regarding the evil effects of in-and-in breeding, the fact remains that all the great breeders have practised it, to a greater or less extent, in the fixation of desirable characters in their herds and flocks, and the rendering of these characters prepotent for the improvement of their breeds.*

* * * * *

“The same thing may be said regarding vigor of constitution and tendency to disease, so that the facts seem to warrant the statement that close inbreeding is not in itself injurious, but that it may be made to perpetuate any constitutional defects which may have been caused by other agencies, as

well as important and valuable characters, which are known to be rendered prepotent and transmitted to the offspring.

"Inbreeding then may be said to be a means of preserving in animals desirable characters, which with cross-breeding would become swamped or lost and appear only infrequently; but it must be used with great care in selection of individuals for mating. The history of the important breeds of live-stock shows that, in the beginning, the breeder made a fortunate selection of parents, as in the case of the bull Shakespeare, and by judicious in-and-in breeding, combined with most careful continued selection, retained and intensified the valuable parental qualities in the herd. In some cases after long continued inbreeding, crossing may be necessary to remedy some constitutional defect which may not have appeared until after some years of inbreeding, as was done in the case of the cross of Galloway's with Colling's Shorthorn. The benefits of such crosses are particularly noticeable after an extended period of in-and-in breeding."—*The Effect of Inbreeding in Plants*, by A. D. SHAMEL, (Reprint from the U. S. of America Yearbook of Department of Agriculture for 1905), pp. 379-381.

31. It must be clearly understood that the slight disadvantages that are believed to follow inbreeding arise in the case of in-and-in breeding between very closely related individuals, carried on for too long a time, and not in the case of inbreeding between individuals or families of the same breed or race *not too closely related*.

THE USE AND LIMITS OF CROSSING.

32. Close in-and-in breeding, which is very essential for breeding and which is indispensable for fixing the required characters, has thus its slight disadvantages, the principal of them being a loss in constitutional vigour, if carried on for a long time. It is to obviate these disadvantages that an occasional cross with individuals of the same family, or of the same variety, or of distinct breeds or varieties, followed by rigid selection, is resorted to. On this point we may give the following quotations:—

"A male animal may sometimes be paired with his daughter, granddaughter, and so on, even for seven generations, without any manifest bad result; but the experiment has never been tried of matching brothers and sisters, which is considered the closest form of interbreeding, for an equal number of generations. There is good reason to believe that by keeping the members of the same family in distinct bodies, especially if exposed to somewhat different conditions of life, and by occasionally crossing these

families, the evil results of interbreeding may be much diminished or quite eliminated. These results are loss of constitutional vigour, size, and fertility; but there is no necessary deterioration in the general form of the body, or in other qualities. We have seen that with pigs first-rate animals have been produced after long-continued close interbreeding, though they had become extremely infertile when paired with their near relations. The loss of fertility, when it occurs, seems never to be absolute, but only relative to animals of the same blood."—DARWIN, *Animals and Plants*, pp. 156-157.

"The evidence immediately to be given convinces me that it is a great law of nature, that all organic beings profit from an occasional cross with individuals not closely related to them in blood."—*Ibid*, p. 116.

"Although animals of pure blood will obviously be deteriorated by crossing, as far as their characteristic qualities are concerned, there seems to be no exception to the rule that advantages of the kind just mentioned (increase in size and vigour) are thus gained, even when there has not been any previous close breeding."—*Ibid*, p. 155.

"In all cases like the foregoing, the effects of an occasional cross will be augmented by the increased vigour and fertility of the crossed offspring, of which fact evidence will hereafter be given; for this will lead to the mongrels increasing more rapidly than the pure parent breeds."—*Ibid*, p. 78.

"The gain in constitutional vigour, derived from an occasional cross between individuals of the same variety, but belonging to distinct families, or between distinct varieties, has not been so largely or so frequently discussed, as have the evil effects of too close interbreeding."—*Ibid*, p. 113.

"In the first place, I have collected so large a body of facts, showing, in accordance with the almost universal belief of breeders, that with animals and plants a cross between different varieties, or between individuals of the same variety but of another strain, gives vigour and fertility to the offspring; and, on the other hand, that close interbreeding diminishes vigour and fertility; that these facts alone incline me to believe that it is a general law of nature (utterly ignorant though we be of the meaning of the law) that no organic being self-fertilises itself for an eternity of generations; but that a cross with another individual is occasionally—perhaps at very long intervals—indispensable."—DARWIN, *Origin of Species*, p. 45.

33. These points are further elucidated in the following passage in the article on breeding above referred to:—

"Every new breed must originate in a few individuals possessing some special peculiarities. Therefore, nearly related individuals must at first be matched, in other words close "in-and-in" breeding must be practised or the race cannot be fixed. In consequence of the uniformity obtained by pure breeding, characters otherwise unimportant become valuable as marks of purity of race. Thus the dark red colour of the Devon Cattle becomes a criterion of 'blood'.

“The advantages of in-and-in breeding have been insisted upon by the improvers of our domestic breeds and some of them have declared that no ill results follow from the practice. But in spite of this assertion it is generally admitted that degeneration either in constitution or in other ways does ultimately ensue; so that, at any cost, the breeder is absolutely compelled to admit blood from *another family or strain of the same race. . . .* It may be argued that animals having *the same physical characters* but which have been kept under different conditions ought to be selected for crossing. By this means tone and vigour are infused into the stock *without materially altering its character.*”—E. B., Vol. IV., p. 250.

CROSSING STIMULATES VARIATION AND REVERSION.

34. This brings us to a consideration of the much misunderstood question of crossing. We have already seen that the notion that improvement of breed is due to crossing is a mistaken one and that *'close in-and-in breeding and rigid selection are the corner stones of the art of breeding.* The value of an occasional cross, followed by selection, comes in only to counteract the slight loss of constitutional vigour and fertility produced by *long-continued and close in-and-in breeding.* It must be carefully noted that the remedy consists neither in free continued crossing nor even in an occasional cross by itself. It consists in an *occasional cross with individuals of the same strain or variety, followed by rigid selection and subsequent in-and-in breeding for several generations.* To get a clear idea of this complicated question let us start by discussing the primary results of a cross.

35. The primary effect of crossing is to stimulate variation. We have already seen that even without a cross variation is a fact in nature. The offspring of the same parents are not all alike, nor do they take entirely after their parents. They differ in certain particulars both from one another and from their parents. When a cross between individuals of different species or races takes place the tendency to variation is stimulated to a remarkable degree and the result is described as “an epidemic of variations.”

“When two species or races are crossed, the offspring of the first generation are generally uniform, but those subsequently produced display an almost infinite diversity of character. He who wishes, says Koreuter, to obtain an endless numbers of varieties from hybrids should cross and recross them. There is also much variability when hybrids or mongrels are reduced or absorbed by repeated crosses with either pure parent-form; and a still

higher degree of variability when three distinct species, and most of all when four species, are blended together by successive crosses."—DARWIN, *Animals and Plants*, p. 314.

"That amphimixis is one of the provocatives of variations is strongly suggested by what results when two breeds are interbred. As Prof. Cossar Ewart says (Discussion on Heredity in Disease, Scottish Med. and Surg. Journal, vi. 1900, p. 308). 'Domestic animals reproduce themselves with great uniformity if kept apart; but *the moment one mixed up two different races, strains, or breeds*, one did something that was difficult to put in words, but *the result was* what has been best described as an '*epidemic of variations.*'"—THOMSON, *Heredity*, p. 102.

36. Thomson emphasises this fact by stating that it is impossible to predict the individual results of crossing.

"An inheritance is such a complex integrate of items that no one can hope to predict the result of mingling two more or less distinct inheritances. We have two organisms, A and B, which can be crossed and produce offspring; but, before the germ-cells of A and B are ready for union, they have undergone a process of maturation which may definitely affect the burden of hereditary qualities of which each germ-cell is the vehicle; by the process of amphimixis or fertilisation, a new integrate or zygote is formed—the fertilised egg-cell—and in this integration the inheritance may be affected by permutations and combinations, mutual adjustments and new states of equilibrium, victories and defeats of particular items, of all which we have no actual knowledge. In the process of development, if there are several different sets of primary constituents representative of a future structure—an hypothesis from which we can see no escape—then the result may in part depend on the struggles and interactions of these in the course of development; for, as we have often said, it does not follow that everything represented in the inheritance finds expression in development. Finally it must be remembered that the process of development implies interaction between the inheritance and an appropriate environment, and that since this appropriate environment is variable (within limits of the embryo's virability) the result may again be modified by minor peculiarities of nature. *It is, therefore, plain that prediction as to individual results of crossing is out of the question.*"—*Ibid*, pp. 387-388.

37. We have already seen that even without crossing there is always a tendency to reversion or atavism and that this reappearance of the primitive characters of remote ancestors is one of the great difficulties in the way of breeding and requires very considerate and careful selection to get over. This tendency to rever-

sion is very largely accentuated by crossing. Witness the following quotations:—

✓ “All that can be said is that an inherent tendency to reversion is evolved through some disturbance in the organization caused by the act of crossing.”—DARWIN, *Animals and Plants*, p. 28.

“We have seen in the last section that when two races or species are crossed there is the strongest tendency to the reappearance in the offspring of long-lost characters, possessed by neither parent nor immediate progenitor.”—*Ibid*, p. 28.

“As a general rule, crossed offspring in the first generation are *nearly* intermediate between their parents, but their *grandchildren and succeeding generations continually revert*, in a greater or lesser degree, to one or both of their progenitors.”—*Ibid*, p. 28.

“So it is with animals of crossed parentage, which with advancing years occasionally exhibit characters derived from one of their two parents, of which not a trace could at first be perceived. Certain monstrosities, which resemble what naturalists call the typical form of the group in question, apparently come under the same law of reversion.”—*Ibid*, p. 73.

“A cross certainly gives a strong tendency to the reappearance of long-lost characters, both *corporeal and mental*.”—*Ibid*, p. 73.

“A similar tendency to the recovery of long-lost character holds good even with the instincts of crossed animals.”—*Ibid*, p. 22.

“Professor Jeager has given a good case with pigs. He crossed the Japanese or marked breed with the common German breed, and the offsprings were intermediate in character. He then re-crossed one of these mongrels with the pure Japanese, and in the litter thus produced one of the young resembled in all its characters a wild pig.”—*Ibid*, p. 22.

“The parents of all our domesticated animals were, of course, aboriginally wild in disposition; and when a domesticated species is crossed with a distinct species, whether this is a domesticated or only a tamed animal, the hybrids are often wild to such a degree, that the fact is intelligible only on the principle that the cross has caused a partial return to a primitive disposition. Thus, the Earl of Powis formerly imported some thoroughly domesticated humped cattle from India, and crossed them with English breeds, which belong to a distinct species; and his agent remarked to me, without any question having been asked, how oddly wild the cross-bred animals were.”—*Ibid*, pp. 23-24.

“From these facts we may perhaps infer that the degraded state of so many half castes is in part due to reversion to a primitive and savage condition, induced by the act of crossing, even if mainly due to the unfavourable moral conditions under which they are generally reared.”—*Ibid*, p. 27.

“The crossing of distinct forms, which have already become variable, increases in the offspring the tendency to further variability by the unequal

commingling of the characters of the two parents, by the reappearance of long-lost characters, and by the appearance of absolutely new characters."—*Ibid*, p. 320.

"Reversion occurs when the sum total of the factors returns to that which it has been in some original type. Such a return may be brought about by the omission of an element or elements, as when the rose-comb fowl for any reason has a single-combed offspring. Conversely, the return may occur by the addition of some missing element needed to complete the original type. As yet no means are known by which the omission or addition of elements can be made at will, except by crossing. Reversion on crossing is thus the particular case in which one or more missing factors are brought in by the parents of the cross-bred. The most striking cases of such reversion on crossing are those in which neither parent seems to the observer to contain anything specially reminiscent of the original type, and yet the offspring of the cross are all of that type. Such cases are those of the two white Sweet Peas which, though each severally breeding quite true to whiteness, when crossed together have a reversionary offspring; or of the two breeds of Pigeon, which though neither has the blue-barred plumage of the Rock Pigeon, yet contain materials from which blue-barred birds may be compounded."—*Ibid*, p. 279.

"When two distinct races are crossed, it is notorious that the tendency in the offspring to revert to one or both parent-forms is strong, and endures for many generations. I have myself seen the clearest evidence of this in crossed pigeons and with various plants. Mr. Sidney states that in a litter of Essex pigs two young ones appeared which were the image of the Berkshire boar that had been used twenty-eight years before in giving size and constitution to the breed. I observed in the farmyard at Betley Hall some fowls showing a strong likeness to the Malay breed, and was told by Mr. Tollet that he had forty years before crossed his birds with Malays; and that, though he had at first attempted to get rid of this strain, he had subsequently given up the attempt in despair, as the Malay character would reappear.

"This strong tendency in crossed breeds to revert has given rise to endless discussions in how many generations after a single cross, either with a distinct breed or merely with an inferior animal, the breed may be considered as pure, and free from all danger of reversion. No one supposes that less than three generations suffices, and most breeders think that six, seven or eight are necessary, and some go to still greater lengths. But neither in the case of a breed which has been contaminated by a single cross, nor when, in the attempt to form an intermediate breed, half-bred animals have been matched together during many generations, can any rule be laid down how soon the tendency to reversion will be obliterated."—DARWIN, *Animals and Plants*, pp. 10-11.

"Another well established cause of reversion is crossing. The case is exceedingly striking when the offspring of a cross do not resemble any near

progenitor, but throw back to very remote ancestors."—*E. B.*, Vol. IV., p. 247.

"The length of time requisite to effect obliteration has formed a subject of discussion. The question can hardly be answered, but the fact that it has been asked shows at least that obliteration may in some cases be effected in a practically finite period. In other cases even characters gained in this way by a single cross seem incapable of extermination. Fowls have been known to exhibit a Malay character, due to a cross with that breed forty years previously."—*E. B.*, Vol. IV., p. 247.

LONG-CONTINUED SELECTION NECESSARY AFTER CROSSING.

38. Since the primary effects of a cross are (*a*) excessive stimulation of variability and (*b*) tendency towards a reversion to remote progenitors, it must be apparent that if the ultimate goal of fixing desirable characters is to be attained at all, and at the same time the evil effects (*viz.*, loss of constitutional vigour, etc.), induced by long and close in-and-in breeding to be obviated, *the most careful, long-continued and rigid selection must follow even an occasional cross*. Without such selection a cross would not only fail of its immediate purpose but would entirely subvert the chief object of all attempts at improvement of breed.

"Domestic races have often been intentionally modified by one or two crosses, made with some allied race, and occasionally even by repeated crosses with very distinct races; but in almost all such cases, long-continued and careful selection has been absolutely necessary, owing to the excessive variability of the crossed offspring, due to the principle of reversion."—*DARWIN*, *Animals and Plants*, pp. 197-98.

"Moreover, the possibility of making distinct races by crossing has been greatly exaggerated. There can be no doubt that a race may be modified by occasional crosses, if aided by the careful selection of those individual mongrels which present any desired character; but that a race could be obtained nearly intermediate between two extremely different races or species, I can hardly believe. Sir J. Sebright expressly experimented for this object, and failed. The offspring from the first cross between two pure breeds is tolerably and sometimes (as I have found with pigeons) extremely uniform, and everything seems simple enough; but when these mongrels are crossed one with another for several generations, hardly two of them will be alike, and then the extreme difficulty, or rather utter hopelessness, of the task becomes apparent. Certainly a breed intermediate between two very distinct breeds could not be got without extreme care and long-continued selection; nor can I find a single case on record of a permanent race having been thus formed."—*DARWIN*, *Origin of Species*, p. 16.

"These changes have been effected partly by crosses; but in every case the result has been governed by the strictest selection."—DARWIN, *Animals and Plants*, p. 244.

CROSSING TENDS TO DESTROY CHARACTER.

39. While an occasional cross followed by rigid selection is useful for restoring constitutional vigour it is all important to note that a cross tends to destroy character, the acquisition and fixation of which is the ultimate goal of the art of breeding.

"A 'cock-tail' is a horse not purely bred, but with only one-eighth or one-sixteenth impure blood in his veins, yet very few instances have ever occurred of such horses having won a great race. They are sometimes as fleet for short distances as thoroughbreds, but as Mr. Robson, the great trainer, asserts, they are deficient in wind, and cannot keep up the pace. Mr. Lawrence also remarks, "perhaps, no instance has ever occurred of a three-part-bred horse saving his 'distance' in running two miles with thoroughbred racers."—DARWIN, *Animals and Plants*, p. 544.

"Cows in their natural state have their udders but little developed, and do not yield nearly so much milk as our domesticated animals. Now there is some reason to believe that cross-bred animals between two kinds, both of which are good milkers, such as Alderneys and Shorthorns, often turn out worthless in this respect."—*Ibid*, p. 19.

"Mr. Hewitt, who has had great experience in crossing tame cock-pheasants with fowls belonging to five breeds, gives as the character of all "extraordinary wildness."—*Ibid*, p. 24.

40. It is noteworthy that close in-an-in breeding fixes character but tends in the long run to lower constitutional vigour while crossing produces the very opposite results. It promotes constitutional vigour but *destroys character*. The primary object of all breeding being to fix desirable characters it is evident that crossing must not only be occasional but that the tendency to destruction of character which it induces should be immediately counteracted by most rigid selection carried on for a long time. *If free and continuous crossing were resorted to all character would be destroyed and mongrelism of the worst type would be the result.*

CHANGE OF ENVIRONMENT SERVES THE SAME PURPOSE AS CROSSING.

41. An occasional cross followed by long-continued and rigid selection and close inbreeding being thus found to be useful for restoring constitutional vigour it is very interesting as well as

important to note that the same good results are obtainable by a slight change in the environment.

“In the whole series of these phenomena, from the beneficial effects of the crossing of different stocks and the evil effects of close interbreeding, up to the partial or complete sterility induced by crosses between species belonging to different genera, we have, as Mr. Darwin points out, a curious parallelism with the effects produced by change of physical conditions.

“Plants, if constantly grown in one soil and locality from their own seeds, are greatly benefited by the importation of seed from some other locality. The same thing happens with animals; and the benefit we ourselves experience from “change of air” is an illustration of the same phenomenon.

“Thus we see that, both slight changes of conditions and a slight amount of crossing, are beneficial; while extreme changes, and crosses between individuals too far removed in structure or constitution, are injurious. And there is not only a parallelism but an actual connection between the two classes of facts, for, as we have already shown, many species of animals and plants are rendered infertile, or altogether sterile, by the change from their natural conditions which occurs in confinement or in cultivation; while, on the other hand, *the increased vigour or fertility which is invariably produced by a judicious cross may be also effected by a judicious change of climate and surroundings.* We shall see in a subsequent chapter, that this interchangeability of the beneficial effects of crossing and of new conditions, serves to explain some very puzzling phenomena in the forms and economy of flowers.”—WALLACE, *Darwinism*, p. 166.

“Mr. Darwin has also adduced much direct evidence proving that slight changes in the conditions of life are beneficial to both animals and plants, maintaining or restoring their vigour and fertility in the same way as a favourable cross seems to restore it.”—*Ibid*, p. 326.

“From a consideration of these varied facts we conclude that an occasional disturbance of the organic equilibrium is what is essential to keep up the vigour and fertility of any organism, and that this disturbance may be equally well produced either by a cross between individuals of somewhat different constitutions, or by occasionally slight changes in the conditions of life.”—WALLACE, *Darwinism*, p. 327.

“There is good reason to believe, and this was the opinion of that most experienced observer, Sir J. Sebright, that the evil effects of close interbreeding may be checked or quite prevented by the related individuals being separated for a few generations and exposed to different conditions of life. This conclusion is now held by many breeders; for instance, Mr. Carr remarks, it is a well-known ‘fact that a change of soil and climate effects perhaps almost as great a change in the constitution as would result from an infusion of fresh blood.’ I hope to show in a future work that con-

sanguinity by itself counts for nothing, but acts solely from related organisms generally having a similar constitution, and having been exposed in most cases to similar conditions."—DARWIN, *Animals and Plants*, p. 115.

"In searching for facts which might throw light on the cause of the good effects from crossing, and of the evil effects from close interbreeding, we have seen that, on the one hand, it is a widely prevalent and ancient belief, that animals and plants profit from slight changes in their condition of life; and it would appear that the germ, in a somewhat analogous manner, is more effectually stimulated by the male element, when taken from a distinct individual, and therefore slightly modified in nature, than when taken from a male having the same identical constitution."—*Ibid*, p. 201.

THE ROLE WHICH CROSSING PLAYS IN THE FORMATION OF NEW RACES.

42. It may be mentioned here that crossing is also instrumental by reason of the stimulus it gives to variation in modifying old races and forming new ones. But there also *the result depends entirely on selection and selection alone, without which crossing would only produce a chaos*. The English race-horse is no doubt the result of an original cross but of a cross followed by the most rigid selection and close in-and-in breeding for many generations. Here again an occasional cross can produce profitable results only if followed by rigid in-breeding and selection.

"We have hitherto chiefly considered the effects of crossing in giving uniformity of character; we must now look to an opposite result. There can be no doubt that crossing, *with the aid of rigorous selection during several generations*, has been a potent means in modifying old races, and in forming new ones."—*Ibid*, p. 89.

"How long a time it would require before such a crossed body of animals would assume a uniform character within a limited area, no one can say; that they would ultimately become uniform from free intercrossing, and from the survival of the fittest, we may feel assured; but the characters thus acquired would rarely or never, as may be inferred from the previous considerations, be exactly intermediate between those of the two parent-breeds. With respect to the very slight differences by which the individuals of the same sub-variety, or even of allied varieties, are characterized, it is obvious that free crossing would soon obliterate such small distinctions. The formation of new varieties independently of selection, would also thus be prevented; except when the same variation continually recurred from the action of some strongly predisposing cause."—*Ibid*, p. 82.

"As cross-bred animals are generally of large size and vigorous, they have been raised in great numbers for immediate consumption. But for breeding they are found utterly useless; for though they may themselves be uniform in character, they yield during many generations astonishingly diversified offspring. The breeder is driven to despair, and concludes that he will never form an intermediate race. But from the cases already given, and from others which have been recorded, it appears that patience alone is necessary; as Mr. Spooner remarks, "nature opposes no barrier to successful admixture; *in the course of time, by the aid of selection and careful weeding, it is practicable to establish a new breed.*" After six or seven generations the hoped-for result will in most cases be obtained; but even then an occasional reversion, or failure to keep true, may be expected. The attempt, however, will assuredly fail if the conditions of life be decidedly unfavourable to the characters of either parent-breed."—*Ibid*, pp. 91-92.

"*With race-horses selection for swiftness has been followed methodically, and our horses now easily surpass their progenitors.* The increased size and different appearance of the English race-horse led a good observer in India to ask, 'Could any one in this year of 1856, looking at our race-horse, conceive that they were the result of the union of the Arab horse and the African mare?' This change has, it is probable, been largely effected through unconscious selection, that is, by the general wish to breed as fine horses as possible in each generation, combined with training and high feeding, but without any intention to give to them their present appearance. According to Youatt, the introduction in Oliver Cromwell's time of three celebrated Eastern stallions speedily affected the English breed; 'so that Lord Harleigh, one of the old school, complained that the great horse was fast disappearing.' *This is an excellent proof, how carefully selection must have been attended to; for without such care, all traces of so small an infusion of Eastern blood would soon have been absorbed and lost.* Notwithstanding that the climate of England has never been esteemed particularly favourable to the horse, yet *long-continued selection, both methodical and unconscious, together with that practised by the Arabs during a still longer and earlier period, has ended in giving us the best breed of horses in the world.*"—*Ibid*, pp. 244-5.

SUMMARY OF ABOVE INQUIRY.

43. Let us at this stage make an endeavour to sum up the conclusions to which the above inquiry leads us.

- (1) In the organic world two great laws prevail, (a) the law of heredity under which beings reproduce their like, and (b) the law of variation (a continuous slight infringement of the law of heredity) under which off-spring differ slightly in various respects from their parents.

- (2) The art of breeding and domestication consists in developing and fixing certain desirable characters by the operation of artificial or human selection on these two laws so as (a) to allow only such closely related individuals to pair for each generation as are found to possess—under the laws of heredity and variation—the desired characters, and (b) to separate or destroy such units as are unfit for the required purpose, and thereby prevent them from pairing with the selected units.
- (3) Side by side with heredity and variation there is a tendency to revert to the primitive characteristics of remote ancestors known as atavism or reversion. This tendency calls for close observation and its influence is eliminated by careful selection.
- (4) Close in-and-in breeding (*i.e.*, breeding from very closely related individuals) accompanied by careful and rigid selection is absolutely necessary for fixing and making permanent the desirable characters.
- (5) In the long run close in-and-in breeding without change of conditions tends to diminish constitutional vigour, size and fertility.
- (6) This tendency is counteracted by (a) an occasional cross with individuals of a different variety or of the same variety but of another family or strain followed by rigid selection and close in-breeding for several generations, or (b) a slight change of conditions.
- (7) While restoring constitutional vigour a cross tends to destroy character by accentuating variation to a great extent and stimulating very largely the tendency to reversion; so much so that it is impossible to predict the results of any individual cross.
- (8) The very closest and most careful and long continued selection alone can make an occasional cross useful for restoring constitutional vigour, size and fertility.
- (9) Free and continued crossing is most harmful and must always be avoided.
- (10) The same beneficial results regarding constitutional vigour, size and fertility as are produced by an occasional cross followed by rigid selection, are also produced by a slight change of external conditions.

- (11) Crossing is resorted to for modifying old races and developing new ones, by reason of the 'epidemic of variations' it generates but results are always uncertain and no good effects can ever be produced unless the crossing is followed by long-continued and careful selection.

44. The all important point that arises out of these root principles is that artificial selection (a most careful choice of the individuals that are allowed to pair for each generation, having regard to the particular characteristics it is desired to develop and ultimately to fix) is at the root of all improvement of breed, and that if an occasional cross be found necessary to restore constitutional vigour after long intervals, it must also be followed by very careful and rigid selection, if any good is to come out of it at all, and if the ultimate object of fixing desirable characters is not to be frustrated by the infinite variation and much-stimulated reversion which are the primary results of a cross. From every point of view, therefore, selection alone is at the root of all improvement of breed, the separation, isolation, or destruction of the unfit being a necessary factor in the process of selection.

THE APPLICATION OF THE FOREGOING PRINCIPLES TO MAN.

THE SOCIOLOGICAL ELEMENT IN MAN.

45. Turning at this stage to the application to man of these biological principles which have been studied in the vegetable and animal kingdoms we have first to remember that 'man has an external heritage of custom and tradition, institution and legislation, literature and art, which is but slightly or not at all represented in the animal world' and that *therefore human society brings most important new elements into consideration which should warn us against too close an application to man of the principles that hold in the plant and in the animal, and should also keep us on our guard against any ill-judged and disproportionate application of the rules of biology to conditions where sociology has a most vital part to play.*

"To illustrate this threefold value of the appeal to biology, and at the same time the risk that biology, used unduly as a support, may pierce the sociological hand, we propose in this chapter to consider a few biological generalisations and to inquire into their bearing on sociological problems."—
THOMSON, *Heredity*, p. 513.

"The useful fact to emphasise is that man, though slowly or slightly variable, is rapidly and exceedingly modifiable, and that social organisation provides a means—an external heritage—whereby the results of modifications may be practically though not organically entailed. To this elementary distinction—necessary, however, for clear thinking,—we must repeatedly refer.

"Thus we are led to think that those social changes that really count must have their basis in that which is to societary forms what the germ-plasm is to generations of organisms, the *esprit de corps* (in the unrealisable full meaning of the phrase!) which gives unity to every societary form whether it be big or little."—*Ibid*, pp. 514-15.

"To keep to the concept of selection for a moment; it was applied to plants and animals, it was illustrated, justified if not demonstrated, and formulated; and now with the imprimatur of biology it comes back to sociology as a great law of life. That it is so we take for granted, but it is surely evident that in social affairs, from which it emanated as a suggestion to biology, it must be re-verified and precisely tested. Its biological form is one thing, its sociological form may be another. Perhaps, it requires to be corrected by other laws of social life which have meanwhile been recognised. Perhaps, there may be other hints from human social life as to the factors in evolution, whose importance we shall not recognise until they have been projected upon the world of plants and animals and verified there. In any case, a formula borrowed from another science and applied to a new order of facts—even to those in regard to which it first arose as a suggestion—must be rigorously tested. Otherwise, both organic and social sciences resolve themselves into sociomorphic illusions."—*Ibid*, p. 512.

"If the conclusion of the majority of biologists be correct, that modifications are not as such transmitted, there are some obvious sociological corollaries. We have, in the progress of education, therapeutics, and hygiene, unceasingly striking evidence that the human organism is very plastic; but we cannot delude ourselves with the belief that its precise gains or losses are ever as such transmitted. Therefore, it has to be our practical endeavour that advantageous modifications be re-impressed on each successive generation, and that detrimental modifications be avoided.

"But the biological conclusion has to be in an important respect corrected for the social realm, in view of the fact that man has an external heritage of custom and tradition, institution and legislation, literature and art, which is but slightly or not at all represented in the animal world, which yet may be so effective that its results come almost to the same thing as if acquired characters were transmitted. They are re-impressed on the bodies and minds of successive generations, though never ingrained in the germ-plasm. It seems probable that not a few of the biologically and socially unfit are only modificationally veneered, or repressed, or arrested."—*Ibid*, pp. 516-17.

"But one of the general points of this chapter may be illustrated here. In proportion as we succeed in analysing out the biological factors in our National Inheritance shall we see clearly what is meant by 'Social Heredity.' What do we mean by it? Not merely that facts of family and stock inheritance may have great social importance, whether they concern the history of a dynasty or the physical deterioration of a proletariat; not merely that great biological generalisations, such as Filial Regression, or the inverse ratio between rate of reproduction and degree of individuation, have direct sociological relevancy; not merely that there are probably obscure laws of periodic recurrence, such as 'the law of generations;' we mean especially that complex process by which much of what is most precious to us appears to be sustained from generation to generation in a social heritage, by tradition, conventions, institutions, laws, and the whole framework of society itself. It is here that the biologist leaves off, and the sociologist must come in."—*Ibid*, p. 526.

"Our general position is that when we pass from organisms to human societies, the whole venue changes so much that we have to be very careful in our application of biological formulæ. (1) Thus, in regard to processes of selection, we have to recognise the intervention of rational selection as an accelerant or as a brake on natural selection. (2) When a society deliberately sets to work to select discriminately among the individualities which make up its own body politic, we have to do with an infinitely subtler process than that observed when a breeder selects in his stock, or when the physical environment eliminates the ill-adapted members of a race. (3) There is in human affairs a much more prominent occurrence of intergroup, inter-societary, or inter-racial selection, which introduces fresh complexities, e.g., that in the conflict of races the apparent victors are sometimes, in some measure, conquered by the vanquished."—*Ibid*, p. 538.

DIFFICULTIES OF SELECTION IN THE HUMAN KINGDOM.

46. The second thing to remember is that while it is comparatively easy, so far as animals are concerned, to determine the qualities (like fleetness and breath in a race horse) that are to be developed and fixed, in other words to determine the fitness of an individual for being selected to pair, *when we come to the human kingdom*, where mental characters have such an all important bearing and where various and varied traits are necessary and useful amidst different environments, it is extremely difficult to determine the absolute as well as the relative fitness of various attributes, and thus *there is no sure guide in making our selection, assuming for a moment that selection is practicable in the human kingdom.*

"Interference may take one or both of two courses. Measures may be taken to eliminate strains regarded as unfit and undesirable elements in the population, or to encourage the persistence of elements regarded as desirable. From the standpoint of the sociologist these two kinds of interference may seem merely complementary to each other, but in the light of genetic physiology they are entirely different.

"To the naturalist it is evident that while the elimination of the hopelessly unfit is a reasonable and prudent policy for society to adopt, any attempt to distinguish certain strains as superior, and to give special encouragement to them would probably fail to accomplish the object proposed, and must certainly be unsafe.

"Comprehensive discussion of these questions would be quite out of place here. It must suffice to point out that the distinction is created partly by the fact that, whereas our experience of what constitutes the extremes of unfitness is fairly reliable and definite, we have little to guide us in estimating the qualities for which society has or may have a use, or the numerical proportions in which they may be required. But specially important are the indications that in the extreme cases, unfitness is comparatively definite in its genetic causation, and can, not unfrequently, be recognised as due to the presence of a simple genetic factor. There is as yet nothing in the descent of the higher mental qualities to suggest that they follow any simple system of transmission. It is likely that both they, and the more marked developments of physical powers, result rather from the coincidence of numerous factors than from the possession of any one genetic element.

"Some serious physical and mental defects, almost certainly also some morbid diatheses, and some of the forms of vice and criminality could be eradicated if society so determined. That however is the utmost length to which the authority of physiological science can in the present state of knowledge be claimed for interference. More extensive schemes are already being advocated by writers who are neither utopians nor visionaries. Their proposals are directed in the belief that society is more likely to accept a positive plan for the encouragement of the fit than negative interference for the restraint of the unfit. Genetic science, as I have said, gives no clear sanction to these proposals. It may also be doubted whether the guiding estimate of popular sentiment is well-founded. Society has never shown itself averse to adopt measures of the most stringent and even brutal kind for the control of those whom it regards as its enemies."—*Mendel's Principles of Heredity*, pp. 304-6.

"In all selectionist proposals we have to face the difficulty of agreeing what we are to select for. If selective processes are to succeed, they must be consistent. As to the negative ideal of trying to lessen the precipitate of undoubted incapables, all will agree; but the positive ideal of working

towards evolution is necessarily vague, meaning different things to different people. It will be generally admitted, however, that if we are to avoid fallacious endeavour, our ideal must include "eutopias" and "eutechnics" as well as "eugenics," and that it must be not merely biological but distinctively sociological in its outlook."—THOMSON, *Heredity*, p. 538.

47. Thirdly, even if it were possible to determine, with the degree of exactness necessary to serve as a reliable guide, the qualities that are to be cultivated and fixed by selecting the individuals who are to be the parents of succeeding generations, it will be apparent that *so far as the human kingdom is concerned there yet exist no practicable and effectual means whereby the men and women selected on the ground of fitness shall alone be allowed to procreate and each individual couple selected on the ground of fitness alone, while those men and women that are found unfit are prevented from reproducing their kind at all.* Marriage at the present time is a matter generally of individual affinity and choice and Cupid is proverbially blind. Moreover personal predilections and considerations of worldly expediency largely enter into the field, while those very racial considerations which would appear theoretically to be the most important are entirely out of present-day human calculation.

"The outcome of genetic research is to show that human society can, if it so please, control its composition more easily than was previously supposed possible.

"Mr. F. Galton's long-continued efforts have at length been successful in directing public attention in some degree to the overwhelming importance of eugenics. Some of the earlier attempts in the same direction are worth remembering. For example, Sir W. Lawrence frequently adverts to the subject in language almost identical with that now current. 'The hereditary transmission of physical and moral qualities, so well understood and familiarly acted on in the domestic animals, is equally true of man. A superior breed of human beings could only be produced by selections and exclusions similar to those so successfully employed in rearing our more valuable animals. Yet in the human species, where the object is of such consequence, the principle is almost entirely overlooked. Hence all the native deformities of mind and body, which spring up so plentifully in our artificial mode of life, are handed down to posterity, and tend, by their multiplication and extension, to degrade the race.' (W. Lawrence, *Lectures on Physiology, Zoology, and the Natural History of Man*, London, 3rd Ed. 1823, p. 393. See also *Ibid* pp. 260 and 389)."—*Mendel's Principles of Heredity*, p. 304.

48. To sum up. The principles above discussed as to animals and plants are not applicable in their entirety to man because, in his case, sociological conditions enter largely into the field and modify purely biological principles to a great extent. Even if the biological principles we have discussed above were wholly applicable to man, their operation in his case would be extremely difficult, if not impossible in as much as the rigid and continuous selection of every couple allowed to procreate, which is the very root and the foundation of the art of breeding, and the stern separation or destruction of the unfit which is equally essential, are incapable of being effectively brought into play in the human kingdom, (a) because of the great difficulty of determining with any amount of accuracy the qualities that constitute fitness, and (b) because of the absence of any means whatsoever of allowing and enforcing the wedlock of the fittest alone and of preventing the union of those that are found to be unfit. For the same reasons it will be impossible to produce any good results from an occasional cross in the human kingdom since we have seen that careful and rigid selection operating for some considerable time after an occasional cross is the *sine qua non* of any benefits arising from the same.

APPLICATION OF THE ABOVE PRINCIPLES TO THE JUDDIN QUESTION.

49. It is important at this stage to observe that it is not an occasional cross with selected individuals that is implied in the Juddin question. *The opening of the door to inter-marriages would mean a free, continued crossing of Parsees with other races of all kinds.* If the pro-juddin propaganda were carried to its legitimate and logical issue, it would mean that any man and woman of any race, good, bad or indifferent, would be at liberty to enter our fold and by inter-marriage to cross blood with the Parsee; it would mean that the English and the French, the Italian and the German, the Chinaman and the Japanese, the Burman and the Sinhalese, the Negro and the Red Indian, the Bengali, Madras, Kathiawari and Sindhi, the Punjabi and the Sikh, Hindus of all castes and sub-castes, as well as Mahomedans of all grades, nay even Dubras, Bhils, Chamars and men of low caste may, if they so please, adopt Zoroastrianism and cross freely and continuously with the Parsee! And it is expected that the result would be beneficial to our community! Note the teaching of biology that even an occasional cross with an

individual of the same strain or variety produces such an immense amount of variation and generates such a strong tendency to reversion that the most careful and rigid selection for a considerable time would be necessary to prevent any evil effects and to reap the desired benefit by way of gain in constitutional vigour. Imagine therefore what sort of individuals would be produced if the Parsee, who despite the smallness of his number is peopling almost every quarter of the habitable globe, is allowed, nay encouraged, to cross blood not occasionally but freely and continuously and not with any one closely allied race but with all kinds of races, allied or not allied; and all this without machinery of any kind whatsoever to bring the slightest selection to bear in the matter! It is difficult to imagine what a shocking conglomeration of hybrids, mongrels, pariahs, half castes and no-castes of all kinds we should have amidst us in a very short time if all restrictions against alien marriages be done away with at a stroke! Note again that a cross always tends to destroy character and try to imagine how very very soon all those noble traits of character that have made the Parsee name famous, would be things of the past, and their place taken by all those primitive and savage instincts to which free and continued crossing without selection would very shortly make us revert! It is to be hoped that even a cursory understanding of the principles above discussed and the weighty opinions above cited will clarify the ideas of those few Parsees who have been vaguely talking of the advantages of crossing in connection with the Juddin question.

CONSANGUINEOUS MARRIAGES.

50. Since "close in-and-in breeding" has not been clearly understood and consanguineous marriages have been confounded with the same, it would be useful at this stage to quote a few opinions on the effect of such marriages. It will be remembered that the value of an occasional cross followed by rigid selection comes in only to counteract the loss of constitutional vigour, &c., produced by *close in-and-in breeding carried on for a very long time without change of conditions*. Those that indulge in loose talk about the advantages of crossing sometimes argue that ours is a small community, that therefore there is too much of close in-breeding and that therefore we would benefit by crosses resulting from Juddin admissions. Let it be noted in the first instance that close in-and-in breeding in animals consists in the pairing of

father and daughter, mother and son, or brothers and sisters and that sometimes the same stallion is employed for several generations. These facts have no parallel in human society. *Consanguineous marriages form the closest in-breeding in man, but according to Darwin they would not be considered as close in-breeding in the case of our domesticated animals, and opinion is very much divided as to any evil arising at all from such marriages.* Darwin calls it "a difficult subject" and the evidence thereon is stated by him to be conflicting. If any evil arises from such marriages it is stated to be very small. Any such evil can easily be counteracted by change of conditions or by a slight increase of remoteness in the degree of relationship of those marrying. The remedy of an occasional cross followed by rigid selection is as we have seen incapable of application to man.

"The effects of close interbreeding in the case of man is a difficult subject, on which I will say but little. It has been discussed by various authors under many points of view. Dr. Dally has published an excellent article (translated in the 'Anthropolog. Review,' May, 1864, p. 65) criticising all writers who have maintained that evil follows from consanguineous marriages. No doubt, on this side of the question many advocates have injured their cause by inaccuracies; thus it has been stated (Devay, 'Du Danger des Mariages,' &c., 1862, p. 41) that the marriages of cousins have been prohibited by the legislative of Ohio; but I have been assured, in answer to inquiries made in the U.S., that this statement is a mere fable."—DARWIN, *Animals and Plants*, pp. 126-27.

"Whether consanguineous marriages, such as are permitted in civilized nations, and which would not be considered as close interbreeding in the case of our domesticated animals, cause any injury will never be known with certainty until a census is taken with this object in view. My son, *George Darwin*, has done what is possible at present by a statistical investigation, and he has come to the conclusion, from his own researches and those of *Dr. Mitchell*, that the evidence as to any evil thus caused is conflicting, but on the whole points to the evil being very small."—*Ibid*, pp. 128-29.

"It should perhaps be pointed out categorically that nothing in our present knowledge can be taken with any confidence as a reason for regarding consanguineous marriages as improper or specially dangerous. All that can be said is that such marriages give extra chances of the appearance of recessive characteristics among the offspring. Some of these are doubtless bad qualities, but we do not yet know that among the recessives there may not be valuable qualities also."—*Mendel's Principles of Heredity*, p. 226.

"He (Havelock Ellis) was only able to establish the general proposition, that in love's choice *identity of race* and of individual characters (homogamy) and at the same time unlikeness in the secondary sexual characters (heterogamy) *are to be preferred*.

"Equally disadvantageous is *too close relationship by blood*, since in this way any unfavourable tendencies are greatly strengthened. *Upon a certain degree of in-breeding, or rather, upon an approximation to in-breeding,* depends the formation of every race. The 'racial problem' in this sense is a kind of exaltation of the in-breeding principle, for the very idea of race implies a more or less close relationship between all the members of a definite stock. *Thus the entire absence of fresh blood does not necessarily give rise to any degeneration;* but it is certain that long-continued *close in-and-in breeding* on the part of *near blood relations in the same family* results in a progressive tendency to degeneration, because among those who unite in marriage, the same morbid tendencies are present, and accumulate in consequence of the in-breeding.

"Marriage between uncle and niece, or between aunt and nephew, and the, unfortunately, far too frequent marriages between first cousins, are therefore, to be condemned."—IVAN BLOCH, *Sexual Life*, pp. 712 and 716.

"In many peoples—Jewish and Mohammedan, Indian and Roman—laws against the marriage of near kin go back to remote antiquity, but it seems probable that the basis of these was social rather than biological. In other peoples—Persian, Phœnician, Arab, and even—Greek—consanguineous marriages were permitted and sometimes encouraged. The idea that the marriage of near kin is a cause of degeneracy seems to be relatively modern and is probably based in large measure on the observed degeneracy in closely intermarried noble families. In certain closely inbred communities, moreover, a large percentage of deaf-mutes and weak-minded has been often observed. But it is not difficult to find counter-instances—*e.g.*, in the Norfolk Islanders and in the people of Batz on the lower Loire—where close inbreeding has not been followed by ill-effects. Mr. George H. Darwin has made out a strong case in support of the position that consanguineous marriages are not in themselves causes of degeneration or of diminished fertility.

"*Biologically it seems certain that close inbreeding can go far without affecting physique, and that it is very useful in fixing character and developing prepotency.* It seems equally certain that, if there be any morbid idiosyncrasy, close inbreeding likewise tends to perpetuate and augment this. The same is doubtless true in the case of mankind, though here the problem is complicated by social considerations which may be just as important as those of bodily health. But the idea that there can be any objection to the marriage of two healthy cousins who happen to fall in love with one another is preposterous."—THOMSON, *Heredity*, pp. 391-92.

"Dr. Ireland points to the significant fact that some of the high castes of India (Brahmins and Rajputs) who are most exclusive in their marriages do not show the usual dwindling tendency, which may be correlated with the circumstance that they are mostly poor and abstemious."—*Ibid*, p. 535.

"Nor have we at present any reason to believe that man is highly sensitive to the evil effects of inter-breeding, especially in areas so large as New Zealand, and the Sandwich Archipelago with its diversified stations. On the contrary, it is known that the present inhabitants of Norfolk Island are nearly all cousins or near relations, as are Todas in India, and the inhabitants of some of the Western Islands of Scotland; and yet they seem not to have suffered in fertility."—*Ibid*, p. 292.

"The slightest increase of remoteness in the degree of relationship of those marrying (even within the strict limits of the same type) suffices to give all the great advantages of inbreeding and to prevent its disadvantages."—*Chaos*, p. 26.

RACE, ITS SOUL AND ITS UPBUILDING.

51. Leaving the domain of biological investigations into plants and animals and the application of the principles there prevailing to man let us now come nearer the point and consider the question of race as discussed by known authors. Our first endeavours should be to find out what elements give life to and constitute a race so as to form its very soul. The very word "man" is etymologically connected with the mind. A man is that organic being which owns a mind and since it is the mind that plays a most vital part in human evolution we would expect that the soul of a race would consist of mental characteristics. Writers on the subject assure us that it is so. We are told that it is *certain* '*moral and intellectual characteristics*' that form as a whole the soul of a race, and again that it is 'the totality of the ideas and sentiments that are the birth right of all the individuals constituting a race' that form its soul. Each race possesses 'a mental constitution as unaltering as its anatomical characteristics' and this mental constitution is the parent of its sentiments, thoughts, institutions, beliefs, and arts. *These moral and intellectual characteristics forming the soul of a people represent 'the synthesis of its entire past, the inheritance of all its ancestors.'* For this reason is it said that a people is guided more by its dead than by its living members and that our departed ancestors by bequeathing us their thoughts have fashioned our ideas and sentiments and consequently the very motives of our conduct. The physiological reason of this psychological fact is stated to be that 'each individual

is the product not merely of his immediate parents but also of his race, *i.e.*, of the entire series of his ascendants'.

51. The building of the soul of a people, the formation and fixing of those moral and intellectual characteristics which form its soul and the defining of those common sentiments, interests and beliefs that result when a race has builded its soul, is no doubt *a work of time*. In France ten centuries are stated not to have been enough for completing the work, in England the formation has been completed after many centuries. *With us Parsees who have an ancestry that covers not centuries but millenia the soul was formed long, long ago, and the common sentiments, interests and beliefs that are so characteristic of our race and that have withstood and survived numerous vicissitudes of fortune, including even the renunciation of our homes and country, for twelve continuous centuries, bear ample testimony to the vigour of our soul, to the deep ingraining of those moral and intellectual characteristics that make Parsees of us all.* It does not require much imagination to be impressed with the fact that with an Eastern and an ancient race like ours, our religion has been the nucleus around which our soul has grown, that it is Zarathushtrianism, its doctrines, its ethics, and its ritual, so closely bound up with the every day life of a Parsee that have through thousands of years built the soul of our race and generated those traits of character and that keen intelligence which are our distinguishing marks and constitute our soul.

"The elements of classification which anatomy, languages, environment, or political organization are incapable of furnishing are supplied by psychology, which shows that behind the institutions, arts, beliefs, and political upheavals of each people, lie certain moral and intellectual characteristics that determine its evolution. It is the whole of these characteristics that form what may be called the soul of a race.

"Each race possesses a mental constitution as unvarying as its anatomical constitution."—LE BON, *Psych. of Peoples*, pp. 5-6.

"The moral and intellectual characteristics, whose association forms the soul of a people, represent the synthesis of its entire past, the inheritance of all its ancestors, the motives of its conduct. They appear to be very variable in individuals of the same race, but observation proves that the majority of the individuals of a given race always possess a certain number of common psychological characteristics, which are as stable, as the anatomical characteristics that allow of the classification of species, while, like

these latter characteristics, the psychological characteristics are regularly and constantly reproduced by heredity."—*Ibid* p. 6.

"Do what he may, then, the individual is always and above all the representative of his race. The totality of the ideas and sentiments that are, as it were, the birthright of all the individuals of a given country form the soul of the race. Invisible in its essence, this soul is very visible in its effects, since it determines in reality the entire evolution of a people."—*Ibid*, p. 10.

"The point that has remained most clearly fixed in my mind, after long journeys through the most varied countries, is that *each people possesses a mental constitution as unaltering as its anatomical characteristics, a constitution which is the source of its sentiments, thought, institutions, beliefs and arts.*"—*Ibid*, p. xviii.

"This aggregate of psychological elements observable in all the individuals of a race constitutes what may rightly be called the national character. Together they form the average type which permits of a people being defined. A thousand Frenchmen, Englishmen, or Chinamen, chosen at hazard, offer notable differences amongst themselves, but nevertheless, owing to racial heredity, they possess common characteristics which allow of the determining of an ideal type of the Frenchman, the Englishman, and the Chinaman analogous to the ideal type which the naturalist presents when he describes in a general manner the dog or the horse."—*Ibid*, pp. 6-7.

"This identity of the mental constitution of the majority of the individuals of a race is due to very simple physiological reasons. Each individual is the product not merely of his immediate parents but also of his race, that is of the entire series of his ascendants. A learned economist M. Cheysson, has calculated that in France, supposing there to be three generations in a century, each of us would have in his veins the blood of at least twenty millions of the people living in the year 1000. 'In consequence all the inhabitants of a given locality, of a given district, necessarily possess common ancestors, are moulded of the same clay, bear the same impress, and they are all brought back unceasingly to the average type by this long and heavy chain, of which they are merely the last links. We are the children at once of our parents and our race. Our country is our second mother for physiological and hereditary as well as sentimental reasons.' "—*Ibid*, pp. 8-9.

"These anatomical characteristics, those at least of them that can be traced by our analysis, only allow of very summary general divisions. Their divergencies are only perceptible in the case of the most distinct human species; of the white and yellow races, or the negroes for example. Peoples, however, that closely resemble one another as regards their physique, may be widely different as regards their modes of feeling and acting, and in consequence as regards their civilisations, beliefs, and arts. Is it possible, for instance, to class in one and the same group a Spaniard, an Englishman and

an Arab? Are not the mental differences that exist between them apparent to everybody, and to be detected throughout their history?"—*Ibid*, pp. 4-5.

"If it be wished to state in precise language the influences which govern the individual and direct his conduct, they may be said to be of three kinds. The first and certainly the most important is the influence of ancestors; the second, the influence of the immediate parents; the third, commonly supposed to be the most powerful, but nevertheless the weakest, is the influence of environment. The influence of environment, including in its scope the various physical and moral influences to which the individual is subjected during his life, and particularly during his education, produces but very slight variations. The influences of environment only become really effective when heredity has caused their action to be continued in the same direction during a long period."—*Ibid*, p. 9.

"A race is to be regarded as a permanent being that is independent of time. This permanent being is composed of the long succession of the dead who were its ancestors, as well as of the living individuals who constitute it at a given moment. To understand the true signification of a race, it must be considered with regard both to its past and its future. The dead, besides being infinitely more numerous than the living, are infinitely more powerful. They reign over the vast domain of the unconscious, that invisible domain which exerts its sway over all the manifestations of the intelligence and of character. A people is guided far more by its dead than by its living members. It is by its dead, and by its dead alone, that a race is founded. Century after century our departed ancestors have fashioned our ideas and sentiments, and in consequence all the motives of our conduct. The generations that have passed away do not bequeath us their physical constitution merely; they also bequeath us their thoughts. The dead are the only undisputed masters of the living. We bear the burden of their mistakes, we reap the reward of their virtues."—*Ibid*, pp. 10-11.

"Provided a race be sufficiently ancient, and in consequence homogeneous, its average type is established with sufficient clearness for it to be readily noted by the observer."—*Ibid*, p. 7.

"The formation of the mental constitution of a people does not demand, as does the creation of animal species, those geological periods whose immense duration defies calculation. Still, the time it demands is considerable. To create in such a people as the French, even to the comparatively slight extent accomplished as yet, the community of sentiments and thought that forms its soul, more than ten centuries have been necessary. Perhaps the most important result of the French Revolution was to hasten this formation by greatly promoting the breaking up of the minor nationalities, Picards, Flemish, Burgundians, Gascons, Bretons, men of Province, &c., into which France was formerly divided. Doubtless the unification is far from being complete, and it is more especially because we are composed of

too varied races, and in consequence have too different ideas and sentiments, that we are the victims of dissensions unknown to more homogeneous peoples, to the English, for example. In England, the Saxon, the Norman, and the Ancient Briton have ended by forming, as the result of fusion, a very homogenous type, and everything in consequence is homogenous in the domain of conduct. Thanks to this fusion, the English have acquired in a high degree the three fundamental bases of the soul of a people; common sentiments, common interests, and common beliefs. When a nation has reached this stage, there is an instinctive agreement amongst all its members on all great questions and it ceases to be a prey to serious dissensions."—*Ibid*, pp. 11-13.

"It thus happens that by means of heredity, education, surroundings, contagion and opinion, the men of each age and of each race possess a sum of average conceptions which render them singularly like one another, alike indeed to such a degree that, when the lapse of centuries allows us to consider them from the proper perspective, we recognise by their artistic, philosophical, and literary productions the epoch at which they lived."—*Ibid*, pp. 181-82.

"The history of peoples is determined, no doubt, by very different factors. It is full of particular cases, of accidents which have taken place but which might not have taken place. Side by side, however, with these chances, with these accidental circumstances, there are great permanent laws which govern the general course of each civilisation. The mental constitution of races proceeds from the most general, the most primordial of these permanent laws. *The life of a people, its institutions, beliefs, and arts are but the visible expression of its invisible soul. For a people to transform its institutions, beliefs, and arts it must first transform its soul; to enable it to bequeath its civilisation to another people, it would be necessary that it should be able to bequeath its soul.*"—*Ibid*, p. xix.

CAUSES OF RACE WEAKENING.

53. Since it is the common traditions, ideas, beliefs and modes of thinking of a people that form its soul, it follows that on their inherent strength and the hold they have upon the people depend the length and vigour of the life of a nation and that if these begin to break up the soul of the people weakens and the race tends to crumble away. *Any causes therefore that call in question the value of the common traditions, ideas and beliefs of a people or tend to weaken and disturb them, would ultimately result in breaking up the people and must be resisted ~~and anticipated~~ if the race is to live at all.* If the Parsee people are to live as Parsees, if the soul of the Zoroastrian race is to remain vigorous and strong

and to continue its hold on the community, our ancient traditions, ideas, beliefs and institutions should continue their influence upon us, the Parsee should continue instinctively to accept and to be guided and inspired by them and any changes in environment or education which tend to weaken this influence should be carefully noted and removed, since they weaken our soul and undermine our very existence as a race. This part of our subject has a very important bearing on the effects on a community like ours, whose soul is builded on its ancient religion, of a purely secular and Western system of education, of the increasing number of our visits to Europe and America and of our growing contact with and imitation of the life, thoughts and beliefs of Europeans. So far as these tend to weaken the ancient traditions, beliefs, thoughts and institutions of Parsees they evidently injure the soul of our community and endanger its very life. Says Gustave Le Bon:—

‘Modern psychology, together with the stern lessons of experience has demonstrated that the institutions and the education which suit some individuals and some races are most harmful to others.’—*The Psychology of Peoples*, p. 15.

54. Since however this subject is alien to the present inquiry we will rest content with only this passing reference thereto.

“We must congratulate ourselves that matters are thus arranged, for it is precisely this network of common traditions, ideas, sentiments, beliefs, and modes of thinking that form the soul of a people. We have seen that the vigour of the soul of a people is in proportion to the strength of this network. It is this network in reality, and it alone, that keeps nations alive, and it is impossible, that it should break up without the nations crumbling away.”—LE BON, *Psych. of Peoples*, p. 182.

“This community of sentiments, ideas, beliefs, and interests, created by slow, hereditary accumulations, gives a high degree of identity and fixity to the mental constitution of a people. It was the cause of the greatness of Rome in ancient times, and at the present day it is the source of the greatness of England. The moment it disappears, peoples begin to break up. The role of Rome was at an end when it ceased to possess it.”—*Ibid*, p. 13.

“Doubtless our knowledge of the real world is limited to appearances, to mere states of consciousness of which the value is evidently relative. But when we adopt the social standpoint, we can say that for a given age and a given society there are conditions of existence, moral laws, and institutions which have an absolute value, since the society in question could not subsist

without them. As soon as this value is called in question, or doubt enters men's minds, the society is condemned to an early death."—*Ibid*, p. 218.

"Ideas represent the invisible springs of things. When they have disappeared the underlying supports of constitutions and civilisations are destroyed. It was always a redoubtable moment for a people when its old ideas descended into the sombre necropolis where the dead gods repose."—*Ibid*, p. 219.

CHARACTER OUTWEIGHS INTELLIGENCE.

55. We have seen, that according to that lucid writer, Gustave Le Bon, the whole of the moral and intellectual characteristics of a nation form its soul. It is important to note in this connection that of these two, moral characteristics far outweigh intellectual powers in their importance to the race. *The existence and the superiority of any race depend not on its high intellectual attainments but on its character.* Perseverance, energy, tenacity, integrity, truthfulness, piety, self-sacrifice, these constitute the backbone of every race and the moment these degenerate the race is doomed. *Character, and not intelligence, governs the destiny of a race, and history proves that races have perished not by any diminution of their intellectual powers but by the loss and deterioration of their character.* People may exist without a very powerful intellect but they *must* perish if they lose their character.

"The discoveries of the intelligence are easily transmitted from one people to another. The transmission of the qualities appertaining to character is impossible. They are the irreducible fundamental elements which allow of the differentiation of the mental constitutions of the superior peoples. The discoveries due to the intelligence are the common patrimony of humanity; qualities or defects of character constitute the exclusive patrimony of each people, they are the firm rock which the waters must wash day by day for centuries before they can even wear away its external asperities."—*Ibid*, pp. 32-33.

"*The character of a people and not its intelligence determines its historical evolution, and governs its destiny.*"—*Ibid*, p. 33.

"The influence of character is sovereign in the life of peoples, whereas that of the intelligence is in truth very feeble. The Romans of the decadence possessed an intelligence far more refined than that of their rude ancestors, but they had lost the qualities of character of the latter; the perseverance, the energy, the invincible tenacity, the capacity to sacrifice themselves to an ideal, the inviolable respect for the laws which had made the greatness of their forefathers. It is due to their character that sixty thousand

English are able to maintain beneath their yoke two hundred and fifty millions of Hindoos, many of whom are at least their equals in intelligence, while a few surpass them immensely as regards their artistic taste and the depth of their philosophic views. It is in consequence of their character that they are the masters of the most gigantic colonial empire known to history. It is character and not intelligence that goes to the founding of societies, religions, and empires. Character it is that enables peoples to feel and act. They have never derived much advantage from too great a desire to reason and think."—*Ibid*, pp. 33-34.

"In studying a race it should be considered, in consequence, from two very different points of view. From the intellectual point of view its value depends on a small elite to which is due the scientific, literary, and industrial progress of a civilisation. From the point of view of character, acquaintance with the average is alone important. The strength of peoples is always dependent on the level of this average. Peoples may do at a pinch without an intellectual elite, but not without a certain level of character. We shall shortly prove this statement."—*Ibid*, p. 46.

"It is thus seen that while the individuals of a race become more and more differentiated intellectually as time goes on, they always tend, as far as character is concerned, to oscillate round the average type of the race. It is to this average type, which progresses very slowly, that the great majority of the members of a nation belong. Around this fundamental kernel is found—in the case at least of the superior peoples—a thin layer of eminent minds, whose action is of capital importance as regards civilisation, but is without importance as regards the race. Incessantly being destroyed, it is incessantly being renewed at the expense of the average grades, which, for their part, vary but very slowly, since the slightest variations, in order to become durable, must be accumulated in the same direction by heredity during several centuries."—*Ibid*, pp. 46-47.

"When the causes are examined that led to the successive ruin of the various peoples with which history is concerned, whether the people in question be the Persians, the Romans, or any other nation, the fundamental factor in their fall is always found to be a change in their mental constitution resulting from the deterioration of their character. I cannot call to mind a single people that has disappeared in consequence of the deterioration of its intelligence.

"For all the civilisation of the past the mechanism of dissolution has been identical, so identical, indeed, that it may be asked with the poet, whether history, which has so many books, has but a single page. When a people reaches that degree of civilisation and power at which it is assured that it is no longer exposed to the attacks of its neighbours, it begins to enjoy the benefits of peace and material well-being procured by wealth. At this juncture the military virtues decline, the excess of civilisation creates

new needs, and egoism increases. Having no ideal beyond the hasty enjoyment of rapidly acquired advantages, the citizens abandon to the State the care of public affairs, and soon lose all the qualities that had made their greatness. Then barbarian, or semi-barbarian neighbours, whose needs are few, but who are *strongly attached to an ideal*, invade the too civilised people, and proceed to form a new civilisation with the debris of that which they have overthrown. It was in this way that, in spite of the formidable organisations of the Romans and Persians, the barbarians destroyed the Empire of the former and the Arabs that of the latter. It was not in the qualities appertaining to the intelligence that the invaded peoples were lacking. From this point of view no comparison was possible between the conquerors and the conquered. It was when Rome already bore within it the germs of its approaching decadence that it counted the greatest number of men of culture, artists, men of letters, and men of learning. Almost all the works that have made its greatness date from this period of its history. But Rome had lost that fundamental element which no development of the intelligence can replace character. The old-time Romans had very few wants and a very strong ideal. This ideal—the greatness of Rome—absolutely dominated their souls, and each citizen was ready to sacrifice to it his family, his fortune, and his life. When Rome had become the pole of the universe, the richest city of the world, it was invaded by foreigners hailing from all countries, and whom it admitted in the end to rights of citizenship. As all they demanded was to be allowed to enjoy the luxury of Rome, they had but little concern for its glory. The great city then became an immense caravansary, but was no longer Rome. It seemed to be still alive, but its soul had long been dead.”—*Ibid*, pp. 213-218.

56. Enough stress cannot therefore be laid on the necessity for us Parsees of adopting all necessary measures for the preservation and strengthening of those traits of character, energy, perseverance, enterprise, dash, integrity, truthfulness, charity, purity, etc., which have characterised our race as a whole. It is not by increasing the number of our graduates but by preserving the standard of our morals and preventing the deterioration of our character that we shall continue to live and prosper.

INTERMIXTURE OF RACES.

57. Having determined what constitutes the soul of a race and ascertained the importance of character to the life and well-being of a people let us proceed to consider the effect of an intermixture or fusion of races. The principles already discussed in connection with plants and animals have prepared us for this inquiry. We

have learnt that a cross between individuals of distinct varieties or of the same variety but distinct families, results in accentuating variation and increasing the tendency to reversion and thereby in destroying character. We have further learnt that a cross is useful for restoring constitutional vigour (a) if it is with individuals of the same variety but different strain or family, (b) if it is occasional and not free, and (c) if it is followed by rigid selection carried on for a long time. We have further learnt that if an old race is to be modified or a new race formed by crossing continuous, careful and rigid selection must follow it. We have further seen the difficulties that stand in the way of artificial selection in the human kingdom.

58. These principles have their application in the human kingdom also. When a new race is to be formed interbreeding is useful. Crossing disturbs the physical and mental constitutions of the intermingling races and by accentuating variation creates characteristics of all possible kinds, which are at the outset very weak and fluctuating. To fix such of these as are good and desirable long hereditary accumulations are necessary. This period of interbreeding is a very critical period in the history of a people and unless the environment is such as to take the place of artificial selection the results would certainly be disastrous. It can only be by means of a favourable environment continuing for centuries that a race capable of creating and continuing a high civilisation can be formed. If it is once formed and particular mental characteristics are fixed as its soul, then any further crossing would break up the soul and throw the results of centuries of labour to the winds in a few generations. We thus see why *'interbreeding should be considered at once as a fundamental element in the formation of new races and as a powerful factor in the dissolution of ancient races.'* For an ancient race which has had its characteristics fixed for a long time to interbreed with another race or with various other races would mean suicide, for it would bring about the destruction of its soul, i.e., of that 'congeries of common ideas, and sentiments which make the strength of peoples.' These principles must be carefully borne in mind in discussing the Juddin question. We Parsees are an old, established race with fixed ideas, sentiments, and beliefs that form our soul and have endured for centuries upon centuries. The process of fusion between allied races must have taken place for us long, long ago. That critical stage is for our race a thing of the distant past. Any interbreed-

ing or crossing at this stage would, therefore, be suicidal, for it would bring about the destruction of our soul and the termination of our existence as the Parsee race. As Gustave Le Bon has said 'It is with reason, then, that all the peoples that have reached a high degree of civilisation carefully avoid intermarrying with foreigners.'

59. Let us, therefore, clearly understand that *interbreeding or crossing may be useful in the early beginnings of a race under certain favourable conditions but that once a race has been formed its character becomes more and more pronounced by in-breeding while interbreeding or crossing would mean destruction of its character, i.e., of its soul and, therefore, disappearance of the race.*

"In the same way a human race, a genuine nation, is distinguished from a mere congeries of men. The character of the race becoming more and more pronounced by pure breeding is like the approach of the magnet. The individual members of the nation may have ever so different qualities, the direction of their activities may be utterly divergent, yet together they form a moulded unity, and the power, or let us say rather, the importance of every individual is multiplied a thousandfold by his organic connection with countless others."—*Chaos*, p. 49.

"Three conditions are stated to be essential to allow races to fuse and form a new and more or less homogeneous race. First, the races to interbreed should not be too unequal in number. If that is the case the smaller race entirely disappears after a few generations, without leaving any trace of its blood among the descendants. Secondly, the characters of the two races that cross must not be too dissimilar. Cross breeding always brings about degeneration when the races, even though superior, are too different. The influence of contrary heredities saps their morality and character and the half breeds resulting from such fusion are 'utterly incapable of creating or even of continuing a civilisation.' Thirdly, the two races should be subjected for a long period to identical conditions of environment. These take the place of close in-and-in breeding in animals in giving fixity to new psychological characteristics. The race thus formed in course of time would, we must remember, be an entirely new race with characteristics of its own. It would possess new institutions, new ideas and new sentiments and would bring into existence a new civilisation. The old races by whose fusion such a new race has arisen would be entirely things of the past. After Rome was conquered its civilisation was gone for ever. A new civilization took its place but the arts and institutions of the old one disappeared past resurrection.

"We have already remarked that genuine races, in the scientific sense of the word, are scarcely to be met with among civilised peoples, but only

historical races, by which is meant races created by the chances of conquest, immigration, politics, etc., and formed, in consequence, of a mixture of individuals of different origins."—LE BON, *Psych. of Peoples*, pp. 50-51.

"Let it first of all be observed that the elements brought together by chance do not always combine. The German, Hungarian, Slav, and other populations that live under Austrian rule form perfectly distinct races which have never attempted to fuse. The Irish, who live under the rule of the English, are another example of fusion not taking place."—*Ibid*, p. 51.

"Cross-breeding destroys an ancient civilisation because it destroys the soul of the people that possesses it. It fosters the creation of a new civilisation because the old psychological characteristics of the races in contact have been destroyed, and because new characteristics may be formed under the influence of the new conditions of existence.

"It is only on races in course of formation, and whose ancestral characteristics have been destroyed in consequence by contrary heredities, that the influence can be effective of the last of the factors mentioned at the beginning of this chapter, the influence of environment. While very slight on ancient races, the influence of environment is, on the contrary, very great on new races. *Cross-breeding, by destroying the ancestral psychological characteristics, creates a sort of blank tablet on which the action of environment, continued during centuries, may succeed in impressing and finally in giving fixity to new psychological characteristics.* Then, and then only, the formation of a new historical race results. It is in this way that the French race was constituted."—*Ibid*, pp. 55-56.

"Three conditions are necessary to allow of races fusing and forming a new and more or less homogeneous race.

"The first condition is that the races which are to interbreed shall not be too unequal in number; the second, that their characters shall not be too dissimilar; the third, that they shall be subjected for a long period to identical conditions of environment.

"The first of the conditions that have just been enumerated is of capital importance. A small number of white men transported into the midst of a numerous negro population disappear, after a few generations, without leaving any trace of their blood among their descendants. All the conquerors who have invaded too numerous populations have disappeared in this way. They have been able, as has been done by the Latins in Gaul or the Arabs in Egypt, to leave behind them their civilisation, their arts and their language, but they have never been able to bequeath their blood.

"The second of the preceding conditions is also of very great importance, Doubtless very different races, the black and the white, for example, may fuse, but the half-breeds that result constitute a population very inferior to those of which it is sprung, and utterly incapable of creating, or even of continuing, a civilisation. The influence of contrary heredities saps their

morality and character. When half-breeds, the off-spring of white men and negroes, have chanced to inherit a superior civilisation, as in Saint Domingo, this civilisation has speedily been overtaken by the most lamentable degeneration. Cross-breeding may be a source of improvement when it occurs between superior and sufficiently allied races, such as the English and the Germans of America, but it always constitutes an element of degeneration when the races, even though superior, are too different.

"All the countries inhabited by too large a proportion of half-breeds are, solely for this reason, given over to perpetual anarchy, unless they are ruled by an iron hand. Such will inevitably be the fate of Brazil. White men form only a third of its population. The remainder is composed of negroes and mulattoes. The famous Agassiz rightly observed 'that it is sufficient to have visited Brazil for it to be impossible to deny the decadence that results from cross-breeding which goes on in this country to a greater extent than elsewhere. This cross-breeding is fatal, he says, to the best qualities whether of the white man, the black, or the Indian, and produces an indescribable type whose physical and mental energy suffers.'"

"To cross two peoples is to change simultaneously both their physical constitution and their mental constitution. Cross-breeding, moreover, constitutes the only infallible means at our disposal of transforming in a fundamental manner the character of people, heredity being the only force powerful enough to contend with heredity. Cross-breeding allows of the creation of a new race, possessing new physical and psychological characteristics.

"The characteristics thus created are at the outset very weak and fluctuating. To fix them, long hereditary accumulations are necessary. The first effect of interbreeding between different races is to destroy the soul of the races, and by their soul we mean that congeries of common ideas and sentiments which make the strength of peoples, and without which there is no such thing as a nation or a fatherland. The period of interbreeding is the critical period in the history of peoples, a period of commencement and hesitancy which all nations have had to traverse, for there is scarcely a European people that is not formed of the debris of other peoples. It is a period full of intestine struggles and of vicissitudes, and it continues so long as the new psychological characteristics are not fixed.

"What precedes shows that interbreeding should be considered at once as a fundamental element in the formation of new races and as a powerful factor in the dissolution of ancient races. *It is with reason then, that all the peoples that have reached a high degree of civilisation carefully avoid intermarrying with foreigners.* Had it not been for the admirable regime of castes, the handful of Aryans that invaded India, some three thousand years ago, would have been quickly swamped by the immense masses of the dark-coloured populations that surrounded them on every side, and no

civilisation would have come into existence on the soil of the great peninsula. If in modern times the English had not followed the same system, if they had consented to intermarry with the indigenous inhabitants, their gigantic Indian Empire would long since have slipped from their grasp. A people may sustain many losses, may be overtaken by many catastrophes, and yet recover from the ordeal, but it has lost everything, and is past recovery, when it has lost its soul."—*Ibid*, pp. 51-55.

"When distinct breeds are allowed to cross freely, the result will be a heterogeneous body; for instance, the dogs in Paraguay are far from uniform, and can no longer be affiliated to their parent-races. The character which a crossed body of animals will ultimately assume must depend on several contingencies namely, on the relative numbers of the individuals belonging to the two or more races which are allowed to mingle; on the prepotency of one race over the other in the transmission of character; and on the conditions of life to which they are exposed. When two commingled breeds exist at first in nearly equal numbers, the whole will sooner or later become intimately blended, but not so soon, both breeds being equally favoured in all respects, as might have been expected. The following calculation shows that this is the case: if a colony with an equal number of black and white men were founded, and we assume that they marry indiscriminately, are equally prolific, and that one in thirty annually dies and is born; then "in sixty-five years the number of blacks, whites and mulattoes would be equal. In ninety-one years the whites would be 1-10th, the blacks 1-10th, and the mulattoes or people of intermediate degrees of colour, 8-10th of the whole number. In three centuries not 1-100th part of the whites would exist."—*DARWIN, Animals and Plants*, pp. 78-79.

"When one of two mingled races exceed the other greatly in number, the latter will soon be wholly, or almost wholly, absorbed and lost."—*Ibid*, p. 79.

"When two varieties are allowed to cross freely, and one is much more numerous than the other, the former will ultimately absorb the latter. Should both varieties exist in nearly equal numbers, it is probable that a considerable period would elapse before the acquirement of a uniform character; and the character ultimately acquired would largely depend on prepotency of transmission and on the conditions of life; for the nature of these conditions would generally favour one variety more than another, so that a kind of natural selection would come into play."—*Ibid*, p. 198.

"I refer to the mixture of races caused by conquest or otherwise. We may properly treat of it separately under the head of social constitution—not, of course, constitution politically understood, but constitution understood as referring to the relative homogeneity or heterogeneity of the units constituting the social aggregate.

"Inevitably as the nature of the aggregate, partially determined by

environing conditions, is in other respects determined by the natures of its units, where its units are of diverse natures the degrees of contrast between the two or more kinds of them, and the degrees of union between them, must greatly affect the results. Are they of unallied races or of races near akin; and do they remain separate or do they mix?

"If units of two kinds are joined in the same society, their respective tendencies to evolve structures more or less unlike in character, must modify the product. And the special modification will in every case further or hinder the evolution of one or the other social type."—SPENCER, *Sociology*, p. 591.

"Returning from this parenthetical suggestion, there remains the remark that to the complications caused by the crossings of these two classifications, have to be added the complications caused by the unions of races widely unlike or little unlike; which here mix not at all, there partially, and in other cases wholly. Respecting these kinds of constitutions, we have considerable warrant for concluding that the hybrid kind, essentially unstable, admits of being organized only on the principle of compulsory co-operation; since units much opposed in their natures cannot work together spontaneously. While, conversely, the kind characterised by likeness in its units is relatively stable; and under fit conditions may evolve into the industrial type; especially if the likeness is qualified by slight differences."—*Ibid*, p. 596.

"Small differences, however, seem advantageous. Sundry instances point to the conclusion that a society formed from nearly-allied peoples of which the conquering eventually mingles with the conquered, is relatively well fitted for progress. From their fusion results a community which, determined in its leading traits by the character common to the two, is prevented by their differences of character from being determined in its minor traits—is left capable of taking on new arrangements determined by new influences; medium plasticity allows those changes of structure constituting advance in heterogeneity. One example is furnished us by the Hebrews; who, notwithstanding their boasted purity of blood, resulted from a mixing of many Semitic varieties in the country east of the Nile, and who, both in their wanderings and after the conquest of Palestine, went on amalgamating kindred tribes. Another is supplied by the Athenians, whose progress had for antecedent the mingling of numerous immigrants from other Greek states with the Greeks of the locality. The fusion by conquest of the Romans with other Aryan tribes, Sebini, Sabelli, and Samnites, preceded the first ascending stage of the Roman civilisation. And our own country, peopled by different divisions of the Aryan race, and mainly by varieties of Scandinavians, again illustrates this effect produced by the mixture of units sufficiently alike to co-operate in the same social system, but sufficiently unlike to prevent that social system from becoming forthwith definite in structure."—*Ibid*, p. 539.

“Admitting that the evidence where so many causes are in operation cannot be satisfactorily disentangled, and claiming only probability for these inductions respecting social constitutions, it remains to point out their analogy to certain inductions respecting the constitutions of individual living things. Between organisms widely unlike in kind, no progeny can arise; the physiological units contributed by them respectively to form a fertilised germ, cannot work together so as to produce a new organism. Evidently as, while multiplying, the two classes of units tend to build themselves into two different structures, their conflict prevents the formation of any structure. If the two organisms are less unlike in kind—belonging, say, to the same genus though to different species the two structures which their two groups of physiological units tend to build up, being tolerably similar, they can, and do, co-operate in making an organism that is intermediate. But this, though it will work, is imperfect in its latest-evolved parts; there results a mule incapable of propagating. If, instead of different species, remote varieties are united, the intermediate organism is not infertile; but many facts suggest the conclusion that infertility results in subsequent generations; the incongruous working of the united structures, though longer in showing itself, comes out ultimately. And then, finally, if instead of remote varieties, varieties nearly allied are united, a permanently-fertile breed results; and while the slight differences of the two kinds of physiological units are not such as to prevent harmonious co-operation, they are such as conduce to plasticity and unusually vigorous growth.

“Here, then, seems a parallel to the conclusion indicated above, that hybrid societies are imperfectly organizable—cannot grow into forms completely stable; while societies that have been evolved from mixture of nearly allied varieties of man, can assume stable structures, and have an advantageous modifiability.”—*Ibid*, p. 594.

“The majority of the historical races of Europe are still in course of formation, and it is important that it should be known that this is the case with a view to understanding their history. At the present day the Englishman is the only European who represents an almost completely fixed race. In his case the ancient Briton, the Saxon, and the Norman have given way to a new and highly homogeneous type. In France, on the contrary, the Provencal is very different from the Breton, the inhabitant of Auvergne from the inhabitant of Normandy. Still, if there does not exist as yet an average type of the Frenchman, there at least exist average types of certain regions. Unfortunately these types are very distinct as regards their ideas and character. It is difficult in consequence to devise institutions which shall suit them all equally well, and it is only by dint of energetic concentration that it is

possible to lend them some community of thought. Our profound divergencies of sentiment and belief, and the political upheavals which result therefrom, are due, in the main, to differences of mental constitution, which the future alone will perhaps be able to efface.

“Such has always been the situation when different races have found themselves in contact. The dissentiments and intestine struggles have always been the more acute in proportion as the races in presence have been the more different. When they are too unlike it becomes absolutely impossible to make them live under the same institutions and the same laws. The history of great Empires composed of different races has always been identical. Most often they disappear with their founder. Among modern nations, only the English and the Dutch have been successful in imposing their yoke on Asiatic peoples differing widely from them, and their success is solely due to the fact that they have respected the manners, customs, and laws of the peoples in question, leaving them in reality to govern themselves, and confining their role to appropriating a portion of the taxes, to engaging in commerce, and to maintaining peace.

“Apart from these rare exceptions, all the great Empires composed of dissimilar peoples owe their foundation to force and are destined to perish by violence. To enable a nation to constitute itself and to endure, it is necessary that its formation should be slow, and the result of the gradual fusion of but slightly different races, interbreeding, living on the same soil, undergoing the action of the same environment, and having the same institutions and beliefs. After the lapse of several centuries these distinct races may come to form a highly homogeneous nation.

“As regards moral environment, we have proof of the insignificance of its action in the failure of our Western civilisations to influence the peoples of the East, even when these latter have been subjected to their contact during several generations; the Chinese inhabitants of the United States are a case in point. The slight power of physical environment is shown by the difficulties that attend acclimatisation. Transported into surroundings too different from those to which it is accustomed, an ancient race—and the statement is equally applicable to men, animals, and plants, perishes sooner than submit to transformation. Egypt has always been the tomb of the many different races that have effected its conquest. Not a single people has been able to acclimatise itself in the country. Neither Greeks, Romans, Persians, Arabs, nor Turks have been able to leave behind them a trace of their race. The only type that is met with is that of the impassable Fellah whose features exactly resemble those engraved seven thousand years ago on the tombs and palaces of the Pharaohs by the Egyptian artists.”—
LE BON, *Psych. of Peoples*, pp. 56-59.

“The examples we have cited show that the history of a people does not

depend on its institutions, but on its character—that is to say, on its race. We further saw, when studying the formation of historical races, that their dissolution is the result of cross-breeding, and that the peoples which have preserved their unity and force—the Aryans, for example, in India in the past, and in modern times the English in their various colonies—are those who have always carefully avoided intermarrying with foreigners. The presence in the midst of a people of foreigners, even in small numbers, is sufficient to affect its soul, since it causes it to lose its capacity for defending the characteristics of its race, the monuments of its history, and the achievements of its ancestors.”—*Ibid*, pp. 153-54.

“The progressive transformation of Roman civilisation is one of the most striking examples it is possible to invoke. Historians usually picture this event as the result of the destructive invasions of the Barbarians; but a more attentive study of the facts shows, on the one hand, that it was pacific and not warlike invasions which brought about the fall of the Empire; and, on the other hand, that the Barbarians, far from having wished to overthrow Roman civilisation, devoted all their efforts towards adopting and continuing institutions of which they were the respectful admirers. They essayed to appropriate the language, the institutions and the arts of Rome. Down to the time of the last Merovingians, they endeavoured to continue the great civilisation of which they were the heirs. This guiding intention is reflected in all the acts of the great Emperor Charlemagne.

“We know, however, that such a task has always been impossible. The Barbarians needed several centuries before they could form, by repeated crosses and identical conditions of existence, a race in any way homogeneous; and when this race was formed it possessed, merely in virtue of the fact of its creation, a new language and new institutions, and in consequence a new civilisation. The mighty traditions of Rome left their impress deeply marked on this civilisation, but the various efforts to revive the civilisation of Rome itself have always been vain. The Renaissance endeavoured in vain to revive its arts and the Revolution to bring back its institutions.”—*Ibid*, pp. 154-56.

“When two races in close contact cross, the first result is a heterogeneous mixture. Thus Mr. Hunter, in describing the Santali or hill-tribes of India, says that hundreds of imperceptible gradations may be traced ‘from the black, squat tribes of the mountains to the tall olive-coloured Brahman, with his intellectual brow, calm eyes, and high but narrow head’; so that it is necessary in courts of justice to ask the witness whether they are Santalis or Hindoos. Whether a heterogeneous people, such as the inhabitants of some of the Polynesian islands, formed by the crossing of two distinct races, with few or no pure members left, would ever become homogeneous, is not known from direct evidence. But as with our domesti-

cated animals, a cross-breed can certainly be fixed and made uniform by careful selection in the course of a few generations, we may infer that the free intercrossing of a heterogeneous mixture during a long descent would supply the place of selection, and overcome any tendency to reversion; so that the crossed race would ultimately become homogeneous, though it might not partake in an equal degree of the characters of the two parent-races."—DARWIN, *Descent of Man*, pp. 297-98.

SUMMARY.

60. The principles enunciated in these quotations may be thus usefully enumerated.

(1) Interbreeding between different human races has the same result as crossing in animals, *viz.*, it produces an 'epidemic of variations,' and destroys the character, which is the very soul of the crossed races.

(2) When a new race is in the process of formation interbreeding may be useful if three conditions are fulfilled, *viz.*

(a) The races interbreeding are not too unequal in number.

(b) The races interbreeding are not too unlike each other.

(c) The offspring are subjected for a long period to identical conditions of environment, live on the same soil and have the same institutions and beliefs.

(3) When one of two interbreeding races exceeds the other greatly in number the latter is soon wholly absorbed and lost.

(4) When the two races mingling together are too different, *even though superior*, the influence of contrary heredities saps their morality and character and results in degeneration.

(5) When the necessary conditions are present a new race may in the course of centuries be formed with its own ideas, sentiments and institutions but the old races that originally intermingled will have disappeared for ever, and with them their arts beliefs and institutions.

(6) When after centuries of favourable environment a race acquires fixity of character and has its soul builded it will be suicidal for it to interbreed or cross with any other race or races. "The peoples who have preserved their unity and force—the Aryans, for example, in India in the past and in modern times the English in their various colonies—are those who have always carefully avoided intermarrying with foreigners."

(7) Such intermarrying would undo in a few generations the labour of centuries and would by disturbing the physical and

mental constitution of the race, destroy its character and its soul and bring about its disappearance as a race.

61. Applying these principles to the Parsee race it is quite clear that we have long passed the critical stage when the preliminary intermingling might be profitable and have for centuries become a fixed race with definite moral and intellectual characteristics constituting our soul. We have, therefore, long since passed that point in the evolution of our race at which interbreeding between closely allied races not unequal in number and subjected for a long time to identical conditions of favourable environment could be productive of good. At the present advanced stage of our existence, interbreeding with another race or races would for an ancient race like ours, mean suicide. It would disturb our physical and mental constitution, destroy our national character, loosen the hold of our common sentiments, interests and beliefs on our race and ultimately cause the disappearance of the Parsee race from the surface of the globe.

62. *If it be contended that although continued crossing ruins the strongest race, interbreeding under certain limitations as to time, blood, etc. (Vide "Chaos") might ennoble our race, our first reply is that it is difficult, if not impossible to fix and enforce such limitations. There is at present among us no organisation with due authority and power to enforce any rules that may be laid down in this matter. Secondly, let us remember that the Juddin propaganda limits us to no particular races or time with and within which the cross is to operate. The logical outcome of this propaganda is free, continued crossing with all races, whatever their number and whatever the degree of likeness or unlikeness which those races may have to ours. The result would be that (a) being so small in number, viz., a few thousands compared with the millions of sister races that surround us, we would be absorbed in a very short time and disappear without leaving any trace behind; (b) interbreeding with all kinds of races like or unlike (and it is noteworthy that there is hardly any race which can be called allied to the Parsee race in the sense in which the English and the Germans of America are said to be allied) would result in the disappearance of all our good characteristics and in the production of offspring without character, mongrels of the worst type, degenerates and half-castes, quarter-castes and no-castes lacking all those qualities that ennoble humanity.*

63. Attention may at this stage be drawn to the fourth of the

last enumerated principles in answer to those who talk vaguely of the infusion of 'rich, foreign blood' in our community. It is clearly laid down by Gustave Le Bon that it is not richness or poverty of blood, but likeness or unlikeness of races that is essential for good results. Both the races that interbreed may be *superior* and yet if they are *unlike* the contrary heredities sap character and result in degeneration. Having regard to the peculiar nature of our ancient civilization and religious institutions which form the centre round which our national character has been builded, it is almost impossible to find any race (except of course the Irani Parsees who are our own kith and kin) which is sufficiently like ours to furnish reasonable chances of good results from interbreeding.

64. In this connection we may refer with profit to *the advice which Herbert Spencer gave to the Japanese nation on the question of intermarriage with foreigners*. He considered the Japanese constitution to be so unlike that of foreigners including Europeans that he advised them in strong terms 'peremptorily to interdict the marriage of foreigners with the Japanese.' In giving his opinion he states that the results of intermarriages of human races and interbreeding of animals have shown that 'when the varieties mingled diverge *beyond a certain slight degree* the result is inevitably a bad one in the long run.' This bad result is due to the arising of a chaotic constitution by a cross and after quoting the example of the Eurasians in India and the half-breeds in America Spencer states that the constitution produced by intermarriages between races which differ beyond a certain slight degree is by reason of admixture 'not fitted for any set of conditions whatever.' This opinion is important as laying down more accurately the degree of likeness necessary for good results from interbreeding. The likeness must be very close indeed for if the difference *is beyond a certain slight degree* degeneration ensues. If the youthful Japanese who have assimilated Western culture so rapidly and are counted amongst the most advanced races of the world are not considered sufficiently alike to any foreigners, not even the advanced European races, for any good effects to be produced by their intermarrying what shall we say about the old Parsee race whose hoary ancestry and civilization go far back into the remote past and in moulding whose character the sacred Zoroastrian religion has played such a vital part?

"To your remaining question respecting the intermarriage of foreigners

and Japanese, which you say is 'now very much agitated among our scholars and politicians' and which you say is 'one of the most difficult problems' my reply is that, as rationally answered, there is no difficulty at all. *It should be positively forbidden.* It is not at root a question of social philosophy. It is at root a question of biology. *There is abundant proof, alike furnished by the intermarriages of human races and by the interbreeding of animals, that when the varieties mingled diverge beyond a certain slight degree the result is inevitably a bad one in the long run.* I have myself been in the habit of looking at the evidence bearing on this matter for many years past, and my conviction is based on numerous facts derived from numerous sources. This conviction I have within the last half-hour verified for I happen to be staying in the country with a gentleman who is well-known and has had much experience respecting the interbreeding of cattle; and he has just, on inquiry, fully confirmed my belief that when, say of the different varieties of sheep, there is an interbreeding of those which are widely unlike, the result, especially in the second generation, is a bad one, there arise an incalculable mixture of traits, and what may be called a chaotic constitution. And the same thing happens among human beings the Eurasians in India, the half-breeds in America, show this. The physiological basis of this experience appears to be that any one variety of creature in course of many generations acquires a certain constitutional adaptation to its particular form of life, and every other variety similarly acquires its own special adaptation. The consequence is that, if you mix the constitution of two widely divergent varieties which have severally become adapted to widely divergent modes of life, you get a constitution which is adapted to the mode of life of neither, a constitution which will not work properly, because it is not fitted for any set of conditions whatever. By all means, therefore, peremptorily interdict marriages of Japanese with foreigners."—"Life and Letters of Herbert Spencer," pp. 322-23.

65. The proverbial degeneration of the half-caste is no doubt due to that reversion to a primitive type which results from a cross. It would be interesting to quote a few opinions as to the utterly irredeemable character of crossed races. *The whole question is pithily summed up in the remark made to Livingstone by an inhabitant on the Zambesi 'God made white men and God made black men but the Devil made half-castes.'* The white man as well as the black one is all right so long as he preserves the purity of his blood but as soon as both intermingle and the pure currents are allowed to cross each other there is 'reversion to a primitive and savage condition.'

"Social constitutions of this kind, in which aptitudes for forming un-

like structures co-exist, are manifestly in states of unstable equilibrium. Any considerable shock dissolves the organization; and in the absence of unity of tendency, re-establishment of it is difficult if not impossible. In cases where the conquering and conquered, though widely unlike, intermarry extensively, a kindred effect is produced in another way. The conflicting tendencies towards different social types, instead of existing in separate individuals, now exist in the same individual. The half-caste, inheriting from one line of ancestry proclivities adapted to one set of institutions, and from the other line of ancestry proclivities adapted to another set of institutions, is not fitted for either. He is a unit whose nature has not been moulded by any social type, and therefore cannot, with others like himself, evolve any social type. Modern Mexico and the South American Republics, with their perpetual revolutions, show us the result. It is observable, too, that where races of strong-contrasted natures have mixed more or less, or, remaining but little mixed, occupy adjacent areas subject to the same government, the equilibrium maintained so long as that government keeps up the coercive form, shows itself to be unstable when the coercion relaxes. Spain with its diverse peoples, Basque, Celtic, Gothic, Moorish, Jewish, partially mingled and partially localized, shows us this result."—SPENCER, *Sociology*, pp. 592-94.

"I think the half-caste race between Indian and African is one of the worst mixture there can be.

"We had what we call the "Chotara" or a half-caste breed between the Indian and the Swahili and those were useless physically, and morally they were bad, and they were no advantage at all."—SIR JOHN KIRK, G.C.M.C., K.C.B., Blue Book (Emigration from India to the Crown Colonies and Protectorates), June 1909.

"The bloods of white and black races should not interblend. It may, perhaps, have been due to a disregard of this principle that the cause of progress failed so often in Africa. The superiority of the progressive communities was lost by admixture with African blood."—GENERAL SMUTS, Speech at a dinner in July 1917.

"These latter facts remind us of the statements, so frequently made by travellers in all parts of the world, on the degraded state and savage disposition of crossed races of man. That many excellent and kind-hearted mulattoes have existed no one will dispute; and a more mild and gentle set of men could hardly be found than the inhabitants of the island of Chiloe, who consist of Indians commingled with Spaniards in various proportions. On the other hand, many years ago, long before I had thought of the present subject, I was struck with the fact that, in South America, men of complicated descent between Negroes, Indians, and Spaniards, seldom had, whatever the cause might be, a good expression. Livingstone—and a more unimpeachable authority cannot be quoted—after speaking of a half-caste

man on the Zambesi, described by the Portuguese as a rare monster of inhumanity, remarks, "It is unaccountable why half-castes, such as he, are so much more cruel than the Portuguese, but such is undoubtedly the case." *An inhabitant remarked to Livingstone, "God made white men, and God made black men, but the Devil made half-castes."* When two races, both low in the scale, are crossed, the progeny seems to be eminently bad. Thus the noble-hearted Humboldt, who felt no prejudice against the inferior races, speaks in strong terms of the bad and savage disposition of Zambos, or half-castes between Indians and Negroes; and this conclusion has been arrived at by various observers. From these facts we may perhaps infer that the degraded state of so many half-castes is in part due to reversion to a primitive and savage condition, induced by the act of crossing, even if mainly due to the unfavourable moral conditions under which they are generally reared." —DARWIN, "*Animals and Plants*," pp. 26-27.

"In many cases the failure of the parents to transmit their likeness is due to the breed having been at some former period crossed; and the child takes after his grand-parent or more remote ancestor of foreign blood."—*Ibid*, p. 72.

"A mongrel is frequently very clever, but never reliable; morally he is always a weed."—*Chaos*, p. 4.

"What the French call *uncharme troublant*—*superficial cleverness combined with a peculiar sort of beauty*—is often the characteristic of the half-caste; one can observe this daily at the present day in cities like Vienna, where people of all nations meet; but the peculiar unsteadiness, the small power of resistance, the want of character, in short, the moral degeneracy of these people is equally marked."—*Chaos*, p. 45.

65. It is apparent from this inquiry that there is strong foundation in science for that pride which the Parsee justly takes in the purity of his blood and that the continued existence and advancement of an ancient race like ours depend on the preservation of such purity and the guarding of the same against intermixture, fraught with such dangerous consequences. It is interesting in this connection to note that even now within the Parsee fold itself the Athornan class as a rule avoids intermarriage with the Behdins.

66. What Dr. Richard Spruce says as to the careful selection made by the white inhabitants of Guayaquil (South America) and the remarkable physical and moral effects of their vigilant efforts at preserving the purity of their race will also be useful on this branch of our subject.

Dr. Richard Spruce says:—

"The white inhabitants of Guayaquil (South America) are kept pure by careful selection. The slightest tincture of red or black blood bars entering

into any of the old families who are descendants of Spaniards. . . . The consequence of this careful breeding is that the women of Guayaquil are considered (justly) the finest along the whole Pacific coast. They are often tall, sometimes very handsome, decidedly healthy although pale, and assuredly prolific enough. Their sons are big, stout men. . . . At Guayaquil for a lady of good family—married or unmarried—to be of loose morals is so uncommon that when it does happen it is felt as a calamity by the whole community.”—*E. B.*, Vol. I., p. 89.

“Race lifts a man above himself; it endows him with extraordinary—I might almost say supernatural powers, so entirely does it distinguish him from the individual who springs from the chaotic jumble of peoples drawn from all parts of the world: and should this man of pure origin be perchance gifted above his fellows, then the fact of race strengthens and elevates him on every hand, and he becomes a genius towering over the rest of mankind, not because he has been thrown upon the earth like a flaming meteor by a freak of nature, but because he soars heavenward like some strong and stately tree, nourished by thousands and thousands of roots—no solitary individual, but the living sum of untold souls striving for the same goal.”—*Chaos*, pp. 12-13.

67. It is sometimes argued that when we talk of the ‘blue blood’ of the Parsees we ignore the fact that there has been some admixture of our blood with various communities in and outside India. It cannot be denied that in years gone by when the means of communication and facilities of travel were not what they are now, the adventurous Parsee, as his enterprising spirit and the struggle for existence took him into the out of the way places of Gujarat or over the seas into China, Burma, or Africa, where it was very difficult to rear up a Parsee family, did intermingle with women of alien nationalities. *But such intermingling was very small. It did not, in any event, outstrip the power of our race to absorb foreign elements without noticeable diminution of its characteristic qualities.*

“Whoever would make a study of these matters must not, for example, overlook the fact that small numbers of foreign elements are wont in a short time to be entirely absorbed by a strong race but that there is, as the chemists say, a definite capacity, a definite power of absorption, beyond which a loss of the purity of the blood, revealed by the diminution of the characteristic qualities, is involved.”—*Chaos*, p. 33.

68. It is clear, however, that what little admixture took place was due to the force of circumstances and that we have successfully

resisted its evil effects. Circumstances have since changed and with it the necessity and expediency of such intermingling have almost entirely vanished. The Juddin propagandists would moreover ask us to go in for wholesale intermarriages with foreigners on altogether mistaken notions as to improvement of breed and it is there that we join issue with them. That we have gone slightly wrong already in this direction can be no reason why we should not retract, and it certainly can be no reason for going deeper, and deeper into the mire when such vital issues are at stake. Nay a study of the above principles brings home the conclusion that the startling fact that a handful of Parsee immigrants to a vast country like India, surrounded as they were on all sides by teeming millions of Hindus and Mahomedans have not been entirely absorbed and lost but have succeeded in preserving their character and their soul for twelve long centuries is due entirely to our far-sighted ancestors having wisely abstained from anything like free intermarriages with aliens.

69. The whole subject of race with all the main issues that consideration thereof involves has been dealt with so ably and thoroughly in the chapter on "The Chaos"* in the "Foundations of the Nineteenth Century," Vol. I., by Houston Stewart Chamberlain that we have thought it right to quote the same almost *in extenso*. The existence and the grand significance of race and purity of blood, the five main principles that govern the origin of noble races, the fact that crossing obliterates character, the conditions that govern the successful fusion of races, and under which alone intermarriages between slightly different races can be productive of good results, the fact that race is everything and the individual apart from his race nothing, the superficial cleverness but utter want of character of the half-caste and all the other main issues above discussed have been handled with such remarkable ability and elucidated with such an illuminating mass of facts and detail that we commend a perusal of this masterly exposition to every Parsee taking an interest in the Juddin question, nay to all the members of our community without distinction, since the Juddin question is of such vital importance to us as Parsees and our existence and progress as a race depend very largely on a clear understanding by us of the main principles that govern the issues involved therein.

* Particular attention may be drawn to "The Five Cardinal Laws" at page 79 and especially the 5th Law at page 85.

THE FOUNDATIONS OF THE NINETEENTH CENTURY.

(By Houston Stewart Chamberlain.)

FOURTH CHAPTER:

THE CHAOS.

SCIENTIFIC CONFUSION.

The remarks which I made in the introduction to the second division will suffice as a general preface to this chapter on the chaos of peoples in the dying Roman Empire; they explain to what time and what countries I refer in speaking of the "chaos of peoples." Here, as elsewhere, I presuppose historical knowledge, at least in general outline, and as I should not like to write a single line in this whole book which did not originate from the need of comprehending and of judging the nineteenth century better, I think I should use the subject before us especially to discuss and answer the important question: Is nation, is race a mere word? Is it the case, as the ethnographer Ratzel asserts, that the fusion of all mankind should be kept before us as our "aim and duty, hope and wish"? Or do we not rather deduce from the example of Hellas and Rome, on the one hand, and of the pseudo-Roman empire on the other, as well as from many other examples in history, that man can only attain his zenith within those limits in which sharply defined, individualistic national types are produced? Is the present condition of things in Europe with its many fully formed idioms, each with its own peculiar poetry and literature, each the expression of a definite, characteristic national soul—is this state of things really a retrograde step in comparison with the time, when Latin and Greek, as a kind of twin Volapuk formed a bond of union between all those Roman subjects who had no fatherland to call their own? Is community of blood nothing? Can community of memory and of faith be replaced by abstract ideals? Above all, is the question one to be settled by each as he pleases, is there no clearly distinguishable natural law, according to which we must fit our judgment? Do not the biological sciences teach us that in the whole animal and vegetable kingdoms pre-eminently noble races—that is, races endowed with exceptional strength and vitality—are produced only under definite conditions, which restrict the begetting of new individuals? Is it not possible, in view of all these human and non-human phenomena, to find a clear answer to the question, What is race? And shall we not be able, from the consciousness of what race is, to say at once what the absence of definite races must mean for

history? When we look at those direct heirs of the great legacy, these questions force themselves upon us. Let us in the first place discuss races quite generally; then, and then only, shall we be able to discuss with advantage the conditions prevailing in this special case, their importance in the course of history, and consequently in the nineteenth century.

There is perhaps no question about which such absolute ignorance prevails among highly cultured, indeed learned, men, as the question of the essence and the significance of the idea of "race." What are pure races? Whence do they come? Have they any historical importance? Is the idea to be taken in a broad or a narrow sense? Do we know anything on the subject or not? What is the relation of the ideas of race and of nation to one another? I confess that all I have ever read or heard on this subject has been disconnected and contradictory: some specialists among the natural investigators form an exception, but even they very rarely apply their clear and detailed knowledge to the human race. Not a year passes without our being assured at international congresses, by authoritative national economists, ministers, bishops, natural scientists, that there is no difference and no inequality between nations. Teutons, who emphasise the importance of race-relationship, Jews, who do not feel at ease among us and long to get back to their Asiatic home, are by none so slightly and scornfully spoken of as by men of science. Professor Virchow, for instance, says* that the stirrings of consciousness of race among us are only to be explained by the "loss of sound common sense"; moreover, that it is "all a riddle to us, and no one knows what it really means in this age of equal rights." Nevertheless, this learned man closes his address with the expression of a desire for "beautiful self-dependent personalities." As if all history were not there to show us how personality and race are most closely connected, how the nature of the personality is determined by the nature of its race, and the power of the personality dependent upon certain conditions of its blood! And as if the scientific rearing of animals and plants did not afford us an extremely rich and reliable material, whereby we may become acquainted not only with the conditions but with

* *Der Ubergang aus dem philosophischen in das naturwissenschaftliche Zeitalter*, Rektoratsrede, 1893, p. 30. I choose this example from hundreds, since Virchow, being one of the most ardent anthropologists and ethnographers of the nineteenth century, and in addition, a man of great learning and experience, ought to have been well informed on the subject.

the importance of "race"! Are the so-called (and rightly so-called) "noble" animal races, the draught-horses of Limousin, the American trotter, the Irish hunter, the absolutely reliable sporting dogs, produced by chance and promiscuity? Do we get them by giving the animals equality of rights, by throwing the same food to them and whipping them with the same whip? No, they are produced by artificial selection and strict maintenance of the purity of the race. Horses and especially dogs give us every chance of observing that the intellectual gifts go hand in hand with the physical; this is specially true of the moral qualities; a mongrel is frequently very clever, but never reliable; morally he is always a weed. Continual promiscuity between two pre-eminent animal races leads without exception to the destruction of the pre-eminent characteristics of both.* Why should the human race form an exception. A father of the Church might imagine that it does, but is it becoming in a renowned natural investigator to throw the weight of his great influence into the scale of mediæval ignorance and superstition? Truly one could wish that these scientific authorities of ours, who are so utterly lacking in philosophy, had followed a course of logic under Thomas Aquinas; it could only be beneficial to them. In spite of the broad common foundation, the human races are, in reality, as different from one another in character, qualities, and above all, in the degree of their individual capacities, as greyhound, bull-dog, poodle and Newfoundland dog. Inequality is a state towards which nature inclines in all spheres; nothing extraordinary is produced without "specialisation"; in the case of men, as of animals, it is this specialisation that produces noble races; history and ethnology reveal this secret to the dullest eye. Has not every genuine race its own glorious, incomparable physiognomy? How could Hellenic art have arisen without Hellenes? How quickly has the jealous hostility between the different cities of the small country of Greece given each part its sharply defined individuality within its own family type! How quickly this was blurred again, when Macedonians and Romans with their levelling hand swept over the land! And how everything which had given an everlasting significance to the word "Hellenic" gradually disappeared when from North, East and

* See especially Darwin's *Plants and Animals under Domestication*, chaps. xv. xix. "Free crossing obliterates characters." For the "superstitious care with which the Arabs keep their horses pure bred" see interesting details in Gibbon's *Roman Empire*, chap. 50. See also Burton's *Mecca*, chap. xxix.

West new bands of unrelated peoples kept flocking to the country and mingled with genuine Hellenes! The equality, before which Professor Virchow bows the knee, was now there, all walls were razed to the ground, all boundaries became meaningless; the philosophy, too, with which Virchow in the same lecture breaks so keen a lance, was destroyed, and its place taken by the very soundest "common sense"; but the beautiful Hellenic personality, but for which all of us would to-day be merely more or less civilised barbarians, had disappeared, disappeared for ever. "*Crossing obliterates characters.*"

If the men who should be the most competent to pronounce an opinion on the essence and significance of Race show such an incredible lack of judgment—if in dealing with a subject where wide experience is necessary for sure perception, they bring to bear upon it nothing but hollow political phrases—how can we wonder that the unlearned should talk nonsense even when their instinct points out the true path? For the subject has in these days aroused interest in widely various strata of society, and where the learned refuse to teach, the unlearned must shift for themselves. When in the fifties Count Gobineau published his brilliant work on the inequality of the races of mankind, it passed unnoticed; no one seemed to know what it all meant. Like poor Virchow men stood puzzled before a riddle. Now that the Century has come to an end things have changed; the more passionate, more impulsive element in the nations pays great and direct attention to this question. But in what a maze of contradiction, errors and delusions public opinion moves! Notice how Gobineau bases his account—so astonishingly rich in intuitive ideas which have later been verified and in historical knowledge—upon the dogmatic supposition that the world was peopled by Shem, Ham and Japhet. Such a gaping void in capacity of judgment in the author suffices, in spite of all his documentary support, to relegate his work to the hybrid class of scientific phantasmagorias. With this is connected Gobineau's further fantastic idea, that the originally "pure" noble races crossed with each other in the course of history, and with every crossing became irrevocably less pure and less noble. From this we must of necessity derive a hopelessly pessimistic view of the future of the human race. But this supposition rests upon total ignorance of the physiological importance of what we have to understand by "race." A noble race does not fall from

Heaven, it becomes noble gradually, just like fruit-trees, and this gradual process can begin anew at any moment, as soon as an accident of geography and history or a fixed plan (as in the case of the Jews) creates the conditions. We meet similar absurdities at every step. We have, for example, a powerful Anti-Semitic movement; are we to consider the Jews as identical with the rest of the Semites? Have not the Jews by their very development made themselves a peculiar, pure race profoundly different from the others? Is it certain that an important crossing did not precede the birth of this people? And what is an Aryan? We hear so many and so definite pronouncements on this head. We contrast the Aryan with the "Semite," by whom we ordinarily understand "the Jews" and nothing more, and that is at least a thoroughly concrete conception based upon experience. But what kind of man is the Aryan? What concrete conception does he correspond to? Only he who knows nothing of ethnography can give a definite answer to this question. As soon as we do not limit this expression to the Indo-Eranians who are doubtless inter-related, we get into the sphere of uncertain hypothesis." The peoples whom we have learned to classify together as "Aryans" differ physically very much from each other; they reveal the most different structure of skull, also different colour of skin, eyes and hair; and even granted that there was once a common ancestral Indo-European race, what evidence can we offer against the daily increasing sum of facts which make it probable that other absolutely unrelated types have also been from time immemorial richly represented in our so-called Aryan nations of to-day, so that we can never apply the term "Aryan" to a whole people, but, at most, to single individuals? Relationship of language is no conclusive proof of community of blood; the theory of the immigration of the so-called Indo-Europeans from Asia, which rests upon very slight grounds, encounters the grave difficulty that investigators are finding more and more reason to believe that the population which we are accustomed to call Indo-European was settled in Europe from time immemorial.

* Even with this very qualified statement, derived from the best books I know, I seem to have presupposed more than science can with certainty assert; for I read in a specialised treatise, *Les Aryens au nord et au sud de l'Hindou-Kousch*, by Charles de Ujfalvi (Paris, 1896, p. 15), "Le terme d'aryen est de pure convention; les peuples eraniens au nord et les tribus hindoues au sud du Caucase indien, different absolument comme type et descendent, sans aucun doute, de deux races differentes."

† G. Schrader (*Sprachvergleichung und Urgeschichte*), who has studied

for the opposite hypothesis of a colonisation of India from Europe there are not the slightest grounds . . . in short, this question is what miners call "swimming land"; he who knows the danger sets foot on it as little as possible. The more we study the specialists, the less certain we become. It was originally the philologists who established the collective idea "Aryans." Then came the anatomical anthropologists; the inadmissibility of conclusions drawn from mere philology was demonstrated, and now skull-measuring began; craniometry became a profession, and it did provide a mass of extremely interesting material; lately, however, the same fate is overtaking this so-called "somatic anthropology" that formerly overtook philology; ethnographers have begun to travel and to make scientifically systematic observations from living man, and in this way have been able to prove that the measuring of bones by no means deserves the importance that was wont to be attached to it; one of the greatest of Virchow's pupils has become convinced that the idea of solving problems of ethnology by the measurement of skulls is fruitless.* All these advances have been made in the second half of the nineteenth century; who knows what will be taught about "Aryans" † in the year 1950? At present, at any rate, the layman can say nothing on the subject. If he turns up one of the well-known authorities, he will be told that the Aryans "are an invention of the study and not a primeval people," ‡ if he seeks information from another, he receives the answer that the common character the question more from the linguistic standpoint, comes to the conclusion, "It is proved that the Indo-Teutonic peoples were settled in Europe at a very ancient period"; Johannes Ranke (*Der Mensch*) is of opinion that it is now an established fact that at least a great part of the population of Europe were Aryans as early as the stone age; and Virchow, whose authority is all the greater in the sphere of anthropology because he shows unconditional respect for facts and, unlike Huxley and many others, builds no Darwinian castles in the air, says that from anatomical discoveries one may assert that "the oldest troglodytes of Europe were of Aryan descent!" (quoted from Ranke, *Der Mensch*, ii. 578).

* Ehrenreich: *Anthropologische Studien über die Urbewohner Brasiliens*, 1897.

† When I use the word Aryan in this book, I take it in the sense of the original Sanscrit "arya," which means "belonging to the friends," without binding myself to any hypothesis. The relationship in thought and feeling signifies in any case an homogeneity. Cf. the note on p. 93.

‡ R. Hartmann: *Die Negritier* (1876), p. 185. Similarly Luschan and many investigators. Salomon Reinach, for instance, writes in *L'Origine des Aryens*, 1892, p. 90: "Parler d'une race aryenne d'il y a trois mille ans, c'est émettre une hypothèse gratuite: en parler comme si elle existait aujourd'hui, c'est dire tout simplement une absurdité."

teristics of the Indo-Europeans, from the Atlantic Ocean to India, suffice to put the actual blood-relationship beyond all doubt. §

I hope I have clearly illustrated in these two paragraphs the great confusion which is prevalent among us to-day in regard to the idea "race." This confusion is not necessary, that is, with practical, active men who belong to life as we do. And it is unnecessary for this reason, that we, in order to interpret the lessons of history and to comprehend our present age in connection therewith, do not in anyway need to seek for hidden origins and causes. In the former division I have already quoted the words of Goethe, "Animated inquiry into cause does great harm." What is clear to every eye suffices, if not for science, at least for life. Science must, of course, ever wander on its thorny but fascinating path; it is like a mountain climber, who every moment imagines that he will reach the highest peak, but soon discovers behind it a higher one still. But life is only indirectly interested in these changing hypothesis. One of the most fatal errors of our time is that which impels us to give too great weight in our judgments to the so-called "results" of science. Knowledge can certainly have an illuminating effect; but it is not always so, and especially for this reason, that knowledge always stands upon tottering feet. For how can intelligent men doubt but that much which we think we know to-day will be laughed at as crass

§ Friedrich Ratzel, Johannes Ranke, Paul Ehrenreich, etc., in fact the more modern, widely travelled ethnographers. But they hold the view with many variations, since the relationship does not necessarily rest upon common origin, but might have been produced by crossing. Ratzel, for instance, who in one place positively asserts the uniformity of the whole Indo-European race (*Litterarisches Centralblatt*, 1897, p. 1295), says in another (*Volkerkunde*, 1895, ii. 751), "the supposition that all these peoples have a uniform origin is not necessary or probable."—It is worth remarking that even those who deny the fact of an Aryan race still constantly speak of it; they cannot do without it as a "working hypothesis." Even Reinach, after proving that there never was an Aryan race, speaks in an unguarded moment (*loc. cit.* p. 98) of the "common origin of the Semites and the Aryans." Ujfalvi, quoted above, has after profound study arrived at the opposite conclusion and believes in a "grande famille aryenne." In fact anthropologists, ethnographers and even historians, theologians, philologists and legal authorities find the idea "Aryan" more and more indispensable every year. And yet if one of us makes even the most cautious and strictly limited use of the conception, he is scorned and slandered by academic scribes and nameless newspaper reviewers. May the reader of this book trust science more than the official simplifiers and levellers and the professional anti-Aryan confusion-makers. Though it were proved that there never was an Aryan race in the past, yet we desire that in the future there may be one. That is the decisive standpoint for men for action.

ignorance, one hundred, two hundred, five hundred years hence? Many facts may, indeed, be looked upon to-day as finally established; but new knowledge places these same facts in quite a new light, unites them to figures never thought of before, or changes their perspective; to regulate our judgments by the contemporary state of science may be compared to an artist's viewing the world through a transparent, everchanging kaleidoscope, instead of with the naked eye. Pure science (in contrast to industrial science) is a noble plaything; its great intellectual and moral worth rests in no small degree upon the fact that it is not "useful"; in this respect it is quite analogous to art, it signifies the application of thought to the outward world; and since nature is inexhaustibly rich, she thereby ever brings new material to the mind, enriches its inventory of conceptions and gives the imagination a new dream-world to replace the gradually fading old one.* Life, on the other hand, purely as such, is something different from systematic knowledge, something much more stable, more firmly founded, more comprehensive; it is in fact the essence of all reality, whereas even the most precise science represents the thinned, generalised, no longer direct reality. Here I understand by "life" what is otherwise also called "nature," as when, for instance, modern medicine teaches us that nature encourages by means of fever the change of matter and defends man against the illness which has seized him. Nature is in fact what we call "automatic," its roots go very much deeper than knowledge will ever be able to follow. And so it is my conviction that we—who as thinking, well-informed, boldly dreaming and investigating beings are certainly just such integral parts of nature as all other beings and things, and as our own bodies—may entrust ourselves to this nature—to this "life"—with great confidence. Though science leaves us in the lurch at many points, though she, fickle as a modern parliamentarian, laughs to-day at what she yesterday taught as everlasting truth, let this not lead us astray; what we require for life, we shall certainly learn. On the whole science is a splendid but somewhat dangerous friend; she is a great juggler and easily leads the mind astray into wild sentimentality; science and art are like the steeds attached to Plato's car of the soul; "sound common sense" (whose loss Professor Virchow lamented)

* The physical scientist Lichtenberg makes a similar remark: "The teaching of nature is, for me at least, a kind of sinking fund for religion, when overbold reason falls into debt" (*Fragmentarische Bemerkungen über physikalische Gegenstände*, 15).

proves its worth not least of all in pulling the reins tight and not permitting these noble animals to bolt with its natural, sound judgment. The very fact that we are living beings gives us an infinitely rich and unfailing capacity of hitting upon the right thing, even without learning, wherever it is necessary. Whoever simply and with open mind questions nature—the “mother” as the old myths called her—can be sure of being answered, as a mother answers her son, not always in blameless logic, but correctly in the main, intelligibly and with a sure instinct for the best interests of the son. So is it, too, in regard to the question of the significance of race; one of the most vital, perhaps the most vital, questions that can confront man.

IMPORTANCE OF RACE.

Nothing is so convincing as the consciousness of the possession of Race. The man who belongs to a distinct, pure race, never loses the sense of it. The guardian angel of his lineage is ever at his side, supporting him where he loses his foothold, warning him like the Socratic Daemon where he is in danger of going astray, compelling obedience, and forcing him to undertakings which, deeming them impossible, he would never have dared to attempt. Weak and erring like all that is human, a man of this stamp recognises himself, as others recognise him, by the sureness of his character, and by the fact that his actions are marked by a certain simple and peculiar greatness, which finds its explanation in his distinctly typical and super-personal qualities. Race lifts a man above himself; it endows him with extraordinary—I might almost say supernatural—powers, so entirely does it distinguish him from the individual who springs from the chaotic jumble of peoples drawn from all parts of the world; and should this man of pure origin be perchance gifted above his fellows, then the fact of Race strengthens and elevates him on every hand, and he becomes a genius towering over the rest of mankind, not because he has been thrown upon the earth like a flaming meteor by a freak of nature, but because he soars heavenward like some strong and stately tree, nourished by thousands and thousands of roots—no solitary individual, but the living sum of untold souls striving for the same goal. He who has eyes to see at once detects Race in animals. It shows itself in the whole habit of the beast, and proclaims itself in a hundred peculiarities which defy analysis; nay more, it proves itself by achievements, for its possession invariably leads to something excessive and out of the common—even to that which is

exaggerated and not free from bias. Goethe's dictum, "only that which is extravagant (*uberschwanglich*) makes greatness," is well known.* That is the very quality which a thoroughbred race reared from superior materials bestows upon its individual descendants—something "extravagant"—and, indeed, what we learn from every race-horse, every thoroughbred fox-terrier, every Cochin China fowl, is the very lesson which the history of mankind so eloquently teaches us! Is not the Greek in the fulness of his glory an unparalleled example of this "extravagance"? And do we not see this "extravagance" first make its appearance when immigration from the North has ceased, and the various strong breeds of men, isolated on the peninsula once for all, begin to fuse into a new race, brighter and more brilliant, where, as in Athens, the racial blood flows from many sources—simpler and more resisting where, as in Lacedæmon, even this mixture of blood had been barred out. Is the race not as it were extinguished, as soon as fate wrests the land from its proud exclusiveness and incorporates it in a greater whole?† Does not Rome teach us the same lesson? Has not in this case also a special mixture of blood produced an absolutely new race,‡ similar in qualities and capacities to no later one, endowed with exuberant power? And does not victory in this case effect what disaster did in that, but only much more quickly? Like a cataract the stream of strange blood overflowed the almost depopulated Rome and at once the Romans ceased to

* *Materialien zur Geschichte der Farbenlehre*, the part dealing with Newton's personality.

† It is well-known that it was but gradually extinguished, and that in spite of a political situation, which must assuredly have brought speedy destruction on everything Hellenic, had not race qualities here had a decisive influence. Till late in the Christian era Athens remained the centre of intellectual life for mankind; Alexandria was more talked of, the strong Semitic contingent saw to that; but any one who wished to study in earnest travelled to Athens, till Christian narrow-mindedness for ever closed the schools there in the year 529, and we learn that as late as this even the man of the people was distinguished in Athens "by the liveliness of his intellect, the correctness of his language and the sureness of his taste" (Gibbon, chap. xl.). There is in George Finlay's book, *Medieval Greece*, chap. i., a complete and very interesting and clear account of the gradual destruction of the Hellenic race by foreign immigration. One after the other colonies of Roman soldiers from all parts of the Empire, then Celts, Teutonic peoples, Slavonians, Bulgarians, Wallachians, Albanians, &c., had moved into the country and mixed with the original population. The Zaconians, who were numerous even in the fifteenth century, but have now almost died out, are said to be the only pure Hellenes.

‡ Cf. p. 109 note.

be. Would one small tribe from among all, the Semites have become a world-embracing power had it not made "purity of race" its inflexible fundamental law? In days when so much nonsense is talked concerning this question, let Disraeli teach us that the whole significance of Judaism lies in its purity of race, that this alone gives it power and duration, and just as it has outlived the people of antiquity, so, thanks to its knowledge of this law of nature, will it outlive the constantly mingling races of to-day.‡

What is the use of detailed scientific investigations as to whether there are distinguishable races? whether race has a worth? how this is possible? and so on. We turn the tables and say: it is evident that there are such races: it is a fact of direct experience that the quality of the race is of vital importance; your province is only to find out the how and the wherefore, not to deny the facts themselves in order to indulge your ignorance. One of the greatest ethnologists of the present day, Adolf Bastian, testifies that, "what we see in history is not a transformation, a passing of one race into another, but entirely new and perfect creations, which the ever-youthful productivity of nature sends forth from the invisible realm of Hades."* Whoever travels the short distance between Calais and Dover, feels almost as if he had reached a different planet, so great is the difference between the English and French, despite their many points of relationship. The observer can also see from this instance the value of purer "inbreeding." England is practically cut off by its insular position; the last (not very extensive) invasion took place 800 years ago; since then only a few thousands from the Netherlands, and later a few thousand Huguenots have crossed over (all of the same origin), and thus has been reared that race which at the present moment is unquestionably the strongest in Europe.†

‡ See the novels *Tancred* and *Coningsby*. In the latter Sidonia says: "Race is everything; there is no other truth. And every race must fall which carelessly suffers its blood to become mixed."

* *Das Beständige in den Menschenrassen und die Spielweite ihrer Veranderlichkeit*, 1868, p. 26.

† Mention should also be made of Japan, where likewise a felicitous crossing and afterwards insular isolation have contributed to the production of a very remarkable race, much stronger and (within the Mongoloid sphere of possibility) much more profoundly endowed than most Europeans imagine. Perhaps the only books in which one gets to know the Japanese soul are those of Lafcadio Hearn: *Kokoro*, *Hints and Echoes of Japanese Inner Life*; *Gleanings in Buddha Fields*, and others.

Direct experience, however, offers us a series of quite different observations on race, all of which may gradually contribute to the extension of our knowledge as well as to its definiteness. In contrast to the new, growing, Anglo-Saxon race, look, for instance, at the Sephardim, the so-called "Spanish Jews"; here we find how a genuine race can by purity keep itself noble for centuries and tens of centuries, but at the same time how very necessary it is to distinguish between the nobly reared portions of a nation and the rest. In England, Holland and Italy there are still genuine Sephardim, but very few, since they can scarcely any longer avoid crossing with the Ashkenazim (the so-called "German-Jews"). Thus, for example, the Montefiores of the present generation have all without exception married German Jewesses. But every one who has travelled in the East of Europe, where the genuine Sephardim still as far as possible avoid all intercourse with German Jews, for whom they have an almost comical repugnance, will agree with me when I say that it is only when one sees these men and has intercourse with them that one begins to comprehend the significance of Judaism in the history of the world. This is nobility in the fullest sense of the word, genuine nobility of race! Beautiful figures, noble heads, dignity in speech and bearing. The type is Semitic in the same sense as that of certain noble Syrians and Arabs. That out of the midst of such people Prophets and Psalmists could arise—that I understood at the first glance, which I honestly confess that I had never succeeded in doing when I gazed, however carefully, on the many hundred young Jews—"Bochers"—of the Friedrichstrasse in Berlin. When we study the Sacred Books of the Jews we see further that the conversion of this monopolytheistic people to the ever sublime (though according to our ideas mechanical and materialistic) conception of a true cosmic monotheism was not the work of the community, but of a mere fraction of the people; indeed this minority had to wage a continuous warfare against the majority, and was compelled to enforce the acceptance of its more exalted view of life by means of the highest Power to which man is heir, the might of personality. As for the rest of the people, unless the Prophets were guilty of gross exaggeration, they convey the impression of a singularly vulgar crowd, devoid of every higher aim, the rich hard and unbelieving, the poor fickle and ever possessed by the longing to throw themselves into the arms of the wretchedest and filthiest idolatry. The course of

Jewish history has provided for a peculiar artificial selection of the morally higher section: by banishments, by continual withdrawals to the Diaspora—a result of the poverty and oppressed condition of the land—only the most faithful (of the better classes) remained behind, and these abhorred every marriage contract—even with Jews!—in which both parties could not show an absolutely pure descent from one of the tribes of Israel and prove their strict orthodoxy beyond all doubt.* There remained then no great choice; for the nearest neighbours, the Samaritans, were heterodox, and in the remoter parts of the land, except in the case of the Levites who kept apart, the population was to a large extent much mixed. In this way race was here produced. And when at last the final dispersion of the Jews came, all or almost all of these sole genuine Jews were taken to Spain. The shrewd Romans in fact knew well how to draw distinctions, and so they removed these dangerous fanatics, these proud men, whose very glance made the masses obey, from their Eastern home to the farthest West,† while, on the other hand, they did not disturb the Jewish people outside of the narrower Judea more than the Jews of the Diaspora. Here, again, we have a most interesting object-lesson on the origin and worth of “race”! For of all the men whom we are wont to characterise as Jews, relatively few are descended from these great genuine Hebrews, they are rather the descendants of the Jews of the Diaspora, Jews who did not take part in the last great struggles, who, indeed, to some extent did not even live through the Maccabean age; these and the poor country people who were left behind in Palestine, and who later in Christian ages were banished or fled, are the ancestors of “our Jews” of to-day. Now whoever wishes to see with his own eyes what noble race is, and what it is not, should send for the poorest of the Sephardim from Salonici or Sarajevo (great wealth is very rare among them, for they are men of stainless honour) and put him side by side with any Ashkenazim financier; then will he

* Natural children are not at all taken into the community by orthodox Jews. Among the Sephardim of East Europe to-day, a girl who is known to have gone wrong is immediately taken by the plenipotentiaries of the community to a strange land and provided for there; neither she nor her child can venture ever to let anything be heard of them, they are regarded as dead. Thus they provide against blind love introducing strange blood into the tribe

† See Graetz, as above, chap. ix., on *The Period of the Diaspora*.

perceive the difference between the nobility which race bestows and that conferred by a monarch.†

THE FIVE CARDINAL LAWS.

It would be easy to multiply examples. But I think that we now have all the material that is necessary for a systematic analysis of our knowledge regarding race, from which we may then derive the cardinal principles of a conscious and appropriate judgment. We are not reasoning from hypothetical conditions in the remote past to possible results, but arguing from sure facts back to their direct causes. The inequality of gifts even in what are manifestly related races is evident; it is, moreover, equally evident to every one who observes more closely that here and there, for a shorter or a longer time, one tribe does not only distinguish itself from the others, but is easily pre-eminent among them because there is something beyond the common in its gifts and capabilities. That this is due to racial breeding I have tried to illustrate graphically by the preceding examples. The results deducible from these examples (and they can be multiplied to any extent) enable us to affirm that the origin of such noble races is dependent upon five natural laws.

(1) The first and fundamental condition is undoubtedly the presence of excellent material. Where there is nothing, the king has no rights. But if I am asked, Whence comes this materials? I must answer, I know not. I am as ignorant in this matter as if I were the greatest of all scholars and I refer the questioner to the words of the great world-seer of the nineteenth century, Goethe, "What no longer originates, we cannot conceive as originating. What has originated we do not comprehend." As far back as our glance can reach, we see human beings, we see that they differ essentially in their gifts and that some show more vigorous powers of growth than others. Only one thing can be asserted without leaving the basis of historical observation; a high state of excellence is only attained gradually and under particular circumstances,

† The Goths, who in a later age went over to Mohammedanism in great crowds, and became its noblest and most fanatical protagonists, are said to have at an earlier period adopted Judaism in great numbers, and a learned specialist of Vienna University assures me that the moral and intellectual as well as the physical superiority of the so-called "Spanish" and "Portuguese" Jews is to be explained rather by this rich influx of Teutonic blood than by that breeding which I have singled out to emphasise, and the importance of which he too would not incline to underestimate. Whether this view is justifiable or not may remain an open question.

it is only forced activity that can bring it about; under other circumstances it may completely degenerate. The struggle which means destruction for the fundamentally weak race steels the strong; the same struggle, moreover, by eliminating the weaker elements, tends still further to strengthen the strong. Around the childhood of great races, as we observe, even in the case of the metaphysical Indians, the storm of war always rages.

(2) But the presence of excellent human material is not enough to give birth to the "extravagant"; such races as the Greeks, the Romans, the Franks, the Swabians, the Italians and Spaniards in the period of their splendour, the Moors, the English, such abnormal phenomena as the Aryan Indians and the Jews only spring from continued inbreeding. They arise and they pass away before our eyes. Inbreeding means the producing of descendants exclusively in the circle of the related tribesmen, with the avoidance of all foreign mixture of blood. Of this I have already given striking examples.

(3) But inbreeding *pur et simple* does not suffice; along with it there must be selection, or, as the specialists say, "artificial selection." We understand this law best when we study the principles of artificial breeding in the animal and vegetable worlds; I should recommend every one to do so, for there are few things which so enrich our conceptions of the plastic possibilities of life.* When one has come to understand what miracles are performed by selection, how a racehorse or a Dachshund or a choice chrysanthemum is gradually produced by the careful elimination of everything that is of indifferent quality, one will recognise that the same phenomenon is found in the human race, although of course it can never be seen with the same clearness and definiteness as in the other spheres. I have already advanced the example of the Jews; the exposure of weak infants is another point and was in any case one of the most beneficial laws of the Greeks, Romans and Teutonic peoples; hard times, which only the strong man and the hardy woman can survive, have a similar effect.†

* The literature is very great: for simplicity, comprehensibility and many-sidedness I recommend to every layman especially Darwin's *Animals and Plants under Domestication*. In the *Origin of Species* the same subject is treated rather briefly and with too much bias.

† Jhering demonstrates with particular clearness that the epoch of the migrations, which lasted for many centuries, necessarily had upon the Teutonic peoples the effect of an ever more and more ennobling artificial selection (*Vorgeschichte*, p. 462 f.).

(4) There is another fundamental law hitherto little heeded, which seems to me quite clear from history, just as it is a fact of experience in the breeding of animals: the origin of extraordinary races is, without exception, preceded by a mixture of blood. As that acute thinker, Emerson, says, "we are piqued with pure descent, but nature loves inoculation." Of the Aryan Indians of course we can say nothing as regards this, their previous history being hidden in the misty distance of time; on the other hand, with regard to the Jews, Hellenes and Romans the facts are perfectly clear, and they are no less so in regard to all the nations of Europe which have distinguished themselves by their national achievements and by the production of a great number of individuals of "extravagant" endowments. With regard to the Jews I refer the reader to the following chapter, as regards the Hellenes, Romans and English I have often pointed to this fact;‡ nevertheless, I would urge the reader not to grudge the labour of carefully reading in Curtius and Mommsen those chapters at the beginning which, on account of the many names and the confusion of detail, are usually rather glanced through than studied. There has never been so thorough and successful a mixture as in Greece; with the old common stock as basis there have gradually sprung up in the valleys, separated by mountains or seas, characteristically different tribes, composed here of huntsmen, there of peaceful farmers, in other parts of seafarers, &c.; among these differentiated elements we find a mixing and crossing, so fine that a human brain selecting artificially could not have reasoned the matter out more perfectly. In the first place we have migrations from East to West, later from West to East over the Aegean Sea; in the meantime, however, the tribes of the extreme North (in the first place the Dorians) advanced to the extreme South, forcing many of the noblest who would not submit to bondage from the South to that North from which they themselves had just come, or over the sea to the islands and the Hellenic coast of Asia. But every one of these shiftings meant mixture of blood. Thus, for example, the Dorians did not all move to the Peloponnese, portions of them remained at every stopping-place in their slow wanderings and there fused with the former population. Indeed, these same original Dorians, whose special unity is such apparent characteristic, knew in the old times that they

‡ See especially pp. 109, 272, 286 and 293.

were composed of three different stems, one of which moreover was called "Pamphyle," that is, "the stem of people of various descent." The most exuberant talent showed itself where the crossing had been happiest—in New Ionia and in Attica. In New Ionia "Greeks came to Greeks, Ionians returned to their old home, but they came so transformed that from the new union of what was originally related, a thoroughly national development, much improved, rich, and in its results absolutely new, began in the old Ionian land." But most instructive is the history of the development of the Attic and particularly of the Athenian people. In Attica (just as in Arcadia, but nowhere else) the original Pelasgic population remained; it "was never driven out by the power of the stranger." But the coastland that belonged to the Archipelago invited immigration; and this came from every side; and while the alien Phoenicians only founded commercial stations on the neighbouring islands, the related Greeks pressed on into the interior from this side and that side of the sea, and gradually mingled with the former inhabitants. Now came the time of the already mentioned Dorian migrations and the great and lasting changes; Attica alone was spared; and thither fled many from all directions, from Boetia, Achæa, Messenia, Argos and Aegina, &c.; but these new immigrants did not represent whole populations; in the great majority of cases they were chosen men, men of illustrious, often of royal birth. By their influx the one small land became exceptionally rich in genuine, pure nobility. Then and then only, that is, after a varied crossing arose that Athens to which humanity owes a greater debt than could ever be reckoned up.*—The least reflection will show that the same law holds good in the case of Germans, French, Italians and Spaniards. The individual Teutonic tribes, for example, are like purely brutal forces of nature, till they begin to mingle with one another; consider how Burgundy, which is rich in great men, owes its peculiar population to a thorough crossing of the Teutonic and the Romance elements, and develops its characteristic individuality

* See Curtius: *Griechische Geschichte*, i. 4, and ii. 1 and 2. Count Gobineau asserts that the extraordinary intellectual and above all artistic talent of the Greeks is to be explained by an infiltration of Semitic blood; this shows to what senseless views one is forced by fundamental hypotheses which are false, artificial and contrary to history and natural observation.

by long-continued political isolation; † the Franks grow to their full strength and give the world a new type of humanity where they mingle with the Teutonic tribes who preceded them and with Gallo-Romans, or where they, as in Franconia, form the exact point of union of the most diverse German and Slavonic elements; Swabia, the home of Mozart and Schiller, is inhabited by a half-Celtic race; Saxony, which has given Germany so many of its greatest men, contains a population quickened almost throughout by a mixture of Slavonic blood; and has not Europe seen within the last three centuries how a nation of recent origin—Prussia—in which the mixture of blood was still more thorough, has raised itself by its pre-eminent power to become the leader of the whole German Empire?—It cannot of course be my task to give a detailed proof of what is here simply pointed out; but as I am advocating especially the great importance of purely-bred races, I desire particularly to emphasise the necessity, or at least the advantage, of mixture of blood and that not merely to meet the objection of one-sidedness and bias *a priori*, but because it is my conviction that the advocates of this theory have injured it very much by disregarding the important law of crossing. They get then to the mystical conception of a race pure in itself, which is an airy abstraction that retards instead of furthering. Neither history nor experimental biology has anything to say for such a view. The race of English thoroughbreds has been produced by the crossing of Arabian stallions with ordinary, but of course specially chosen, English mares, followed by inbreeding, yet in such a way that later crossing between varieties not far removed, or even with Arabians, is advisable from time to time; one of the noblest creatures that nature possesses, the so-called “genuine” Newfoundland dog, originated from the crossing of the Eskimo dog and a French hound; in consequence of the isolated position of Newfoundland, it became by constant inbreeding fixed and “pure,” it was then brought to Europe by fanciers and raised to the highest

† This thorough crossing was caused by the fact that the Burgundians settled individually over the whole land and each of them became the “hostes” of a former inhabitant, of whose cultivated land he received two-thirds, and of his buildings and garden a half, while woods and pastures remained common property. Now though there might not be much sympathy between the new-comer and the old possessor, yet they lived side by side and were solidly united in disputes about boundaries and such-like questions of property; thus crossing could not be long deferred. (*Cf. especially Savigny, Geschichte des römischen Rechts im Mittelalter, chap. v. div. 1.*)

perfection by artificial selection—Many of my readers may be amused at my constant references to the breeding of animals. But it is certain that the laws of life are great simple laws, embracing and moulding everything that lives; we have no reason to look upon the human race as an exception; and as we are unfortunately not in a position to make experiments in this matter with human beings we must seek counsel from the experiments made with plants and animals. But I cannot close my discussion of the fourth law without emphasising another side of this law of crossing; continued in-breeding within a narrow circle, what one might call “close breeding,” leads in time to degeneration and particularly to sterility. Countless experiences in animal breeding prove that. Sometimes in such a case a single crossing, applied; for example, only to single members of a pack of hounds, will suffice to strengthen the weakened race and restore its productivity. In the case of men the attraction of Passion provides sufficiently for this quickening, so that it is only in the highest circles of the nobility and in some royal houses that we observe increasing mental and physical degeneration in consequence of “close breeding.”*

The slightest increase of remoteness in the degree of relationship of those marrying (even within the strict limits of the same type) suffices to give all the great advantages of inbreeding and to prevent its disadvantages. Surely it is manifest that here we have the revelation of a mysterious Law of Life, a Law of Life so urgent that in the vegetable kingdom—where fructification within one and the same blossom seems at the first glance the natural and unavoidable thing—there are in most cases the most complicated arrangements to hinder this and at the same time to see that the pollen, when not borne by the wind, is carried by insects from the one individual flower to the other. When we perceive what is so evidently a fundamental law of nature, we are led to suppose that it is not by mere chance that pre-eminent races have sprung from an original fusing of different stems, such as we have observed in history; the historical facts rather provide still further proof for the

* In this connection too we have the well-known evil results of marriage between near relatives: the organs of sense (in fact the whole nervous system) and the sexual organs suffer most frequently from this. (See George H. Darwin's lectures, *Die Ehen zwischen Geschwisterkindern und ihre Folgen*, Leipzig, 1876.).

view that mixture of blood supplies particularly favourable physiological conditions for the origin of noble races.*

(5) A fifth law must also be mentioned, although it is restrictive and explanatory rather than contributive of any new element to the question of race. Only quite definite, limited mixtures of blood contribute towards the ennoblement of a race, or, it may be the origin of a new one. Here again the clearest and least ambiguous examples are furnished by animal breeding. The mixture of blood must be strictly limited as regards time, and it must, in addition, be appropriate; not all and any crossings, but only definite ones can form the basis of ennoblement. By time-limitation I mean that the influx of new blood must take place as quickly as possible and then cease; continual crossing ruins the strongest race. To take an extreme example, the most famous pack of greyhounds in England was crossed once only with bulldogs, whereby it gained in courage and endurance, but further experiments prove that when such a crossing is continued, the characters of both races disappear and quite characterless mongrels remain behind.† *Crossing obliterates characters.* The limitation to definitely appropriate crossings means that only certain crossings, not all, enoble. There are crossings which, far from having an ennobling influence, ruin both races, and moreover, it frequently happens that the definite, valuable characters of two different types cannot fuse at all; in the latter case some of the descendants take after the one parent, others after the other, but naturally with mingled characteristics, or again, genuine real mongrels may appear, creatures whose bodies give the impression of being screwed together from parts that do not fit, and whose intellectual qualities correspond exactly to the physical.‡ Here too it should be remarked that the union of mongrel with mongrel brings about with startling rapidity the total destruction of all and every pre-eminent quality of race. It is therefore an entirely mistaken idea that mixture of blood between different stems invariably ennobles the race, and adds new qualities to the old. It does so only with the strictest limitations and under rare and definite conditions;

* For this question of the mixture of blood indispensable to the origin of pre-eminently gifted races Reibmayr's book, *Inzucht und Vermischung beim Menschen*, 1897, should be consulted.

† Darwin, *Animals and Plants*, chap. xv.

‡ For this too there are numerous examples in Darwin. As regards dogs in particular, examples will occur to every one.

as a rule mixture of blood leads to degeneration. One thing is perfectly clear; that the crossing of two very different types contributes to the formation of a noble race only when it takes place very seldom and is followed by strict inbreeding (as in the case of the English thoroughbred and the Newfoundland dog); in all other cases crossing is a success only when it takes place between those closely related, *i.e.*, between those that belong to the same fundamental type.—Here too no one who knows the detailed results of animal breeding can doubt that the history of mankind before us and around us obeys the same law. Naturally, it does not appear with the same clearness in the one case as in the other; we are not in a position to shut in a number of human beings and make experiments with them for several generations; moreover, while the horse excels in swiftness, the dog in remarkable and plastic flexibility of body, man excels in mind; here all his vigour is concentrated, here too, therefore, is concentrated all his variability, and it is just these differences in character and intelligence that are not visible to the eye.* But history has carried out experiments on a large scale, and every one whose eye is not blinded by details, but has learned to survey great complexes, every one who studies the soul-life of nations, will discover any amount of proofs of the law here mentioned. While, for example, the “extravagantly” gifted Attics and the uniquely shrewd and strong Roman race are produced by the fusion of several stems, they are nevertheless nearly related and noble, pure stems, and these elements are then, by the formation of States, isolated for centuries, so that they have time to amalgamate into a new solid unity; when, on the other hand, these States are thrown open to every stranger, the race is ruined, in Athens slowly, because owing to the political situation there was not much to get there, and the mixing in consequence only took place gradually and then for the most part with Indo-European peoples, † in Rome with frightful

* We must, however, not overlook the fact that, if we could make experiments in breeding with men, very great differences in physique also could certainly be achieved in regard to size, hair, proportions, &c. Place a dwarf from the primeval forest of the Middle Congo, little more than 3 feet high, the whole body covered with hair, beside a Prussian Grenadier of the Guards; one will see what plastic possibilities slumber in the human body.—As far as the dog is concerned, we must remember also that the various breeds “certainly originate from more than one wild species” (Claus, *Zoologie*, 4th edit. ii. 458); hence its almost alarming polymorphism.

† It is very instructive to observe, on the other hand, that the Hellenes in Ionia, who were subject to every kind of mongrel crossing, disappeared much more quickly.

rapidity, after Marius and Sulla had, by murdering the flower of the genuine Roman youth, dammed the source of noble blood and at the same time, by the freeing of slaves, brought into the nation perfect floods of African and Asiatic blood, thus transforming Rome into the *cloaca gentium*, the trysting-place of all the mongrels of the world.* We observe the same on all sides. We see the English race arising out of a mutual fusion of separated but closely related Teutonic tribes; the Norman invasion provides in this case the last brilliant touch; on the other hand, geographical and historical conditions have so wrought that the somewhat more distantly related Celts remained by themselves, and even to-day only gradually mingle with the ruling race. How manifestly stimulating and refreshing even to the present day, is the influence of the immigration of French Huguenots into Berlin! They were alien enough to enrich the life there with new elements and related enough to produce with their Prussian hosts not "mongrels that seem screwed together" but men of strong character and rare gifts. To see the opposite, we need only look over to South America. Where is there a more pitiful sight than that of the mestizo States there? The so-called savages of Central Australia lead a much more harmonious, dignified and, let us say, more "holy" life than these unhappy Peruvians, Paraguayans, etc., mongrels from two and often more than two incongruous races, from two cultures with nothing in common, from two stages of development, too different in age and form to be able to form a marriage union—children of an unnatural incest. Any one who earnestly desires to know what race signifies can learn much from the example of these States; let him but consult the statistics, he will find the most different relations between the pure European or pure Indian population and the half-caste, and he will see that relative degeneration goes exactly hand in hand with the mixture of blood. I take the two extreme examples, Chile and Peru. In Chile, the only one of these States† that can make a modest claim to true culture and that can also point to comparatively well-ordered political conditions, about 30 per cent. of the inhabitants are still

* Long before me Gibbon had recognised the physical degeneration of the Roman race as the cause of the decline of the Roman Empire; now that is more fully demonstrated by O. Seeck in his *Geschichte der Unterganges der antiken Welt*. It was only the immigration of the vigorous Teutonic peoples that kept the chaotic empire artificially alive for a few centuries longer.

† In Portuguese Brazil the conditions are essentially different.

of pure Spanish origin, and this third is sufficient to check moral disintegration.‡ On the other hand, in Peru, which, as is well known, gave the first example to the other republics of a total moral and material bankruptcy, there are almost no Europeans of pure race left; with the exception of the still uncivilised Indians in the interior the whole population consists of Cholos, Musties, Fusties, Tercerones, Quarterones, &c., crossings between Indians and Spaniards, between Indians and Negroes, Spaniards and Negroes, further between the different races and those mestizos or crosses of the mestizo species among each other; in recent years many thousands of Chinese have been added . . . here we see the promiscuity longed for by Ratzel and Virchow in progress, and we observe what the result is! Of course it is an extreme example, but all the more instructive. If the enormous force of surrounding civilisation did not artificially support such a State on all sides, if by any chance it were isolated and left to itself, it would in a short time fall a prey to total barbarism—not human, but bestial barbarism. All these States are moving towards a similar fate.* Here too I leave it to the reader to think over the matter and to collect evidence with regard to this fifth law, which shows us that every crossing is a dangerous matter and can only help to ennoble the race when definite conditions are observed, as also that many possible crossings are absolutely detrimental and destructive; once the eyes of the reader are opened, he will find everywhere both in the past and in the present proofs of this law as well as of the other four.†

These then are the five principles which seem to me to be fundamental: the quality of the material, inbreeding, artificial selection, the necessity of crossings, the necessity of strictly limit-

‡ According to Albrecht Wirth, *Volkstum und Weltmacht in der Geschichte*, 1901, p. 159, the Chilians also derive advantage from the fact that their Indians—the Araucani—are of particularly noble race.

* As is well known, very similar conditions prevail in the Spanish colonies. The island of Porto Rico forms the sole exception; here the native Caribbees were exterminated, and the result is a pure Indo-European population, distinguished for industry, shrewdness and love of order: a striking example of the significance of race!

† In his book *Altersklassen und Mannerkunde* (p. 23), Heinrich Schurtz comes to the conclusion that, "Successful crossings are possible and advantageous only within a certain sphere of relationship. If the relationship is too close, really near blood-relationship, sickly tendencies are not counterbalanced but increased; if it is too remote, no felicitous mixing of the qualities is possible."

ing these crossings both in respect of choice and of time. From these principles we further deduce the conclusion that the origin of a very noble human race depends among other things upon definite historical and geographical conditions; it is these that unconsciously bring about the ennobling of the original material, the inbreeding and the artificial selection, it is these too—when a happy star shines over the birth-place of a new people—that produce happy tribal marriages and prevent the prostitution of the noble in the arms of the ignoble. The fact that there was a time in the nineteenth century when learned investigators, with Buckle at their head, could assert that geographical conditions produced the races, we may now appropriately mention with the scant honour of a *paraleipsis*; for that doctrine is a blow in the face of all history and all observation. On the other hand, every single one of the laws enumerated, and in addition the examples of Rome, Greece, England, Judea and South America in particular, let us see so clearly in how far the historical and geographical conditions not only contribute to the origin and the decline of a race but are actually decisive factors therein, that I can refrain from further discussion of the matter.*

OTHER INFLUENCES.

Is the question of race now exhausted? Far from it! These biological problems are remarkably complex. They embrace, for example, the still so mysterious subject of heredity, in regard to the fundamental principles of which the most important specialists are more at variance every day.† Besides, many other circumstances which profounder study reveals would have to be taken into account. Nature is in fact inexhaustible; however deep we sink the plummet, we never reach the bottom. Whoever would make a study of these matters must not, for example, overlook the

* If, for example, the climate of Attica had been the decisive thing, as is often asserted, it would be impossible to understand why the genius of its inhabitants was produced only under certain racial conditions and disappeared for ever with the removal of these conditions; on the other hand, the importance of the geographical and historical conditions becomes quite clear, when we observe that they isolated Attica for centuries from the ceaseless changes brought about by the migrations, but at the same time contributed to the influx of a select, noble population from different but related tribes, which mingled to form a new race.

† The reader will find an interesting summary of the different opinions of modern times in Friedrich Rohde's *Entstehung und Vererbung individueller Eigenschaften*, 1895.

fact that small numbers of foreign elements are wont in a short time to be entirely absorbed by a strong race, but that there is, as the chemists say, a definite capacity, a definite power of absorption, beyond which a loss of the purity of the blood, revealed by the diminution of the characteristic qualities, is involved. We have an instance of this in Italy, where the proudly passionate and brilliant families of strong Teutons, who had kept their blood pure till the fourteenth century, later gradually mingled with absolutely mongrel Italians and Italiots and so entirely disappeared (*see* chaps. vi. and ix.): *crossing obliterates characters*. The careful observer will further notice that in crossings between human stems, which are not closely related, the relative generative power is a factor which can prevail after centuries and gradually bring about the decline of the nobler portion of a mixed people, because in fact this generative power often stands in inverse relation to the nobility of the race.* In Europe at the present day we have an example of this; the short round skulls are constantly increasing in

* Professor August Forel, the well-known psychiatrist, has made interesting studies in the United States and the West Indian islands, on the victory of intellectually inferior races over higher ones because of their greater virility. "Though the brain of the negro is weaker than that of the white, yet his generative power and the predominance of his qualities in the descendants are all greater than those of the whites. The white race isolates itself (therefore) from them more and more strictly, not only in sexual but in all relations, because it has at last recognised that crossing means its own destruction." Forel shows by numerous examples how impossible it is for the negro to assimilate our civilisation more than skin-deep, and how so soon as he is left to himself he everywhere degenerates into the "most absolute primitive African savagery." (For more detail on this subject, *see* the interesting book of Hesketh Pritchard, *Where Black rules White*, Hayti, 1900; any one who has been reared on phrases of the equality of mankind, &c., will shudder when he learns how matters really stand so soon as the blacks in a State get the upper hand.) And Forel, who as scientist is educated in the dogma of the one, everywhere equal, humanity, comes to the conclusion: "Even for their own good the blacks must be treated as what they are, an absolutely subordinate, inferior, lower type of men, incapable themselves of culture. That must once for all be clearly and openly stated." (*See* the account of his journey in Harden's *Zukunft*, February, 17, 1900.)—For this question of race-crossings and the constant victory of the inferior race over the superior, *see also* the work of Ferdinand Hueppe, which is equally rich in facts and perceptions, *Über die modernen Kolonisations-bestrebungen und die Anpassungsmöglichkeit der Europaer an die Tropen* (Berliner klinische Wochenschrift, 1901). In Australia, for example, a process of sifting is quietly but very quickly going on, whereby the tall fair Teuton—so strongly represented in the English blood—is disappearing, while the added element of the *homo alpinus* is gaining the upper hand.

numbers and so gradually superseding the narrow "dolichocephali," of which, according to the unanimous testimony of excavated tombs, almost the whole of the genuine old Teutonic, Slavonic and Celtic races consisted; in this we see the growing predominance of an alien race which had been conquered by the Indo-Teutonic (to-day it is mostly called "Turanic"), and which by animal force gradually overpowers the mentally superior race.† In this connection too perhaps should be mentioned the peculiar fact that dark eyes are becoming so much more prevalent than grey and blue, because in marriages between people with differently coloured eyes the dark are almost without exception much more frequently represented in the descendants than the light.*

If I were minded to follow up this argument it would land us in one of the thorniest branches of modern science. This, however, is absolutely unnecessary for my purpose. Without troubling myself about any definition, I have given a picture of Race as it is exhibited in the individual character, in the mighty achievements of genius, in the most brilliant pages of the history of man; in the next place I have called attention to the most important conditions which scientific observation has pointed out as laying the foundation for the origin of noble races. That the introduction of contrary conditions must be followed by degeneration, or at any rate by the retarding of the development of noble qualities, seems to be in the highest degree probable, and might be proved in many ways by reference both to the past and the present. I have purposely exercised caution and self-restraint. In such labyrinthine tangles the narrowest path is the safest. The only task which I have proposed to myself has been to call into being a really vivid representation of what Race is, of what it has meant for mankind in the past and still means in the present.

† There is a clear and simple summary in Johannes Ranke, *Der Mensch*, ii. 296 ff. The discussion of all these questions in Topinard's *L'Anthropologie*, Part II., is more thorough, but for that reason much more difficult to follow. It is remarkable that the latter only uses the word "race" to denote a hypothetical entity, the actual existence of which at any time cannot be proved. *Il n'y a plus de races pures*. Who seeks to prove that there ever were any in this *a priori* sense of anthropological pre-suppositions? Pure animal races are obtained only by breeding and on the fundamental basis of crossing; why should the opposite hold of men?—Besides, this whole "Turanic" hypothesis is, like all these things, still very much of an airy abstraction. See further details in chap. vi.

* Alphonse de Candolle: *Histoire des Sciences et des Savants depuis deux Siècles*, 2e ed., p. 576.

THE NATION.

There is one point which I have not expressly formulated, but it is self-evident from all that I have said; the conception of Race has nothing in it unless we take it in the narrowest and not in the widest sense; if we follow the usual custom and use the word to denote far remote hypothetical races, it ends by becoming little more than a colourless synonym for "mankind"—possibly including the long-tailed and short-tailed apes; Race only has a meaning when it relates to the experiences of the past and the events of the present.

Here we begin to understand what nation signifies for race. It is almost always the nation, as a political structure, that creates the conditions for the formation of race or at least leads to the highest and most individual activities of race. Wherever, as in India, nations are not formed, the stock of strength that has been gathered by race decays. But the confusion which prevails with regard to the idea of race hinders even the most learned from understanding this great significance of nations, whereby they are at the same time prevented from understanding the fundamental facts of history. For, in fact, what is it that our historians to-day teach us concerning the relation of race to nation?

I take up any book by chance—Renan's discourse, *What is a Nation?* In hundreds of others we find the same doctrines. The thesis is clearly formulated by Renan: "The fact of race," he writes, "originally of decisive importance, loses significance every day."* On what does he base this assertion? By pointing to the fact that the most capable nations of Europe are of mixed blood. What a mass of delusive conclusions this one sentence contains, what incapacity to be taught by what is evident to the eye! Nature and history do not furnish a single example of pre-eminently noble races with individual physiognomies, which were not produced by crossing; and now we are to believe that a nation of such distinct individuality as the English does not represent a race, because it originated from a mixture of Anglo-Saxon, Danish and Norman blood (stems moreover that were closely related)! I am to deny the clearest evidence which shows me that the Englishman is at least as markedly unique a being as the Greek and the Roman of the most brilliant epochs, and that in favour of an

* Renan: *Discours et Conférences* 3e ed., p. 297, "Le fait de la race, capital à l'origine, va donc toujours perdant de son importance."

arbitrary, eternally, indemonstrable abstraction, in favour of the presupposed, original "pure race." Two pages before, Renan himself had stated on the basis of anthropological discoveries that among the oldest Aryans, Semites, Turanians (*les groupes aryens primitif, semitique primitif, touranien primitif*) one finds men of very different build of body, some with long, others with short skulls, so that they too had possessed no common "physiological unity." What delusions will not arise, as soon as man seeks for supposed "origins"! Again and again I must quote Goethe's great remark: "Animated inquiry into cause does infinite harm." Instead of taking the given fact, the discoverable as it is, and contenting ourselves with the knowledge of the nearest, demonstrable conditions, we ever and again fancy we must start from absolutely hypothetical causes and suppositions lying as far back as possible, and to these we sacrifice without hesitation that which is present and beyond doubt. That is what our "empiricists" are like. That they do not see further than their own noses, we gladly believe from their own confession, but unfortunately they do not see even so far, but run up against solid facts and complain then about the said facts, not about their own shortsightedness. What kind of thing is this originally "physiologically uniform race" of which Renan speaks? Probably a near relation of Haeckel's human apes. And in favour of this hypothetical beast I am to deny that the English people, the Prussians, the Spaniards have a definite and absolutely individual character! Renan misses physiological unity; does he not comprehend that physiological unity is brought about by marriage? Who then tells him that the hypothetical aboriginal Aryans were not also the result of gradual development? We know nothing about it: but what we do know entitles us to suppose it from analogy. There were among them narrow heads and broad ones; who knows but this crossing was necessary to produce one very noble race? The common English horse and the Arabian horse (which doubtless was produced originally by some crossing) were also "physiologically" very different, and yet from their union was produced in the course of time the most physiologically uniform and noblest race of animals in the world, the English thoroughbred. Now the great scholar Renan sees the English human thoroughbred, so to speak, arising before his eyes: the ages of history are before him. What does he deduce therefrom? He says: since the Englishman of to-day is neither the Celt of Cæsar's time nor the Anglo-Saxon of Hengist, nor the Dane of Knut, nor the Norman of the Conqueror, but the

outcome of a crossing of all four, one cannot speak of an English race at all. That is to say because the English race, like every other race of which we have any knowledge, has grown historically, because it is something peculiar and absolutely new, therefore it does not exist! In truth, nothing beats the logic of the scholar!

Was ihr nicht rechnet

Glaubt ihr, sei nicht wahr.*

Our opinion concerning the importance of nationality in the formation of race must be quite different. The Roman Empire in the imperial period was the materialisation of the anti-national principle; this principle led to racelessness and simultaneously to intellectual and moral chaos; mankind was only rescued from this chaos by the more and more decisive development of the opposite or national principle.† Political nationality has not always played the same *role* in the production of individual races as it has in our modern culture; I need only refer to India, Greece and the Israelites; but the problem was nowhere solved so beautifully, successfully and as it appears so lastingly, as by the Teutonic peoples. As though conjured up out of the soil there arose in this small corner of Europe a number of absolutely new, differentiated national organisms. Renan is of opinion that race existed only in the old "polis," because it was only there that the numerical limitation had permitted community of blood; this is absolutely false; one need only reckon back a few centuries, and every one has a hundred thousand ancestors; what, therefore, in the narrow circle of Athens took place in a comparatively short time, namely, the physiological union, took place in our case in the course of several centuries and is still continued. Race formation, far from decreasing in our nations, must daily increase. The longer a definite group of countries remains politically united, the closer does the "physiological unity" which is demanded become, and the more quickly and thoroughly does it assimilate strange elements. Our anthropologists and historians simply presuppose that in their hypothetical primitive races the specific distinguishing characteristics were highly developed, but that they are now progressively decreasing; there is consequently, they aver, a movement from original complexity to increasing simplicity.

* What you do not reckon,
You fancy, is not true.

† This forms the subject of the eighth chapter (vol. ii).

This supposition is contrary to all experience, which rather teaches us that individualisation is a result of growing differentiation and separation. The whole science of biology contradicts the supposition that an organic creature first appears with clearly marked characteristics, which then gradually disappear; it actually forces us to the very opposite hypothesis that the early human race was a variable, comparatively colourless aggregate, from which the individual types have developed with increasing divergence and increasingly distinct individuality; a hypothesis which all history confirms. The sound and normal evolution of man is therefore not from race to racelessness but on the contrary from racelessness to ever clearer distinctness of race. The enrichment of life by new individualities seems everywhere to be one of the highest laws of inscrutable nature. Now, here in the case of man the nation plays a most important part, because it almost always brings about crossing, followed by inbreeding. All Europe proves this. Renan shows how many Slavs have united with the Teutonic peoples, and asks somewhat sneeringly whether we have any right to call the Germans of to-day "Teutonic"; well, we need not quarrel about names in such a case—what the Germans are to-day Renan has been able to learn in the year 1870; he has been taught it too by the German specialists, to whose industry he owes nine-tenths of his knowledge. That is the valuable result of the creation of race by nation-building. And since race is not a mere word, but an organic living thing, it follows as a matter of course that it never remains stationary; it is ennobled or it degenerates, it develops in this or that direction and lets this or that quality decay. This is a law of all individual life. But the firm national union is the surest protection against going astray; it signifies common memory, common hope, common intellectual nourishment; it fixes firmly the existing bond of blood and impels us to make it ever closer.

THE HERO.

Just as important as the clear comprehension of the organic relation of race to nation is that of the organic relation of race to its quintessence, the hero or genius. We are apt to fancy we must choose between hero-worship and the opposite. But the one as well as the other testifies to poverty of insight. What I have said in the general introduction need not be repeated; but here, where

the question of race is in the forefront, this problem takes a particularly clear form, and with some power of intuition we must surely perceive that the influence of intellectually pre-eminent units in a race, like the human, the individuality of which depends upon the development of its intellectual faculties, is immeasurable, for good and for evil; these units are the feet that carry and the hands that mould, they are the countenance on which we others gaze, they are the eye which beholds the rest of the world in a definite way and then communicates what it has seen to the rest of the organism. But they are produced by the whole corporation; they can arise only from its vital action, only in it and from it do they gain importance. What is the use of the hand if it does not grow out of a strong arm as part and parcel of it? What is the use of the eye if the radiant forms which it has seen are not reflected in a dark, almost amorphous brain mass lying behind it? Phenomena only gain significance when they are united to other phenomena. The richer the blood that courses invisibly through the veins, the more luxuriant will be the blossoms of life that spring forth. The assertion that Homer created Greece is indeed literally true, but remains onesided and misleading as long as we do not add: only an incomparable people, only a quite definite, ennobled race could produce this man, only a race in which the seeing and shaping eye had been "extravagantly" developed.* Without Homer Greece would not have become Greece, without the Hellenes Homer would never have been born. It was the same race which gave birth to the great seer of forms that produced the inventive seer of figures, Euclid, the lynx-eyed arranger of ideas, Aristotle, the man who first perceived the system of the cosmos, Aristarchus, and so on *ad infinitum*. Nature is not so simple as scholastic wisdom fancies: if great personality is our "most precious gift," communal greatness is the only soil on which it can grow. It is the whole race, for instance, that creates the language, and therewith at the same time definite artistic, philosophical, religious, in fact even practical possibilities, but also insuperable limitations. No philosopher could ever arise on Hebrew soil, because the spirit of the Hebrew language makes the interpretation of metaphysical thoughts absolutely impossible; for the same reason no Semitic

* Any one who wants to gain a vivid conception of the extraordinary strength of these races, capable of serving as basis for a Homer, should read the description of the strongholds of Tiryns and Mycenæ from the Atridean time, as they still stand to-day after tens of centuries.

people could possess a mythology in the same sense as the Indians and the Teutonic peoples. One sees what definite paths are marked out even for the greatest men by the common achievements of the whole race.† But it is not a question of language alone. Homer had to find the myths in existence in order to be able to mould them into shape; Shakespeare put upon the stage the history which the English people had made; Bach and Beethoven spring from races which had attracted the attention of the ancients by their singing. And Mohammed? Could he have made the Arabs a world-power had they not as one of the purest bred races in the world possessed definite "extravagant" qualities? But for the new Prussian race, could the Great Elector have begun, the Great Frederick have extended, and the Great William have completed the structure which is now United Germany?

THE RACELESS CHAOS.

The first task set us in this chapter is now fulfilled; we have got a clear concrete idea of what race is and what it signifies for mankind; we have seen too, from some examples of the present time, how fatal the absence of race, that is, the chaos of unindividualised, speciesless human agglomerates, is. Any one who perceives this and ponders over it will gradually realise what it signifies for our Teutonic culture that the inherited culture of antiquity, which at important points still not only forms the foundations but also the walls of the structure, was not transmitted to us by a definite people but by a nationless mixture without physiognomy, in which mongrels held the whip-hand, namely, by the racial chaos of the decaying Roman Empire. Our whole intellectual development is still under the curse of this unfortunate intermediate stage; it is this that supplied weapons to the anti-national, anti-racial powers even in the nineteenth century

Even before Julius Cæsar, the Chaos begins to appear; through Caracalla it is elevated to the official principle of the Roman Empire.* Throughout the whole extent of the Empire there was thorough mixing of blood, but in such a way that real bastardising, that is, the crossing of unrelated or of noble and ignoble races

† According to Renan (*Israel*, i. 102) the Hebrew language is utterly incapable of expressing a philosophical thought, a mythological conception, the feeling of the Infinite, the emotions of the human soul or even pure observation of nature."

* See p. 124.

occurred almost wholly in the most southern and eastern parts, where the Semites met the Indo-Europeans—that is to say, in the capitals Rome and Constantinople, along the whole north coast of Africa (as well as on the coasts of Spain and Gaul), above all in Egypt, Syria and Asia Minor.

It is as easy as it is important to form an idea of the area of this complicated geographical condition. The Danube and the Rhine almost meet at their source. The two river-districts fit so closely into each other that there is, it is said, in the neighbourhood of the Albula Pass a small lake, which when there is high water flows on the one side into the Albula and the Rhine, on the other into the Inn and the Danube. Now if we follow the courses of these rivers, up the Rhine from the mouth of the old Rhine near Leyden and down the Danube till it falls into the Black Sea, we get an unbroken line crossing the Continent from north-west to south-east; this, roughly speaking, forms the northern boundary of the Roman Empire for a long period of time; except in parts of Dacia (the Roumania of to-day) the Romans never asserted themselves for long north and east of this line.* This line divides Europe (if we include the African and Asian possessions of Rome) into two almost equal parts. In the south the great transfusion of blood (as the doctors call the injecting of strange blood into an organism) took place. If Maspero in his history of the peoples of the Classical East entitles one volume "The First Chaos of Races," then we may well speak here of a second chaos. In Britain, in Rhetia, in the extreme north of Gaul, &c., it seems indeed that in spite of the Roman sway there was no thorough fusion; in the rest of Gaul too, as well as in Spain, the newly imported elements from Rome had at least several centuries of comparative isolation to mingle with the former inhabitants before other elements came, a circumstance which rendered possible the formation of a new and very characteristic race, the Gallo-Roman. In the south-east, on the other hand, and especially in all centres of culture (which, as already pointed out, all lay in the south and the east), there was a medley all the more fundamentally pernicious in that those who came in streams from the Levant were themselves nothing but half-

* The Roman fortified boundary did indeed include a considerable portion north of the Danube and east of the Rhine, because the *limes* branched off westwards above Regensburg, came near Stuttgart, then north again till it met the Maine west of Wurzburg. But this titheland, as it was called, was not colonised by Italians, but, as Tacitus tells us, by "the most fickle of the Gauls" (*Cf. Wietersheim, Volkerwanderung, i. 161 ff.*).

power, it becomes our duty consciously to recognise and respect. This study of the Roman Chaos of Peoples teaches us that race, and nationality which renders possible the formation of race, possess a significance which is not only physical and intellectual but also moral. Here there is before us something which we can characterise as a sacred law, the sacred law in accordance with which we enter upon the rights and duties of manhood; a "law," since it is found everywhere in nature, "sacred," in so far as it is left to our free will to ennoble ourselves or to degenerate as we please. This law teaches us to look upon the physical constitution as the basis of all that ennobles. For what is the moral apart from the physical? What would a soul be without body? I do not know. If our breast conceals something that is immortal, if we men reach with our thoughts to something transcendent, which we, like the blind, touch with longing hands without ever being able to see it, if our heart is the battlefield between the finite and the infinite, then the constitution of this body—breast, brain, heart—must be of immeasurable consequence. "However the great dark background of things may in truth be constituted, the entrance to it is open to us only in this poor life of ours, and so even our ephemeral actions contain this earnest, deep, and inevitable significance," says Solon in the beautiful dialogue of Heinrich von Stein.* "Only in this life!" But wherewith do we live if not with our body? Indeed, we do not need to look forth into any world beyond (which will appear problematic to many people), as Solon does in the passage quoted; the entrance even to this earthly life is solely and only open to us through our body and this life will be for us poor or rich, ugly or beautiful, insipid or precious, according to the constitution of this our one, all-embracing organ of life. I have already shown from examples taken from methodical animal breeding and from human history how race arises and is gradually ennobled, also how it degenerates; what then is this race if not a collective term for a number of individual bodies? It is no arbitrary idea, no abstraction; these individualities are linked with one another by an invisible but absolutely real power resting upon material facts. Of course the race consists of individuals; but the individual himself can only attain to the full and noblest development of his qualities within definite conditions which are embraced in the word "race." This is based upon a simple law, but it points simultaneously in two

* *Helden und Welt: dramatische Bilder* (Chemnitz 1883).

directions. All organic nature, vegetable as well as animal, proves that the choice of the two parents is of decisive influence upon the individual that is born; but besides this it proves that the principle prevailing here is a collective and progressive one, because in the first place a common parent-stock must gradually be formed, from which then, similarly step by step, are produced individuals who are on an average superior to those outside such a union, and among these again numerous individuals with really transcendent qualities. That is a fact of nature, just in the same sense as any other, but here, as in all phenomena of life, we are far from being able to analyse and explain it. Now what must not be lost sight of in the case of the human race is the circumstance that the moral and intellectual qualities are of preponderating importance. That is why in men any want of organic racial consistency, or fitness in the parent-stock, means above all things a lack of all moral and intellectual coherence. The man who starts from nowhere reaches nowhere. The individual life is too short to be able to fix the eye on a goal and to reach it. The life of a whole people, too, would be too short if unity of race did not stamp it with a definite, limited character, if the transcendent splendour of many-sided and varying gifts were not concentrated by unity of stem, which permits a gradual ripening, a gradual development in definite directions, and finally enables the most gifted individual to live for a super-individual purpose.

Race, as it arises and maintains itself in space and time, might be compared to the so-called range of power of a magnet. If a magnet be brought near to a heap of iron filings, they assume definite directions, so that a figure is formed with a clearly marked centre, from which lines radiate in all directions; the nearer we bring the magnet the more distinct and more mathematical does the figure become; very few pieces have placed themselves in exactly the same direction, but all have united into a practical and at the same time ideal unity by the possession of a common centre, and by the fact that the relative position of each individual to all the others is not arbitrary but obedient to a fixed law. It has ceased to be a heap, it has become a form. In the same way a human race, a genuine nation, is distinguished from a mere congeries of men. The character of the race becoming more and more pronounced by pure breeding is like the approach of the magnet. The individual members of the nation may have ever so different qualities, the direction of their activities may be utterly

divergent, yet together they form a moulded unity, and the power—or let us say rather the importance—of every individual is multiplied a thousand-fold by his organic connection with countless others.

I have shown above how Lucian with all his gifts absolutely squandered his life; I have shown Augustine helplessly swaying to and fro like a pendulum between the loftiest thoughts and the crassest and silliest superstition: such men as these, cut off from all racial belongings, mongrels among mongrels, are in a position almost as unnatural as a hapless ant, carried and set down ten miles from its own nest. The ant, however, would suffer at least only through outward circumstances, but these men are by their own inner constitution barred from all genuine community of life.

The consideration of these facts teaches us that whatever may be our opinion as to the *causa finalis* of existence, man cannot fulfil his highest destiny as an isolated individual, as a mere exchangeable pawn, but only as a portion of an organic whole, as a member of a specific race.*

THE TEUTONIC PEOPLES.

There is no doubt about it! The raceless and nationless chaos of the late Roman Empire was a pernicious and fatal condition, a sin against nature. Only one ray of light shone over that degenerate world. It came from the north. *Ex septentrione Lux!* If we take up a map, the Europe of the fourth century certainly seems at the first glance to be more or less in a state of chaos even north of the Imperial boundary; we see quite a number of races established side by side, incessantly forcing their way in different directions; the Alemanni, the Marcomanni, the Saxons, the Franks, the Burgundians, the Goths, the Vandals, the Slavs, the Huns and many others. But it is only the political relations that are chaotic there; the nations are genuine, pure-bred races, men who carry with them their nobility as their only possession wherever destiny drives them. In one of the next chapters I shall have to speak of them. In the meantime I should like merely to warn those whose reading is less wide, against the idea that the "barbarians" suddenly "broke into" the highly civilised Roman Empire. This view, which is widespread among the superficially educated, is just

* "The individuals and the whole are identical," the Indian thinkers had taught (see Garbe's *Samkhya-Philosophie*, p. 158).

as little in accordance with the facts as the further view that the "night of the Middle Ages" came down upon men because of this inroad of the barbarians.

It is this historical lie which veils the annihilating influence of that nationless time, and which turns into a destroyer the deliverer, the slayer of the laidly worm. For centuries the Teutons had been forcing their way into the Roman Empire, and though they often came as foes, they ended by becoming the sole principle of life and of might. Their gradual penetration into the Imperium, their gradual rise to a decisive power had taken place little by little just as their gradual civilisation had done;* already in the fourth century one could count numerous colonies of soldiers from entirely different Teutonic tribes (Batavians, Franks, Suevians, etc.) in the whole European extent of the Roman Empire;† in Spain, in Gaul, in Italy in Thrace, indeed often even in Asia Minor, it is Teutons in the main that finally fight against Teutons. It was Teutonic peoples that so often heroically warded off the Asiatic peril from the Eastern Empire; it was Teutonic peoples that on the Catalaunian fields saved the Western Empire from being laid waste by the Huns. Early in the third century a bold Gothic shepherd had been already proclaimed Emperor. One need only look at the map of the end of the fifth century to see at once what a uniquely beneficent moulding power had here begun to assert itself. Very noteworthy too is the difference which reveals itself here in a hundred ways, between the innate decency, taste and intuition of rough but pure, noble races and the mental barbarism of civilised mestizos. Theodosius, his tools (the Christian fanatics) and his successors had done their best to destroy the monuments of art; on the other hand, the first care of Theodoric, the Eastern Goth, was to take strong measures for the protection and restoration of the Roman monuments. This man could not write, to sign his name he had to use a metal stencil, but the Beautiful, which the bastard souls in their "Culture," in their hunting after offices and distinctions, in their greed of gold had passed by unheeded, the Beautiful, which to the nobler souls among the Chaos of Peoples

* Hermann is a Roman cavalier, speaks Latin fluently and has thoroughly studied the Roman art of administration. So, too, most of the Teutonic princes. Their troops, too, were at home in the whole Roman empire and so acquainted with the customs of so-called civilised men, long before they immigrated with all their goods and chattels into these lands.

† See Gobineau: *Inequality of the Human Races*, Bk. VI. chap. iv.

was a hateful work of the devil, the Goth at once knew how to appreciate; the sculptures of Rome excited his admiration to such a degree that he appointed a special official to protect them. Religious toleration, too, appeared for a time wherever the still unspoiled Teuton became master. Soon also there came upon the scene the great Christian missionaries from the highlands of the north, men who convinced not by means of "pious lies" but by the purity of their hearts.

It is nothing but a false conception of the Middle Ages, in conjunction with ignorance as to the significance of race, which is responsible for the regrettable delusion that the entry upon the scene of the rough Teutons meant the falling of a pall of night over Europe. It is inconceivable that such hallucinations should be so long-lived. If we wish to know to what lengths the bastard culture of the Empire might have led, we must study the history, the science and the literature of the later Byzantium, a study to which our historians are devoting themselves to-day with a patience worthy of a better subject. It is a sorry spectacle. The capture of the Western Roman Empire by the Barbarians, on the contrary, works like the command of the Bible, "Let there be Light." It is admitted that its influence was mainly in the direction of politics rather than of civilisation; and a difficult task it was—one that is even now not wholly accomplished. But was it a small matter? Whence does Europe draw its physiognomy and its significance—whence its intellectual and moral preponderance, if not from the foundation and development of Nations? This work was in very truth the redemption from chaos. If we are something to-day—if we may hope perhaps some day to become something more—we owe it in the first instance to that political upheaval which, after long preparation, began in the fifth century, and from which were born in the fulness of time new noble races, new beautiful languages, and a new culture entitling us to nourish the keenest hopes for the future. Dietrich of Berne, the strong wise man, the unlearned friend of art and science, the tolerant representative of Freedom of Conscience in the midst of a world in which Christians were tearing one another to pieces like hyenas, was as it were a pledge that Day might once more break upon this poor earth. In the time of wild struggle that followed, during that fever by means of which alone European humanity could recover and awaken from the hideous dream of the degenerate curse-laden centuries of a chaos with a veneer of order to a fresh, healthy,

stormily pulsing national life—in such a time learning and art and the tinsel of a so-called civilisation might well be almost forgotten, but this, we may swear, did not mean Night, but the breaking of a new Day. It is hard to say what authority the scribblers have for honouring only their own weapons. Our European world is first and foremost the work not of philosophers and book-writers and painters, but of the great Teuton Princes, the work of warriors and statesmen. The progress of development—obviously the political development out of which our modern nations have sprung—is the one fundamental and decisive matter. We must not, however, overlook the fact that to these true and noble men we equally owe everything else that is worth possessing. Every one of those centuries, the seventh, the eighth, the ninth, produced great scholars; but the men who protected and encouraged them were the Princes. It is the fashion to say that it was the Church that was the saviour of science and of culture; that is only true in a restricted sense. As I shall show in the next division of the first part of this book, we must not look upon the Early Christian Church as a simple, uniform organism, not even within the limits of the Roman union in Western Europe; the centralisation and obedience to Rome which we have lived to see to-day, were in earlier centuries absolutely unknown. We must admit that almost all learning and art were the property of the Church; her cloisters and schools were the retreats and nurseries in which in those rough times peaceful intellectual work sought refuge; but the entry into the Church as monk or secular priest meant little more than being accepted into a privileged and specially protected class, which imposed upon the favoured individual hardly any return in the way of special duties. Until the thirteenth century every educated man, every teacher and student, every physician and professor of jurisprudence belonged to the clergy: but this was a matter of pure formality, founded exclusively upon certain legal conditions; and it was out of this very class, that is, out of the men who best knew the Church, that every revolution against her arose—it was the Universities that became the high-schools of national emancipation. The Princes protected the Church, the learned clerics on the contrary attacked her. That is the reason why the Church waged unceasing war against the great intellects which, that they might work in peace, had sought refuge with her; had she had her way, science and culture would never again have been fledged. But the same

Princes who protected the Church also protected the scholars whom she persecuted. No later than the ninth century there arose in the far north (out of the schools of England, which even in those early days were rich in important men) the great Scotus Erigena; the Church did all that she could to extinguish this brilliant light, but Charles the Bald, the same man who was supposed to have sent great tribute to the Pope of Rome, stretched his princely hand over Scotus; when this became insufficient, Alfred bade him to England where he raised the school of Oxford to a pinnacle of success, till he was stabbed to death by monks at the bidding of the central government of the Church. From the ninth century to the nineteenth, from the murder of Scotus to the issue of the Syllabus, it has been the same story. A final judgment shows the intellectual renaissance to be the work of Race in opposition to the universal Church which knows no Race, the work of the Teuton's thirst for knowledge, of the Teuton's national struggle for freedom. Great men in uninterrupted succession have arisen from the bosom of the Catholic Church; men to whom, as we must acknowledge, the peculiar catholic order of thought with its all-embracing greatness, its harmonious structure, its symbolical wealth and beauty has given birth, making them greater than they could have become without it; but the Church of Rome, purely as such, that is to say, as an organised secular theocracy, has always behaved as the daughter of the fallen Empire, as the last representative of the universal, anti-national Principle. Charlemagne by himself did more for the diffusion of education and knowledge than all the monks in the world. He caused a complete collection to be made of the national poetry of the Teutons. The Church destroyed it. I spoke a little while ago of Alfred. What Prince of the Church, what schoolman, ever did so much for the awakening of new intellectual powers, for the clearing up of living idioms, for the encouragement of national consciousness (so necessary at that time), as this one Prince? The most important recent historian of England has summed up the personality of this great Teuton in the one sentence: "Alfred was in truth an artist."* Where, in the Chaos of Peoples, was the man of whom the same could be said? In those so-called dark centuries the farther we travel northward, that is to say, the farther from the focus of a baleful "culture," and the purer the races with which we meet, the more activity do we find in the intellectual life. A

* Green: *History of the English People*, Bk. I. c. iii.

literature of the noblest character, side by side with a freedom and order worthy of the dignity of man, develops itself from the ninth to the thirteenth century in the far-away republic of Iceland; in the same way, in remote England, during the seventh, eighth and ninth centuries we find a true popular poetry flourishing as it seldom has done since.† The passionate love of music which then came to light touches us as though we heard the beating of the wings of a guardian angel sent down from heaven, an angel heralding the future. When we hear King Alfred taking part in the songs of his chosen choir—when a century later we see the passionate scholar and statesman Dunstan never, whether on horseback or in the Council Chamber, parted from his harp: then we call to mind the old Grecian legend that Harmonia was the daughter of Ares the God of War. Fighting, in lieu of a sham order, was what our wild ancestors brought with them, but at the same time they brought creative power instead of dreary barrenness. And as a matter of fact in all the more important Princes of that time we find a specially developed power of imagination: they were essentially fashioners. We should be perfectly justified were we to compare what Charlemagne was and did at the end of the eighth and beginning of the ninth centuries, with what Goethe did at the end of the eighteenth and beginning of the nineteenth centuries. Both rode a tilt against the Powers of Chaos, both were artists; both “avowed themselves as belonging to the race which out of darkness is striving to reach the light.”

No! and a thousand times no! The annihilation of that monstrosity, a State without a nation, of that empty form, of that soulless congeries of humanity, that union of mongrels bound together only by a community of taxes and superstitions, not by a common origin and a common heart-beat, of that crime against the race of mankind which we have summed up in the definition “Chaos of Peoples”—that does not mean the falling darkness of night, but the salvation of a great inheritance from unworthy hands, the dawn of a new day.

Yet even to this hour we have not succeeded in purging our blood of all the poisons of that Chaos. In wide domains the Chaos ended by retaining the upper hand. Wherever the Teuton had not a sufficient majority physically to dominate the rest of the inhabitants by assimilation, as, for instance, in the south, there

† Olive F. Emerson: *History of the English Language*, p. 54.

the chaotic element asserted itself more and more. We have but to look at our present position to see where power exists and where it is wanting, and how this depends upon the composition of races. I am not aware whether any one has already observed with what peculiar exactitude the modern boundary of the universal Church of Rome corresponds with what I have pointed out as the general boundary of the Roman Imperium, and consequently of the chaotic mongrelism. To the east I admit that the line does not hold good, because here in Servia, Bosnia, &c., the Slavonic invaders of the eighth century and the Bulgarians annihilated everything foreign; in few districts of modern Europe is Race so uncontaminated, and the pure Slavs have never accepted the Church of Rome. In other places too there have been encroachments on both sides of the old boundary-line, but these have been unimportant, and moreover easily explained by political relations. On the whole the agreement is sufficiently striking to give rise to serious thought: Spain, Italy, Gaul, the Rhenish provinces, and the countries south of the Danube! It is still morning, and the powers of darkness are ever stretching out their polypus arms, clinging to us with their powers of suction in a hundred places, and trying to drag us back into the Night out of which we were striving to escape. We can arrive at a judgment upon these apparently confused, but really transparent, conditions, not so much by poring over the details of chronicles, as by obtaining a clear insight into the fundamental historical facts which I have set out in this chapter.

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