

FRASER'S MAGAZINE

FOR

TOWN AND COUNTRY.

VOL. LXXVIII. SEPTEMBER 1868. No. CCCCLXV.

CONTENTS.

	PAGE
THE ALCOHOLIC CONTROVERSY	277
RECENT DEVELOPMENTS OF PROTESTANTISM.....	300
OATNESSIANA.—CAPTAIN ORD'S RETURN. CHAPTERS XIII. AND XIV.	313
SCHOOL AND UNIVERSITY SYSTEM IN SCOTLAND	333
ON THE FAILURE OF 'NATURAL SELECTION' IN THE CASE OF MAN.....	353
THE RELIGIOUS CREED AND OPINIONS OF THE CAUCASIAN CHAMPION OF THE CHURCH.....	363
THE MOON	375
GUSTAVUS III. OF SWEDEN AND THE COUNTER REVOLUTION...	391

LONDON:

LONGMANS, GREEN, AND CO.

1868.

ON THE FAILURE OF 'NATURAL SELECTION' IN THE CASE OF MAN.

EVERY ONE now is familiar with the Darwinian theory of the origin of species, at least in its main principles and outlines: and nearly all men qualified to form an opinion are convinced of its substantial truth. That theory explains how races of animals vary as ages roll on, so as to adapt themselves to the changing external conditions which those ages bring about. At every given moment, in every given spot on the earth's surface, a 'struggle for existence' is going on among all the forms of organic life, animal and vegetable, then and there alive; a struggle in which, as there is not room for all, the weaker and less adapted succumb, while the stronger and better adapted survive and multiply. As surrounding circumstances, climatic or geological, vary and are modified, corresponding variations (such as are always incidentally appearing among the offspring of all creatures) in the inhabitants of each district crop up, increase, spread, and become permanent. The creatures that are most in harmony with surrounding circumstances have a manifest daily and hourly advantage over those which are less in harmony: live when they die; flourish when they fade; endure through what kills others; can find food, catch prey, escape enemies, when their feebler, slower, blinder brethren, are starved and slain.¹ Thus the most perfect

¹ 'The grand feature in the multiplication of organic life is that of close general resemblance, combined with more or less individual variation. The child resembles its parents or ancestors more or less closely in all its peculiarities, deformities, or beauties; it resembles them in general more than it does any other individuals; yet children of the same parents are not all alike, and it often happens that they differ very considerably from their parents and from each other. This is equally true of man, of all animals, and of all plants. Moreover, it is found that individuals do not differ from their parents in certain particulars only, while in all others they are exact duplicates of them. They differ from them and from each other in every particular: in form, in size, in colour, in the structure of internal as well as of external organs; in those subtle peculiarities which produce differences of constitution, as well as in those still more subtle ones which lead to modifications of mind and character. In other words, in every possible way, in every organ and in every function, individuals of the same stock vary.

Now, health, strength, and long life are the results of a harmony between the individual and the universe that surrounds it. Let us suppose that at any given moment this harmony is perfect. A certain animal is exactly fitted to secure its prey, to escape from its enemies, to resist the inclemencies of the seasons, and to rear a numerous and healthy offspring. But a change now takes place. A series of cold winters, for instance, come on, making food scarce, and bringing an immigration of some other animals to compete with the former inhabitants of the district. The new immigrant is swift of foot, and surpasses its rivals in the pursuit of game; the winter nights are colder, and require a thicker fur as a protection, and more nourishing food to keep up the heat of the system. Our supposed perfect animal is no longer in harmony with its universe; it is in danger of dying of cold or of starvation. But the animal varies in its offspring. Some of these are swifter than others—they still manage to catch food enough; some are hardier and more thickly furred—they manage in the cold nights to keep warm enough; the slow, the weak, and the thinly clad soon die off. Again and again, in each succeeding generation, the same thing takes place. By this natural process, which is so inevitable that it cannot be conceived not to act, those best adapted to live, live; those least adapted, die. It is sometimes said that we have no direct evidence of the action of this selecting power in nature. But it seems to me we have better evidence than even direct observation would be, because it is more universal, viz. the evidence of necessity. It must be so; for, as all wild animals increase in a geometrical ratio, while their actual numbers remain on the average stationary, it follows that as many die annually

specimens of each race and tribe, the strongest, the swiftest, the healthiest, the most courageous—those fullest of vitality—live longest, feed best, overcome their competitors in the choice of mates; and, in virtue of these advantages, become—as it is desirable they should be—the progenitors of the future race. The poorer specimens, the sick, the faulty, the weak, are slain or drop out of existence; are distanced in the chase, are beaten in the fight, can find no females to match with them; and the species is propagated and continued mainly, increasingly, if not exclusively, from its finest and most selected individuals—in a word, its *élite*.

This explains not only those extraordinary changes in the form and habits of the same animals which, when aided and aggravated by man's requirements and careful management, strike us so forcibly in domesticated races, but also those purely natural though far slower modifications which geological researches have brought to our knowledge. Mr. Wallace, in the admirable paper quoted below—which is a perfect model of succinct statement and lucid reasoning—has pointed out how this principle of natural selection has been modified, and in a manner veiled and disguised, though by no means either neutralised or suspended, in the case of MAN; so that neither history nor geology enable us to

trace any changes in his external structure analogous to those which we find in such abundance and to such a remarkable extent in the case of the lower animals. He adapts himself, just as they do, to the altered conditions of external nature, but he does it by mental not by bodily modifications. As with them, so with him, the best adapted to surrounding circumstances, the most in harmony with the imperious necessities of life, surmount, survive, and multiply; but in his case the adaptation is made and the harmony secured by intellectual and moral efforts and qualities, which leave no stamp on the corporeal frame. As with them, inferior varieties and individuals succumb and die out in the eternal and universal 'struggle for existence;' only, in the case of man, the inferiority which determines their fate is inferiority not of muscle, of stomach, or of skin, but of brain.

In man, as we now behold him, this is different. He is social and sympathetic. In the rudest tribes the sick are assisted at least with food; less robust health and vigour than the average does not entail death. Neither does the want of perfect limbs or other organs produce the same effect as among the lower animals. Some division of labour takes place; the swiftest hunt, the less active fish or gather fruits; food is to some extent exchanged or divided. The action of natural selection is therefore checked, the weaker, the dwarfish, those of less active limbs or less piercing eyesight, do not suffer the extreme penalty which falls on animals so defective.

as are born. If, therefore, we deny natural selection, it can only be by asserting that in such a case as I have supposed the strong, the healthy, the swift, the well clad, the well organised animals in every respect, have no advantage over,—do not on the average live longer than, the weak, the unhealthy, the slow, the ill clad, and the imperfectly organised individuals; and this no sane man has yet been found hardy enough to assert. But this is not all; for the offspring on the average resemble their parents, and the selected portion of each succeeding generation will therefore be stronger, swifter, and more thickly furred than the last; and if this process goes on for thousands of generations, our animal will have again become thoroughly in harmony with the new conditions in which he is placed. But he will now be a different creature. He will be not only swifter and stronger, and more furry; he will also probably have changed in colour, in form, perhaps have acquired a longer tail, or differently shaped ears; for it is an ascertained fact, that when one part of an animal is modified, some other parts almost always change as it were in sympathy with it.—Wallace 'On the Origin of Human Races,' *Journal of the Anthropological Society*, No. 5.

In proportion as these physical characteristics become of less importance, mental and moral qualities will have increasing influence on the well-being of the race. Capacity for acting in concert, for protection and for the acquisition of food and shelter; sympathy, which leads all in turn to assist each other; the sense of right, which checks depredations upon our fellows; the decrease of the combative and destructive propensities; self-restraint in present appetites; and that intelligent foresight which prepares for the future, are all qualities that from their earliest appearance must have been for the benefit of each community, and would, therefore, have become the subjects of 'natural selection.' For it is evident that such qualities would be for the well-being of man; would guard him against external enemies, against internal dissensions, and against the effects of inclement seasons and impending famine, more surely than could any merely physical modification. Tribes in which such mental and moral qualities were predominant, would therefore have an advantage in the struggle for existence over other tribes in which they were less developed, would live and maintain their numbers, while the others would decrease and finally succumb.

Again, when any slow changes of physical geography, or of climate, make it necessary for an animal to alter its food, its clothing, or its weapons, it can only do so by a corresponding change in its own bodily structure and internal organisation. If a larger or more powerful beast is to be captured and devoured, as when a carnivorous animal which has hitherto preyed on sheep is obliged from their decreasing numbers to attack buffaloes, it is only the strongest who can hold,—those with most powerful claws, and formidable canine teeth, that can struggle with and overcome such an animal. Natural selection immediately comes into play, and by its action these organs gradually become adapted to their new requirements. But man, under similar circumstances, does not require longer nails or teeth, greater bodily strength or swiftness. He makes sharper spears, or a better bow, or he constructs a cunning pitfall, or combines in a hunting party to circumvent his new prey. The capacities which enable him to do this are what he requires to be strengthened, and these will, therefore, be gradually modified by 'natural selection,' while the form and structure of his body will remain unchanged. So when a glacial epoch comes on, some animals must acquire warmer fur, or a covering of fat, or else die of cold. Those best clothed by nature are, therefore, preserved by natural selection. Man, under the same circumstances, will make himself

warmer clothing, and build better houses; and the necessity of doing this will react upon his mental organisation and social condition—will advance them while his natural body remains naked as before.

When the accustomed food of some animal becomes scarce or totally fails, it can only exist by becoming adapted to a new kind of food, a food perhaps less nourishing and less digestible. 'Natural selection' will now act upon the stomach and intestines, and all their individual variations will be taken advantage of to modify the race into harmony with its new food. In many cases, however, it is probable that this cannot be done. The internal organs may not vary quick enough, and then the animal will decrease in numbers, and finally become extinct. But man guards himself from such accidents by superintending and guiding the operations of nature. He plants the seed of his most agreeable food, and thus procures a supply independent of the accidents of varying seasons or natural extinction. He domesticates animals which serve him either to capture food or for food itself, and thus changes of any great extent in his teeth or digestive organs are rendered unnecessary. Man, too, has everywhere the use of fire, and by its means can render palatable a variety of animal and vegetable substances, which he could hardly otherwise make use of, and thus obtains for himself a supply of food far more varied and abundant than that which any animal can command.

Thus man, by the mere capacity of clothing himself, and making weapons and tools, has taken away from nature that power of changing the external form and structure which she exercises over all other animals. As the competing races by which they are surrounded, the climate, the vegetation, or the animals which serve them for food, are slowly changing, they must undergo a corresponding change in their structure, habits, and constitution, to keep them in harmony with the new conditions—to enable them to live and maintain their numbers. But man does this by means of his intellect alone; which enables him with an unchanged body still to keep in harmony with the changing universe.

From the time, therefore, when the social and sympathetic feelings came into active operation, and the intellectual and moral faculties became fairly developed, man would cease to be influenced by 'natural selection' in his physical form and structure; as an animal he would remain almost stationary; the changes of the surrounding universe would cease to have upon him that powerful modifying effect which they exercise over other parts of the organic world. But from the moment that his

body became stationary, his mind would become subject to those very influences from which his body had escaped; every slight variation in his mental and moral nature which should enable him better to guard against adverse circumstances, and combine for mutual comfort and protection, would be preserved and accumulated; the better and higher specimens of our race would therefore increase and spread, the lower and more brutal would give way and successively die out, and that rapid advancement of mental organisation would occur, which has raised the very lowest races of man so far above the brutes (although differing so little from some of them in physical structure), and, in conjunction with scarcely perceptible modifications of form, has developed the wonderful intellect of the Germanic races.

But this is by no means the whole of the case. As we follow out the reflections suggested by this argument, an entirely new series of consequences and operations opens before us. We perceive that the law of 'natural selection,' and of 'the preservation of favoured races and individuals in the struggle for existence,' has become in the course of man's progress not only thus modified, as Mr. Wallace points out, and directed to one part of his organisation (the brain) alone, but positively suspended, and in many instances almost *reversed*. It even dawns upon us that our existing civilisation, which is the result of the operation of this law in past ages, may be actually retarded and endangered by its tendency to neutralise that law in one or two most material and significant particulars. The great wise, righteous, and beneficent principle which in all other animals, and in man himself, up to a certain stage of his progress, tends to the improvement and perfection of the race, would appear to be forcibly interfered with and nearly set aside; nay, to be set aside pretty much in direct proportion to the complication, completeness, and *culmination* of our civilisation. We do not assert that if our civilisation were purely and philosophically ideal—perfect in character as well as splendid and lofty in

degree—this result would follow, or would continue; but it certainly does follow now, and it delays and positively *menaces* the attainment of that ideal condition. Our thesis is this: that the indisputable effect of the state of social progress and culture we have reached, of our high civilisation, in a word, is to counteract and suspend the operation of that righteous and salutary law of 'natural selection' in virtue of which the best specimens of the race—the strongest, the finest, the worthiest—are those which survive, surmount, become paramount, and take precedence; succeed and triumph in the struggle for existence, become the especial progenitors of future generations, continue the species, and propagate an ever improving and perfecting type of humanity.

The principle does not appear to fail in the case of *races* of men. Here the abler, the stronger, the more advanced, the finer in short, are still the favoured ones, succeed in the competition; exterminate, govern, supersede, fight, eat, or work the inferior tribes out of existence. The process is quite as certain, and nearly as rapid, whether we are just or unjust; whether we use carefulness or cruelty. Everywhere the savage tribes of mankind die out at the contact of the civilised ones. Sometimes they are extinguished by conquest and the sword; sometimes by the excessive toil which avaricious victors impose upon the feeble vanquished; often by the diseases which the more artificial man brings with him and which flourish with fearful vigour in a virgin soil; occasionally they fade away before the superior vitality and prolific energy of the invading race in lands where there is not room for both; in some cases before the new and unsuitable habits which civilisation tries to introduce among them; not unfrequently it would seem from some mysterious blight which the mere presence of

a superior form of humanity casts over them. But, in every part of the world and in every instance, the result has been the same; the process of extinction is either completed or actively at work. The Indians of the Antilles, the Red man of North America, the South Sea Islanders, the Australians, even the New Zealanders (the finest and most pliable and teachable of savages), are all alike dying out with sad rapidity—in consequence of the harshness, or in spite of the forbearance and protection, of the stronger and more capable European. The negro alone survives—and, but for the observation of what is now going on in our sugar islands and in the United States we should say, seems likely to survive. He only has been able to hold his own in a fashion, and to live and flourish side by side with masterful and mightier races, though in a questionable relation and with questionable results. But the exception is a confirmation of the general law. The negro is not only strong, docile, and prolific, but in some respects he is better adapted to surrounding conditions than his European neighbour, conqueror, or master; in certain climates he, and not the white man, is 'the favoured race;' and for many generations, perhaps for ages, in the burning regions about the equator, a black skin may take precedence of a large brain, and be a more indispensable condition of existence; or possibly the brain may grow larger without the skin growing any whiter. The principle of 'natural selection' therefore—of the superior and fitter races of mankind trampling out and replacing the poorer races, in virtue of their superior fitness—would seem to hold good universally.

So probably it does also, and always has done, in the case of nations; and the apparent exceptions to the rule may be due only

to our erroneous estimate of the true elements of superiority. In the dawn of history the more cultivated and energetic races conquered the weaker and less advanced, reduced them to slavery, or taught them civilisation. It is true that in the case of the Greeks and Romans the coarser organisation and less developed brain of the latter easily overpowered and overshadowed probably the finest physical and intellectual nature that has yet appeared upon the earth; but the Greeks, when they succumbed, had fallen away from the perfection of their palmier days; they were enervated and corrupt to the very core; and the robust will and unequalled political genius of their Roman conquerors constituted an undeniable superiority. They triumphed by the law of the strongest—though their strength might not lie precisely in the noblest portion of man's nature. Intellectually the inferiors of the Greeks whom they subdued, they were morally and *volitionally* more vigorous. The same may be said of those rude Northern warriors who at a later period flowed over and mastered the degenerate Roman world. They had no culture, but they had vast capacities; and they brought with them a renovating irruption of that hard energy and redundant vitality which luxury and success had nearly extinguished among those they conquered. They were then 'the most favoured race,' the fittest for the exigencies of the hour, the best adapted to the conditions of the life around them; they prevailed, therefore, by reason of a very indisputable, though not the most refined sort of, superiority. With the nations of modern history, the same rule has governed the current of the world, though perhaps with more instances of at least apparent exception. Each nation that has dominated in turn, or occupied the first post in the world's

annals, has done so by right of some one quality, achievement, or possession—then especially needed—which made it for the time the stronger, if not intrinsically the nobler, among many rivals. Intellect, and intellect applied alike to art, to commerce, and to science, at one period made the Italians the most prominent people in Europe. There was an undeniable grandeur in the Spanish nation in its culminating years towards the close of the fifteenth century which gave it a right to rule, and at once explained and justified both its discoveries and its conquests. No one can say that France has not fairly won her vast influence and her epochs of predominance by her wonderful military spirit and the peculiarity of her singularly clear, keen, restless, but not rich, intelligence. England owes her world-wide dominion and (what is far more significant and a greater subject for felicitation) the wide diffusion of her race over the globe, to a daring and persistent energy with which no other variety of mankind is so largely dowered. And if in modern conflicts might has sometimes triumphed over right, and the finer and kinder people fallen before the assaults of the stronger, and the events of history run counter to all our truer and juster sympathies; it is probably because in the counsels of the Most High, energy is seen to be more needed than culture to carry on the advancement of humanity, and a commanding will, at least in this stage of our progress, a more essential endowment than an amiable temper or a good heart. At all events it is those who in some sense are the STRONGEST and the fittest who most prevail, multiply, and spread, and become in the largest measure the progenitors of future nations.

But when we come to the case of individuals in a people, or classes

in a community—the phase of the question which has far the most practical and immediate interest for ourselves—the principle fails altogether, and the law is no longer supreme. Civilisation, with its social, moral, and material complications, has introduced a disturbing and conflicting element. It is not now, as Mr. Wallace depicts, that intellectual has been substituted for physical superiority, but that artificial and conventional have taken the place of natural advantages as the ruling and deciding force. It is no longer the strongest, the healthiest, the most perfectly organised; it is not men of the finest *physique*, the largest brain, the most developed intelligence, that are 'favoured' and successful 'in the struggle for existence'—that survive, that rise to the surface, that 'natural selection' makes the parents of future generations, the continuators of a picked and perfected race. It is still 'the most favoured,' no doubt, in some sense, who bear away the palm, but the indispensable favour is that of fortune, not of nature. The various influences of our social system combine to traverse the righteous and salutary law which God ordained for the preservation of a worthy and improving humanity; and the 'varieties' of man that endure and multiply their likenesses, and mould the features of the coming times, are not the soundest constitutions that can be found among us, nor the most subtle and resourceful minds, nor the most amiable or self-denying tempers, nor even the most imperious and persistent wills, but often the precise reverse—often those emasculated by luxury and those damaged by want, those rendered reckless by squalid poverty, and those whose physical and mental energies have been sapped, and whose *morale* has been grievously impaired, by long indulgence and forestalled desires.

The two great instruments and

achievements of civilisation, are respect for life and respect for property. In proportion as both are secure, as life is prolonged and as wealth is accumulated, so nations rise—or consider that they have risen. Among wild animals the sick and maimed are slain; among savages they succumb and die; among us they are cared for, kept alive, enabled to marry and multiply. In uncivilised tribes, the ineffective and incapable, the weak in body or in mind, are unable to provide themselves food; they fall behind in the chase or in the march, they fall out, therefore, in the race of life. With us, sustenance and shelter are provided for them, and they survive. We pride ourselves—and justly—on the increased length of life which has been effected by our science and our humanity. But we forget that this higher average of *life* may be compatible with, and may in a measure result from, a lower average of *health*. We have kept alive those who, in a more natural and less advanced state, would have died—and who, looking at the physical perfection of the race alone, had better have been left to die. Among savages, the vigorous and sound alone survive; among us, the diseased and enfeebled survive as well;—but is either the physique or the intelligence of cultivated man the gainer by the change? In a wild state, by the law of natural selection, only, or chiefly, the sounder and stronger specimens were allowed to continue their species; with us, thousands with tainted constitutions, with frames weakened by malady or waste, with brains bearing subtle and hereditary mischief in their recesses, are suffered to transmit their terrible inheritance of evil to other generations, and to spread it through a whole community.

Security of property, security for its transmission, as well as for its enjoyment, is one of our chief boasts.

Thousands upon thousands who never could themselves have acquired property by industry, or conquered it by courage, or kept it by strength or ingenuity, and who are utterly incompetent to use it well, are yet enabled by law to inherit and retain it. They are born to wealth, they revel in wealth, though destitute of all the qualities by which wealth is won, or its possession made a blessing to the community. In a natural state of society they would have been pushed out of existence, jostled aside in the struggle and the race, and left by the way to die. In civilised communities they are protected, fostered, flattered, married, and empowered to hand down their vapid incapacities to numerous offspring, whom perhaps they can leave wealthy too. In old and highly advanced nations, the classes who wield power, and affluence, and social supremacy as a consequence of the security of property, do not as a rule consist—nay, consist in a very small measure—of individuals who have won, or could have won, those influences for themselves—of natural 'kings of men;' the *élite* lots in life do not fall to the *élite* of the race or the community. Those possessions and that position, which in more simply organised tribes would be an indication and a proof either of strength, of intelligence, or of some happy adaptation to surrounding exigencies, now in our complicated world indicate nothing—at least in five cases out of six—but merit or energy or luck in some ancestor, perhaps inconceivably remote, who has bequeathed his rank and property to his successors, but without the qualities which won them and warranted them. Yet this property and rank still enable their possibly unworthy and incapable inheritors to take precedence over others in many of the walks of life, to carry off the most desirable brides from less favoured

though far nobler rivals, and (what is our present point) to make those brides the mothers of a degenerating, instead of an ever improving race.

But even this by no means presents the whole strength of the case. Not only does civilisation, as it exists among us, enable rank and wealth, however diseased, enfeebled, or unintelligent, to become the continuators of the species in preference to larger brains, stronger frames and sounder constitutions; but that very rank and wealth, thus inherited without effort and in absolute security, tend to produce enervated and unintelligent offspring. To be born in the purple is not the right introduction to healthy energy; to be surrounded from the cradle with all temptations and facilities to self-indulgence, is not the best safeguard against those indulgences which weaken the intellect and exhaust the frame. No doubt *noblesse oblige*, and riches can buy the highest education, bating that education by surrounding circumstances which is really the only one that tells very effectually on the youthful plant. No doubt, too, there are splendid and numerous exceptions—instances in which rank is used to mould its heir to its duties, and in which wealth is used to purchase and achieve all that makes life noble and beneficent. But we have only to look around us, and a little below the surface, and then ask ourselves whether, as a rule, the owners of rank and wealth—still more the owners of wealth without rank—are those from whose paternity we should have most right to anticipate a healthy, a noble, an energetic, or a truly intellectual offspring—a race fitted to control and guide themselves as well as others, to subdue the earth as well as to replenish it, to govern, to civilise, to illustrate, to carry forward, the future destinies of man?

And if it is not from the highest and most opulent, assuredly it is

not from the lowest and most indigent. The *physique* and the *morale* of both the extreme classes are imperfect and impaired. The *physique* of the rich is injured by indulgence and excess—that of the poor by privation and want. The *morale* of the former has never been duly called forth by the necessity for exertion and self-denial; that of the latter has never been cultivated by training and instruction. The intellects of both have been exposed to opposite disadvantages. The organisations of neither class are the best in the community; the constitutions of neither are the soundest or most untainted. Yet these two classes are precisely those which are, or are likely to be, preponderatingly, the fathers of the coming generation. Both marry as early as they please and have as many children as they please,—the rich because it is in their power, the poor because they have no motive for abstinence;—and as we know, scanty food and hard circumstances do not oppose but rather encourage procreation. Malthus's 'prudential check' rarely operates upon the lower classes; the poorer they are, usually, the faster do they multiply; certainly the more reckless they are in reference to multiplication. It is the middle classes; those who form the energetic, reliable, improving element of the population, those who wish to rise and do not choose to sink, those in a word who are the true strength and wealth and dignity of nations,—it is these who abstain from marriage or postpone it. Thus the imprudent, the desperate,—those whose standard is low, those who have no hope, no ambition, no self-denial,—on the one side, and the pampered favourites of fortune on the other, take precedence in the race of fatherhood, to the disadvantage or the exclusion of the prudent, the resolute, the striving and the self-restrained. The very men whom a

philosophic statesman, or a guide of some superior race would select as most qualified and deserving to continue the race, are precisely those who do so in the scantiest measure. Those who have no need for exertion, and those who have no opportunities for culture, those whose frames are damaged by indulgence, and those whose frames are weakened by privation, breed *ad libitum*; while those whose minds and bodies have been hardened, strengthened and purified by temperance and toil, are elbowed quietly aside in the unequal press. Surely the 'selection' is no longer 'natural.' The careless, squalid, unambitious Irishman, fed on potatoes, living in a pig-stye, doting on a superstition, multiplies like rabbits or ephemera:—the frugal, foreseeing, self-respecting, ambitious Scot, stern in his morality, spiritual in his faith, sagacious and disciplined in his intelligence, passes his best years in struggle and in celibacy, marries late, and leaves few behind him. Given a land originally peopled by a thousand Saxons and a thousand Celts,—and in a dozen generations, five sixths of the population would be Celts, but five sixths of the property, of the power, of the intellect, would belong to the one sixth of Saxons that remained. In the eternal 'struggle for existence,' it would be the inferior and less favoured race that had prevailed,—and prevailed by virtue not of its qualities but of its faults, by reason not of its stronger vitality but of its weaker reticence and its narrower brain.

Of course it will be urged that the principle of natural selection fails thus utterly because our civilisation is imperfect and misdirected; because our laws are insufficient; because our social arrangements are unwise; because our moral sense is languid or unenlightened. No doubt, if our legislators and

rulers were quite sagacious and quite stern, and our people in all ranks quite wise and good, the beneficent tendencies of nature would continue to operate uncounteracted. No constitutions would be impaired by insufficient nutriment and none by unhealthy excess. No classes would be so undeveloped either in mind or muscle as to be unfitted for procreating sound and vigorous offspring. The sick, the tainted, and the maimed, would be too sensible and too unselfish to dream of marrying and handing down to their children the curse of diseased or feeble frames;—or if they were not self-controlled, the state would exercise a salutary but unrelenting paternal despotism, and supply the deficiency by vigilant and timely prohibition. A republic is conceivable in which paupers should be forbidden to propagate; in which all candidates for the proud and solemn privilege of continuing an untainted and perfecting race should be subjected to a pass or a competitive examination, and those only should be suffered to transmit their names and families to future generations who had a pure, vigorous and well-developed constitution to transmit;—so that paternity should be the right and function exclusively of the *élite* of the nation, and humanity be thus enabled to march on securely and without drawback to its ultimate possibilities of progress. Every damaged or inferior temperament might be eliminated, and every special and superior one be selected and enthroned,—till the human race, both in its manhood and its womanhood, became one glorious congregation of saints, sages, and athletes:—till we were all Blondins, all Shakespeares, Pericles', Socrates', Columbuses and Fénelons. But no nation—in modern times at least—has ever yet approached this ideal; no such wisdom or virtue has ever been found except in isolated individual

instances; no government and no statesman has ever yet dared thus to supplement the inadequacy of personal patriotism by laws so sapiently despotic. The face of the leading peoples of the existing world is not even set in this direction—but rather the reverse. The tendencies of the age are three especially; and all three run counter to the operation of the wholesome law of 'natural selection.' We are learning to insist more and more on the freedom of the individual will, the right of every one to judge and act for himself. We are growing daily more foolishly and criminally lenient to every natural propensity, less and less inclined to resent, or control, or punish its indulgence. We absolutely refuse to let the poor, the incapable, or the diseased die; we enable or allow them, if we do not actually encourage them, to propagate their incapacity, poverty, and constitutional disorders. And, lastly, democracy is every year advancing in power, and claiming the supreme right to govern and to guide:—and democracy means the management and control of social arrangements by the least educated classes,—by those least trained to foresee or measure consequences,—least acquainted with the fearfully rigid laws of hereditary transmission,—least habituated to repress desires, or to forego immediate enjoyment for future and remote good.

Obviously, no artificial prohibitions or restraints, no laws imposed from above and from without, can restore the principle of 'natural selection' to its due supremacy among the human race. No people in our days would endure the necessary interference and control; and perhaps a result so acquired might not be worth the cost of acquisition. We can only trust to the slow influences of enlightenment

and moral susceptibility, percolating downwards and in time permeating all ranks. We can only watch and be careful that any other influences we do set in motion shall be such as, where they work at all, may work in the right direction. At present the prospect is not reassuring. We are progressing fast in many points, no doubt, but the progress is not wholly nor always of the right sort, nor without a large *per contra*. Legislation and philanthropy are improving the condition of the masses, but they are more and more losing the guidance and governance of the masses. Wealth accumulates above, and wages rise below; but the cost of living augments with both operations, till those classes—the stamina of the nation—which are neither too rich nor too poor to fear a fall, find marriage a hazardous adventure, and dread the burden of large families. Medical science is mitigating suffering, and achieving some success in its warfare against disease; but at the same time it enables the diseased to live. It controls and sometimes half cures the maladies that spring from profligacy and excess, but in so doing it encourages both, by stepping in between the cause and its consequence, and saving them from their natural and deterring penalties. It reduces the aggregate mortality by sanitary improvements and precautions; but those whom it saves from dying prematurely it preserves to propagate dismal and imperfect lives. In our complicated modern communities a race is being run between moral and mental enlightenment and the deterioration of the physical constitution through the defeasance of the law of natural selection;—and on the issues of that race the destinies of humanity depend.