THE REVOLT AGAINST CIVILIZATION

THE MENACE OF THE UNDER MAN

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CHAPTER I

THE BURDEN OF CIVILIZATION

CIVILIZATION is the flowering of the human species. It is both a recent and a fragile thing. The first glimmerings of genuine civilization appeared only eight or ten thousand years ago. This may seem a long time. It does not seem so long when we remember that behind civilization's dawn lies a vast night of barbarism, of savagery, of bestiality, estimated at half a million years, since the ape-man shambled forth from the steaming murk of tropic forests, and, scowling and blinking, raised his eyes to the stars.

Civilization is complex. It involves the existence of human communities characterized by political and social organization; dominating and utilizing natural forces; adapting themselves to the new man-made environment thereby created; possessing knowledge, refinement, arts, and sciences; and (last, but emphatically not least) composed of individuals capable of sustaining this elaborate complex and of handing it on to a capable posterity.

This last consideration is, in fact, the crux of the whole matter; the secret of success; the secret, likewise, of those tragic failures which perplex and sadden the student of history. Man's march athwart the ages has been,

not a steady advance, but rather a slow wandering, now breasting sunlit heights, yet anon plunging into dank swamps and gloomy valleys. Of the countless tribes of men, many have perished utterly while others have stopped by the wayside, apparently incapable of going forward, and have either vegetated or sunk into decadence. Man's trail is littered with the wrecks of dead civilizations and dotted with the graves of promising peoples stricken by an untimely end.

Sharp and insistent comes the query: Why? Civilization seems so good a thing! It means relative protection from the blind and cruel forces of nature; abolition of the struggle against savage beasts and amelioration of the struggle between men; opportunity for comfort, leisure, and the development of the higher faculties. Why, then, do we find so many branches of the human species never attaining—never really striving after—these eminently desirable boons? Also (yet more noteworthy!) why do we find still other stocks, after having attained civilization, losing it and falling back to the lower levels of barbarism or even of savagery?

Mysterious though this may at first sight appear, there is, nevertheless, an answer: Those stagnant or decadent peoples could not bear the burden of civilization. For civilization is a burden as well as a benefit. This is inevitable in a universe governed by laws which decree that something may not come out of nothing. Civilization is not a cause but an effect—the effect of sustained human energy; and this energy, in turn, springs from the creative urge of superior germ-plasm. Civilization is

thus fundamentally conditioned by race. In any particular people, civilization will progress just so far as that people has the capacity to further it and the ability to bear the correlative burden which it entails. When this crucial point is reached, the civilization of that people either stagnates or retrogrades. Exactly how the process works becomes clear by a glance at human history.

When the ape-man emerged from utter animality, he emerged with empty hands and an almost empty head. Ever since that far-off day, man has been filling both hands and head—his hands with tools, his head with ideas. But the filling has proceeded most unequally, because capacity has varied greatly among the different branches of mankind. Whether all human varieties spring from a single original stock we do not know. What we do know is that the human species early appears divided into a number of different varieties contrasting markedly both in physical features and mental capacities. Thus differentiated and ever further differentiating, mankind plodded the long, long trail leading from bestiality to savagery, from savagery to barbarism, and from barbarism to civilization. Slowly the empty hands and heads began to fill. The hands grasped chance sticks and stones, then trimmed clubs and chipped flints, then a combination of the twain. These same hands presently fashioned the skins of beasts to clothe the body's nakedness against the cold, kindled fires for warmth and roasted food, modelled clay for pottery, tamed wild creatures into domestic animals. And behind the hand was the brain, not merely making these purely material in-

ventions but also discovering others of a higher order, like speech or even non-material concepts from which sprang the rudiments of social and political existence. All this occurred while man was still a savage. With the next stage—barbarism—came fresh discoveries, like agriculture and the smelting of metals, together with a variety of new ideas (especially the momentous art of writing), which brought mankind to the threshold of civilization.

Now it is obvious that at this stage of his development man was a vastly different creature from the bestial being of earlier times. Starting from naked destitution and brutish ignorance, man had gradually gathered to himself an increasing mass of tools, possessions, and ideas. This made life much more comfortable and agreeable. But it also made life much more complex. Such a life required vastly more effort, intelligence, and character than had the instinctive, animal existence of primeval days. In other words, long before the dawn of true civilization, the burden of progress had begun to weigh upon mankind.

Indeed, even the first light burdens had in some cases proved too heavy to be borne. Not all the branches of the human species attained the threshold of civilization. Some, indeed, never reached even the limits of savagery. Existing survivals of low-type savage man, such as the Bushmen of South Africa and the Australian "Blackfellows," have vegetated for countless ages in primeval squalor and seem incapable of rising even to the level of barbarism, much less to that of civilization. It is for-

tunate for the future of mankind that most of these survivals from the remote past are to-day on the verge of extinction. Their persistence and possible incorporation into higher stocks would produce the most depressive and retrogressive results.

Much more serious is the problem presented by those far more numerous stocks which, while transcending the plane of mere savagery, have stopped at some level of barbarism. Not only have these stocks never originated a civilization themselves, but they also seem constitutionally incapable of assimilating the civilization of others. Deceptive veneers of civilization may be acquired, but reversion to congenital barbarism ultimately takes place. To such barbarian stocks belong many of the peoples of Asia, the American Indians, and the African negroes. These congenital barbarians have always been dangerous foes of progress. Many a promising civilization has been ravaged and ruined by barbarians without the wit to rebuild what they had destroyed. To-day, the progress of science may have freed our own civilization from the peril of armed conquest by barbarian hordes; nevertheless, these peoples still threaten us with the subtler menace of "pacific penetration." Usually highly prolific, often endowed with extraordinary physical vigor, and able to migrate easily, owing to modern facilities of transportation, the more backward peoples of the earth tend increasingly to seek the centres of civilization, attracted thither by the high wages and easier living conditions which there prevail. The influx of such lower elements into civilized societies is an unmitigated

disaster. It upsets living standards, socially sterilizes the higher native stocks, and if (as usually happens in the long run) interbreeding occurs, the racial foundations of civilization are undermined, and the mongrelized population, unable to bear the burden, sinks to a lower plane.

So much for savagery and barbarism. Now what about civilization? For the last eight or ten thousand years civilizations have been appearing all the way from Eastern Asia to Europe and North Africa. At first these civilizations were local—mere points of light in a vast night of barbarism and savagery. They were also isolated; the civilizations of Egypt, Chaldea, India, and China developing separately, with slight influence upon each other. But gradually civilizations spread, met, interacted, synthesized. Finally, in Europe, a great civilizing tide set in, first displaying itself in the "Classic" civilization of Greece and Rome, and persisting down to the "Western Civilization" of our own days.

A remarkable fact about civilization is its intensification of features already observed on the savage and barbarian planes. The civilized man has vastly more security, power, opportunity, comfort, leisure, than has the barbarian or the savage; he has amassed a wealth of instruments, possessions, and ideas infinitely transcending the paltry hoards of earlier days; he lives in a "man-made" environment astoundingly different from the "state of nature." This is especially true of modern Western civilization. Our civilization may be inferior to others in some respects. It may lack the beauty of

the Greek, the durability of the Chinese, the spirituality of the Mediæval. But in dynamic energy, in mastery over the forces of nature, and in all-round efficiency it far transcends anything the world has ever seen.

In fact, within the past century we have broken the age-old tempo of material progress and have leaped clear over into a new self-made world. Down to a trifle over a century ago man's material progress had been a gradual—a very gradual—evolution. His tools, though more numerous, were mainly elaborations of those discovered by his remote ancestors. A few instruments like the printing-press and the mariner's compass were about the only notable innovations. Man's control over natural resources had likewise not greatly expanded. With the exception of gunpowder, he had tapped no new sources of material energy since very ancient times. His chief source of power was muscle, animal and human (do we not still reckon in "horse-power"?), and, for the rest, he filled his sails with the breeze and turned clumsy water-wheels by using brooks and streams. But the ancients had done all these things. As for methods of communication, they had, if anything, deteriorated. In the year 1800, there was no system of highways which equalled the Roman roads, no posting-service as quick as Cæsar's, no method of signalling which could compare with the semaphore "telegraphy" of the Persians, and probably no ship which could not have been overhauled by a Phœnician galley in a moderate sea.

Suddenly, astoundingly, all was changed. The hidden forces of nature yielded themselves wholesale, as though

at the wave of a magician's wand. Steam, electricity, petrol, and a whole series of mysterious "rays" and "waves" gave man powers of which he had not even dreamed. These powers were promptly harnessed to innumerable machines which soon transformed every phase of human existence. Production and transportation were alike revolutionized, distance was well-nigh abolished, and the very planet shrunk to the measure of human hands. In other words, man suddenly entered a new material world, differing not merely in degree but in kind from that of his grandfathers.

Now all this inspired modern man with that spirit of confidence and optimistic hope in an illimitably glorious future which characterized the greater part of the nineteenth century. And yet, a little reflection and a modicum of historical knowledge should have made intelligent persons do some hard thinking. Modern civilization was not the first civilization. It was merely the last of a long series of civilizations which had bloomed gloriously—and had then stagnated, decayed, or utterly perished. Furthermore, save for a few exceptional cases where civilizations were uprooted in their prime by a blast of foreign conquest, the basic cause of disaster was always a decline or breakdown from within.

Here, obviously, was food for thought. And, as a matter of fact, a large number of thoughtful persons gave the matter their earnest consideration. Was our glorious modern civilization ultimately destined to be "one with Nineveh or Tyre"? So it might seem: unless, perchance, ours turned out to be the "exception

which proves the rule." But what, then, was this "rule" which foredoomed all civilizations to eventual decline? Despite much theorizing, the answers were not convincing. Certain thinkers elaborated "The Law of Civilization and Decay." This fatalistic theory asserted that civilizations, like individuals, have their cycle of youth, maturity, senescence, and death. But what was the cycle? Some civilizations, like those of Egypt and China, endured for thousands of years, others for centuries; still others for a few brief generations. Obviously, no statistical curve could here be plotted, and the idea was discredited. Of course, other theories were elaborated. The ruin of civilizations was variously ascribed to luxury, vice, town life, irreligion, and much more besides. Yet all these theories somehow failed to satisfy. They might be shown to have been contributing causes in particular cases, but they could not account universally for the phenomena of declining civilization.

Within the past two decades, however, the rapid progress of biological knowledge has thrown a flood of light on this vexed question, and has enabled us to frame a theory so in accordance with known facts that it seems to offer substantially the correct answer.

And this answer is that, in the last analysis, civilization always depends upon the qualities of the people who are the bearers of it. All these vast accumulations of instruments and ideas, massed and welded into marvellous structures rising harmoniously in glittering majesty, rest upon living foundations—upon the men and women who create and sustain them. So long as those men and

women are able to support it, the structure rises, broad-based and serene; but let the living foundations prove unequal to their task, and the mightiest civilization sags, cracks, and at last crashes down into chaotic ruin.

Civilization thus depends absolutely upon the *quality* of its human supporters. Mere numbers mean nothing. The most brilliant civilization the world has ever seen arose in Athens—a tiny community where the number of freemen (*i. e.*, genuine Athenians) numbered perhaps 50,000 all told. We therefore see that, for civilization to arise at all, a superior human stock is first necessary; while to perfect, or even to maintain that civilization, the human stock must be kept superior. And these are requirements more exacting than might be imagined. Surveying human history, we find that superior stocks are the exception rather than the rule. We have already seen how many races of men have never risen above the planes of savagery or barbarism, while relatively few races have shown the ability to create high and enduring civilizations.

Furthermore, even inside the superior racial groups there exists a similar differentiation. When we speak of a "superior race" we do not imply that all the members of that race stand on the same lofty plane. Of course, the average level runs higher than do the averages of less favored races. But besides this statistical consideration there is the even more important fact that within the higher group itself there exist a relatively large number of very superior individuals, characterized by unusual energy, ability, talent, or genius. It is this élite which leavens the group and initiates progress. Here, again, we

see the supreme importance of quality. In no human society has the percentage of really superior individuals ever been large—in fact, their percentage has been always statistically negligible. Their influence, however, has been incalculable. Athens was not made up of Platos or Xenophons: it had its quota of dullards, knaves, and fools—as is vividly shown in the immortal satires of Aristophanes. Yet the dynamic power of its élite made Athens the glory of the world, and only when the Athenian stock ceased to produce superiors did Athens sink into insignificance.

Thus we see that civilization depends absolutely upon quality, while quality, in turn, depends upon inheritance. Environment may bring out all there is in a man, but heredity predetermines what there is to bring. We now begin to see the fallacy of such fatalistic notions as "The Law of Civilization and Decay." Civilizations, unlike living organisms, have no appointed cycle of life and death. Given a high-type stock producing an adequate quota of superior individuals, and a civilization might be immortal.

Why, then, has this never occurred? It has not occurred mainly because of three destructive tendencies which have always, sooner or later, brought civilizations to decline and ruin. These three tendencies are: (1) the tendency to structural overloading; (2) the tendency to biological regression; (3) the tendency to atavistic revolt. Here are the three grim Nemeses that have dogged the footsteps of the most promising peoples. Let us consider them in turn.

We have observed how civilizations, as they progress, inevitably become more complex. Each succeeding generation elaborates the social environment of the past, makes fresh additions, and passes it on to the next generation, which repeats the process in turn. This ability to transmit social acquirements, both material and mental, is one of the chief points marking man off from the animals. It has, in fact, been happily termed "social heredity." Because of "social heredity" each human generation is able to start at a higher environment level, and is not forced, like the animals, to depend upon instinct and blind experience. Indeed, "social heredity" forms the basis of all those theories which assert that environment is the chief factor in human progress and which minimize true (*i. e.*, biological) heredity as a minor or even a negligible factor.

These "environmentalist" arguments, however, omit one essential fact which vitiates their conclusions. This fact is that, while hereditary qualities are implanted in the individual with no action on his part, social acquirements are taken over only at the cost of distinct effort. How great this effort may become is easily seen by the long years of strenuous mental labor required in modern youth to assimilate the knowledge already gained by adults. That old saying, "There is no royal road to learning," illustrates the hard fact that each successive generation must tread the same thorny path if the acquirements of the past are to be retained. Of course, it is obvious that the more acquirements increase, the longer and steeper the path must be. And this raises the

query: May there not come a point where the youthful traveller will be unable to scale the height—where the effort required will be beyond his powers?

Well, this is precisely what has happened numberless times in the past. It is happening to multitudes of individuals about us every day. When it occurs on a sufficiently grand scale we witness those social regressions of entire communities which we call a "decline in civilization." A "decline in civilization" means that the social environment has outrun inherited capacity. Furthermore, the grim frequency of such declines throughout history seems to show that in every highly developed society the increasingly massive, complex superstructure of civilization tends to overload the human foundations.

Now why does this overloading in high civilizations always tend to take place? For the very simple reason that the complexity (and, therefore, the burden) of a civilization may increase with tremendous rapidity to an inconceivable degree; whereas the capacity of its human bearers remains virtually constant or positively declines.

The sobering truth was until recently obscured by the wide-spread belief (first elaborated about a century ago by the French scientist Lamarck) that acquired characteristics were inherited. In other words, it used to be thought that the acquirements of one generation could be passed on by actual inheritance to the next. Lamarck's theory excited enthusiastic hopes, and young men contemplating matrimony used to go in for "high thinking" in order to have brainy sons, while expectant mothers inspired their months of gestation by reading

the classics, confident that their offspring would be born with a marked taste for good literature. To-day this amiable doctrine is exploded, virtually all biologists now agreeing that acquired characteristics are not inherited.

An abundant weight of evidence proves that, during the entire historic period at any rate, mankind has made no racial progress in either physical power or brain capacity. The skeletal remains of the ancients show them to have possessed brains and bodies fully equal to our own. And these anatomical observations are confirmed by the teachings of history. The earliest civilized peoples of whom we have any knowledge displayed capacities, initiative, and imagination quite comparable to ours. Of course, their stock of social experience was very much less than ours, but their inherent qualities cannot be deemed inferior. Certainly those ancient peoples produced their full share of great men. Can we show greater philosophers than Plato or Aristotle, greater scientists than Archimedes or Ptolemy, greater generals than Cæsar or Alexander, greater poets than Homer or Hesiod, greater spiritual guides than Buddha or Jesus? Surely, the peoples who produced such immortal personalities ranked not beneath us in the biological scale.

But if this be so; if even the highest human types have made no perceptible biological advance during the last ten thousand years; what does this mean? It means that all the increasingly vast superstructures of civilization which have arisen during those millennia have been raised on similar human foundations. It means that men have been called upon to carry heavier loads

with no correlative increase of strength to bear them. The glitter of civilization has so blinded us to the inner truth of things that we have long believed that, as a civilization progressed, the quality of the human stock concerned in building it progressed too. In other words, we have imagined that we saw an improving race, whereas all we actually saw was a race expressing itself under improving conditions.

A dangerous delusion, this! Especially for us, whose civilization is the most complex the world has ever seen, and whose burden is, therefore, the heaviest ever borne. If past civilizations have crushed men beneath the load, what may happen to our civilization, and ourselves?

Our analysis has thus far shown that civilizations tend toward structural overloading, both from their own increasing complexity and also from the influence of other civilizations, which add sudden strains and stresses hitherto unknown. Even if this were the only danger to which civilizations were exposed, the matter would be serious enough. But the problem is more complex. We have already indicated that other destructive tendencies exist. To the second of these tendencies—biological regression—let us now turn.

Up to this point we have viewed civilization mainly in its structural aspect. We have estimated its pressure upon the human foundations, and have provisionally treated these foundations as fixed quantities. But that is only one phase of the problem, because civilization exerts upon its living bearers not merely mechanical, but also vital influences of the profoundest significance. And,

unfortunately, these vital influences are mainly of a destructive character. The stern truth of the matter is that civilization tends to impair the innate qualities of its human bearers; to use up strong stocks; to unmake those very racial values which first enabled a people to undertake its civilizing task.

Let us see how this comes about.

Consider, first, man's condition before the advent of civilization. Far, far back in its life history the human species underwent a profound differentiation. Fossil bones tens of thousands of years old, show mankind already divided into distinct races differing markedly not merely in bodily structure but also in brain capacity, and hence in intelligence. This differentiation probably began early and proceeded rapidly, since biology teaches us that species are plastic when new, gradually losing this plasticity as they "set" with time and development.

However, at whatever rate it proceeded, differentiation went on for untold ages, operating not only between separate races but also within the various stocks, so that each stock came to consist of many "strains" varying considerably from one another in both physical and mental capacity.

Now the fate of these strains depended, not upon chance, but upon the very practical question whether or not they could survive. And since man was then living in the "state of nature," qualities like strength, intelligence, and vigor were absolutely necessary for life, while weakness, dulness, and degeneracy spelled speedy death. Accordingly, individuals endowed with the former qualities survived and bred freely, whereas those handicapped by the latter qualities perished oftener and left fewer offspring. Thus, age after age, nature imposed upon man her individually stern but racially beneficent will; eliminating the weak, and preserving and multiplying the strong. Surely, it is the most striking proof of human differentiation that races should display such inequalities after undergoing so long a selective process so much the same.

However, differentiated mankind remained, and at last the more gifted races began to create civilizations. Now civilization wrought profound changes, the most important of which was a modification of the process of selection for survival. So long as man was a savage, or even a barbarian, nature continued to select virtually unhindered according to her immemorial plan—that of eliminating the weak and preserving the strong. But civilization meant a change from a "natural" to a more or less artificial, man-made environment, in which natural selection was increasingly modified by "social" selection. And social selection altered survival values all along the line. In the first place, it enabled many weak, stupid, and degenerate persons to live and beget children who would have certainly perished in the state of nature, or even on the savage and barbarian planes. Upon the strong the effect of social selection was more subtle but equally important. The strong *individual* survived even better than before—*but he tended to have fewer children.*

The reason for this lessened fecundity of the superior was that civilization opened up to them a whole new

range of opportunities and responsibilities. Under primitive conditions, opportunities for self-expression were few and simple, the most prized being desirable mates and sturdy offspring. Among savages and barbarians the choicest women and many children are the acknowledged perquisites of the successful, and the successful are those men endowed with qualities like strength, vigor, and resourceful intelligence, which are not only essential for continued survival under primitive conditions, but which are equally essential for the upbuilding and maintenance of civilization. In short, when a people enters the stage of civilization it is in the pink of condition, because natural selection has for ages been multiplying superior strains and eliminating inferiors.

Such was the high biological level of the selected stocks which attained the plane of civilization. But, as time passed, the situation altered. The successful superiors who stood in the vanguard of progress were alike allured and constrained by a host of novel influences. Power, wealth, luxury, leisure, art, science, learning, government—these and many other matters increasingly complicated life. And, good or bad, temptations or responsibilities, they all had this in common: that they tended to divert human energy from racial ends to individual and social ends.

Now this diverted energy flowed mainly from the superior strains in the population. Upon the successful superior, civilization laid both her highest gifts and her heaviest burdens. The effect upon the individual was, of course, striking. Powerfully stimulated, he put forth his

inherited energies. Glowing with the fire of achievement, he advanced both himself and his civilization. But, in this very fire, he was apt to be racially consumed. Absorbed in personal and social matters, racial matters were neglected. Late marriage, fewer children, and celibacy combined to thin the ranks of the successful, diminish the number of superior strains, and thus gradually impoverish the race.

Meanwhile, as the numbers of the superior diminished, the numbers of the inferior increased. No longer ruthlessly weeded by natural selection, the inferior survived and multiplied.

Here, then, was what had come to pass: instead of dying off at the base and growing at the top, civilized society was dying at the top and spreading out below. The result of this dual process was, of course, as disastrous as it was inevitable. Drained of its superiors, and saturated with dullards and degenerates, the stock could no longer support its civilization. And, the upper layers of the human foundation having withered away, the civilization either sank to a lower level or collapsed in utter ruin. The stock had regressed, "gone back," and the civilization went back too.

Such are the workings of that fatal tendency to biological regression which has blighted past civilizations. Its effects on our own civilization and the peculiar perils which these entail will be discussed in subsequent chapters. One further point should, however, be here noted. This is the *irreparable* character of racial impoverishment. Once a stock has been thoroughly drained of its

superior strains, it sinks into permanent mediocrity, and can never again either create or support a high civilization. Physically, the stock may survive; unfortunately for human progress, it only too often *does* survive, to contaminate better breeds of men. But mentally and spiritually it is played out and can never revive—save, perchance, through some age-long process of biological restoration akin to that seen in the slow reforesting of a mountain range stripped to the bare rock.

We have observed that civilizations tend to fall both by their own increasing weight and by the decay of their human foundations. But we have indicated that there exists yet another destructive tendency, which may be termed "atavistic revolt." Let us see precisely what this implies.

Civilization depends upon superior racial stocks. But stocks are made up of individuals, who, far from being precisely equal, differ widely in qualities and capacities. At one end of the human scale are a number of superior individuals, at the other end a number of inferior individuals, while between the two extremes stands the mass of intermediate individuals, who likewise grade up or down the scale.

Of course, these "superiors," "inferiors," and "intermediates," are not parked off by clear-cut lines; on the contrary, they shade imperceptibly into each other, and between the classes there lie intermediate zones composed of "border-line" individuals whose exact classification is hard to determine. Nevertheless, these classes do exist, just as day and night exist. At dawn or twilight, we cannot say of any particular minute: "This is day, and next minute will be night." Yet day and night are facts of transcendent importance, and we accordingly grade the hours into categories of light and darkness which, though slightly arbitrary, are essentially true.

Now, among our human categories we have observed that progress is primarily due to the superiors. It is they who found and further civilizations. As for the intermediate mass, it accepts the achievements of its creative pioneers. Its attitude is receptive. This receptivity is due to the fact that most of the intermediate grades are near enough to the superiors to understand and assimilate what the superiors have initiated.

But what about the inferiors? Hitherto we have not analyzed their attitude. We have seen that they are incapable of either creating or furthering civilization, and are thus a negative hindrance to progress. But the inferiors are not mere negative factors in civilized life; they are also positive—in an inverse, destructive sense. The inferior elements are, instinctively or consciously, the enemies of civilization. And they are its enemies, not by chance, but because they are more or less *uncivilizable.* We must remember that the level of society never coincides with the levels of its human units. The social level is a sort of compromise—a balance of constituent forces. This very fact implies that the individuals must be differentially spaced. And so it is. Superior individuals stand above the social level; sometimes far above that level—whence the saying about men "ahead of their times." But what about men "behind

their times"? They have always been numerous, and, the higher the civilization, the more of them there are apt to be.

The truth is that as a civilization advances it leaves behind multitudes of human beings who have not the capacity to keep pace. The laggards, of course, vary greatly among themselves. Some are congenital savages or barbarians; men who could not fit into any civilization, and who consequently fall behind from the start. These are not "degenerates"; they are "primitives," carried over into a social environment in which they do not belong. They must be clearly distinguished from the true degenerates: the imbecile, the feeble-minded, the neurotic, the insane—all those melancholy waste-products which every living species excretes but which are promptly extirpated in the state of nature, whereas in human societies they are too often preserved.

Moreover, besides primitives and degenerates, civilization by its very advance automatically condemns fresh multitudes to the ranks of the "inferior." Just as "primitives" who would be quite at home in savage or barbarian environments are alien to any sort of civilization, so, many individuals who rub along well enough in civilization's early phases have neither the wit nor the moral fibre to meet the sterner demands of high, complex civilizations. Most poignant of all is the lot of the "border-liners"—those who *just* fail to achieve a social order, which they can comprehend but in which they somehow cannot succeed.

Such are the ranks of the inferior—the vast army of

the unadaptable and the incapable. Let me again emphasize that "inferior" does not necessarily mean "degenerate." The degenerate are, of course, included, but the word "inferior" is a relative term signifying "below" or "beneath," in this case meaning persons beneath or below the standard of civilization. The word inferior has, however, been so often employed as a synonym for degenerate that it tends to produce confusion of thought, and to avoid this I have coined a term which seems to describe collectively all those kinds of persons whom I have just discussed. This term is *The Under-Man*—the man who measures *under* the standards of capacity and adaptability imposed by the social order in which he lives. And this term I shall henceforth employ.

Now how does the Under-Man look at civilization? This civilization offers him few benefits and fewer hopes. It usually affords him little beyond a meagre subsistence. And, sooner or later, he instinctively senses that he is a failure; that civilization's prizes are not for him. But this civilization, which withholds benefits, does not hesitate to impose burdens. We have previously stated that civilization's heaviest burdens are borne by the superior. Absolutely, this is true; relatively, the Under-Man's intrinsically lighter burdens *feel* heavier because of his innate incapacity. The very discipline of the social order oppresses the Under-Man; it thwarts and chastises him at every turn. To wild natures society is a torment, while the congenital caveman, placed in civilization, is always in trouble and usually in jail.

All this seems to be inevitable. But, in addition to

these social handicaps, the Under-Man often suffers from the action of better-placed individuals, who take advantage of his weakness and incapacity to exploit him and drive him down to social levels even lower than those which he would normally occupy.

Such is the Under-Man's unhappy lot. Now, what is his attitude toward that civilization from which he has so little to hope? What but instinctive opposition and discontent? These feelings, of course, vary all the way from dull, unreasoning dislike to flaming hatred and rebellion. But, in the last analysis, they are directed not merely against imperfections in the social order, *but against the social order itself*. This is a point which is rarely mentioned, and still more rarely understood. Yet it is the meat of the whole matter. We must realize clearly that the basic attitude of the Under-Man is an instinctive and natural *revolt against civilization*. The reform of abuses may diminish the intensity of social discontent. It may also diminish the numbers of the discontented, because social abuses precipitate into the depths many persons who do not really belong there; persons who were innately capable of achieving the social order if they had had a fair chance. But, excluding all such anomalous cases, there remains a vast residue of unadaptable, depreciated humanity, essentially uncivilizable and incorrigibly hostile to civilization. Every society engenders within itself hordes of savages and barbarians, ripe for revolt and ever ready to pour forth and destroy.

In normal times these elements of chaos go almost

unperceived. Civilization automatically evolves strong social controls which keep down the antisocial elements. For one thing, the civilized man instinctively supports his civilization, just as the Under-Man instinctively opposes it; and when civilization is threatened, its supporters instantly rise in its defense. Again, society maintains a permanent standing army (composed of policemen, soldiers, judges, and others), which is usually quite capable of keeping order. The mere presence of this standing army deters the antisocial elements from mass action. Desperate individuals, of course, break forth into crime, but society hunts them down and eliminates them by prison and the scaffold.

The Under-Man may thus be controlled. But he remains; he multiplies; he bides his time. And, now and then, his time comes. When a civilization falters beneath its own weight and by the decay of its human foundations; when its structure is shaken by the storms of war, dissension, or calamity; then the long-repressed forces of atavistic revolt gather themselves together for a spring.

And (noteworthy fact!) such revolts usually have able leaders. That is what makes them so formidable. This revolutionary officers-corps is mainly composed of three significant types: the "border-liner," the "disinherited," and the "misguided superior." Let us consider them in turn.

We have already noted the "border-liner," the man who cannot *quite* "make good." We have seen how hard is his lot and how hotly he turns against that social order

which he just fails to achieve. Most of such persons fail because of some fatal defect—a taint of character or a mental "twist." In other respects they may be very superior, and possess brilliant talents which they can use against society with powerful effect.

We have also noted the "disinherited," the man innately capable of civilized success but cast into the depths by social injustice or individual wrong-doing. Deprived of their birthright, the disinherited are likewise apt to be bitter foes of society. They enlist gladly in the army of chaos (where they do not really belong), and if they possess marked talents they may be very dangerous enemies.

Lastly, there is the "misguided superior." He is a strange phenomenon! Placed by nature in the van of civilization, he goes over to its enemies. This seems inexplicable. Yet it can be explained. As the Under-Man revolts because civilization is so far ahead of him, so the misguided superior revolts because it is so far behind. Exasperated by its slow progress, shocked at its faults, and erroneously ascribing to mankind in general his own lofty impulses, the misguided superior dreams short cuts to the millennium and joins the forces of social revolt, not realizing that their ends are profoundly different even though their methods may be somewhat the same. The misguided superior is probably the most pathetic figure in human history. Flattered by designing scoundrels, used to sanctify sinister schemes, and pushed forward as a figurehead during the early stages of revolutionary agitation, the triumph of the revolution brings

him to a tragic end. Horrified at sight of barbarism's unmasked face, he tries to stay its destructive course. In vain! The Under-Man turns upon his former champion with a snarl and tramples him into the mud.

The social revolution is now in full swing. Such upheavals are profoundly terrible. I have described them as "atavistic." And that is just what they are—"throw backs" to a far lower social plane. The complex fabric of society, slowly and painfully woven, is torn to tatters; the social controls vanish, and civilization is left naked to the assaults of anarchy. In truth, disruption goes deeper still. Not only is society in the grip of its barbarians, but every individual falls more or less under the sway of his own lower instincts. For, in this respect, the individual is like society. Each of us has within him an "Under-Man," that primitive animality which is the heritage of our human, and even our prehuman, past. This Under-Man may be buried deep in the recesses of our being; but he is there, and psychoanalysis informs us of his latent power. This primitive animality, potentially present even in the noblest natures, continuously dominates the lower social strata, especially the pauper, criminal, and degenerate elements—civilization's "inner barbarians." Now, when society's dregs boil to the top, a similar process takes place in individuals, to whatever social level they may belong. In virtually every member of the community there is a distinct resurgence of the brute and the savage, and the atavistic trend thus becomes practically universal.

This explains most of the seemingly mysterious phe-

nomena of revolution. It accounts for the mental contagion which infects all classes; the wild elation with which the revolution is at first hailed; the way in which even well-poised men throw themselves into the stream, let it carry them whither it lists, and commit acts which they afterward not only cannot explain but cannot even remember. General atavistic resurgence also accounts for the ferocious temper displayed, not merely by the revolutionists, but by their counter-revolutionary opponents as well. However much they may differ in their principles, "Reds" and "Whites" display the same savage spirit and commit similar cruelties. This is because society and the individual have been alike rebarbarized.

In time the revolutionary tempest passes. Civilized men will not forever endure the misrule of their own barbarians; they will not lastingly tolerate what Burke rightly termed the tyranny of a "base oligarchy." Sooner or later the Under-Man is again mastered, new social controls are forged, and a stable social order is once more established.

But—what sort of a social order? It may well be one inferior to the old. Of course, few revolutions are wholly evil. Their very destructiveness implies a sweeping away of old abuses. Yet at what a cost! No other process is so terribly expensive as revolution. Both the social and the human losses are usually appalling, and are frequently irreparable. In his brief hour, the Under-Man does his work. Hating not merely civilization but also the civilized, the Under-Man wreaks his destructive fury on individuals as well as on institutions. And the superior are

always his special targets. His philosophy of life is ever a levelling "equality," and he tries to attain it by lopping off all heads which rise conspicuously above his own. The result of this "inverse selection" may be such a decrease of superior persons that the stock is permanently impoverished and cannot produce the talent and energy needed to repair the destruction which the revolutionary cataclysm has wrought. In such cases civilization has suffered a mortal wound and declines to a permanently lower plane.

This is especially true of high civilizations. The more complex the society and the more differentiated the stock, the graver the liability to irreparable disaster. Our own civilization is a striking example. The destruction today being wrought by social revolution in Russia, great as it is, would pale beside the far greater destruction which such an upheaval would produce in the more advanced societies of western Europe and America. It would mean nothing short of ruin, and would almost infallibly spell permanent decadence. This grim peril to our civilization and our race future we will carefully examine in subsequent chapters.

So ends our preliminary survey. We have sketched man's ascent from bestiality through savagery and barbarism to civilized life. We have considered the basic reasons for his successes and his failures. Let us now pass to a more detailed examination of the great factors in human progress and decline, with special reference to the possibilities and perils of our own civilization.

CHAPTER II

THE IRON LAW OF INEQUALITY

THE idea of "Natural Equality" is one of the most pernicious delusions that has ever afflicted mankind. It is a figment of the human imagination. Nature knows no equality. The most cursory examination of natural phenomena reveals the presence of a Law of Inequality as universal and inflexible as the Law of Gravitation. The evolution of life is the most striking instance of this fundamental truth. Evolution is a process of differentiation—of increasing differentiation—from the simple one-celled bit of protoplasm to the infinitely differentiated, complex life forms of the present day.

And the evolutionary process is not merely quantitative; it is qualitative as well. These successive differentiations imply increasing inequalities. Nobody but a madman could seriously contend that the microscopic speck of protoplasmic jelly floating in the tepid waters of the Palæozoic Sea was "equal" to a human being.

But this is only the beginning of the story. Not only are the various life types profoundly unequal in qualities and capacities; the individual members of each type are similarly differentiated among themselves. No two individuals are ever precisely alike. We have already seen how greatly this dual process of differentiation both of type and individual has affected the human species, and how basic a factor it has been in human progress.

Furthermore, individual inequalities steadily increase

as we ascend the biological scale. The amœba differs very little from his fellows; the dog much more so; man most of all. And inequalities between men likewise become ever more pronounced. The innate differences between members of a low-grade savage tribe are as nothing compared with the abyss sundering the idiot and the genius who coexist in a high-grade civilization.

Thus, we see that evolution means a process of ever-growing inequality. There is, in fact, no such word as "equality" in nature's lexicon. With an increasingly uneven hand she distributes health, beauty, vigor, intelligence, genius—all the qualities which confer on their possessors superiority over their fellows.

Now, in the face of all this, how has the delusion of "natural equality" obtained—and retained—so stubborn a hold on mankind? As to both its antiquity and persistency there can be no shadow of doubt. The slogan of "equality" was raised far back in the remote past, and, instead of lessening, was never more loudly trumpeted than to-day. It is a curious fact that just when the advance of knowledge and the increasing complexity of civilization have enhanced individual differences and rendered superior capacities supremely important, the cry for equality should have become fiercer than ever, should have been embodied in all sorts of levelling doctrines, and should have been actually attempted in Bolshevik Russia with the most fanatical fury and the most appalling results.

Here is obviously something requiring careful analysis. As a matter of fact, the passion for "natural" equality

seems to spring primarily from certain impulses of the *ego*, the self, particularly from the impulses of self-preservation and self-esteem. Every individual is inevitably the centre of *his* world, and instinctively tends to regard his own existence and well-being as matters of supreme importance. This instinctive egoism is, of course, modified by experience, observation, and reflection, and may be so overlaid that it becomes scarcely recognizable even by the individual himself. Nevertheless, it remains, and subtly colors every thought and attitude. In his heart of hearts, each individual feels that he is really a person of importance. No matter how low may be his capacities, no matter how egregious his failures, no matter how unfavorable the judgment of his fellows; still his inborn instincts of self-preservation and self-love whisper that he should survive and prosper, that "things are not right," and that if the world were properly ordered he would be much better placed.

Fear and wounded vanity thus inspire the individual to resent unfavorable status, and this resentment tends to take the form of protest against "injustice." Injustice of what? Of "fate," "nature," "circumstances," perhaps; yet, more often, injustice of *persons*—individually or collectively (*i. e.*, "society"). But (argues the discontented ego), since all this is unjust, those better placed persons have no "right" to succeed where he fails. Though more fortunate, they are not really his superiors. He is "as good as they are." Hence, either he should be up with them—or they should be down with him. "We are all men. We are all equal!"

Such, in a nutshell, is the train of thought—or rather of *feeling*—underlying the idea of "natural equality." It is, of course, evident that the idea springs primarily from the emotions, however much it may "rationalize" itself by intellectual arguments. Being basically emotional, it is impervious to reason, and when confronted by hard facts it takes refuge in mystic faith. All levelling doctrines (including, of course, the various brands of modern Socialism) are, in the last analysis, not intellectual concepts, but religious cults. This is strikingly shown by recent events. During the past ten years biology and kindred sciences have refuted practically all the intellectual arguments on which the doctrine of "natural equality" relies. But has this destroyed the doctrine? Not at all. Its devoted followers either ignore biology, or elaborate *pseudo*biological fallacies (which we will later examine), or, lastly, lose their tempers, show their teeth, and swear to kill their opponents and get their own way *somehow*—which is just what the extreme "proletarian" ragings mean. Quite useless to point out to such zealots the inequalities of nature. Their answer is that superior endowment is itself a basic injustice ("injustice" of nature!) which it is society's duty to remedy by equalizing rewards regardless of ability or service. This is exemplified by that stock Socialist formula: Distribution according to "needs."

Such are the emotional bases of the doctrine of natural equality. But, as we have already stated, these emotional bases have been buttressed by many intellectual arguments of great apparent force. Indeed, down to

our own days, when the *new biological revelation* (for it is nothing short of that) has taught us the supreme importance of heredity, mankind tended to believe that environment rather than heredity was the main factor in human existence. We simply cannot overestimate the change which biology is effecting in our whole outlook on life. It is unquestionably inaugurating the mightiest transformation of ideas that the world has ever seen. Let us glance at the state of human knowledge a few short decades ago to appreciate its full significance.

Down to that time the exact nature of the life process remained a mystery. This mystery has now been cleared up. The researches of Weismann and other modern biologists have revealed the fact that all living beings are due to a continuous stream of *germ-plasm* which has existed ever since life first appeared on earth, and which will continue to exist as long as any life remains. This germ-plasm consists of minute germ-cells which have the power of developing into living beings. All human beings spring from the union of a male sperm-cell and a female egg-cell. Right here, however, occurs the basic feature of the life process. The new individual consists, from the start, of two sorts of plasm. Almost the whole of him is *body*-plasm—the ever-multiplying cells which differentiate into the organs of the body. But he also contains *germ*-plasm. At his very conception a tiny bit of the life stuff from which he springs is set aside, is carefully isolated from the body-plasm, and follows a course of development entirely its own. In fact, the germ-plasm is not really part of the individual; he is merely its

bearer, destined to pass it on to other bearers of the life chain.

Now all this was not only unknown but even unsuspected down to a very short time ago. Its discovery was in fact dependent upon modern scientific methods. Certainly, it was not likely to suggest itself to even the most philosophic mind. Thus, down to about a generation ago, the life stuff was supposed to be a product of the body, not differing essentially in character from other body products. This assumption had two important consequences. In the first place, it tended to obscure the very concept of heredity, and led men to think of environment as virtually all-important; in the second place, even where the importance of heredity was dimly perceived, the rôle of the individual was misunderstood, and he was conceived as a creator rather than a mere transmitter. This was the reason for the false theory of the "inheritance of acquired characteristics," formulated by Lamarck and upheld by most scientists until almost the end of the nineteenth century. Of course, Lamarckism was merely a modification of the traditional "environmentalist" attitude: it admitted that heredity possessed some importance, but it maintained environment as the basic factor.

Now a moment's reflection must suggest the tremendous practical differences between the theories of environment and heredity. This is no mere academic matter; it involves a radically different outlook on every phase of life, from religion and government to personal conduct. Let us examine the facts of the case.

Down to our own days mankind had generally believed that environment was the chief factor in existence. This was only natural. The true character of the life process was so closely veiled that it could not well be discovered except by the methods of modern science; the workings of heredity were obscure and easily confounded with environmental influences. The workings of environment, on the other hand, were clear as day and forced themselves on the attention of the dullest observer. To the pressing problems of environment, therefore, man devoted himself, seeking in the control of his surroundings both the betterment of the race and the curing of its ills. Only occasionally did a few reflective minds catch a glimpse of the hereditary factor in the problem of life. That marvellous breed of men, the ancient Greeks, had such glimpses of the higher truth. With their characteristic insight they discerned clearly the principle of heredity, gave considerable thought to it, and actually evolved a theory of race-betterment by the weeding out of inferior strains and the multiplication of superiors—in other words, the "Eugenics" theory of to-day.

For example, as early as the sixth century B. C. the Greek poet Theognis of Megara wrote: "We look for rams and asses and stallions of good stock, and one believes that good will come from good; yet a good man minds not to wed the evil daughter of an evil sire. . . . Marvel not that the stock of our folk is tarnished, for the good is mingling with the base." A century later Plato was much interested in biological selection as the best method for race improvement. He suggested that

the state should mate the best with the best and the worst with the worst; the former should be encouraged to breed freely, while the offspring of the unfit should be destroyed. Aristotle likewise held that the state should strongly encourage the increase of superior types.

Of course, these were but the visions of a few seers, which had no practical results. The same is true of those other rare thinkers who, like Shakespear with his famous lines about "nature" and "nurture," evidently grasped the hereditarian idea. The mass of mankind continued to hold that environment was the great matter for consideration.

Now a belief in the transcendent importance of environment leads inevitably to certain conclusions of great practical importance. In the first place, if it be true that man is moulded primarily by his environment, it logically follows that he has merely to gain control over his environment in order to change himself almost at will. Therefore, according to the environmentalist, progress depends, not on human nature, but on conditions and institutions. Again, if man is the product of his environment, human differences are merely effects of environmental differences, and can be rapidly modified by environmental changes. Lastly, before the supreme importance of environment, all human differences whether individual or racial sink into insignificance, and all men are potentially "equal."

Such are the logical deductions from the environmentalist theory. And this theory was certainly attractive. It not only appealed to those wounded feelings of self-

preservation and self-esteem among the ill-endowed and the unfortunate which we have previously examined, but it appealed also to many of the most superior minds of the race. What could be more attractive than the thought that humanity's ills were due, not to inborn shortcomings but to faulty surroundings, and that the most backward and degraded human beings might possibly be raised to the highest levels if only the environment were sufficiently improved? This appeal to altruism was powerfully strengthened by the Christian doctrine of the equality of all souls before God. What wonder, then, that philosophers and scientists combined to elaborate theories about mankind of a wholly environmentalist character?

All the great thinkers of the eighteenth century (who still influence our ideas and institutions to a far greater degree than we may imagine) were convinced believers in "natural equality." Locke and Hume, for example, taught that at birth "the human mind is a blank sheet, and the brain a structureless mass, lacking inherent organization or tendencies to develop in this way or that; a mere mass of undefined potentialities which, through experience, association, and habit, through education, in short, could be moulded and developed to an unlimited extent and in any manner or direction." [1] The doctrine of natural equality was brilliantly formulated by Rousseau, and was explicitly stated both in the American Declaration of Independence and in the French Declaration of the Rights of Man. The doctrine, in its most

[1] W. McDougall, *Is America Safe for Democracy?* (Lowell Institute Lectures), p. 21 (New York, 1921).

uncompromising form, held its ground until well past the middle of the nineteenth century. At that period so notable a thinker as John Stuart Mill could declare roundly: "Of all vulgar modes of escaping from the consideration of the effect of social and moral influences on the human mind, the most vulgar is that of attributing the diversities of conduct and character to inherent natural differences."

Mills's utterance may be considered an expression of pure environmentalism. At the moment when he spoke, however, the doctrine had already been considerably modified. In fact, by the beginning of the nineteenth century, the progress of science had begun to lift the veil which obscured the mystery of heredity, and scientists were commencing to give close attention to such matters. At first the phenomena of inheritance were not believed to affect the basic importance of environment. This idea was clearly stated early in the nineteenth century by the French naturalist Lamarck. Lamarck asserted that the forms and functions of living beings arose and developed through use, and that such changes were directly transmitted from generation to generation. In other words, Lamarck formulated the theory of the "inheritance of acquired characteristics" which was destined to dominate biological thinking down to a generation ago. This theory, which is usually termed "Lamarckism," was merely a modification of the old environmentalist philosophy. It admitted the factor of heredity, but it considered heredity dependent upon environmental influences.

It is difficult to overestimate the tremendous practical

consequences of Lamarckism, not merely upon the nineteenth century but also upon our own times. The primal importance of heredity may to-day be accepted by most scientists and by an increasing number of forward-looking persons everywhere, but it has as yet neither deeply penetrated the popular consciousness nor sensibly modified our institutions. The march of new ideas is slow at best, and however much we may be changing our thinking, we are still living and acting under the environmentalist theories of the past. Our political, educational, and social systems remain alike rooted in Lamarckism and proceed on the basic premise that environment rather than heredity is the chief factor in human existence.

The emotional grip of Lamarckism is very strong. It is an optimistic creed, appealing to both hopes and sympathies. To Lamarckism was due in large measure the cheery self-confidence of the nineteenth century, with its assurance of automatic and illimitable progress. Indeed, in some respects, Lamarckism increased rather than diminished the traditional faith in environment. Before Lamarck, men had believed that the new-born individual was a blank sheet on which society could write. Now came Lamarck, asserting that much of this writing could be passed on by inheritance to succeeding generations with cumulative effect. Considering the powerful agencies which society had at its disposal—government, the church, the home, the school, philanthropy, etc., it was easy to believe that a wiser and intenser application of these social agencies offered a sure and speedy road to the millennium.

Accordingly, "the comfortable and optimistic doctrine was preached that we had only to improve one generation by more healthy surroundings, or by better education, and, by the mere action of heredity, the next generation would begin on a higher level of natural endowments than its predecessor. And so, from generation to generation, on this theory, we could hope continually to raise the inborn character of a race in an unlimited progress of cumulative improvement." [1]

On this common environmentalist basis all the political and social philosophies of the nineteenth century arose. They might differ widely and wrangle bitterly over which environmental factor was of prime importance. Political thinkers asserted that progress depended on constitutions; "naturalists" like Buckle claimed that peoples were moulded by their physical environments like so much soft clay; while Socialists proclaimed that man's regeneration lay in a new system of economics. Nevertheless, they were all united by a common belief in the supreme importance of environment, and they all either ignored heredity or deemed it a minor factor.

We need to stress this point, because we must remember that it is precisely these doctrines which still sway the thought and action of most persons—even the educated. "Whether they know it or not, most people who have not made a particular study of the question still tacitly assume that the acquirements of one generation form part of the inborn heritage of the next, and the pres-

[1] W. C. D. and C. D. Whetham, *Heredity and Society*, p. 4 (London, 1912).

ent social and educational systems are founded in large part on this false foundation." [1]

Let us now consider the rise of the new biology, which has already exerted so powerful an influence upon our philosophy of life and which promises to affect profoundly the destinies of mankind. Modern biology can be said to date from the publication of Darwin's work on *The Origin of Species by Means of Natural Selection*, in the year 1859. This epoch-making book was fiercely challenged and was not generally accepted even by the scientific world until the last quarter of the nineteenth century. Its acceptance, however, marked nothing short of a revolution in the realm of ideas. Darwin established the principle of *evolution* and showed that evolution proceeded by *heredity*. A second great step was soon taken by Francis Galton, the founder of the science of "Eugenics" or "Race Betterment." Darwin had centred his attention upon animals. Galton applied Darwin's teaching to man, and went on to break new ground by pointing out not merely the inborn differences between men, but the fact that these differences could be controlled; that the human stock could be surely and lastingly improved by increasing the number of individuals endowed with superior qualities and decreasing the number of inferiors. In other words, Galton grasped fully the momentous implications of heredity (which Darwin had not done), and announced clearly that heredity rather than environment was the basic factor in life and the prime lever of human progress.

[1] Popenoe and Johnson, *Applied Eugenics*, p. 33 (New York, 1920).

Like most intellectual pioneers, Galton had to wait long for adequate recognition. Although his first eugenic writings appeared as early as 1865, they did not attract a tithe of the attention excited by Darwin's work, and it was not until the very close of the nineteenth century that his theory gained wide acceptance even in scientific circles, while the educated public did not become really aware of it until the opening years of the present century. Once fairly started, however, the idea made rapid progress. In every part of the civilized world scientists took up the work, and soon a series of remarkable discoveries by biologists like Weismann, DeVries, and others put the new science on a sure and authoritative foundation.[1]

We have already indicated how momentous has been the change in outlook wrought by the new biological revelation, not merely in the field of abstract science, but also in every phase of practical human existence. The discovery of the true nature of the life process, the certainty that the vast inequalities among men are due primarily to heredity rather than environment, the discovery of a scientific method of race improvement. There are matters of transcendent importance. Let us consider some of their practical aspects.

One of the most striking features of the life process may

[1] The mass of modern biological literature is very great, and in a general work like mine elaborate reference footnotes would be out of place. I will, therefore, merely refer the reader to two excellent manuals on this field, with special reference to its eugenics side: Popenoe and Johnson, *Applied Eugenics* (New York, 1920), and S. J. Holmes, *The Trend of the Race* (New York, 1921). The latter work contains good and fairly full bibliographies at the end of each chapter. From these two manuals the reader who desires to go deeper into the field can find the necessary clews.

the tremendous *power* of heredity. The marvellous potency of the germ-plasm is increasingly revealed by each fresh biological discovery. Carefully isolated and protected against external influences, the germ-plasm persistently follows its predetermined course, and even when actually interfered with it tends to overcome the difficulty and resume its normal evolution.

This persistency of the germ-plasm is seen at every stage of its development, from the isolated germ-cell to the mature individual. Consider it first at its earliest stage. Ten years ago biologists generally believed that the germ-plasm was permanently injured—and permanently modified—by certain chemical substances and disease toxins like lead, alcohol, syphilis, etc. These noxious influences were termed "racial poisons," and were believed to be prime causes of racial degeneracy. In other words, here was a field where biologists used to attend that environment *directly*[1] modified heredity in ing to mend and lasting fashion. To-day the weight of evi- ing out nearly the other way. While it is still generally but the f that injury to the germ-plasm does occur, most that the s now think that such injury is a *temporary* "*im*proved," that is, a change in the germ-cells which does with permanently alter the nature of the inherited traits feri which will disappear in a few generations if the in- jury be not repeated.

[1] The distinction between direct and indirect effects should be kept clearly in mind. Of course, it is perfectly evident that environment does indirectly affect all forms of life—notably by favoring certain types and handicapping others, and so resulting in the increase of the former and the decrease of the latter.

To quote from an authoritative source: "We are thus in a position to state that, from the eugenist's point of view, the *origination* of degeneracy, by some direct action on the germ-plasm, is a contingency that hardly needs to be reckoned with. . . . The germ-plasm is so carefully isolated and guarded that it is almost impossible to injure it, except by treatment so severe as to kill it altogether; and the degeneracy with which the eugenists are called on to deal is a degeneracy which is running along from generation to generation and which, when once stopped by the cessation of reproduction, is in little danger of being originated anew through some racial poison."[1]

Consider now the life process at its next stage—the stage between conception and birth. It used to be thought that the germ-plasm of the growing embryo could be injured and permanently altered, not merely by the "racial poisons" above mentioned but also by certain "prenatal" influences, such as the mother's undernourishment, chronic exhaustion, fright, worry, or shock. To-day such ideas are utterly discredited. There is not a shred of evidence that the mother's circumstances or feelings can affect in any way the *germ*-plasm of her unborn child. Of course, the mother's condition may profoundly affect the embryo's *body*-plasm, so that the child may be born stunted or diseased. But the child will not pass on those handicaps by heredity to its offspring. Conversely, it is equally certain that nothing the mother can do to improve her unborn child will better

[1] Popenoe and Johnson, *op. cit.*, pp. 63–64.

its germ-plasm. She may give her child a sounder body, but its heredity was fixed irrevocably the instant it was conceived. Here, then, is another field where the theory of direct action of environment on heredity has been definitely disproved.

Let us pass to the next stage. Birth has taken place. The individual is out in the world and is exposed to environmental influences vastly greater than those which acted upon him during his embryonic stage. But these environmental influences fall upon his *body*-plasm; his *germ*-plasm is as carefully isolated and protected as was his parents', so that the same laws which we have already discussed will apply to him as well as to them.

Furthermore, the effect of the environment even upon the body-plasm will depend largely upon what sort of a creature the particular individual may be. Biology has recently discovered that the effect of environment decreases as we ascend the life scale; in other words, the simpler types are most affected, while man, the highest biological type, seems to be affected least of all. This is a point of great importance. Certain environmentalist writers have maintained that, even though the germ-plasm were unaltered, man is so moulded by his environment that with each generation the hereditary tendencies are overcome by circumstances and are thus rendered *practically* of secondary importance. Such writers base their arguments largely upon scientific experiments made upon primitive forms of animal life, where striking bodily changes have been brought about. As applied to man, however, these arguments are misleading, because the

same influences which profoundly affect lower forms have relatively little effect upon the higher animals and still less upon man himself. Man is, therefore, least affected by, and most independent of, environmental influences.

This matter has been ably summed up by the American biologist Woods, who has formulated it as "The Law of Diminishing Environmental Influences."[1] Woods shows not only that environmental influence diminishes according to the individual's rank in the biological scale, but also that, even within the body of the particular individual, environmental influence diminishes with the evolutionary rank of the tissue affected and in proportion to its age. This is important in connection with possible environmental influence upon the human brain. Says Woods: "It must be remembered that the brain-cells, even of a child, are, of all tissues, farthest removed from any of these primordial states. The cells of the brain ceased subdivision long before birth. Therefore, *a priori*, we must expect relatively little modification of brain function." Finally, Woods shows that environmental influence diminishes with the organism's power of choice. This is, of course, of the utmost importance regarding man. For, as Woods says: "This may be the chief reason why human beings, who of all creatures have the greatest power to choose the surroundings congenial to their special needs and natures, are so little affected by outward conditions. The occasional able, ambitious, and determined member of an obscure or degenerate family *can*

[1] Frederick Adams Woods, "Laws of Diminishing Environmental Influences," *Popular Science Monthly*, April, 1910.

get free from his uncongenial associates. So can the weak or lazy or vicious (even if a black sheep from the finest fold) easily find his natural haunts."

From all this Woods concludes: "Experimentally and statistically, there is not a grain of proof that ordinary environment can alter the salient mental and moral traits in any measurable degree from what they were predetermined to be through innate influences."

We thus see that man is moulded more by heredity and less by environment than any other living creature, and that the vast differences observable between human beings are mainly predetermined at the instant of conception, with relatively little regard to what happens afterward.

Let us now observe some of the actual workings of heredity in man, both in the good and bad sense. In the present chapter we will devote our attention mainly to the superior types, leaving our consideration of the inferior for the next chapter.

Now what do we know about superior individuals? We know that they exist and that they are due to heredity. That is a good beginning, but it would not get us very far unless we knew more along the same lines. Fortunately, we not only know that superiors tend to produce superior offspring, but that they produce such offspring according to natural laws which can be determined statistically with a high degree of accuracy. (And, of course, the same is true of the production of inferiors.)

The production of superior persons has been studied by modern biologists from Galton down to the present

day, and a mass of authoritative data has been accumulated. Let us examine a few of these instructive investigations. To cite the earliest of them, Galton's study on "Hereditary Genius" (1869), Galton discovered that in English history success in life was a strikingly "family affair." From careful statistical investigation of a great number of notable Englishmen Galton found that a distinguished father was infinitely more likely to have a distinguished son than was an undistinguished father. To cite one case out of many, Galton found that the son of a distinguished judge had about one chance in four of becoming himself distinguished, while the son of a man picked out at random from the general population had only about one chance in 4,000 of becoming similarly distinguished.

Of course, the objection at once suggested itself that environmental influences like social opportunity might be predominant; that the son of a distinguished man is pushed forward regardless of his innate abilities, while the son of an obscure man never gets a chance. To test this, Galton turned to the history of the Papacy. For centuries it was the custom for a Pope to adopt one of his nephews as a son, and advance him in every way. Now if opportunity is all that is necessary to advance a man, these adopted sons ought to have reached eminence in the same proportion as the real sons of eminent men. As a matter of fact, however, they reached eminence only as often as the statistical expectation for nephews of great men—whose chance of eminence has been discovered to be much less than that of the sons of great

men. Nevertheless, despite different ratios of heritability, superiority still remains a family affair; Galton found that nearly half of the great men of England had distinguished close relatives.

Galton's studies of English greatness have been criticised as applying to a country where caste lines are sharply drawn. To test these objections the American biologist Woods transferred the inquiry to the United States—a land where opportunities have been much more equal and rigid caste lines virtually absent. How was it with the great men of America? If they were found to have fewer distinguished relatives than the great men of England, it would be a great feather in the environmentalists' cap, since it would tend to show that, given equal opportunity, success does not depend on family stock. On the other hand, if what was true of England should hold good also of America, the theory of hereditary superiority would be much more firmly established.

The result of Woods's study[1] was a striking confirmation of Galton's researches. Woods took two groups of distinguished Americans: a large group of 3,500 listed as eminent in the standard dictionaries of biography; and a small group of the 46 very eminent Americans admitted to the "Hall of Fame." Now how were these eminent persons related to each other? If superiority did not "run in families," it is evident that their chances of relationship would be no greater than that of the rest of the population—which ratio Woods found to be statis-

[1] Frederick Adams Woods, "Heredity and the Hall of Fame," *Popular Science Monthly*, May, 1913.

tically 1 in 500. However, as a matter of fact, the 3,500 eminent Americans were found to be related to each other, not as 1 to 500 but as 1 to 5. Furthermore, by picking out the more eminent among the 3,500 and forming a new group, this group was found to be related to each other as 1 to 3. Most striking of all were the results obtained by considering the very superior group listed in the Hall of Fame. Here the ratio of relationship rose to 1 in 2, while if all their eminent relations were counted in, they averaged more than one apiece. Thus, distinguished Americans are discovered to be from 500 to 1,000 times as much related to other distinguished persons as is the ordinary American. Or, to put it in another way, something like 1 per cent of the population of the United States is as likely to produce a genius as is all the rest of the country put together—the other 99 per cent.

It might, to be sure, be objected that even in America the early environment of eminent men might be on the average more favorable than that of the mass of the population. This objection is met by another of Woods's investigations—a very able and elaborate study of the royal families of Europe.[1] Here is a class of persons where no one can doubt that the environment is uniformly favorable. If opportunity rather than inherited capacity be the cause of success, then most of the members of this

[1] Frederick Adams Woods, *Mental and Moral Heredity in Royalty*, New York, 1906. See also his book, *The Influence of Monarchs*, New York, 1913, and his article, "Sovereigns and the Supposed Influence of Opportunity," *Science*, 19 June, 1914, where Doctor Woods answers some criticisms of his work.

class ought to have succeeded, and succeeded in about the same degree, because to every one of royal blood the door of opportunity stands open. Yet the result of Woods's study was just the reverse of this. Despite the good environment almost uniformly present, superiority in royalty, as in other classes, is found to be a distinctly "family matter." Royal geniuses are not scattered haphazard over the genealogical chart; they are concentrated in isolated chains of closely related individuals. One chain centres in Frederick the Great, another in Queen Isabella of Spain, a third in William the Silent, and a fourth in Gustavus Adolphus. And, be it also noted, inferiority in royalty is equally segregated, royal dullards and degenerates also running by families.

But how about superior individuals who rise from apparently mediocre stocks? Environmentalist writers are forever compiling lists of great men who "came from nothing." These cases have, however, been carefully investigated, and the more they are studied the more convincing grows the evidence that greatness never arises out of "nothing." Take Abraham Lincoln. He was long a shining example for the environmentalist thesis. Lincoln is popularly supposed to have come from "poor white trash" of a very inferior order. But careful investigation proves that this is emphatically not so. As one of the investigators remarks: "So far from his later career being unaccounted for in his origin and early history, it is as fully accounted for as is the case of any man." [1] And a recent authority goes on to state: "The

[1] Ida M. Tarbell, *The Early Life of Abraham Lincoln*, New York, 1896.

Lincoln family was one of the best in America, and while Abraham's own father was an eccentric person, he was yet a man of considerable force of character, by no means the 'poor white trash,' which he is often represented to have been. The Hanks family, to which the Emancipator's mother belonged, had also maintained a high level of ability in every generation.[1] Furthermore, Thomas Lincoln and Nancy Hanks, the parents of Abraham Lincoln, were first cousins."[2]

Of course, there are a considerable number of distinguished individuals whose greatness genealogy cannot as yet explain. But in most cases this is because very little is discoverable about their ancestors. Furthermore, as Holmes justly remarks: "It should be borne in mind that greatness involves a peculiar complex of qualities the lack of any one of which may prevent an individual from achieving an eminent position. A great man has to do more than simply exist; he must accomplish labors of a particularly noteworthy kind before he is crowned with fame, and many a man of splendid natural endowments has fallen short of achieving greatness through some inherent weakness of character or the lack of sufficient inspiration or driving force. Great men not only have to be born great; they also have to achieve greatness, and if they receive their proper recognition in the eyes of the world, greatness has to be thrust upon them besides. Great men, it is true, *seem* to rise higher than

[1] For a study of Lincoln's maternal line, see C. H. Hitchcock, *Nancy Hanks*, New York, 1899.

[2] Popenoe and Johnson, *op. cit.*, p. 333.

their source. Generally they come from an ancestry considerably above mediocrity. And I venture to express the opinion that a great man has never been produced from parents of subnormal mentality. A great man is more apt to arise if both parents are of very superior ability than if only one parent is above mediocrity. Where the great man appears to stand far above the level of his immediate ancestors it is due in large part, I believe, to the fact that each parent supplied peculiar qualities lacking in the other, assisted also by qualities from more remote ancestors which may have conspired to furnish the necessary complement of hereditary factors. . . . One thing is certain, and that is that you cannot make greatness out of mediocrity or good ability out of inborn dulness by all the aids which environment and education or anything else can possibly offer."[1]

Indeed, even if we admit that great men may occasionally arise from stocks which had never shown any signs of superiority, this ought to strengthen rather than weaken our belief in the force of heredity. As Woods well says, when it is considered how rarely such an ancestry produces a great man, it must be evident that his greatness is due to an accidental conjunction of favorable traits converging through his parents and meeting in himself.

Finally, how except by heredity can we explain the enormous differences in achievement between great numbers of persons exposed to the same environment and enjoying similar opportunities? "In terms of environ-

[1] S. J. Holmes, *The Trend of the Race*, pp. 115–116 (New York, 1921).

ment, the opportunity to become a great physicist was open to every one of the thousands of university students who were the contemporaries of Lord Kelvin; the opportunity to become a great musician has been open to all the pupils in all the conservatories of music which have flourished since Johann Sebastian Bach was a choirboy at Lüneburg; the opportunity to become a multimillionaire has been open to every clerk who has wielded a pen since John D. Rockefeller was a bookkeeper in a Cleveland store; the opportunity to become a great merchant has been open to every boy who has attended an American public school since the time when John Wanamaker, at fourteen years of age, was an errand boy in a Philadelphia book store."[1]

Such are the investigations of biology concerning human inequalities. They are certainly striking, and they all point to the same conclusions, namely: that such inequalities are inborn; that they are predetermined by heredity; and that they are not inherently modified by either environment or opportunity.

But this is only half the story. Within the past twenty years the problem of human inequality has been approached along a wholly new line, by a different branch of science—psychology. And the findings of these psychological investigations have not only tallied with those of biology in further revealing the inherited nature of human capacities, but have also proved it in even more striking fashion and with far greater possibilities of practical application.

[1] Alleyne Ireland, *Democracy and the Human Equation*, p. 153 (New York, 1921).

The novelty of the psychological approach to the problem is evident when we realize that, whereas biology has been investigating mainly the individual's ancestry or actions, psychology examines the mind itself. The best-known instruments of psychological investigation are the so-called "Intelligence Tests," first invented by the French psychologist Binet in the year 1905. From Binet's relatively modest beginning the mental tests have increased enormously in both complexity and scope, culminating in those gigantic investigations conducted by the American army authorities during the late war, when more than 1,700,000 men were mentally tested in a variety of ways.[1] Furthermore, despite the notable progress which it has already made, the psychological method appears to be still in its infancy, and seems likely to yield far more extraordinary results in the near future.

Yet the results already attained are of profound significance. It has been conclusively proved that intelligence is predetermined by heredity; that individuals come into the world differing vastly in mental capacities; that such differences remain virtually constant throughout life and cannot be lessened by environment or education; that the present mental level of any individual can be definitely ascertained, and even a child's future adult mental level

[1] The data gathered by the United States army intelligence tests have been published in detail in: *Memoirs of the National Academy of Sciences*, vol. XV, edited by Major R. M. Yerkes. A useful abridgment, containing many of the chief conclusions, etc., is the smaller volume by Majors Yerkes and Yoakum: *Army Mental Tests*, New York, 1920. See also valuable discussions of this matter in: *Publications of the American Sociological Society*, vol. XV, pp. 102–124. For further discussions, see books by Conklin, Ireland, and McDougall, already cited.

confidently predicted. These are surely discoveries whose practical importance can hardly be overestimated. They enable us to grade not merely individuals but whole nations and races according to their inborn capacities, to take stock of our mental assets and liabilities, and to get a definite idea as to whether humanity is headed toward greater achievement or toward decline.

Let us now see precisely what the intelligence tests have revealed. In the first place, we must remember the true meaning of the word "intelligence." "Intelligence" must not be confused with "knowledge." Knowledge is the result of intelligence, to which it stands in the relation of effect to cause. Intelligence is the *capacity* of the mind; knowledge is the raw material which is put into the mind. Whether the knowledge is assimilated or lost, or just what use is made of it, depends primarily upon the degree of intelligence. This intellectual capacity as revealed by mental testing is termed by psychologists the "I. Q." or "intelligence quotient."

Psychology has invented a series of mental yardsticks for the measurement of human intelligence, beginning with the mind of the child. For example, the mental capacity of a child at a certain age can be ascertained by comparing it (as revealed by mental tests) with the intelligence which careful examination of a vast number of cases has shown to be the statistical average for children of that age. This is possible because it has been found that mental capacity increases regularly as a child grows older. This increase is rapid during the first years of life, then slows down until, about the age of sixteen,

there is usually no further growth of mental capacity—albeit exceptionally superior intellects continue to grow in capacity for several years thereafter.

A large number of careful investigations made among school children have revealed literally amazing discrepancies between their chronological and their mental ages. In classes of first-grade grammar-school children, where the chronological age is about six years, some pupils are found with mental ages as low as three while other pupils are found with mental ages as high as nine or ten. Similarly, in first-year high-school classes, where the chronological age is about fourteen years, the mental age of some pupils may rank as low as ten or eleven, while the mental age of others may rise as high as nineteen or twenty.

And, be it remembered, the "I. Q." of any individual child, once discovered, can be counted on as a *constant* factor, which does not change with the lapse of time. For example: Take two children rated by their birth certificates as being both four years old, but with mental ages of three and five respectively. When they are chronologically eight years old, the mental age of the duller child will be about six, while the mental age of the brighter child will be about ten. And when they are chronologically twelve years old, their respective mental ages will be approximately nine and fifteen. Assuming that growth of mental capacity stops in both children at the chronological age of sixteen, the ratio of their mental ages as then attained will remain constant between them all the rest of their lives. That is why the mental ages

of persons over sixteen, once ascertained, can be regarded as fixed quantities. The only exceptions are those comparatively rare individuals of very superior mentality whose intelligence continues to grow a few years longer, and who are consequently very far in advance of their fellows. Two methods of mental grading are employed: children are graded according to "years"; adults are graded according to qualitative ratings ranging from "very superior," through "average," to "very inferior."

Space forbids any detailed discussion of the actual make-up of mental tests. Their number is legion and their specialization is minute. Yet they all yield the same general results. "No matter what trait of the individual be chosen, results are analogous. If one takes the simplest traits, to eliminate the most chances for confusion, one finds the same conditions every time. Whether it be speed in marking off all the A's in a printed sheet of capitals, or in putting together the pieces of a puzzle, or in giving a reaction to some certain stimulus, or in making associations between ideas, or drawing figures, or memory for various things, or giving the opposites of words, or discrimination of lifted weights, or success in any one of hundreds of other mental tests, the conclusion is the same. There are wide differences in the abilities of individuals, no two being alike, either mentally or physically, at birth or any time thereafter." [1]

We thus see that human beings are spaced on widely different mental levels; that they have a variety of mental statures, just as they have a variety of physical

[1] Popenoe and Johnson, pp. 77–78.

statures, and that both are basically due to inheritance. Furthermore, it is extremely significant to observe how closely intelligence is correlated with industrial or professional occupation, social and economic status, and racial origin. Nowhere does the power of heredity show forth more clearly than in the way innate superiority tends to be related to actual achievement. Despite the fact that our social system contains many defects which handicap superior individuals and foster inferiors; despite the fact that our ideas, laws, and institutions are largely based on the fallacies of environmentalism and "natural equality"; nevertheless, the imperious urge of superior germ-plasm beats against these man-made barriers and tends to raise the superior individuals who bear it—albeit only too often at the cost of their racial sterility through their failure to leave children.

Another noteworthy point is the way psychology has confirmed biological and sociological theories. Both biologists and sociologists have long been coming more and more to regard social and racial status as valid indications of innate quality. Now comes psychology, approaching the problem from a new angle and with different methods, and its findings coincide closely with those which the other sciences have already made. How close is this coincidence a few examples will show.

Taking first a couple of English researches: a comparison was made of the intellectual capacity of the boys at a certain private school who were mostly the sons of Oxford "dons" (*i. e.*, members of the university faculty), and the capacity of the boys at a municipal schoo'

tended by boys from the town population. I will quote the results in the words of Professor McDougall, who supervised the experiment, and of Mr. H. B. English, who conducted it. Says Professor McDougall: "The municipal school was an exceptionally good school of its kind, the teaching being in many respects better than in the other—the private school; the boys were from good homes, sons of good plain citizens—shopkeepers and skilled artisans, and so forth. Without going into detail I may say, summarily, that the result was to show a very marked superiority of the boys of the school frequented by the intellectual class."[1] And Mr. English states: "Although the groups are small, they are exceedingly homogeneous and thoroughly representative of the children in two social or economic strata. The writer does not hesitate, therefore, to predicate these results for the children of the entire classes represented or to conclude that the children of the professional class exhibit between twelve and fourteen years of age a very marked superiority in intelligence."[2] And Professor McDougall adds the following interesting comment: "The result is all the more striking, if you reflect on the following facts: First, every boy has two parents and inherits his qualities from both. Secondly, it has not been shown that university dons prefer clever wives, or that they are particularly clever in choosing clever wives. It remains, then, highly probable that, if the wives of these men were

[1] McDougall, p. 61.
[2] H. B. English, *Yale Psychological Studies* (1917), quoted by McDoug-

all as superior in respect of intellect as their husbands, the superiority of their sons to the boys of the other group would have been still more marked."[1]

In this connection, let me quote the conclusions of another British psychologist who made a similar experiment with like results: "For all these reasons we may conclude that the superior proficiency at intelligence tests on the part of boys of superior parentage was inborn. And thus we seem to have proved marked inheritability in the case of a mental character of the highest 'civic worth.' "[2]

Let us now pass to America. The United States offers a more instructive field, because, with its more fluid social structure and its heterogeneous racial make-up, the correlations between intelligence, social or economic status, and racial origin can be studied simultaneously.

Before discussing these American experiments, let us recall certain facts. For a long time past American biologists and sociologists have been coming more and more to the following conclusions: (1) That the old "Native American" stock, favorably selected as it was from the races of northern Europe, is the most superior element in the American population; (2) that subsequent immigrants from northern Europe, though coming from substantially the same racial stocks, were less favorably selected and average somewhat less superior; (3) that the more recent immigrants from southern and eastern

[1] McDougall, pp. 61–62.

[2] Cyril Burt, "Experimental Tests of General Intelligence," *British Journal of Psychology*, vol. III (1909), quoted by McDougall.

Europe average decidedly inferior to the north European elements; (4) that the negroes are inferior to all other elements. Now let us see how psychological tests have confirmed these biological and sociological conclusions.

One of the most recent of these experiments[1] was that conducted upon several hundred school children in the primary grades. The children were classified in two ways: according to racial origin, and according to economic-social status of parents. The racial classifications were: (*a*) children of American-born white parents; (*b*) children of Italian immigrants (mostly south Italians); (*c*) colored (negroes and mulattoes). The economic-social classifications of parents were: (1) professional; (2) semi-professional and higher business; (3) skilled labor; (4) semi-skilled and unskilled labor. The "I. Q." (intelligence quotient) of each category was then obtained, the object being to discover what correlations (if any) existed between racial origin, economic-social status, and intelligence. Here are the results:

Americans of social status (1)	I. Q. = 125
" " " " (2)	I. Q. = 118
" " " " (3)	I. Q. = 107
" " " " (4)	I. Q. = 92
All Americans grouped together	I. Q. = 106
Italians	I. Q. = 84
Colored	I. Q. = 83

[1] This experiment, conducted by Miss A. H. Arlitt, of Bryn Mawr College, is quoted by McDougall (pp. 63–64), he having obtained the data directly from Miss Arlitt in advance of her own publication. The experiment seems to have been conducted in the year 1920.

A similar experiment made on children in New York City public schools by the well-known authority, Professor S. M. Terman,[1] yields strikingly similar results. In this case the children were graded simply according to racial origin of parents, the classifications being: (1) Parents native-born white Americans; (2) parents north European immigrants; (3) parents Italian immigrants; (4) parents Portuguese immigrants. Here are the results:

American	I. Q. = 106
North European	I. Q. = 105
Italian	I. Q. = 84
Portuguese	I. Q. = 84

Note how the respective I. Q.'s of both the American and the Italian groups are identical in both experiments, although the children examined were, of course, not the same.

Here are the conclusions of Professor Terman regarding the correlation between economic-social status of parents and intelligence in children, as a result of his many researches upon school children from New York to California: "Intelligence of 110 to 120 I. Q. (this range is defined as 'superior intelligence') is approximately five times as common among children of superior social status as among children of inferior social status, the proportion among the former being about 24 per cent of all and among the latter only 5 per cent of all. The group of 'superior intelligence,' is made up largely of children of

[1] S. M. Terman, *Intelligence of School Children*, p. 56 (New York, 1919).

the fairly successful mercantile or professional classes." Professor Terman defines as of "very superior intelligence" those children who scored in the tests more than 120 marks. "Children of this group are," he says, "unusually superior. Not more than 3 out of 100 go as high as 125 I. Q., and only about 1 out of 100 as high as 130 I. Q. In the schools of a city of average population only about 1 child in 250 or 300 tests as high as 140 I. Q. In a series of 476 unselected children there was not a single one reaching 120 I. Q. whose social class was described as 'below average.' Of the children of superior social status, about 10 per cent reached 120 I .Q. or better. The 120–140 group (*i. e.*, of very superior intelligence) is made up almost entirely of children whose parents belong to the professional or very successful business classes. The child of a skilled laborer belongs here occasionally; the child of a common laborer very rarely indeed." [1]

Finally, let us note, in passing, some of the numerous researches which have been made on the intelligence of colored school children.[2] Space forbids our going into this point. Suffice it to say that the results accord with what has been previously stated, namely: that the intelligence of the colored population averages distinctly lower than the intelligence of native American whites, and somewhat lower than the intelligence of our least promising east and south European elements.

So much for experiments upon children. Now let us consider similar psychological investigations of the in-

[1] S. M. Terman, *The Measurement of Intelligence*, p. 95, New York, 1916.
[2] Several of these are noted and discussed by McDougall, pp. 55–66.

telligence of adults. Fortunately, we possess a great mass of valuable data from the mammoth investigations conducted by the United States army authorities upon more than 1,700,000 officers and men during the late war.[1] These investigations were planned and directed by a board of eminent psychologists. It is interesting to note that they were inspired, not by abstract scientific motives, but by motives of practical efficiency. In the words of two leading members of the investigating board, Majors Yoakum and Yerkes:

"The human factors in most practical situations have been neglected largely because of our consciousness of ignorance and our inability to control them. Whereas engineers deal constantly with physical problems of quality, capacity, stress and strain, they have tended to think of problems of human conduct and experience either as unsolved or as insoluble. At the same time there has existed a growing consciousness of the practical significance of these human factors and of the importance of such systematic research as shall extend our knowledge of them and increase our directive power.

"The great war from which we are now emerging into a civilization in many respects new has already worked marvellous changes in our points of view, our expectations, and practical demands. Relatively early in this supreme struggle, it became clear to certain individuals that the proper utilization of man-power, and more particularly of mind or brain-power, would assure ultimate victory. . . . All this had to be done in the least possible

[1] See publications already quoted on this point.

time. Never before in the history of civilization was brain, as contrasted with brawn, so important; never before, the proper placement and utilization of brain-power so essential to success.

"Our War Department, nerved to exceptional risks by the stern necessity for early victory, saw and immediately seized its opportunity to develop various new lines of personnel work. Among these is numbered the psychological service. Great will be our good fortune if the lesson in human engineering which the war has taught is carried over directly and effectively into our civil institutions and activities." [1]

The purposes of these psychological tests were, as stated in the army orders: "(*a*) to aid in segregating the mentally incompetent, (*b*) to classify men according to their mental capacity, (*c*) to assist in selecting competent men for responsible positions." And to quote a subsequent official pronouncement after the administration of the tests: "In the opinion of this office these reports indicate very definitely that the desired results have been achieved."

So much for the aims behind the tests. Now for the tests themselves. As already stated, they were administered to more than 1,700,000 officers and men. Great care was taken to eliminate the disturbing influence of environmental factors like lack of education and ignorance of the English language. Separate tests were devised, and the close correlations obtained showed that inborn intelligence had been successfully segregated.

[1] Yoakum and Yerkes, *Army Mental Tests*, pp. vii–viii (Introduction).

Besides general intelligence gradings, special studies according to army rank, civilian occupation, racial origin, etc., were made on large groups consisting of "samples" taken at many points from the general mass.

The following is the system of general grading employed to indicate the degree of individual intelligence:

A = very superior intelligence
B = superior intelligence
C + = high average intelligence
C = average intelligence
C − = low average intelligence
D = inferior intelligence
D − = very inferior intelligence
E = "unteachable men," rejected at once or after a short time

Let us now see how the 1,700,000 men examined graded according to intelligence, and what *mental* age these classifications implied:

Grade	Percentage	Mental Age
A	4½	18–19 (+)
B	9	16–17
C +	16½	15
C	25	13–14
C −	20	12
D	15	11
D −	10	10

This table is assuredly depressing. Probably never before has the relative scarcity of high intelligence been so vividly demonstrated. It strikingly reinforces what biologists and sociologists have long been telling us: that

the number of really superior persons is small, and that the great majority of even the most civilized populations are of mediocre or low intelligence—which, be it remembered, neither education nor any other environmental agency can ever raise. Think of this table's social significance! Assuming that these 1,700,000 men are a fair sample of the entire population of approximately 100,000,000 (and there is every reason to believe that it is a fair sample), this means that the *average* mental age of Americans is only about fourteen; that forty-five millions, or nearly one-half of the whole population, will never develop mental capacity beyond the stage represented by a normal twelve-year-old child; that only thirteen and one-half millions will ever show superior intelligence, and that only four and one-half millions can be considered "talented."

Still more alarming is the prospect for the future. The overwhelming weight of evidence (as we shall later show) indicates that the *A* and *B* elements in America are barely reproducing themselves, while the other elements are increasing at rates proportionate to their decreasing intellectual capacity: in other words, that intelligence is today being steadily *bred out of* the American population.

So much for the general results of the American army tests. Now let us consider some of the special classifications, notably those relating to the correlation of intelligence with army rank, civilian occupation, and racial origin.

In all these special classifications the correlations were precisely what our study might lead us to expect. First,

as to army rank: the great majority of officers, whether actually commissioned or in officers' training-camps, were found to be of *A* and *B* intelligence. Furthermore, in those branches of the service where a high degree of technical knowledge is required, the highest degree of intelligence was found. In the engineers and the artillery nearly all the officers graded *A;* whereas, in the veterinary corps less than one-sixth of the officers graded *A*, and nearly two-fifths graded *C*. Among the non-coms (sergeants and corporals) one-half or more graded *C*. The rank and file were mostly *C* men, with a small minority of *A's* and *B's*, and a somewhat larger minority of *D's* (*E* men, of course, being excluded from the service).

Next, as to the correlation between intelligence and civilian occupations: the professions were found to contain a great majority of *A* and *B* men; the percentage of superior intelligence sank steadily through the skilled and semi-skilled occupations, until it was least of all among the common laborers, very few of whom were found to possess intelligence grading higher than *C*, while most of them graded *C* — or *D*. Space forbids the textual reproduction of the statistical tables, which are very elaborate; but any one who cares to examine them in the works already quoted will see at a glance how symmetrical and logical are the gradings.

Finally, as to the correlation between intelligence and racial origin: two separate researches were made. The first of these was a comparison between white and colored drafted men; the other was a double grading of drafted

men of foreign birth. Let us visualize the results of the intelligence ratings of white and colored—by the following table—adding one other category (that of the officers) to visualize the difference between the intelligence level of the officers' corps and the levels of both white and colored drafted men:

	A	*B*	*C+*	*C*	*C−*	*D*	*D−*	*E*
White—Draft.....	2.0	4.8	9.7	20	22	30	8	2
Colored—Draft.....	.8	1.0	1.9	6	15	37	30	7
Officers.....	55.0	29.0	12.0	4	0	0	0	0

The above table needs no comment: it speaks for itself!

Now as to the second study concerning the correlation between intelligence and racial origin: the grading of foreign-born drafted men. This investigation, as already stated, was dual: the men were graded both up and down the scale; *i. e.*, both according to superiority and inferiority of intelligence. In the following tables "superiority" means *A* and *B* grades combined, while "inferiority" means *D* and *E* grades combined.

TABLE I: PERCENTAGE OF INFERIORITY

Country of Birth		Country of Birth	
England.....	8.7	Norway.....	25.6
Holland.....	9.2	Austria.....	37.5
Denmark.....	13.4	Ireland.....	39.4
Scotland.....	13.6	Turkey.....	42.0
Germany.....	15.0	Greece.....	43.6
Sweden.....	19.4	Russia.....	60.4
Canada.....	19.5	Italy.....	63.4
Belgium.....	24.0	Poland.....	69.9

TABLE II: PERCENTAGE OF SUPERIORITY

Country of Birth		Country of Birth	
England	19.7	Ireland	4.1
Scotland	13.0	Turkey	3.4
Holland	10.7	Austria	3.4
Canada	10.5	Russia	2.7
Germany	8.3	Greece	2.1
Denmark	5.4	Italy	.8
Sweden	4.3	Belgium	.8
Norway	4.1	Poland	.5

These tables are very interesting. Note how constant are the positions of the national groups in both tables. Also, note how surely a high percentage of superiority connotes a low percentage of inferiority—and *vice versa*. Of course, these tables refer merely to the intelligence of foreign-born groups *in America;* they may not be particularly good criteria for the entire home populations of the countries mentioned. But they *do* give us a good indication of the sort of people America is getting by immigration from those countries, and they indicate clearly the intelligence levels of the various foreign-born groups in America. And, once more we see a confirmation of those biological, sociological, and psychological researches which we have previously mentioned; viz., that the intelligence level of the racial elements which America has received from northern Europe is far above that of the south and east European elements.

We have already indicated how great are the possibilities for the practical employment of mental tests, not merely in the army but also in education, industry, and

the evaluation of whole populations and races.[1] "Before the war mental engineering was a dream; to-day it exists, and its effective development is amply assured."[2]

As yet psychology has not succeeded in measuring emotional and psychic qualities as it has done with intellectual faculties. But progress is being made in this direction, and the data accumulated already indicate not only that these qualities are inherited but also that they tend to be correlated with intelligence. Speaking of superior military qualities like loyalty, bravery, power to command, and ability to "carry on," Majors Yoakum and Yerkes state: "In the long run, these qualities are far more likely to be found in men of superior intelligence than in men who are intellectually inferior."[3]

Furthermore, whatever the direct correlation between intellectual and moral qualities, there is an undoubted practical connection, owing to the rational control exerted by the intellect over the spirit and the emotions. As Professor Lichtenberger remarks concerning the statement just quoted: "It would seem almost superfluous to add that loyalty, bravery, and even power to command, without sufficiently high intelligence may result in foolhardiness. They are forces of character, and we should devise methods of evaluating them, but, like all forces, organic and inorganic, they are valuable to the extent to which

[1] For these wider applications, see Yoakum & Yerkes, *op. cit.*, pp. 184–204; J. P. Lichtenberger, "The Social Significance of Mental Levels," *Publications of the American Sociological Society*, vol. XV, pp. 102–115; R. H. Platt, Jr., "The Scope and Significance of Mental Tests," *World's Work*, September, 1920.

[2] Yoakum and Yerkes, p. 197. [3] *Ibid.*, p. 24.

they are disciplined and controlled. The case is somewhat similar with respect to the emotions. . . . Probably it will not be long until we shall have some method of measuring the quality of emotional disturbances, and this will increase the accuracy of our judgments; but to whatever degree of independence the emotions may be assigned, their utility is determined by the discipline of intelligence. Emotional control is weak in those of low mental level. The higher the level, the greater the possibility of rational control."[1]

We have thus far considered the nature of intelligence, and we have found it to be an inborn quality whose capacity is predetermined by heredity. Biologically, this is important, because a man may not make much actual use of his talents and yet pass them on to children who will make use of them. In every-day life, however, capacity is important chiefly as it expresses itself in practical performance as evidenced by knowledge and action. We here enter a field where environment plays an important part, since what a man actually learns or does depends obviously upon environmental factors like education, training, and opportunity. Let us once more recall the distinction between "intelligence" and "knowledge": intelligence being the *capacity* of the mind, knowledge the *filling* of the mind. Let us also remember the true meaning of the word "education"—a "bringing forth" of that which potentially exists.

Now precisely how does environment affect performance? In extreme cases environment may be of major

[1] Lichtenberger, *op. cit.*, p. 104.

importance. A genius, condemned for life to the fate of Robinson Crusoe, would obviously accomplish very little; while, on the other hand, a man of mediocre capacity, if given every possible advantage, might make the utmost of his slender talents. But how is it under ordinary circumstances—especially under those substantially equal circumstances which it is the avowed aim of modern democratic ideals to produce?

Before discussing this point in detail, however, let us stop and find out just what we mean by "equal circumstances." Do we mean equality of *opportunity?* Or do we mean equality of *performance and recompense?* The two ideas are poles asunder; yet they are often confused in thought, and frequently intentionally confused in argument. Equality of opportunity means freedom of different individuals to make the most of similar conditions, and, by logical implication, freedom to reap rewards proportionate to respective achievements. Equality of performance and recompense, on the contrary, means the fixing of certain standards according to which action will be stimulated and rewards apportioned. This last is what most of the hot-gospellers of levelling "social equality" have in the back of their heads. They may camouflage their doctrines with fine phrases, but what they really intend is to handicap and defraud superior intelligence in order to "give everybody a fair show." Even in our present social system we see many instances of the waste and injustice caused by "levelling" practices: bright pupils held back to keep step with dullards, and bright workmen discouraged from doing their best

by grasping employers or ordered to "go slow" by union rules setting the pace by their less competent fellows.

This distinction being understood, let us now see how environment affects performance with individuals under conditions of equal opportunity. How, for example, does equality of training or education affect individual achievement? The answer is another striking proof of the power of heredity. Not only is such equality of conditions unable to level the inborn differences between individuals; on the contrary, it *increases the differences in results achieved.* "Equalizing practice seems to increase differences. The superior man seems to have got his present superiority by his own nature rather than by superior advantages of the past, since, during a period of equal advantage for all, he increases his lead." [1] As McDougall justly remarks: "The higher the level of innate capacity, the more is it improved by education." [2]

We thus see that even where superior individuals have no better opportunities than inferiors, environment tends to accentuate rather than equalize the differences between men, and that the only way to prevent increasing inequality is by deliberately holding the superiors down.

Certainly, the whole trend of civilization is toward increasing inequality. In the first place, the demands made upon the individual are more and more complex and differentiated. The differences in training and education between savages are relatively insignificant; the

[1] Popenoe and Johnson, p. 92. The authors cite several careful psychological tests by which this principle is clearly established.
[2] McDougall, p. 48.

differences between the feudal baron and his serf were comparatively slight; the differences to-day between casual laborers and captains of industry are enormous. Never before has the function of capacity been so important and so evident.

The truth is that, as civilization progresses, social status tends to coincide more and more closely with racial value; in other words, a given population tends to become more and more differentiated biologically, the upper social classes containing an ever larger proportion of persons of superior natural endowments while the lower social classes contain a growing proportion of inferiors. The intelligence tests which we have previously considered show us how marked this tendency has become in advanced modern societies like England and the United States, and there is every reason to believe that unless the civilizing process be interrupted this stratification will become even sharper in the future.

Now precisely how does this increasing stratification come about? We have already discussed this point in a general way. We have seen how the dynamic urge of superior germ-plasm surmounts environmental barriers and raises the individual socially; while, conversely, inferior individuals tend to sink in the social scale.

Let us now look at the matter more closely. This process, by which individuals migrate socially upward or downward from class to class, is termed "The Social Ladder." The ease with which people can go up or down this ladder depends on the flexibility of the social order, and social flexibility in turn characterizes progressive

civilizations. In the less advanced types of civilization, social flexibility is rare. Society crystallizes into closed castes, sons are compelled to follow the callings of their fathers, superior individuals cannot rise, and high-born inferiors are kept from sinking to their proper levels. This means waste, inefficiency and imperfect utilization of human resources.

However, as civilization progresses, its very complexity and needs compel greater efficiency; society becomes more flexible; and the "social ladder" works better and better. Latent talent rises more easily from the ranks, while the upper class cuts out more of its dead-wood, and thus tends to free itself from degenerate taints which have ruined so many aristocratic castes. The abounding vigor of American life, for example, is largely due to the way in which ability tends to be recognized wherever it appears and is given a chance to "make good." Thus, in course of time, the superior strains in a population rise to the top, while the inferior elements sink to the bottom. The upper classes are continually enriched by good new blood, while the lower classes, drained of their best elements, are increasingly impoverished and become increasingly inferior.

This segregation of populations according to racial value is produced, not merely by the social ladder, but by another process known as "assortative mating." Contrary to certain romantic but erroneous notions, careful scientific investigation has proved conclusively that "like tends to mate with like." Giants are not prone to marry dwarfs, nor do extreme blonds usually prefer dark brunettes. And what is true of physical characteristics is equally true of mental and emotional qualities. People *tend* to marry those not too unlike themselves. And, in addition to the action of personal preference, there is superadded the effect of propinquity. Individuals are usually attracted to those with whom they associate. These are usually of their own class, with common standards, similar tastes, and like educational attainments. But those are the very persons who are apt to be of the same general type. Thus, as populations get more differentiated, assortative mating widens the class gaps. Superiors tend more and more to marry superiors, mediocrity tends to mate with mediocrity, while the inferior and the degenerate become segregated by themselves.

At first sight it might seem as though the action of the social ladder would nullify the action of assortative mating. But when we look at the matter more closely we see that this is not the case. Where social flexibility permits individuals to migrate easily, like tends oftener to associate and hence to mate with like. The "self-made man" is more apt to find a wife of his own caliber, and is not compelled to choose exclusively from among the women of the lower social class in which he was born. On the other hand, high-born incompetents or "black sheep," sinking rapidly, are less likely to drag down with them high-type mates. Thus the social ladder and assortative mating, far from conflicting, reinforce each other and sift the population according to true racial values with cumulative effect.

The sustained intermarriage of a well-selected upper

class raises society's apex into a sharply defined peak or cone. Woods has termed this process "Social Conification."[1] The members of such "conified" groups display clearly marked traits and possess high average racial value. On the other hand, the lowest social classes, segregated and drained of their best elements, similarly "conify" into well-marked racial inferiority.

The extent to which these selective processes, working for generations in a highly civilized society, may drain the lower social classes of their best racial elements, is strikingly shown by the case of England. That marked differences of inborn capacity exist between the British upper and lower social strata has, of course, long been realized, but the rapidity with which the gap has been widening has been recently shown by two historical measurements of the social distribution of genius and talent in the United Kingdom conducted respectively by Havelock Ellis and Doctor Woods. The results of these studies have been ably summarized by Alleyne Ireland, whom I will quote.

Says Ireland: "What these investigations disclose is that over a period of several centuries there has occurred

[1] Doctor Frederick Adams Woods has made a number of careful researches on this question, his latest being a genealogical study of leading Massachusetts families, with special reference to their intermarriages, traced over a period of approximately three hundred years from the founding of the Massachusetts Bay Colony (1630) to the present day. His data have not yet been published, but Doctor Woods has shown them to me in MSS. Furthermore, at the Second International Congress of Eugenics, held at New York City in September, 1921, Doctor Woods read a paper summarizing the results of this study which will be published in the Congress's Proceedings.

a striking and progressive decline in the cultural contribution from the 'lower' classes in the United Kingdom, and, of course, a corresponding relative increase in the contribution from the 'upper' and 'middle' classes.

"It appears that, from the earliest times to the end of the nineteenth century, the contribution to eminent achievement made by the sons of craftsmen, artisans, and unskilled laborers yielded 11.7 per cent of the total number of names utilized in the inquiry; that the representatives of that class who were born in the first quarter of the nineteenth century yielded 7.2 per cent of the names; and that those born during the second quarter of the nineteenth century yielded only 4.2 per cent. These figures are of great interest and importance when considered in relation to the social and political history of England during the nineteenth century.

"Everybody knows that in England the nineteenth century witnessed a rapid and all-pervading democratization of social and political conditions. It was during that century that the English parliamentary system became, for the first time in the six hundred years of its existence, an institution representative of the great mass of the people; that schooling was made available for all; that in industry, in politics, in society, the gates of opportunity were opened wide for any person, of whatever parentage, who could make any contribution in any field of achievement; that peers became business men and business men peers; that any one whose talents had made him prominent in his calling could entertain a reasonable hope of finding wealth in the favor of the

public, and a title of nobility in the appreciation of the political leaders. . . .

"With every circumstance of life growing constantly more favorable to the self-assertion of genius and talent in the 'lower' classes in England, how was it that the contributions to eminent achievement from that group fell from an average of 11.7 per cent of the total to a proportion of 4.2 per cent?

"It seems to me that as the vast improvement in environmental conditions had not only failed to produce an increase in high achievement by those whom this improvement had done most to serve, but had, on the contrary, taken place *pari passu* with a very serious decline in achievement, the cause must be sought in an influence powerful enough to offset whatever beneficent effects improved environment might actually exert upon a stationary class during a single generation.

"This influence I deem to have been that of assortative mating. Its operation appears to have been of a dual character. On the one hand, the effect in heredity of intelligence mating with intelligence, of stupidity with stupidity, of success with success—to put the matter roughly—has been to perpetuate and to increase these traits in the respective groups. On the other hand, the practical social consequences of these effects being produced under conditions of an ever-broadening democratization of social life has been that the more intelligent and successful elements in the 'lower' classes have been constantly rising out of their class into one socially above it. This movement must have the consequence of draining the 'lower' classes of talent and genius, and, through a process of social migration, of increasing the genius and talent of each succeeding upper layer in the social series."[1]

We thus see that, as civilization progresses, inborn superiority tends to drain out of the lower social levels up into the higher social classes. And probably never before in human history has this selective process gone on so rapidly and so thoroughly as to-day.

But it may be asked: Is this not a matter for rejoicing? Does not this imply the eventual formation of an aristocracy of "supermen," blessing all classes with the flowerings of its creative genius?

Unfortunately, no; *not as society is now constituted.* On the contrary, if these tendencies continue under present social conditions, the concentration of superiority in the upper social levels will spell general racial impoverishment and hence a general decline of civilization. Let us remember that fatal tendency (discussed in the preceding chapter) to use up and exterminate racial values; to impoverish human stocks by the dual process of socially sterilizing superior strains and multiplying inferiors. The history of civilization is a series of racial tragedies. Race after race has entered civilization's portals; entered in the pink of condition, full of superior strains slowly selected and accumulated by the drastic methods of primitive life. Then, one by one, these races have been insidiously drained of their best, until, unable

[1] Alleyne Ireland, *Democracy and the Human Equation*, pp. 139–142 (New York, 1921).

to carry on, they have sunk back into impotent mediocrity. The only reason why the torch of civilization has continued to flame high is because it has been passed on from hand to hand; because there have always been good stocks still racially protected by primitive conditions who could take up the task.

To-day, however, this is no longer so. The local civilizations of the past have merged into a *world-civilization* which draws insistently on every high-type stock in existence. That is why our modern civilization has made such marvellous progress—because it has had behind it the pooled intelligence of the planet. But let us not deceive ourselves! Behind this brave show the same fatal tendencies that have wrought such havoc in the past are still working—working as never before! In the next chapter we shall consider closely these factors of racial decline. Suffice it here to state that in every civilized country to-day the superior elements in the population are virtually stationary or actually declining in numbers, while the mediocre and inferior elements are rapidly increasing.

Such is our racial balance-sheet. And, be it remembered: our civilization, unlike its predecessors, cannot shift the burden to other shoulders, because there are no more untapped "racial reserves." No "noble barbarians" wait to step forward as in the past; the barbarians and savages who still remain in the world are demonstrably of inferior caliber and can contribute little or nothing to the progress of civilization.

If, then, our civilization is to survive, it must conserve

and foster its own race values. Happily our civilization possesses two great advantages over past times: scientific knowledge and the scientific spirit. To us have been revealed secrets of life our forebears never knew. And to us has been vouchsafed a passion for *truth* such as the world has never seen. Other ages have sought truth from the lips of seers and prophets; our age seeks it from scientific *proof*. Other ages have had their saints and martyrs—dauntless souls who clung to their faith with unshakable constancy. Yet our age has also its saints and martyrs—heroes who cannot only face death for their faith, but who can also *scrap* their faith when facts have proved it wrong. There, indeed, is courage! And therein lies our hope.

This matchless love of truth, this spirit of science which combines knowledge and faith in the synthesis of a higher *wisdom*, as yet inspires only the élite of our time. Most of us are still more or less under the spell of the past—the spell of passion, prejudice, and unreason. It is thus that ideas and ideals clearly disproved by science yet claim the allegiance of multitudes of worthy men.

The dead hand of false doctrines and fallacious hopes lies, indeed, heavy upon us. Laws, institutions, customs, ideas, and ideals are all stamped deep with its imprint. Our very minds and souls are imbued with delusions like environmentalism and "natural equality" from whose emotional grip it is hard to escape. Mighty as is the new truth, our eyes are yet blinded to its full meaning, our hearts shrink instinctively from its wider implications, and our feet falter on the path to higher destinies.

These reactionary forces stubbornly impede the progress of those deep-going eugenic reforms which must speedily be undertaken if our civilization is to be saved from decline and our race from decay.

This is serious enough. But there is something more serious still. The reactionary forces which we have just described, though powerful, are, after all, essentially negative in character. With the spread of enlightenment they would soon wither—if they stood alone. But they do not stand alone. Behind them, sheltered by them, lurks a positive, aggressive force: The Under-Man!

The Under-Man is unconvertible. He will not bow to the new truth, *because he knows that the new truth is not for him.* Why should he work for a higher civilization, when even the present civilization is beyond his powers? What the Under-Man wants is, not progress, but *regress*—regress to more primitive conditions in which he would be at home. In fact, the more he grasps the significance of the new eugenic truth, the uglier grows his mood. So long as all men believed all men potentially equal, the Under-Man could delude himself into thinking that changed circumstances might raise him to the top. Now that nature herself proclaims him irremediably inferior, his hatred of superiority knows no bounds.

This hatred he has always instinctively felt. Envy and resentment of superiority have ever been the badges of base minds. Yet never have these badges been so fiercely flaunted, so defiantly worn, as to-day. This explains the seeming paradox that, just when the character of superiority becomes supremely manifest, the cry for

levelling "equality" rises supremely shrill. The Under-Man revolts against progress! Nature herself having decreed him uncivilizable, the Under-Man declares war on civilization.

These are not pretty facts. But we had better face them, lest they face us, and catch us unawares. Let us, then, understand once and for all that we have among us a rebel army—the vast host of the unadaptable, the incapable, the envious, the discontented, filled with instinctive hatred of civilization and progress, and ready on the instant to rise in revolt.

Here are foes that need watching. Let us watch them.