

THE MIND IN THE MAKING



I. ON THE PURPOSE OF THIS VOLUME

IF some magical transformation could be produced in men's ways of looking at themselves and their fellows, no inconsiderable part of the evils which now afflict society would vanish away or remedy themselves automatically. If the majority of influential persons held the opinions and occupied the point of view that a few rather uninfluential people now do, there would, for instance, be no likelihood of another great war; the whole problem of "labor and capital" would be transformed and attenuated; national arrogance, race animosity, political corruption, and inefficiency would all be reduced below the danger point. As an old Stoic proverb has it, men are tormented by the opinions they have of things, rather than by the things themselves. This is eminently true of many of our worst problems to-day. We have available knowledge and ingenuity and material resources to make a far fairer world than that in which we find ourselves,

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but various obstacles prevent our intelligently availing ourselves of them. The object of this book is to substantiate this proposition, to exhibit with entire frankness the tremendous difficulties that stand in the way of such a beneficent change of mind, and to point out as clearly as may be some of the measures to be taken in order to overcome them.

When we contemplate the shocking derangement of human affairs which now prevails in most civilized countries, including our own, even the best minds are puzzled and uncertain in their attempts to grasp the situation. The world seems to demand a moral and economic regeneration which it is dangerous to postpone, but as yet impossible to imagine, let alone direct. The preliminary intellectual regeneration which would put our leaders in a position to determine and control the course of affairs has not taken place. We have unprecedented conditions to deal with and novel adjustments to make—there can be no doubt of that. We also have a great stock of scientific knowledge unknown to our grandfathers with which to operate. So novel are the conditions, so copious the knowledge, that we must undertake the arduous task of reconsidering a great part of the opinions about man and his relations to his fellow-men which

have been handed down to us by previous generations who lived in far other conditions and possessed far less information about the world and themselves. We have, however, first to create an *unprecedented attitude of mind to cope with unprecedented conditions, and to utilize unprecedented knowledge*. This is the preliminary, and most difficult, step to be taken—far more difficult than one would suspect who fails to realize that in order to take it we must overcome inveterate natural tendencies and artificial habits of long standing. How are we to put ourselves in a position to come to think of things that we not only never thought of before, but are most reluctant to question? In short, how are we to rid ourselves of our fond prejudices and *open our minds?*

As a historical student who for a good many years has been especially engaged in inquiring how man happens to have the ideas and convictions about himself and human relations which now prevail, the writer has reached the conclusion that history can at least shed a great deal of light on our present predicaments and confusion. I do not mean by history that conventional chronicle of remote and irrelevant events which embittered the youthful years of many of us, but rather a study of

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how man has come to be as he is and to believe as he does.

No historian has so far been able to make the whole story very plain or popular, but a number of considerations are obvious enough, and it ought not to be impossible some day to popularize them. I venture to think that if certain seemingly indisputable historical facts were generally known and accepted and permitted to play a daily part in our thought, the world would forthwith become a very different place from what it now is. We could then neither delude ourselves in the simple-minded way we now do, nor could we take advantage of the primitive ignorance of others. All our discussions of social, industrial, and political reform would be raised to a higher plane of insight and fruitfulness.

In one of those brilliant divagations with which Mr. H. G. Wells is wont to enrich his novels he says:

When the intellectual history of this time comes to be written, nothing, I think, will stand out more strikingly than the empty gulf in quality between the superb and richly fruitful scientific investigations that are going on, and the general thought of other educated sections of the community. I do not mean that scientific men are, as a whole, a class of supermen, dealing with and thinking about everything in a way altogether better than the common run of humanity,

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but in their field they think and work with an intensity, an integrity, a breadth, boldness, patience, thoroughness, and faithfulness—excepting only a few artists—which puts their work out of all comparison with any other human activity. . . . In these particular directions the human mind has achieved a new and higher quality of attitude and gesture, a veracity, a self-detachment, and self-abnegating vigor of criticism that tend to spread out and must ultimately spread out to every other human affair.

No one who is even most superficially acquainted with the achievements of students of nature during the past few centuries can fail to see that their thought has been astoundingly effective in constantly adding to our knowledge of the universe, from the hugest nebula to the tiniest atom; moreover, this knowledge has been so applied as to well-nigh revolutionize human affairs, and both the knowledge and its applications appear to be no more than hopeful beginnings, with indefinite revelations ahead, if only the same kind of thought be continued in the same patient and scrupulous manner.

But the knowledge of man, of the springs of his conduct, of his relation to his fellow-men singly or in groups, and the felicitous regulation of human intercourse in the interest of harmony and fairness, have made no such advance. Aristotle's treatises on astronomy

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and physics, and his notions of "generation and decay" and of chemical processes, have long gone by the board, but his politics and ethics are still revered. Does this mean that his penetration in the sciences of man exceeded so greatly his grasp of natural science, or does it mean that the progress of mankind in the scientific knowledge and regulation of human affairs has remained almost stationary for over two thousand years? I think that we may safely conclude that the latter is the case. It has required three centuries of scientific thought and of subtle inventions for its promotion to enable a modern chemist or physicist to center his attention on electrons and their relation to the mysterious nucleus of the atom, or to permit an embryologist to study the early stirrings of the fertilized egg. As yet relatively little of the same kind of thought has been brought to bear on human affairs.

When we compare the discussions in the United States Senate in regard to the League of Nations with the consideration of a broken-down car in a roadside garage the contrast is shocking. The rural mechanic thinks scientifically; his only aim is to avail himself of his knowledge of the nature and workings of the car, with a view to making it run once more. The Senator, on the other hand, ap-

pears too often to have little idea of the nature and workings of nations, and he relies on rhetoric and appeals to vague fears and hopes or mere partisan animosity. The scientists have been busy for a century in revolutionizing the *practical* relation of nations. The ocean is no longer a barrier, as it was in Washington's day, but to all intents and purposes a smooth avenue closely connecting, rather than safely separating, the eastern and western continents. The Senator will nevertheless unblushingly appeal to policies of a century back, suitable, mayhap, in their day, but now become a warning rather than a guide. The garage man, on the contrary, takes his mechanism as he finds it, and does not allow any mystic respect for the earlier forms of the gas engine to interfere with the needed adjustments.

Those who have dealt with natural phenomena, as distinguished from purely human concerns, did not, however, quickly or easily gain popular approbation and respect. The process of emancipating natural science from current prejudices, both of the learned and of the unlearned, has been long and painful, and is not wholly completed yet. If we go back to the opening of the seventeenth century we find three men whose business it was, above

all, to present and defend common sense in the natural sciences. The most eloquent and variedly persuasive of these was Lord Bacon. Then there was the young Descartes trying to shake himself loose from his training in a Jesuit seminary by going into the Thirty Years' War, and starting his intellectual life all over by giving up for the moment all he had been taught. Galileo had committed an offense of a grave character by discussing in the mother tongue the problems of physics. In his old age he was imprisoned and sentenced to repeat the seven penitential psalms for differing from Aristotle and Moses and the teachings of the theologians. On hearing Galileo's fate, Descartes burned a book he had written, *On the World*, lest he, too, get into trouble.

From that time down to the days of Huxley and John Fiske the struggle has continued, and still continues—the Three Hundred Years' War for intellectual freedom in dealing with natural phenomena. It has been a conflict against ignorance, tradition, and vested interests in church and university, with all that preposterous invective and cruel misrepresentation which characterize the fight against new and critical ideas. Those who cried out against scientific discoveries did so in the

name of God, of man's dignity, and of holy religion and morality. Finally, however, it has come about that our instruction in the natural sciences is tolerably free; although there are still large bodies of organized religious believers who are hotly opposed to some of the more fundamental findings of biology. Hundreds of thousands of readers can be found for Pastor Russell's exegesis of Ezekiel and the Apocalypse to hundreds who read Conklin's *Heredity and Environment* or Slosson's *Creative Chemistry*. No publisher would accept a historical textbook based on an explicit statement of the knowledge we now have of man's animal ancestry. In general, however, our scientific men carry on their work and report their results with little or no effective hostility on the part of the clergy or the schools. The social body has become tolerant of their virus.

This is not the case, however, with the social sciences. One cannot but feel a little queasy when he uses the expression "social science," because it seems as if we had not as yet got anywhere near a real science of man. I mean by social science our feeble efforts to study man, his natural equipment and impulses, and his relations to his fellows in the light of his origin and the history of the race.

This enterprise has hitherto been opposed by a large number of obstacles essentially more hampering and far more numerous than those which for three hundred years hindered the advance of the natural sciences. Human affairs are in themselves far more intricate and perplexing than molecules and chromosomes. But this is only the more reason for bringing to bear on human affairs that critical type of thought and calculation for which the remunerative thought about molecules and chromosomes has prepared the way.

I do not for a moment suggest that we can use precisely the same kind of thinking in dealing with the quandaries of mankind that we use in problems of chemical reaction and mechanical adjustment. Exact scientific results, such as might be formulated in mechanics, are, of course, out of the question. It would be unscientific to expect to apply them. I am not advocating any particular method of treating human affairs, but rather such a *general frame of mind, such a critical open-minded attitude*, as has hitherto been but sparsely developed among those who aspire to be men's guides, whether religious, political, economic, or academic. Most human progress has been, as Wells expresses it, a mere "muddling through." It has been man's

went to explain and sanctify his ways, with little regard to their fundamental and permanent expediency. An arresting example of what this muddling may mean we have seen during these recent years in the slaying or maiming of fifteen million of our young men, resulting in incalculable loss, continued disorder, and bewilderment. Yet men seem blindly driven to defend and perpetuate the conditions which produced the last disaster.

Unless we wish to see a recurrence of this or some similar calamity, we must, as I have already suggested, create a new and unprecedented attitude of mind to meet the new and unprecedented conditions which confront us. *We should proceed to the thorough reconstruction of our mind, with a view to understanding actual human conduct and organization.* We must examine the facts freshly, critically, and dispassionately, and then allow our philosophy to formulate itself as a result of this examination, instead of permitting our observations to be distorted by archaic philosophy, political economy, and ethics. As it is, we are taught our philosophy first, and in its light we try to justify the facts. We must reverse this process, as did those who began the great work in experimental science; we must first face the facts, and

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patiently await the emergence of a new philosophy.

A willingness to examine the very foundations of society does not mean a desire to encourage or engage in any hasty readjustment, but certainly no wise or needed readjustment *can* be made unless such an examination is undertaken.

I come back, then, to my original point that in this examination of existing facts history, by revealing the origin of many of our current fundamental beliefs, will tend to free our minds so as to permit honest thinking. Also, that the historical facts which I propose to recall would, if permitted to play a constant part in our thinking, automatically eliminate a very considerable portion of the gross stupidity and blindness which characterize our present thought and conduct in public affairs, and would contribute greatly to developing the needed scientific attitude toward human concerns—in other words, to *bringing the mind up to date*.

2. THREE DISAPPOINTED METHODS OF REFORM

Plans for social betterment and the cure of public ills have in the past taken three general forms: (I) changes in the rules of the game, (II) spiritual exhortation, and (III) educa-

tion. Had all these not largely failed, the world would not be in the plight in which it now confessedly is.

I. Many reformers concede that they are suspicious of what they call "ideas." They are confident that our troubles result from defective organization, which should be remedied by more expedient legislation and wise ordinances. Abuses should be abolished or checked by forbidding them, or by some ingenious reordering of procedure. Responsibility should be concentrated or dispersed. The term of office of government officials should be lengthened or shortened; the number of members in governing bodies should be increased or decreased; there should be direct primaries, referendum, recall, government by commission; powers should be shifted here and there with a hope of meeting obvious mischances all too familiar in the past. In industry and education administrative reform is constantly going on, with the hope of reducing friction and increasing efficiency. The House of Commons not long ago came to new terms with the peers. The League of Nations has already had to adjust the functions and influence of the Council and the Assembly, respectively.

No one will question that organization is

absolutely essential in human affairs, but reorganization, while it sometimes produces assignable benefit, often fails to meet existing evils, and not uncommonly engenders new and unexpected ones. Our confidence in restriction and regimentation is exaggerated. What we usually need is a *change of attitude*, and without this our new regulations often leave the old situation unaltered. So long as we allow our government to be run by politicians and business lobbies it makes little difference how many aldermen or assemblymen we have or how long the mayor or governor holds office. In a university the fundamental drift of affairs cannot be greatly modified by creating a new dean, or a university council, or by enhancing or decreasing the nominal authority of the president or faculty. We now turn to the second sanctified method of reform, moral uplift.

II. Those who are impatient with mere administrative reform, or who lack faith in it, declare that what we need is brotherly love. Thousands of pulpits admonish us to remember that we are all children of one Heavenly Father and that we should bear one another's burdens with fraternal patience. Capital is too selfish; Labor is bent on its own narrow interests regardless of the risks Capital takes.

We are all dependent on one another, and a recognition of this should beget mutual forbearance and glad co-operation. Let us forget ourselves in others. "Little children, love one another."

The fatherhood of God has been preached by Christians for over eighteen centuries, and the brotherhood of man by the Stoics long before them. The doctrine has proved compatible with slavery and serfdom, with wars blessed, and not infrequently instigated, by religious leaders, and with industrial oppression which it requires a brave clergyman or teacher to denounce to-day. True, we sometimes have moments of sympathy when our fellow-creatures become objects of tender solicitude. Some rare souls may honestly flatter themselves that they love mankind in general, but it would surely be a very rare soul indeed who dared profess that he loved his personal enemies—much less the enemies of his country or institutions. We still worship a tribal god, and the "foe" is not to be reckoned among his children. Suspicion and hate are much more congenial to our natures than love, for very obvious reasons in this world of rivalry and common failure. There is, beyond doubt, a natural kindness in mankind which will show itself under

favorable auspices. But experience would seem to teach that it is little promoted by moral exhortation. This is the only point that need be urged here. Whether there is another way of forwarding the brotherhood of man will be considered in the sequel.

III. One disappointed in the effects of mere reorganization, and distrusting the power of moral exhortation, will urge that what we need above all is *education*. It is quite true that what we need is education, but something so different from what now passes as such that it needs a new name.

Education has more various aims than we usually recognize, and should of course be judged in relation to the importance of its several intentions, and of its success in gaining them. The arts of reading and writing and figuring all would concede are basal in a world of newspapers and business. Then there is technical information and the training that prepares one to earn a livelihood in some more or less standardized guild or profession. Both these aims are reached fairly well by our present educational system, subject to various economies and improvements in detail. Then there are the studies which it is assumed contribute to general culture and to "training the mind," with the hope of cultivating our

tastes, stimulating the imagination, and mayhap improving our reasoning powers.

This branch of education is regarded by the few as very precious and indispensable; by the many as at best an amenity which has little relation to the real purposes and success of life. It is highly traditional and retrospective in the main, concerned with ancient tongues, old and revered books, higher mathematics, somewhat archaic philosophy and history, and the fruitless form of logic which has until recently been prized as man's best guide in the fastnesses of error. To these has been added in recent decades a choice of the various branches of natural science.

The results, however, of our present scheme of liberal education are disappointing. One who, like myself, firmly agrees with its objects and is personally so addicted to old books, so pleased with such knowledge as he has of the ancient and modern languages, so envious of those who can think mathematically, and so interested in natural science—such a person must resent the fact that those who have had a liberal education rarely care for old books, rarely read for pleasure any foreign language, think mathematically, love philosophy or history, or care for the beasts, birds, plants, and rocks with any intelligent insight, or even

real curiosity. This arouses the suspicion that our so-called "liberal education" miscarries and does not attain its ostensible aims.

The three educational aims enumerated above have one thing in common. They are all directed toward an enhancement of the chances of *personal* worldly success, or to the increase of our *personal* culture and intellectual and literary enjoyment. Their purpose is not primarily to fit us to play a part in social or political betterment. But of late a fourth element has been added to the older ambitions, namely the hope of preparing boys and girls to become intelligent voters. This need has been forced upon us by the coming of political democracy, which makes one person's vote exactly as good as another's.

Now education for citizenship would seem to consist in gaining a knowledge of the actual workings of our social organization, with some illuminating notions of its origin, together with a full realization of its defects and their apparent sources. But here we encounter an obstacle that is unimportant in the older types of education, but which may prove altogether fatal to any good results in our efforts to make better citizens. Subjects of instruction like reading and writing, mathematics, Latin and Greek, chemistry and physics, medicine and

the law are fairly well standardized and retrospective. Doubtless there is a good deal of internal change in method and content going on, but this takes place unobtrusively and does not attract the attention of outside critics. Political and social questions, on the other hand, and matters relating to prevailing business methods, race animosities, public elections, and governmental policy are, if they are vital, necessarily "controversial." School boards and superintendents, trustees and presidents of colleges and universities, are sensitive to this fact. They eagerly deprecate in their public manifestos any suspicion that pupils and students are being awakened in any way to the truth that our institutions can possibly be fundamentally defective, or that the present generation of citizens has not conducted our affairs with exemplary success, guided by the immutable principles of justice.

How indeed can a teacher be expected to explain to the sons and daughters of business men, politicians, doctors, lawyers, and clergymen—all pledged to the maintenance of the sources of their livelihood—the actual nature of business enterprise as now practiced, the prevailing methods of legislative bodies and courts, and the conduct of foreign affairs? Think of a teacher in the public schools re-

counting the more illuminating facts about the municipal government under which he lives, with due attention to graft and jobs! So, courses in government, political economy, sociology, and ethics confine themselves to inoffensive generalizations, harmless details of organization, and the commonplaces of routine morality, for only in that way can they escape being controversial. Teachers are rarely able or inclined to explain our social life and its pre-suppositions with sufficient insight and honesty to produce any very important results. Even if they are tempted to tell the essential facts they dare not do so, for fear of losing their places, amid the applause of all the righteously minded.

However we may feel on this important matter, we must all agree that the aim of education for citizenship as now conceived is a preparation for the same old citizenship which has so far failed to eliminate the shocking hazards and crying injustices of our social and political life. For we sedulously inculcate in the coming generation exactly the same illusions and the same ill-placed confidence in existing institutions and prevailing notions that have brought the world to the pass in which we find it. Since we do all we can to corroborate the beneficence of what we have,

we can hardly hope to raise up a more intelligent generation bent on achieving what we have not. We all know this to be true; it has been forcibly impressed on our minds of late. Most of us agree that it is right and best that it should be so; some of us do not like to think about it at all, but a few will be glad to spend a little time weighing certain suggestions in this volume which may indicate a way out of this *impasse*.¹

We have now considered briefly the three main hopes that have been hitherto entertained of bettering things, (I) by changing the rules of the game, (II) by urging men to be good, and to love their neighbor as themselves, and (III) by education for citizenship. It may be that these hopes are not wholly unfounded, but it must be admitted that so far they have been grievously disappointed. Doubtless they will continue to be cherished on account of their assured respectability.

¹ George Bernard Shaw reaches a similar conclusion when he contemplates education in the British Isles. "We must teach citizenship and political science at school. But must we? There is no must about it, the hard fact being that we must *not* teach political science or citizenship at school. The schoolmaster who attempted it would soon find himself penniless in the streets without pupils, if not in the dock pleading to a pompously worded indictment for sedition against the exploiters. Our schools teach the morality of feudalism corrupted by commercialism, and hold up the military conqueror, the robber baron, and the profiteer, as models of the illustrious and successful."—*Back to Methuselah*, xii.

Mere lack of success does not discredit a method, for there are many things that determine and perpetuate our sanctified ways of doing things besides their success in reaching their proposed ends. Had this not always been so, our life to-day would be far less stupidly conducted than it is. But let us agree to assume for the moment that the approved schemes of reform enumerated above have, to say the least, shown themselves inadequate to meet the crisis in which civilized society now finds itself. Have we any other hope?

Yes, there is Intelligence. That is as yet an untested hope in its application to the regulation of human relations. It is not discredited because it has not been tried on any large scale outside the realm of natural science. There, everyone will confess, it has produced marvelous results. Employed in regard to stars, rocks, plants, and animals, and in the investigation of mechanical and chemical processes, it has completely revolutionized men's notions of the world in which they live, and of its inhabitants, *with the notable exception of man himself*. These discoveries have been used to change our habits and to supply us with everyday necessities which a hundred years ago were not dreamed

of as luxuries accessible even to kings and millionaires.

But most of us know too little of the past to realize the penalty that had to be paid for this application of intelligence. In order that these discoveries should be made and ingeniously applied to the conveniences of life, *it was necessary to discard practically all the consecrated notions of the world and its workings which had been held by the best and wisest and purest of mankind down to three hundred years ago*—indeed, until much more recently. Intelligence, in a creature of routine like man and in a universe so ill understood as ours, must often break valiantly with the past in order to get ahead. It would be pleasant to assume that all we had to do was to build on well-designed foundations, firmly laid by the wisdom of the ages. But those who have studied the history of natural science would agree that Bacon, Galileo, and Descartes found no such foundation, but had to begin their construction from the ground up.

The several hopes of reform mentioned above all assume that the now generally accepted notions of righteous human conduct are not to be questioned. Our churches and universities defend this assumption. Our editors and lawyers and the more vocal of our busi-

ness men adhere to it. Even those who pretend to study society and its origin seem often to believe that our present ideals and standards of property, the state, industrial organization, the relations of the sexes, and education are practically final and must necessarily be the basis of any possible betterment in detail. But if this be so Intelligence has already done its perfect work, and we can only lament that the outcome in the way of peace, decency, and fairness, judged even by existing standards, has been so disappointing.

There are, of course, a few here and there who suspect and even repudiate current ideals and standards. But at present their resentment against existing evils takes the form of more or less dogmatic plans of reconstruction, like those of the socialists and communists, or exhausts itself in the vague protest and faultfinding of the average "Intellectual." Neither the socialist nor the common run of Intellectual appears to me to be on the right track. The former is more precise in his doctrines and confident in his prophecies than a scientific examination of mankind and its ways would at all justify; the other, more indefinite than he need be.

If Intelligence is to have the freedom of action necessary to accumulate new and

valuable knowledge about man's nature and possibilities which may ultimately be applied to reforming our ways, it must loose itself from the bonds that now confine it. The primeval curse still holds: "Of every tree in the garden thou mayest freely eat; but of the tree of the knowledge of good and evil, thou shalt not eat of it; for in the day that thou eatest thereof thou shalt surely die." Few people confess that they are afraid of knowledge, but the university presidents, ministers, and editors who most often and publicly laud what they are wont to call "the fearless pursuit of truth," feel compelled, in the interest of public morals and order, to discourage any reckless indulgence in the fruit of the forbidden tree, for the inexperienced may select an unripe apple and suffer from the colic in consequence. "Just look at Russia!" Better always, instead of taking the risk on what the church calls "science falsely so called," fall back on ignorance rightly so called. No one denies that Intelligence is the light of the world and the chief glory of man, but, as Bertrand Russell says, we dread its indifference to respectable opinions and what we deem the well-tried wisdom of the ages. "It is," as he truly says, "fear that holds men back; fear that their cherished

beliefs should prove harmful, fear lest they themselves should prove less worthy of respect than they have supposed themselves to be. 'Should the workingman think freely about property? What then will become of us, the rich? Should young men and women think freely about sex? What then will become of morality? Should soldiers think freely about war? What then will become of military discipline?' "

This fear is natural and inevitable, but it is none the less dangerous and discreditable. Human arrangements are no longer so fool-proof as they may once have been when the world moved far more slowly than it now does. It should therefore be a good deed to remove or lighten any of the various restraints on thought. I believe that there is an easy and relatively painless way in which our respect for the past can be lessened so that we shall no longer feel compelled to take the wisdom of the ages as the basis of our reforms. My own confidence in what President Butler calls "the findings of mankind" is gone, and the process by which it was lost will become obvious as we proceed. I have no reforms to recommend, except the liberation of Intelligence, which is the first and most essential one. I propose to review by way of introduction some of the

new ideas which have been emerging during the past few years in regard to our minds and their operations. Then we shall proceed to the main theme of the book, a sketch of the manner in which our human intelligence appears to have come about. If anyone will follow the story with a fair degree of sympathy and patience he may, by merely putting together well-substantiated facts, many of which he doubtless knows in other connections, hope better to understand the perilous quandary in which mankind is now placed and the ways of escape that offer themselves.