

## CHAPTER VIII

### THE TRAGEDY OF SCIENTIFIC MAN

#### *The Tragic Meaning of the Irrationality of Life*

**R**RATIONALISM misunderstands the nature of man, the nature of the world, and the nature of reason itself. It sees the world dominated by reason throughout, an independent and self-sufficient force which cannot fail, sooner or later, to eliminate the still remaining vestiges of unreason. Evil, then, is a mere negative quality, the absence of something whose presence would be good. It can be conceived only as lack of reason and is incapable of positive determination based upon its own intrinsic qualities. This philosophical and ethical monism, which is so characteristic of the rationalistic mode of thought, is a deviation from the tradition of Western thought. In this tradition God is challenged by the devil, who is conceived as a permanent and necessary element in the order of the world. The sinfulness of man is likewise conceived, from Duns Scotus and Thomas Aquinas to Luther, not as an accidental disturbance of the order of the world sure to be overcome by a gradual development toward the good but as an inescapable necessity which gives meaning to the existence of man and which only an act of grace or salvation in another world is able to overcome. Where, as in the Augustinian conception, the state is con-

sidered evil and the negation of the good order of things, it is necessarily connected with the order of the world because it participates in the general sinfulness of the world.

When the preliberal writers decry the evils of man's earthly existence, they do not think in the first place of the waste of life and effort, of the disproportion between merit and reward, but of man's damnation or of his inherent inability to find peace and happiness in this world. This evil is not unreasonableness in the liberal sense, the mere negation of reason, but symbol and expression of all that, in a positive way, is fateful, sinister, and destructive in human life. In our time Sigmund Freud has rediscovered the autonomy of the dark and evil forces which, as manifestations of the unconscious, determine the fate of man. Freud shows only in the optimism of his purely philosophical writings, founded upon the faith in the ultimate complete triumph of reason over the unconscious, that even he cannot escape entirely the impact of the age. Yet two of his followers, Alfred Adler and Karen Horney, by adapting his psychology to the rationalist standards, illuminate the gap which separates Freud's concept of man from the rationalist philosophy. For both, the darkness of the Freudian unconscious, pregnant with evil, is transformed into a kind of temporary lack of visibility, something purely negative, which will be overcome with relative ease by the standard devices of the age, such as education and individual and social reform.

The prerationalist age is aware of the existence of two forces—God and the devil, life and death, light and darkness, good and evil, reason and passion—which struggle for dominance of the world. There is no progress toward the good, noticeable from year to year, but undecided conflict which sees today good, tomorrow evil, prevail; and only at the end

of time, immeasurably removed from the here and now of our earthly life, the ultimate triumph of the forces of goodness and light will be assured.

Out of this everlasting and ever undecided struggle there arises one of the roots of what might be called the tragic sense of life, the awareness of unresolvable discord, contradictions, and conflicts which are inherent in the nature of things and which human reason is powerless to solve. The Age of Science has completely lost this awareness. For this age the problems which confront the human mind, and the conflicts which disturb and destroy human existence, belong of necessity to one of two categories: those which are already being solved by reason and those which are going to be solved in a not too distant future. This philosophy, therefore, is incapable of recognizing the tragic character of human life. This tragic character springs from three elemental experiences.

Man, even rationalist man, meets in his contemplative experience the unceasing struggle between good and evil, reason and passion, life and death, health and sickness, peace and war—a struggle which so often ends with the victory of the forces hostile to man. He also meets in his active experience the transformation of his good intentions into evil results, often brought about by the very means intended to avert them. As A. C. Bradley put it in his *Shakespearean Tragedy*, "Everywhere, in this tragic world, man's thought, translated into act, is transformed into the opposite of itself. His act, the movement of a few ounces of matter in a moment of time, becomes a monstrous flood which spreads over a kingdom. And whatsoever he dreams of doing, he achieves that which he least dreamed of, his own destruction."

Man—and here we have to exclude the rationalist—meets in his intellectual experience the unceasing struggle be-

tween his understanding, on the one hand, and the riddles of the world and of his existence in this world, on the other—a struggle which offers with each answer new questions, with each victory a new disappointment, and thus seems to lead nowhere. In this labyrinth of unconnected causal connections man discovers many little answers but no answer to the great questions of his life, no meaning, no direction.

These three experiences make man aware of his ignorance in the face of the unknown and unknowable and of his impotence in the face of the superior and insuperable; they give him the sensation of the tragic element inherent in human life. This element finds in the tragedy of the Greeks and Shakespeare its foremost artistic expression. Goethe was aware of it when he said to Eckermann: "Man is not born to solve the problems of the world but to search for the starting point of the problem and then to remain within the limits of what he is able to comprehend. . . . The reason of man and the reason of the divinity are two very different things." The lack of tragic art in our age is but another manifestation of the rationalist unawareness of the tragic element in life. The same unawareness expresses itself philosophically in the belief in continuous progress and in the trivial optimism for which life dissolves into a series of little hurdles which, one after the other, increasing skill cannot fail to overcome.

That frustration, defeat, and ruin might be as intrinsically interwoven into the plan of the world as success and progress, rationalist philosophy will not admit. Hence its general inability to deal with the problem of death, the most shocking of all failures of human existence. In prerationalist philosophy death fulfils a positive function for human existence. It is the ever present reminder of the vanity of human life,

the ever present threat of punishment and sufferings in another world, and still the ever present expectation of a crowning fulfilment, the hope of reward, and the promise of salvation. Even apart from these religious implications, death can be conceived as the organic limit of human existence, the natural conclusion of a preordained span of life, a warning to the limitless aspirations of man, a tie with those laws of the universe which are beyond man's control. And underneath these interpretative thoughts there is in the minds of believers and unbelievers alike the wonderment at the spectacle of an animal endowed with conscious intelligence coming, as it seems, from nowhere and destined to sink into the night of death as though it had never been. While the believer does not accept this apparent destiny, the unbeliever, unable either to accept it or to have faith in an alternative, keeps wondering.

Rationalist philosophy does not even wonder; for it misses the significance of death altogether. It sees in death simply the negation of life, an accident to be avoided and delayed to the utmost. It is a disturbance of the rational order of the world, different in magnitude but not in kind from the other disturbances with which reason deals with ever increasing success. Hence, death is nothing but a problem to be solved like shipwrecks, unemployment, or cancer; and its significance for man consists in nothing else.

### *The Illusion of Rationality*

The contrast between the actual nature of world and man, on the one hand, and the picture rationalist philosophy draws of it, on the other, deals the final blow to the utilitarian manifestation of rationalist ethics and to the rationalist conception of education. Those conceptions are valid only under

the assumption that the essence of world and man is rational throughout; for only then is it possible to do away with a normative sphere altogether and to reduce ethics to calculations of utility. It is only under this same assumption that one can hope to solve all the problems of the modern world by a quantitative extension of knowledge through education. If, however, the world is conceived as the scene of a tragic struggle between good and evil, reason and passion, the mere advice to follow the commands of reason will not measure up to the nature of the problems to be solved. Without recognition of these tragic antinomies of human existence, the counsel of reason becomes the counsel of unreason; the promise of success turns into the certainty of failure; the goodness of the virtuous unmasks itself as the self-righteous egotism of the hypocrite; and education is reduced to the "objective" communication of facts, unable to distinguish between right and wrong, good and evil, true and false.

On the other hand, the nonutilitarian ethical standards of Western civilization have their roots in the tragic condition of human life. The very existence of a normative sphere, in contradistinction to the sphere of mere facts, is due to the antinomy between what men are inclined to do under utilitarian considerations and what they feel they ought to do according to the standards of nonutilitarian ethics. In other words, the ethical norms which men feel actually bound to follow conform by no means to the rational calculus of utility but, on the contrary, endeavor to satisfy nonutilitarian aspirations. The Decalogue is a code of ethical norms which cannot be derived from premises of rational utility. The concept of virtue as the sum of human qualities required by ethics bears no semblance to the standard of utilitarian rationality.

The modern conception of education and the confidence

in its reforming powers stand and fall likewise with the rationalist philosophy of which they are the logical application. This conception of education is bound to fail for the same reasons which are responsible for the failure of the utilitarian conception of ethics. Since according to the rationalist premises the deficiencies of human action stem from lack of knowledge, enlightenment, dissemination of knowledge, education will overcome the "social stupidity" which alone stands in the way of progress and reason.

Lack of knowledge is indeed the sole source of failure in all those fields of human action which are "neutral" from the point of view of human interests and emotions, that is to say, in all those fields where there is permanent harmony between reason, on the one hand, and interests and emotions, on the other. This holds true to a high degree for those activities which are of a technical nature or which belong in a general way to the natural sciences. Here is, then, the proper domain of this kind of education. In the social sphere, however, the dissemination of knowledge through education can bring no decisive result since the deficiencies of social action are not due to a lack of knowledge, or at least of that sort of knowledge which modern education is able to provide. On the one hand, man is confronted with the intricacies of social causation; and all the education and information which the social sciences can offer would perhaps enable him to follow up the threads of social causation a little bit here and a little bit there yet would bring him no closer to the solution of the social problem, that is, to unraveling the inextricable maze of intertwining threads in which form society presents itself to the analytical mind. There is no indication that the trained social scientist as actor on the social scene is more competent than the layman to solve social problems, with the exception

of technical problems of limited scope. A knowledge of a different and higher order is needed to solve the problems of the social world.

On the other hand, however, past and contemporary history alike offer abundant proof of the irrelevance, for success or failure of social action, of the kind of knowledge the social sciences offer. First of all, the practical application of this knowledge is dependent upon the irrational conditions of interests and emotions operating upon the will of man. In other words, man is likely to act according to his interests and emotions even though his knowledge of social causation suggests to him a different course. Thus lawyers and physicians will give competent advice to their clients and will act quite foolishly when the same problem arises in their own persons, in members of their families, or in friends, that is, whenever interests and emotions interfere with rational judgment. "But certainly physicians," says Aristotle, "when they are sick, call in other physicians, and training-masters, when they are in training, other training-masters, as if they could not judge truly about their own case and might be influenced by their feelings."

The journalist will be a reliable and penetrating reporter of events and situations in which he is not involved through his emotions or interests. Yet when he has to report on labor or monopolies, on France or Russia, he becomes a partisan who sees at best only part of the truth. No technical improvement in news-reporting and no international guaranties of free access to the sources of news everywhere in the world, not even the bestowal of diplomatic status upon foreign correspondents, will alter this elemental subordination of factual knowledge to interests and emotions. The historian and political scientist will give the most brilliant analysis of a

interests are impt  
"ambition to counteract ambition"

political situation which occurred in distant times or lands, but the records know of few if any historians or political scientists who have been at the same time successful statesmen, that is, able to apply professional knowledge successfully to a situation in which their interests or emotions had a stake.

Machiavelli was unsuccessful in politics; yet it was not knowledge, that is, the education of the political scientist, that failed him.

Furthermore, while fundamental social problems are impervious to scientific attack, they seem to yield to the efforts of ill-informed men who, while devoid of scientific knowledge, possess insights of a different and higher kind. Lord Rosebery quotes a remark of Walpole to Henry Fox, upon seeing the latter with a book, to the effect that he, Walpole, had so neglected reading all his life that he could not read even a few pages. Justice Holmes, according to one of his biographers, found it "extraordinary that a woman like Mrs. Whitman without study, without work, could arrive at large social conclusions that he himself had found only after years of conscious search!" Lord Bryce and many scholars before and after him had a command of facts on the American scene much superior to what De Tocqueville knew in a factual way about America. But the latter's *Democracy in America* turned out to be a greater store of knowledge than Lord Bryce's *American Commonwealth* and is still today unsurpassed in its understanding of American society; for while De Tocqueville did not have a great deal of knowledge, he possessed in a large measure those higher faculties of the mind in which his more scientific successors were lacking. Aristide Briand was more deficient in factual knowledge than most of his contemporaries on the international scene, but he was more successful in politics than most of them.

e.g. "Conditions" that behaviorists had recognized in man did not bring about civil etc. etc. - rather the means were traditional + the ends provided the impetus

Education in our time has given man a store of factual knowledge in the social field vastly superior to what he has ever known before. Yet man's faculties in the realm of action have not increased correspondingly. It can even be maintained that the reliance upon factual knowledge, far from improving the quality of social action, has actually contributed to the decadence of the art of politics. Of this decadence we are the witnesses and victims; for the liberal belief in the essentially rational nature of social action and the reforming powers of education has obscured the true character of social action and the function education is able to fulfil for it. Had the influence of interests and emotions upon social action been recognized, it would have been easy to foresee, as Jacob Burckhardt, William Graham Sumner, Vilfredo Pareto, and Thorstein Veblen actually did foresee, that our age was destined to experience a decisive change in the proportional part which reason, on the one hand, and interests and emotions, on the other, have in determining social action. It would also have been easy to foresee that this change would put reason at a considerable disadvantage and thus completely shatter the rationalist assumptions of liberal political philosophy. The revival of religious wars in the form of warfare between political ideologies, with the concomitant torture, punishment, and extermination of the dissenters, illuminates the degree to which that change has taken place in our time. As Sumner put it almost forty years ago: "The amount of superstition is not much changed, but it now attaches to politics, not to religion."

Of this decadence of the political art, the reliance upon factual knowledge is the cause as well as the result. The mistaken belief, rooted in the philosophy of rationalism, that political problems are scientific problems for which the one

correct solution must be found through the investigation of relevant facts is reflected in the political practice of the age. The rare successes of this political practice have no connection with its fact-finding endeavors, while its frequent failures grow out of the misunderstanding of the nature of political action, of which the scientific collection of facts is the outward manifestation. As it often happens when a mistaken course of action results not from the error of individuals or from the ignorance or misinterpretation of certain facts but from a basic and firmly held philosophic conviction, political failures have only tended to deepen the influence of scientist philosophy upon political practice. Forgetful of the inherent uncertainty of social action and searching in its social endeavors for a security of which even the natural sciences know nothing, modern man has taken refuge in a bastion of facts; for, after all, "facts do not lie," and they, at least, are "real."

e.g. Wilson, bewildered by the power politics of the Versailles Peace Conference and incapable of meeting the political problems of the peace with political means, cried out for a settlement on the basis of the facts. The federal government, unable to reconcile its laissez faire philosophy with the exigencies of modern labor conflicts, compiles statistics and appoints fact-finding boards to collect more statistics. As in facts there were enshrined a secret power of wisdom and of pacification which needs only to be discerned in order to solve the conflicts of the social world. Actually, the resort to facts is here not so much a source of new knowledge as a device for concealing ignorance. With the knowledge of many irrelevant facts, scientific man tries to banish the fear rising from the urgency of unsolved problems and from the

ignorance of that knowledge which counts in the social world.

The new realists are undismayed by the wreckage surrounding them. If they have failed, it was because the quantity of facts available to them was not enough. The answer to political failure is "more facts," and the accumulation of more facts but leads to more political failures. This vicious circle can be broken only by a different philosophic approach to the general problem of social action.

### *The Self-mutilation of Scientific Man*

The reconsideration of the problem of social action must start with the recognition of the fundamental distinction which exists between social problems and those with which the natural sciences deal. The latter are either solvable at a particular moment of history or they are not. When they are solved, they are solved once and for all. Thus, the problem of the air-cooled engine was unsolvable under certain technological conditions and became solvable under others. When it was solved, it was solved unequivocally and definitely; and mankind could, as it were, forget about it, cherishing the solution as one of its imperishable possessions.

Social problems, such as marriage, education, equality, freedom, authority, peace, are of a different type. They do not grow out of temporary limitations of knowledge or temporary insufficiencies of technical achievement—both of which can be overcome by the progressive development of theory and practice. They are the result of those conflicts in which the selfishness and the lust for power, which are common to all men, involve all men. One might say that the attempt at solving those problems is the attempt to resolve those conflicts on a more or less limited scale. Yet social

problems are never solved definitely. They must be solved every day anew. As eternal vigilance is the price of freedom, so is the provisional solution of all social problems paid for with never ending effort. No scientific formula has been invented which could relieve us from this never finished task. History has changed the outward manifestations of these problems but not their essence, which is today what it was at the beginning of historic time.

The problem of world peace, for instance, in contradistinction to the problem of the air-cooled engine, is not closer to solution today than it was when it first presented itself to the human mind. In contrast to less scientific periods of history, we have today all the facts concerning war and peace. More books have been written and more intellectual energy has been spent on the problem of international peace during the last hundred years than in all previous history. Yet neither thought nor action has progressed beyond its primitive beginnings thousands of years ago. The human forces which gave rise to the problem then in the form of armed conflicts of human collectivities are still at work today engendering the same results and posing the same problems. What has changed in the process of history are the techniques of warfare and, perhaps, the rationalizations and justifications but not the thing itself, that is, the murderous conflagration of human collectivities through which the individual egotisms and aggressive instincts find vicarious and morally expedient satisfaction.

Nor does the problem of international peace present itself on a universal, global scale to be solved once and for all in one gigantic effort through the discovery of the one correct formula. Peace is not indivisible, either in theory or in practice. If it were, then war, too, would be indivisible, and war anywhere would of necessity mean war everywhere. Localized

wars would become impossible, and every war would necessarily be a world war. The blindness of statesmen may bring this about, yet there is nothing in the nature of international affairs to make it inevitable.

Actually, the disturbance of peace at one particular spot may or may not endanger peace everywhere, and sometimes it may be necessary to buy general peace or peace for one's own country with a localized war between two other countries. Peace is subject to the conditions of time and space and must be established and maintained by different methods and under different conditions of urgency in the every-day relations of concrete nations. The problem of international peace as such exists only for the philosopher. For the practitioner of the political art there is only the problem of peace between the United States and Argentina, Great Britain and Russia, France and Italy, Bulgaria and Greece. When all problems between individual countries, which might otherwise lead to war at a particular time, are solved peacefully with the particular methods appropriate to them, then universal peace is preserved at this particular moment in history. New problems will arise, again threatening peace and requiring similar solutions, and if these solutions are forthcoming, peace will again be preserved.

The temporary and ever precarious solution of this, as of any other, social problem depends essentially upon three factors: social pressure which is able to contain the selfish tendencies of human nature within socially tolerable bounds; conditions of life creating a social equilibrium which tends to minimize the psychological causes of social conflict, such as insecurity, fear, and aggressiveness; and, finally, a moral climate which allows man to expect at least an approximation to justice here and now and thus offers a substitute for strife as a means to achieve justice.

To bring these three factors to bear on a specific social problem is the task of reason in the social world. This task is infinitely more complicated and its fulfilment is infinitely more uncertain and precarious than the mode of thought prevailing in our civilization is willing to admit. For while the philosophy of rationalism is founded upon a one-dimensional conception of the social world—reason, goodness, and right vs. ignorance, evil, and wrong, with the former necessarily winning out—the primordial social fact is conflict, actual or potential, with reason and ignorance, good and evil, right and wrong blended on both sides and with the outcome hanging in the balance. The eventual victory of the better cause is not due to an innate tendency of human nature which needs only to be reminded of its existence in order to make itself prevail. Nor does it depend upon the amount of knowledge imparted through education. It is rather the result of a struggle between moral and social forces which operate both within and between the members of society. As Goethe's wisdom put it: "While trying to improve evils in men and circumstances which cannot be improved, one loses time and makes things worse; instead, one ought to accept the evils, as it were, as raw materials and then seek to counterbalance them."

Within man those moral forces will win out which carry with them the stronger expectation of justice, of happiness, of sanctions, and of rewards. The victory of conflicting moral aspirations is determined by the relative strength of these factors. The same holds true for social action. The social world in motion presents an intricate pattern of pressures and counterpressures, composed of the elements of power, balance, and ethics. There is stalemate, victory, and defeat, but rarely, and then only within the span of centuries, is

there a clear-cut solution which decides a contest definitively and disposes of a problem once and for all. Defeat and victory are likewise provisional, defeat carrying the hope of victory and victory the fear of defeat; for a slight change in the relative strength of opposing forces may reverse the positions, which are always precarious because of the ever changing pattern of the social fabric.

To cope with social problems thus understood, it is not the factual knowledge, the general deductions, and the "correct" solutions of the "social engineer" that are called for. Factual knowledge may be useful as an instrument of ideology through which antagonistic social pressures justify themselves before the scientific spirit of the age, demonstrating their superiority before and after the decision. Such is indeed the main political function of statistics and of the scientific memorandum. For the action and the decision of the conflict itself, this function is largely irrelevant. It precedes and succeeds action and decision in point of time; it adorns, conceals, or elaborates it, as the case may be; but it is not the stuff of which action and decision are made. The idea of "social engineering," by oversimplifying and distorting the relation between reason and the social world, holds out a hope for a solution of social problems which is bound to be disappointed over and over again. By encouraging faulty social action or, what is more frequent and also worse, the easy optimism of inaction or of perfunctory action in the face of overwhelming social problems, this idea is retarding rather than advancing man's mastery over the social world.

### The Statesman vs. the Engineer

To be successful and truly "rational" in social action, knowledge of a different order is needed. This is not the



knowledge of single tangible facts but of the eternal laws by which man moves in the social world. There are, aside from the laws of mathematics, no other eternal laws besides these. The Aristotelian truth that man is a political animal is true forever; the truths of the natural sciences are true only until other truths have supplanted them. The key to those laws of man is not in the facts from whose uniformity the sciences derive their laws. It is in the insight and the wisdom by which more-than-scientific man elevates his experiences into the universal laws of human nature. It is he who, by doing so, establishes himself as the representative of true reason, while nothing-but-scientific man appears as the true dogmatist who universalizes cognitive principles of limited validity and applies them to realms not accessible to them. It is also the former who proves himself to be the true realist; for it is he who does justice to the true nature of things.

He is embodied not in the scientist who derives conclusions from postulated or empirical premises and who in the social world has either nothing but facts or nothing but theories but in the statesman who recognizes in the contingencies of the social world the concretizations of eternal laws. "A statesman," sagely remarks Edmund Burke in his "Speech on the Petition of the Unitarians," "differs from a professor in an university; the latter has only the general view of society; the former, the statesman, has a number of circumstances to combine with those general ideas, and to take into his consideration. Circumstances are infinite, are infinitely combined; are variable and transient; he who does not take them into consideration is not erroneous, but stark mad,—dat operam ut cum ratione insaniat,—he is metaphysically mad. A statesman, never losing sight of principles, is to be guided

by circumstances; and, judging contrary to the exigencies of the moment, he may ruin his country forever."

As the scientist creates a new nature out of his knowledge of the forces of nature, so the statesman creates a new society out of his knowledge of the nature of man. The insight and the wisdom of the statesman gauge accurately the distribution and relative strength of opposing forces and anticipate, however tentatively, the emerging pattern of new constellations. The statesman has no assurance of success in the immediate task and not even the expectation of solving the long-range problem. Look at Alexander, at Caesar and Brutus, at Washington and Lincoln, at Napoleon, Lenin, and Hitler. No formula will give the statesman certainty, no calculation eliminate the risk, no accumulation of facts open the future. While his mind yearns for the apparent certainty of science, his actual condition is more akin to the gambler's than to the scientist's.

In this unsolvable contrast between what he needs and wants and what he is able to obtain, the statesman is indeed the prototype of social man himself; for what the statesman experiences on his exalted plane is the common lot of all mankind. Suspended between his spiritual destiny which he cannot fulfil and his animal nature in which he cannot remain, he is forever condemned to experience the contrast between the longings of his mind and his actual condition as his personal, eminently human tragedy.

In different ways all ages have tried to escape recognition of this tragedy. An age, in particular, whose powers and vistas have been multiplied by science is liable to forget for a moment this perennial human tragedy and to exalt in the engineer a new man whose powers equal his aspirations and who masters human destiny as he masters a machine. Yet it

can do so only for a moment, and this moment has passed. The pleasant interlude of the Victorian age has come to an end. Fate, by giving man the experience of his powers through reason, has not for long withheld from him the experience of his limitations. The old hybris has reappeared in the new vestments of a scientific age and has been broken, as it has been ever since Icarus tried to reach the sun, by the very instruments which it had forged for the exaltation of man beyond the limits of his nature. Reappeared, too, has the old despair which, with fierce and feeble passion, hunts for security where there is none; accepts nothing but reason or rejects reason altogether; and, distrustful of the higher faculties of the human mind, either sacrifices the fulness of man's human heritage on the altar of science or else laments with Herodotus: "Of all the sorrows that afflict mankind, the bitterest is this, that one should have consciousness of much, but control over nothing."

And, finally, there reappears the *aristeia* of man, his heroic struggle to be and to be more than he is and to know that he is and can be more than he is. Pitting his reason against the secrets of the universe and recoiling from the darkness of his own soul, he triumphantly detects the limits of nature and faces, hapless, the social forces which his own limitless desires have created. A giant Prometheus among the forces of the universe, he is but a straw on the waves of that ocean which is the social world. In his struggle with nature, he is like a god. In his struggle with his fellow-men, he is more powerful than a beast but not so wise; for he has exchanged the wisdom of nature for a science which, in the social world, sees but does not comprehend, touches but does not feel, measures but does not judge. Having lost the blind security of the wisdom of nature, he has yet to gain the

knowing insecurity of the wisdom of man. The experience of this insecurity is the premise of a life which exhausts the possibilities of human existence. The achievement of the wisdom by which insecurity is understood and sometimes mastered is the fulfilment of human possibilities.

As the conditions of insecurity are manifold, so are the ways of wisdom. Where the insecurity of human existence challenges the wisdom of man, there is the meeting-point of fate and freedom, of necessity and chance. Here, then, is the battlefield where man takes up the challenge and joins battle with the forces of nature, his fellow-men's lust for power, and the corruption of his own soul. It is because of his freedom that, unlike god or beast, he is liable to err in the choice of his weapons. Thus, scientific man errs when he meets the challenge of power politics with the weapon of science, and the freedom of man is challenged to renew the fight with other means. Without assurance of victory and with the odds against him, man persists in the struggle, a hero rather than a searcher for scientific truth. Above this struggle, never ended and never decided in the perpetual change of victory and defeat, of life and death, a flame burns and a light shines, flickering in the vast expanses of human freedom but never extinguished: the reason of man, creating and through this creation illumining in the triumph and the failure of scientific man the symbol of man himself, of what he is and of what he wants to be, of his weakness and of his strength, of his freedom and of his subjection, of his misery and of his grandeur.

man  
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battle