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THE LIFE OF REASON

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CHAPTER I

TYPES AND AIMS OF SCIENCE

Science is so new a thing and so far from final, it seems to the layman so hopelessly accurate and extensive, that a moralist may well feel some diffidence in *trying* to estimate its achievements and promises at their human worth. The morrow may bring some great revolution in science, and is sure to bring many a correction and many a surprise. Religion and art have had their day; indeed a part of the faith they usually inspire is to believe that they have long ago revealed their secret. A critic may safely form a judgment concerning them; for even if he dissents from the orthodox opinion and ventures to hope that religion and art may assume in the future forms far nobler and more rational than any they have hitherto worn, still he must confess that art and religion have had several turns at the wheel; they have run their course through in various ages and climes with results which anybody is free to estimate if he has an open mind and sufficient interest in the subject. Science, on the contrary, which apparently cannot exist where intellectual freedom

Science still young.

is denied, has flourished only twice in recorded times: once for some three hundred years in ancient Greece, and again for about the same period in modern Christendom. Its fruits have scarcely begun to appear; the lands it is discovering have not yet been circumnavigated, and there is no telling what its ultimate influence will be on human practice and feeling.

Its miscarriage in Greece.

The first period in the life of science was brilliant but ineffectual. The Greeks' energy and liberty were too soon spent, and the very exuberance of their genius made its expression chaotic. Where every mind was so fresh and every tongue so clever no scientific tradition could arise, and no laborious applications could be made to test the value of rival notions and decide between them. Men of science were mere philosophers. Each began, not where his predecessor had ended, but at the very beginning. Another circumstance that impeded the growth of science was the forensic and rhetorical turn proper to Greek intelligence. This mental habit gave a tremendous advantage in philosophy to the moralist and poet over the naturalist or mathematician. Hence what survived in Greece after the heyday of theoretic achievement was chiefly philosophies of life, and these—at the death of liberty—grew daily more personal and ascetic. Authority in scientific matters clung chiefly to Plato and Aristotle, and this not for the sake of their incomparable moral philosophy—

for in ethics that decadent age preferred the Stoics and Epicureans—but just for those rhetorical expedients which in the Socratic school took the place of natural science. Worse influences in this field could hardly be imagined, since Plato's physics ends in myth and apologue, while Aristotle's ends in nomenclature and teleology.

All that remained of Greek physics, therefore, was the conception of what physics should be—a great achievement due to the earlier thinkers—and certain hints and guesses in that field. The elements of geometry had also been formulated, while the Socratic school bequeathed to posterity a well-developed group of moral sciences, rational in principle, but destined to be soon overlaid with metaphysical and religious accretions, so that the dialectical nerve and reasonableness of them were obliterated, and there survived only miscellaneous conclusions, fragments of wisdom built topsy-turvy into the new mythical edifice. It is the sad task reserved for historical criticism to detach those sculptured stones from the rough mass in which they have been embedded and to rearrange them in their pristine order, thus rediscovering the inner Socratic principle of moral philosophy, which is nothing but self-knowledge—a circumspect, systematic utterance of the speaker's mind, disclosing his implicit meaning and his ultimate preferences.

At its second birth science took a very different form. It left cosmic theories to pantheistic en-

thusiasts like Giordano Bruno, while in sober laborious circles it confined itself to specific discoveries—the earth's roundness and motion about the sun, the laws of mechanics, the development and application of algebra, the invention of the calculus, and a hundred other steps forward in various disciplines. It was a patient siege laid to the truth, which was approached blindly and without a general, as by an army of ants; it was not stormed imaginatively as by the ancient Ionians, who had reached at once the notion of nature's dynamic unity, but had neglected to take possession in detail of the intervening tracts, whence resources might be drawn in order to maintain the main position.

Its timid reappearance in modern times.

Nevertheless, as discoveries accumulated, they fell insensibly into a system, and philosophers like Descartes and Newton arrived at a general physics. This physics, however, was not yet meant to cover the whole existent world, or to be the genetic account of all things in their system. Descartes excluded from his physics the whole mental and moral world, which became, so far as his science went, an inexplicable addendum. Similarly Newton's mechanical principles, broad as they were, were conceived by him merely as a parenthesis in theology. Not until the nineteenth century were the observations that had been accumulated given their full value or in fact understood; for Spinoza's system, though naturalistic

in spirit, was still dialectical in form, and had no influence on science and for a long time little even on speculation.

Indeed the conception of a natural order, like the Greek cosmos, which shall include all existences—gods no less than men, if gods actually exist—is one not yet current, although it is implied in every scientific explanation and is favoured by two powerful contemporary movements which, coming from different quarters, are leading men's minds back to the same ancient and obvious naturalism. One of these movements is the philosophy of evolution, to which Darwin gave such an irresistible impetus. The other is theology itself, where it has been emancipated from authority and has set to work to square men's conscience with history and experience. This theology has generally passed into speculative idealism, which under another name recognises the universal empire of law and conceives man's life as an incident in a prodigious natural process, by which his mind and his interests are produced and devoured. This "idealism" is in truth a system of immaterial physics, like that of Pythagoras or Heraclitus. While it works with fantastic and shifting categories, which no plain naturalist would care to use, it has nothing to apply those categories to except what the naturalist or historian may already have discovered and expressed in the categories of common prose. German idealism is a translation of physical evolution into

mythical language, which presents the facts now in the guise of a dialectical progression, now in that of a romantic drama. In either case the facts are the same, and just those which positive knowledge has come upon. Thus many who are not brought to naturalism by science are brought to it, quite unwillingly and unawares, by their religious speculations.

Distinction between science and myth.

The gulf that yawns between such idealistic cosmogonies and a true physics may serve to make clear the divergence in principle which everywhere divides natural science from arbitrary conceptions of things. This divergence is as far as possible from lying in the merit of the two sorts of theory. Their merit, and the genius and observation required to frame them, may well be equal, or an imaginative system may have the advantage in these respects. It may even be more serviceable for a while and have greater pragmatic value, so long as knowledge is at best fragmentary, and no consecutive or total view of things is attempted by either party. Thus in social life a psychology expressed in terms of abstract faculties and personified passions may well carry a man farther than a physiological psychology would. Or, again, we may say that there was more experience and love of nature enshrined in ancient mythology than in ancient physics; the observant poet might then have fared better in the world than the pert and ignorant materialist. Nor does

the difference between science and myth lie in the fact that the one is essentially less speculative than the other. They are differently speculative, it is true, since myth terminates in unverifiable notions that might by chance represent actual existences; while science terminates in concepts or laws, themselves not possibly existent, but verified by recurring particular facts, belonging to the same experience as those from which the theory started.

Platonic status of hypothesis.

The laws formulated by science—the transitive figments describing the relation between fact and fact—possess only a Platonic sort of reality. They are more real, if you will, than the facts themselves, because they are more permanent, trustworthy, and pervasive; but at the same time they are, if you will, not real at all, because they are incompatible with immediacy and alien to brute existence. In declaring what is true of existences they altogether renounce existence on their own behalf. This situation has made no end of trouble in ill-balanced minds, not docile to the diversities and free complexity of things, but bent on treating everything by a single method. They have asked themselves persistently the confusing question whether the matter or the form of things is the reality; whereas, of course, both elements are needed, each with its incommensurable kind of being. The material element alone is existent, while the ideal element is the sum of all those propositions which are true of what exists mate-

rially. Anybody's *knowledge* of the truth, being a complex and fleeting feeling, is of course but a moment of existence or material being, which whether found in God or man is as far as possible from being that truth itself which it may succeed in knowing.

Meaning of verification.

The true contrast between science and myth is more nearly touched when we say that science alone is capable of verification. Some ambiguity, however, lurks in this phrase, since verification comes to a method only vicariously, when the particulars it prophesies are realised in sense. To verify a theory as if it were not a method but a divination of occult existences would be to turn the theory into a myth and then to discover that what the myth pictured had, by a miracle, an actual existence also. There is accordingly a sense in which myth admits substantiation of a kind that science excludes. The Olympic hierarchy might conceivably exist bodily; but gravitation and natural selection, being schemes of relation, can never exist substantially and in their own behoof. Nevertheless, the Olympic hierarchy, even if it happened to exist, could not be proved to do so unless it were a part of the natural world open to sense; while gravitation and natural selection, without being existences, can be verified at every moment by concrete events occurring as those principles require. A hypothesis, being a discursive device, gains its utmost possible validity when its discur-

sive value is established. It *is* not, it merely *applies;* and every situation in which it is found to apply is a proof of its truth.

The case would not be different with fables, were their basis and meaning remembered. But fables, when hypostatised, forget that they, too, were transitive symbols and boast to reveal an undiscoverable reality. A dogmatic myth is in this sorry plight: that the more evidence it can find to support it the more it abrogates its metaphysical pretensions, while the more it insists on its absolute truth the less relevance it has to experience and the less meaning. To try to support fabulous dogmas by evidence is tantamount to acknowledging that they are merely scientific hypotheses, instruments of discourse, and methods of expression. But in that case their truth would no longer be supposed to lie in the fact that somewhere beyond the range of human observation they descended bodily to the plane of flying existence, and were actually enacted there. They would have ceased to resemble the society of Olympus, which to prove itself real would need to verify itself, since only the gods and those mortals admitted to their conclave could know for a fact that that celestial gathering existed. On the contrary, a speculation that could be supported by evidence would be one that might be made good without itself descending to the plane of immediacy, but would be sufficiently verified when diffuse facts fall out as it had led us to expect.

The myth in such a case would have become transparent again and relevant to experience, which could continually serve to support or to correct it. Even if somewhat overloaded and poetical, it would be in essence a scientific theory. It would no longer terminate in itself; it would point forward, leading the thinker that used it to eventual facts of experience, facts which his poetic wisdom would have prepared him to meet and to use.

Possible validity of myths.

If I say, for instance, that Punishment, limping in one leg, patiently follows every criminal, the myth is obvious and innocent enough. It reveals nothing, but, what is far better, it means something. I have expressed a truth of experience and pointed vaguely to the course which events may be expected to take under given circumstances. The expression, though mythical in form, is scientific in effect, because it tends to surround a given phenomenon (the crime) with objects on its own plane—other passions and sensations to follow upon it. What would be truly mythical would be to stop at the figure of speech and maintain, by way of revealed dogma, that a lame goddess of vindictive mind actually follows every wicked man, her sword poised in mid-air. Sinking into that reverie, and trembling at its painted truth, I should be passing to the undiscoverable and forgetting the hard blows actually awaiting me in the world. Fable, detaining the mind too

long in the mesh of expression, would have become metaphysical dogma. I should have connected the given fact with imagined facts, which even if by chance real—for such a goddess may, for all we know, actually float in the fourth dimension—are quite supernumerary in my world, and never, by any possibility, can become parts or extensions of the experience they are thought to explain. The gods are demonstrable only as hypotheses, but as hypotheses they are not gods.

Any dreamed-of thing might be experienced.

The same distinction is sometimes expressed by saying that science deals only with objects of possible experience. But this expression is unfortunate, because everything thinkable, no matter how mythical and supernatural or how far beyond the range of mortal senses, is an object of *possible* experience. Tritons and sea-horses might observe one another and might feel themselves live. The thoughts and decrees said to occupy the divine mind from all eternity would certainly be phenomena there; they would be experienced things. Were fables really as metaphysical and visionary as they pretend to be, were they not all the while and in essence mere symbols for natural situations, they would be nothing but reports about other alleged parts of experience. A real Triton, a real Creator, a real heaven would obviously be objects open to properly equipped senses and seats of much vivid experience. But a Triton after all has something to do with the Ægean and other

earthly waters; a Creator has something to do with the origin of man and of his habitat; heaven has something to do with the motives and rewards of moral action. This relevance to given experience and its objects is what cuts those myths off from their blameless and gratuitous rôle of reporting experiences that might be going on merrily enough somewhere else in the universe. In calling them myths and denying that what they describe falls within the purview of science, we do not assert that, absolutely taken, they could not be objects of a possible experience. What we mean is rather that no matter how long we searched the sea waves, in which it is the essence of our Tritons to disport themselves, we should never find Tritons there; and that if we traced back the history of man and nature we should find them always passing by natural generation out of slightly different earlier forms and never appearing suddenly, at the fiat of a vehement Jehovah swimming about in a chaos; and finally that if we considered critically our motives and our ideals, we should find them springing from and directed upon a natural life and its functions, and not at all on a disembodied and timeless ecstasy. Those myths, then, while they intrinsically refer to facts in the given world, describe those facts in incongruous terms. They are symbols, not extensions, for the experience we know.

A chief characteristic of science, then, is that in supplementing given facts it supplements them

by adding other facts belonging to the same sphere, and eventually discoverable by tracing the given object in its own plane through its continuous transformations. Science expands speculatively, by the aid of merely instrumental hypotheses, objects given in perception until they compose a congruous, self-supporting world, all parts of which might be observed consecutively. What a scientific hypothesis interpolates among the given facts—the atomic structure of things, for instance—might come in time under the direct fire of attention, fixed more scrupulously, longer, or with better instruments upon those facts themselves. Otherwise the hypothesis that assumed that structure would be simply false, just as a hypothesis that the interior of the earth is full of molten fire would be false if on inspection nothing were found there but solid rock. Science does not merely prolong a habit of inference; it verifies and solves the inference by reaching the fact inferred.

But science follows the movement of its subject-matter.

The contrast with myth at this point is very interesting; for in myth the facts are themselves made vehicles, and knowledge is felt to terminate in an independent existence on a higher or deeper level than any immediate fact; and this circumstance is what makes myth impossible to verify and, except by laughter, to disprove. If I attributed the stars' shining to the diligence of angels who lighted their lamps at sunset, lest the upper

reaches of the world should grow dangerous for travellers, and if I made my romance elaborate and ingenious enough, I might possibly find that the stars' appearance and disappearance could continue to be interpreted in that way. My myth might always suggest itself afresh and might be perennially appropriate. But it would never descend, with its charming figures, into the company of its evidences. It would never prove that what it terminated in was a fact, as in my metaphysical faith I had deputed and asserted it to be. The angels would remain notional, while my intent was to have them exist; so that the more earnestly I held to my fable the more grievously should I be deceived. For even if seraphic choirs existed in plenty on their own emotional or musical plane of being, it would not have been their hands—if they had hands—that would have lighted the stars I saw; and this, after all, was the gist and starting-point of my whole fable and its sole witness in my world. A myth might by chance be a revelation, did what it talks of have an actual existence somewhere else in the universe; but it would need to be a revelation in order to be true at all, and would then be true only in an undeserved and spurious fashion. Any representative and provable validity which it might possess would assimilate it to science and reduce it to a mere vehicle and instrument for human discourse. It would evaporate as soon as the prophecies it made were fulfilled, and it would claim no being and no wor-

ship on its own account. Science might accordingly be called a myth conscious of its essential ideality, reduced to its fighting weight and valued only for its significance.

Moral value of science.

A symptom of the divergence between myth and science may be found in the contrary emotions which they involve. Since in myth we interpret experience in order to interpret it, in order to delight ourselves by turning it poetically into the language and prosody of our own life, the emotion we feel when we succeed is artistic; myth has a dramatic charm. Since in science, on the contrary, we employ notional machinery, in itself perhaps indifferent enough, in order to arrive at eventual facts and to conceive the aspect which given things would actually wear from a different point of view in space or time, the emotion we feel when we succeed is that of security and intellectual dominion; science has a rational value. To see better what we now see, to see by anticipation what we should see actually under other conditions, is wonderfully to satisfy curiosity and to enlighten conduct. At the same time, scientific thinking involves no less inward excitement than dramatic fiction does. It summons before us an even larger number of objects in their fatal direction upon our interests. Were science adequate it would indeed absorb those passions which now, since they must be satisfied somehow, have to be satisfied by dramatic myths. To imagine how things might have been would

be neither interesting nor possible if we knew fully how things are. All pertinent dramatic emotion, joyous or tragic, would then inhere in practical knowledge. As it is, however, science abstracts from the more musical overtones of things in order to trace the gross and basal processes within them; so that the pursuit of science seems comparatively dry and laborious, except where at moments the vista opens through to the ultimate or leads back to the immediate. Then, perhaps, we recognise that in science we are surveying all it concerns us to know, and in so doing are becoming all that it profits us to be. Mere amusement in thought as in sportive action is tedious and illiberal: it marks a temperament so imperfectly educated that it prefers idle to significant play and a flimsy to a solid idea.

Its continuity with common knowledge.

The fact that science follows the subject-matter in its own movement involves a further consequence: science differs from common knowledge in scope only, not in nature. When intelligence arises, when the flux of things begins to be mitigated by representation of it and objects are at last fixed and recognisable, there is science. For even here, in the presence of a datum something virtual and potential is called up, namely, what the given thing was a moment ago, what it is growing into, or what it is contrasted with in character. As I walk round a tree, I learn that the parts still visible, those that have just dis-

appeared and those now coming into view, are continuous and belong to the same tree.

This declaration, though dialectic might find many a mare's nest in its language, is a safe and obvious enough expression of knowledge. It involves terms, however, which are in the act of becoming potential. What is just past, what is just coming, though sensibly continuous with what is present, are partially infected with nonentity. After a while human apprehension can reach them only by inference, and to count upon them is frankly to rely on theory. The other side of the tree, which common sense affirms to exist unconditionally, will have to be represented in memory or fancy; and it may never actually be observed by any mortal. Yet, if I continued my round, I should actually observe it and know it by experience; and I should find that it had the same status as the parts now seen, and was continuous with them. My assertion that it exists, while certainly theoretical and perhaps false, is accordingly scientific in type. Science, when it has no more scope than this, is indistinguishable from common sense. The two become distinct only when the facts inferred cannot be easily verified or have not yet been merged with the notion representing the given object in most men's minds.

Where science remains consciously theoretical (being as yet contrasted with ordinary apperception and current thought), it is, ideally considered, a *pis aller,* an expedient to which a mind

must have recourse when it lacks power and scope to hold all experience in hand and to view the wide world in its genuine immediacy. As obliviscence is a gradual death, proper to a being not ideally master of the universal flux, but swamped within it, so science is an artificial life, in which what cannot be perceived directly (because personal limitations forbid) may be regarded abstractly, yet efficaciously, in what we think and do. With better faculties the field of possible experience could be better dominated, and fewer of its parts, being hidden from sight, would need to be mapped out symbolically on that sort of projection which we call scientific inference. The real relations between the parts of nature would then be given in intuition, from which hypothesis, after all, has borrowed its schemata.

Science is a half-way house between private sensation and universal vision. We should not forget to add, however, that the universal vision in question, if it were to be something better than private sensation or passive feeling in greater bulk, would have to be intellectual, just as science is; that is, it would have to be practical and to survey the flux from a given standpoint, in a perspective determined by special and local interests. Otherwise the whole world, when known, would merely be re-enacted in its blind immediacy without being understood or subjected to any purpose. The critics of science, when endowed with any speculative power,

Its intellectual essence.

have always seen that what is hypothetical and abstract in scientific method is somehow servile and provisional; science being a sort of telegraphic wire through which a meagre report reaches us of things we would fain observe and live through in their full reality. This report may suffice for approximately fit action; it does not suffice for ideal knowledge of the truth nor for adequate sympathy with the reality. What commonly escapes speculative critics of science, however, is that in transcending hypothesis and reaching immediacy again we should run a great risk of abandoning knowledge and sympathy altogether; for if we *became* what we now represent so imperfectly, we should evidently no longer represent it at all. We should not, at the end of our labours, have at all enriched our own minds by adequate knowledge of what surrounds us, nor made our wills just in view of alien but well-considered interests. We should have lost our own essence and substituted for it, not something higher than indiscriminate being, but only indiscriminate being in its flat, blind, and selfish infinity. The ideality, the representative faculty, would have gone out in our souls, and our perfected humanity would have brought us back to protoplasm.

In transcending science, therefore, we must not hope to transcend knowledge, nor in transcending selfishness to abolish finitude. Finitude is the indispensable condition of unselfishness as well as

of selfishness, and of speculative vision no less than of hypothetical knowledge. The defect of science is that it is inadequate or abstract, that the account it gives of things is not full and sensuous enough; but its merit is that, like sense, it makes external being present to a creature that is concerned in adjusting itself to its environment, and informs that creature about things other than itself. Science, if brought to perfection, would not lose its representative or ideal essence. It would still survey and inform, but it would survey everything at once and inform the being it enlightened about all that could affect its interests. It would thus remain practical in effect and speculative in character. In losing its accidental limitations it would not lose its initial bias, its vital function. It would continue to be a rational activity, guiding and perfecting a natural being.

Perfect knowledge of things would be as far as possible from identifying the knower with them, seeing that for the most part—even when we call them human—they have no knowledge of themselves. Science, accordingly, even when imperfect, is a tremendous advance on absorption in sense and a dull immediacy. It begins to enrich the mind and gives it some inkling, at least, of that ideal dominion which each centre of experience might have if it had learned to regard all others, and the relation connecting it with them, both in thought and in action. Ideal knowledge

would be an inward state corresponding to a perfect adjustment of the body to all forces affecting it. If the adjustment was perfect the inward state would regard every detail in the objects envisaged, but it would see those details in a perspective of its own, adding to sympathetic reproduction of them a consciousness of their relation to its own existence and perfection.

Unity of science.

The fact that science expresses the character and relation of objects in their own terms has a further important consequence, which serves again to distinguish science from metaphorical thinking. If a man tries to illustrate the nature of a thing by assimilating it to something else which he happens to have in mind at the same time, it is obvious that a second man, whose mind is differently furnished, may assimilate the same object to a quite different idea: so myths are centrifugal, and the more elaborate and delicate they are the more they diverge, like well-developed languages. The rude beginnings of myth in every age and country bear a certain resemblance, because the facts interpreted are similar and the minds reading them have not yet developed their special grammar of representation. But two highly developed mythical systems—two theologies, for instance, like the Greek and the Indian—will grow every day farther and farther apart. Science, on the contrary, whatever it may start with, runs back into the same circle of facts, because it follows the lead of the

subject-matter, and is attentive to its inherent transformations.

If men's fund of initial perceptions, then, is alike, their science is sure to be so; while the embroideries they make upon perception out of their own resources will differ as much as do the men themselves. Men asleep, said Heraclitus, live each in his own world, but awake they live in the same world together. To be awake is nothing but to be dreaming under control of the object; it is to be pursuing science to the comparative exclusion of mere mental vegetation and spontaneous myth. Thus if our objects are the same, our science and our waking lives will coincide; or if there is a natural diversity in our discoveries, because we occupy different points in space and time and have a varying range of experience, these diversities will nevertheless supplement one another; the discovery that each has made will be a possible discovery for the others also. So a geographer in China and one in Babylonia may at first make wholly unlike maps; but in time both will take note of the Himalayas, and the side each approaches will slope up to the very crest approached by the other. So science is self-confirming, and its most disparate branches are mutually illuminating; while in the realm of myth, until it is surveyed scientifically, there can be nothing but mutual repulsion and incapacity to understand. Languages and religions are necessarily rivals, but sciences are necessarily allies.

The unity of science can reach no farther than does coherent experience; and though coherence be a condition of experience in the more pregnant sense of the word—in the sense in which the child or the fool has no experience—existence is absolutely free to bloom as it likes, and no logic can set limits or prescribe times for its irresponsible presence. A great deal may accordingly exist which cannot be known by science, or be reached from the outside at all. This fact perhaps explains why science has as yet taken so little root in human life: for even within the limits of human existence, which are tolerably narrow, there is probably no little incoherence, no little lapsing into what, from any other point of view, is inconceivable and undiscoverable. Science, for instance, can hardly reach the catastrophes and delights, often so vivid, which occur in dreams; for even if a physiological psychology should some day be able to find the causes of these phenomena, and so to predict them, it would never enter the dream-world persuasively, in a way that the dreamer could appreciate and understand, while he continued to dream. This is because that dream-world and the waking world present two disjointed landscapes, and the figures they contain belong to quite different genealogies—like the families of Zeus and of Abraham. Science is a great disciplinarian, and misses much of the sport which the absolute is free to indulge in. If

In existence, judged by reflection, there is a margin of waste.

there is no inner congruity and communion between two fields, science cannot survey them both; at best in tracing the structure of things presented in one of them, it may come upon some detail which may offer a basis or lodgment for the entire fabric of the other, which will thus be explained *ab extra;* as the children of Abraham might give an explanation for Zeus and his progeny, treating them as a phenomenon in the benighted minds of some of Japhet's children.

This brings the Olympian world within the purview of science, but does so with a very bad grace. For suppose the Olympian gods really existed—and there is nothing impossible in that supposition—they would not be allowed to have any science of their own; or if they did, it would threaten the children of Abraham with the same imputed unreality with which the latter boast to have extinguished Olympus. In order, then, that two regions of existence should be amenable to a science common to both and establishing a mutual rational representation between them, it is requisite that the two regions should be congruous in texture and continuous inwardly: the objects present in each must be transformations of the objects present in the other. As this condition is not always fulfilled, even within a man's personal fortunes, it is impossible that all he goes through should be mastered by science or should accrue to him ideally and become part of his funded experience. Much must be lost, left to

itself, and resigned to the unprofitable flux that produced it.

A consequence of this incoherence in experience is that science is not absolutely single but springs up in various places at once, as a certain consistency or method becomes visible in this or that direction. These independent sciences might, conceivably, never meet at all; each might work out an entirely different aspect of things and cross the other, as it were, at a different level. This actually happens, for instance, in mathematics as compared with history or psychology, and in morals as compared with physics. Nevertheless, the fact that these various sciences are all human, and that here, for instance, we are able to mention them in one breath and to compare their natures, is proof that their spheres touch somehow, even if only peripherally. Since common knowledge, which knows of them all, is itself an incipient science, we may be sure that some continuity and some congruity obtains between their provinces. Some aspect of each must coincide with some aspect of some other, else nobody who pursued any one science would so much as suspect the existence of the rest. Great as may be the aversion of learned men to one another, and comprehensive as may be their ignorance, they are not positively compelled to live in solitary confinement, and the key of their prison cells is at least in their own pocket.

Sciences converge from different points of origin.

Some sciences, like chemistry and biology, or biology and anthropology, are parted only, we may presume, by accidental gaps in human knowledge; a more minute and better directed study of these fields would doubtless disclose their continuity with the fields adjoining. But there is one general division in science which cuts almost to the roots of human experience. Human understanding has used from the beginning a double method of surveying and arresting ideally the irreparable flux of being. One expedient has been to notice and identify similarities of character, recurrent types, in the phenomena that pass before it or in its own operations; the other expedient has been to note and combine in one complex object characters which occur and reappear together. The latter feat is made easy by the fact that when various senses are stimulated at once the inward instinctive reaction—which is felt by a primitive mind more powerfully than any external image—is one and not consciously divisible.

Two chief kinds of science, physics and dialectic.

The first expedient imposes on the flux what we call ideas, which are concretions in discourse, terms employed in thought and language. The second expedient separates the same flux into what we call things, which are concretions in existence, complexes of qualities subsisting in space and time, having definable dynamic relations there and a traceable history. Carrying out this primi-

tive diversity in reflection science has moved in two different directions. By refining concretions in discourse it has attained to mathematics, logic, and the dialectical developments of ethics; by tracing concretions in existence it has reached the various natural and historical sciences. Following ancient usage, I shall take the liberty of calling the whole group of sciences which elaborates ideas *dialectic,* and the whole group that describes existences *physics.*

The contrast between ideal science or dialectic and natural science or physics is as great as the understanding of a single experience could well afford; yet the two kinds of science are far from independent. They touch at their basis and they co-operate in their results. Were dialectic made clearer or physics deeper than it commonly is, these points of contact would doubtless be multiplied; but even as they stand they furnish a sufficient illustration of the principle that all science develops objects in their own category and gives the mind dominion over the flux of matter by discovering its form.

Their mutual implication.

That physics and dialectic touch at their basis may be shown by a double analysis. In the first place, it is clear that the science of existence, like all science, is itself discourse, and that before concretions in existence can be discovered, and groups of coexistent qualities can be recognised, these qualities themselves must be arrested by the mind, noted, and identi-

fied in their recurrences. But these terms, bandied about in scientific discourse, are so many essences and pure ideas: so that the inmost texture of natural science is logical, and the whole force of any observation made upon the outer world lies in the constancy and mutual relations of the terms it is made in. If down did not mean down and motion motion, Newton could never have taken note of the fall of his apple. Now the constancy and relation of meanings is something *meant,* it is something created by insight and intent and is altogether dialectical; so that the science of existence is a portion of the art of discourse.

On the other hand discourse, in its operation, is a part of existence. That truth or logical cogency is not itself an existence can be proved dialectically,* and is obvious to any one who sees

* For instance, in Plato's "Parmenides," where it is shown that the ideas are not in the mind. We may gather from what is there said that the ideas cannot be identified with any embodiment of them, however perfect, since an idea means a nature common to all its possible embodiments and remains always outside of them. This is what Plato meant by saying that the ideas lay apart from phenomena and were what they were in and for themselves. They were mere forms and not, as a materialised Platonism afterward fancied, images in the mind of some psychological deity. The gods doubtless know the ideas, as Plato tells us in the same place: these are the common object of their thought and of ours; hence they are not anybody's thinking process, which of course would be in flux and phenomenal. Only by being ideal (*i. e.,* by being a goal of intellectual energy and no part of sensuous existence) can a term be common to various minds and serve to make their deliverances pertinent to one another.

for a moment what truth means, especially if he remembers at the same time that all existence is mutable, which it is the essence of truth not to be. But the knowledge or discovery of truth is an event in time, an incident in the flux of existence, and therefore a matter for natural science to study.

Furthermore, every term which dialectic uses is originally given embodied; in other words, it is given as an element in the actual flux, it comes by illustration. Though meaning is the object of an ideal function, and signification is inwardly appreciable only in terms of signification, yet the ideal leap is made from a material datum: that in which signification is seen is a fact. Or to state the matter somewhat differently, truth is not self-generating; if it were it would be a falsehood.

That truth is no existence might also be proved as follows: Suppose that nothing existed or (if critics carp at that phrase) that a universe did not exist. It would then be true that all existences were wanting, yet this truth itself would endure; therefore truth is not an existence. An attempt might be made to reverse this argument by saying that since it would still "be" true that nothing existed, the supposition is self-contradictory, for the truth would "be" or exist in any case. Truth would thus be turned into an opinion, supposed to subsist eternally in the ether. The argument, however, is a bad sophism, because it falsifies the intent of the terms used. Somebody's opinion is not what is meant by the truth, since every opinion, however long-lived, may be false. Furthermore, the notion that it might have been true that nothing existed is a perfectly clear notion. The nature of dialectic is entirely corrupted when sincerity is lost. No intent can be self-contradictory, since it fixes its own object, but a man may easily contradict himself by wavering between one intent and another.

Its eternity, and the infinitude of propositions it contains, remain potential and unapproachable until their incidence is found in existence. Form cannot of itself decide which of all possible forms shall be real; in their ideality, and without reference to their illustration in things, all consistent propositions would be equally valid and equally trivial. Important truth is truth about something, not truth about truth; and although a single datum might suffice to give foothold and pertinence to an infinity of truths, as one atom would posit all geometry, geometry, if there were no space, would be, if I may say so, all of the fourth dimension, and arithmetic, if there were no pulses or chasms in being, would be all algebra. Truth depends upon facts for its perspective, since facts select truths and decide which truths shall be mere possibilities and which shall be the eternal forms of actual things. The dialectical world would be a trackless desert if the existent world had no arbitrary constitution. Living dialectic comes to clarify existence; it turns into meanings the actual forms of things by reflecting upon them, and by making them intended subjects of discourse.

Their co-operation.

Dialectic and physics, thus united at their basis, meet again in their results. In mechanical science, which is the best part of physics, mathematics, which is the best part of dialectic, plays a predominant rôle; it furnishes the whole method of understanding

wherever there is any real understanding at all. In psychology and history, too, although dialectic is soon choked by the cross-currents of nature, it furnishes the little perspicuousness which there is. We understand actions and mental developments when the purposes or ideas contained in any stage are carried out logically in the sequel; it is when conduct and growth are rational, that is, when they are dialectical, that we think we have found the true secret and significance of them. It is the evident ideal of physics, in every department, to attain such an insight into causes that the effects actually given may be thence *deduced;* and deduction is another name for dialectic. To be sure, the dialectic applicable to material processes and to human life is one in which the terms and the categories needed are still exceedingly numerous and vague: a little logic is all that can be read into the cataract of events. But the hope of science, a hope which is supported by every success it scores, is that a simpler law than has yet been discovered will be found to connect units subtler than those yet known; and that in these finer terms the universal mechanism may be exhaustively rendered. Mechanism is the ideal of physics, because it is the infusion of a maximum of mathematical necessity into the flux of real things. It is the aspiration of natural science to be as dialectical as possible, and thus, in their ideal, both branches of science are brought together.

That the ideal of dialectic is to apply to existence and thereby to coincide with physics is in a sense no less true, although dialecticians may be little inclined to confess it. The direct purpose of deduction is to elucidate an idea, to develop an import, and nothing can be more irrelevant in this science than whether the conclusion is verified in nature or not. But the direct purpose of dialectic is not its ultimate justification. Dialectic is a human pursuit and has, at bottom, a moral function; otherwise, at bottom, it would have no value. And the moral function and ultimate justification of dialectic is to further the Life of Reason, in which human thought has the maximum practical validity, and may enjoy in consequence the richest ideal development. If dialectic takes a turn which makes it inapplicable in physics, which makes it worthless for mastering experience, it loses all its dignity: for abstract cogency has no dignity if the subject-matter into which it is introduced is trivial. In fact, were dialectic a game in which the counters were not actual data and the conclusions were not possible principles for understanding existence, it would not be a science at all. It would resemble a counterfeit paper currency, without intrinsic value and without commercial convenience. Just as a fact without implications is not a part of science, so a method without application would not be.

The free excursions of dialectic into non-natural regions may be wisely encouraged when they

satisfy an interest which is at bottom healthy and may, at least indirectly, bring with it excellent fruits. As musicians are an honour to society, so are dialecticians that have a single heart and an exquisite patience. But somehow the benefit must redound to society and to practical knowledge, or these abstracted hermits will seem at first useless and at last mad. The logic of nonsense has a subtle charm only because it can so easily be turned into the logic of common sense. Empty dialectic is, as it were, the ballet of science: it runs most neatly after nothing at all.

No science *a priori*.

Both physics and dialectic are contained in common knowledge, and when carried further than men carry them in daily life, these sciences remain essentially inevitable and essentially fallible. If science deserves respect, it is not for being oracular but for being useful and delightful, as seeing is. Understanding is nothing but seeing under and seeing far. There is indeed a great mystery in knowledge, but this mystery is present in the simplest memory or presumption. The sciences have nothing to supply more fundamental than vulgar thinking or, as it were, preliminary to it. They are simply elaborations of it; they accept its presuppositions and carry on its ordinary processes. A pretence on the philosopher's part that he could get behind or below human thinking, that he could underpin, so to speak, his own childhood and the inherent conventions of daily thought, would be

pure imposture. A philosopher can of course investigate the history of knowledge, he can analyse its method and point out its assumptions; but he cannot know by other authority than that which the vulgar know by, nor can his knowledge begin with other unheard-of objects or deploy itself in advance over an esoteric field. Every deeper investigation presupposes ordinary perception and uses some at least of its data. Every possible discovery *extends* human knowledge. None can base human knowledge anew on a deeper foundation or prefix an ante-experimental episode to experience. We may construct a theory as disintegrating as we please about the dialectical or empirical conditions of the experience given; we may disclose its logical stratification or physical antecedents; but every idea and principle used in such a theory must be borrowed from current knowledge as it happens to lie in the philosopher's mind.

Rôle of criticism.

If these speculative adventures do not turn out well, the scientific man is free to turn about and become the critic and satirist of his foiled ambitions. He may exhaust scepticism and withdraw into the citadel of immediate feeling, yielding bastion after bastion to the assaults of doubt. When he is at last perfectly safe from error and reduced to speechless sensibility, he will perceive, however, that he is also washed clean of every practical belief: he would declare himself universally ignorant but for a doubt whether there be really anything to

know. This metaphysical exercise is simply one of those "fallings from us, vanishings, blank misgivings of a creature moving about in worlds not realised" which may visit any child. So long as the suspension of judgment lasts, knowledge is surely not increased; but when we remember that the enemy to whom we have surrendered is but a ghost of our own evoking, we easily reoccupy the lost ground and fall back into an ordinary posture of belief and expectation. This recovered faith has no new evidences to rest on. We simply stand where we stood before we began to philosophise, only with a better knowledge of the lines we are holding and perhaps with less inclination to give them up again for no better reason than the undoubted fact that, in a speculative sense, it is always possible to renounce them.

Science, then, is the attentive consideration of common experience; it is common knowledge extended and refined. Its validity is of the same order as that of ordinary perception, memory, and understanding. Its test is found, like theirs, in actual intuition, which sometimes consists in perception and sometimes in intent. The flight of science is merely longer from perception to perception, and its deduction more accurate of meaning from meaning and purpose from purpose. It generates in the mind, for each vulgar observation, a whole brood of suggestions, hypotheses, and inferences. The sciences bestow, as is right and fitting, infinite pains upon that experience

which in their absence would drift by unchallenged or misunderstood. They take note, infer, and prophesy. They compare prophecy with event; and altogether they supply—so intent are they on reality—every imaginable background and extension for the present dream.

CHAPTER II

HISTORY

The least artificial extension of common knowledge is history. Personal recollection supplies many an anecdote, anecdotes collected and freely commented upon make up memoirs, and memoirs happily combined make not the least interesting sort of history. When a man recalls any episode in his career, describes the men that flourished in his youth, or laments the changes that have since taken place, he is an informal historian. He would become one in a formal and technical sense if he supplemented and controlled his memory by ransacking papers, and taking elaborate pains to gather evidence on the events he wished to relate. This systematic investigation, especially when it goes back to first sources, widens the basis for imaginative reconstruction. It buttresses somewhat the frail body of casual facts that in the first instance may have engaged an individual's attention.

History an artificial memory.

History is nothing but assisted and recorded memory. It might almost be said to be no science at all, if memory and faith in memory were not

what science necessarily rests on. In order to sift evidence we must rely on some witness, and we must trust experience before we proceed to expand it. The line between what is known scientifically and what has to be assumed in order to support that knowledge is impossible to draw. Memory itself is an internal rumour; and when to this hearsay within the mind we add the falsified echoes that reach us from others, we have but a shifting and unseizable basis to build upon. The picture we frame of the past changes continually and grows every day less similar to the original experience which it purports to describe.

Second sight requires control.

It is true that memory sometimes, as in a vision, seems to raise the curtain upon the past and restore it to us in its pristine reality. We may imagine at such moments that experience can never really perish, but, though hidden by chance from the roving eye, endures eternally in some spiritual sphere. Such bodily recovery of the past, however, like other telepathic visions, can never prove its own truth. A lapse into by-gone perception, a sense of living the past over with all its vivid minutiæ and trivial concomitants, might involve no true repetition of anything that had previously existed. It might be a fresh experience altogether. The sense of knowing constitutes only a working presumption for experiment to start with; until corroboration comes that presumption can claim no respect from the outsider.

While memory remains a private presumption, therefore, it can be compared with nothing else that might test its veracity. Only when memory is expressed and, in the common field of expression, finds itself corroborated by another memory, does it rise somewhat in dignity and approach scientific knowledge. Two presumptions, when they coincide, make a double assurance. While memory, then, is the basis of all historical knowledge, it is not called history until it enters a field where it can be supported or corrected by evidence. This field is that natural world which all experiences, in so far as they are rational, envisage together. Assertions relating to events in that world can corroborate or contradict one another—something that would be impossible if each memory, like the plot of a novel, moved in a sphere of its own. For memory to meet memory, the two must present objects which are similar or continuous: then they can corroborate or correct each other and help to fix the order of events as they really happened—that is, as they happened independently of what either memory may chance to represent. Thus even the most miraculous and direct recovery of the past needs corroboration if it is to be systematically credited; but to receive corroboration it must refer to some event in nature, in that common world in space and time to which other memories and perceptions may refer also. In

Nature the theme common to various memories.

becoming history, therefore, memory becomes a portion of natural science. Its assertions are such that any natural science may conceivably support or contradict them.

Nature and its transformations, however, form too serried and complicated a system for our wayward minds to dominate if left to their spontaneous workings. Whatever is remembered or conceived is at first vaguely believed to have its place in the natural order, all myth and fable being originally localised within the confines of the material world and made to pass for a part of early history. The method by which knowledge of the past is preserved is so subject to imaginative influence that it cannot avail to exclude from history anything that the imagination may supply. In the growth of legend a dramatic rhythm becomes more and more marked. What falls in with this rhythm is reproduced and accentuated whenever the train of memory is started anew. The absence of such cadences would leave a sensible gap—a gap which the momentum of ideation is quick to fill up with some appropriate image. Whatever, on the other hand, cannot be incorporated into the dominant round of fancies is consigned more and more to oblivion.

Growth of legend.

This consolidation of legend is not intentional. It is ingenuous and for the most part inevitable. When we muse about our own past we are conscious of no effort to give it dramatic unity; on

the contrary, the excitement and interest of the process consist in seeming to discover the hidden eloquence and meaning of the events themselves. When a man of experience narrates the wonders he has seen, we listen with a certain awe, and believe in him for his miracles as we believe in our own memory for its arts. A bard's mechanical and ritualistic habits usually put all judgment on his own part to sleep; while the sanctity attributed to the tale, as it becomes automatically more impressive, precludes tinkering with it intentionally. Especially the allegories and marvels with which early history is adorned are not ordinarily invented with malice prepense. They are rather discovered in the mind, like a foundling, between night and morning. They are divinely vouchsafed. Each time the tale is retold it suffers a variation which is not challenged, since it is memory itself that has varied. The change is discoverable only if some record of the narrative in its former guise, or some physical memorial of the event related, survives to be confronted with the modified version. The modified version itself can make no comparisons. It merely inherits the name and authority of its ancestor. The innocent poet believes his own lies.

Legends consequently acquire a considerable eloquence and dramatic force. These beauties accrue spontaneously, because rhythm and ideal pertinence, in which poetic merit largely lies,

are natural formative principles for speech and memory. As symmetry in material structures is a ground for strength, and hills by erosion are worn to pyramids, so it is in thoughts. Yet the stability attained is not absolute, but only such stability as the circumstances require. Dramatic effect is not everywhere achieved, nor is it missed by the narrator where it is wanting, so that even the oldest and best-pruned legends are full of irrelevant survivals, contradictions, and scraps of nonsense. These literary blemishes are like embedded fossils and tell of facts which the mechanism of reproduction, for some casual reason, has not obliterated. The recorder of verbal tradition religiously sets down its inconsistencies and leaves in the transfigured chronicle many tell-tale incidents and remarks which, like atrophied organs in an animal body, reveal its gradual formation. Art and a deliberate pursuit of unction or beauty would have thrown over this baggage. The automatic and pious minstrel carries it with him to the end.

No history without documents.

For these reasons there can be no serious history until there are archives and preserved records, although sometimes a man in a privileged position may compose interesting essays on the events and persons of his own time, as his personal experience has presented them to him. Archives and records, moreover, do not absolve a speculative historian from paying the same toll to the

dramatic unities and making the same concessions to the laws of perspective which, in the absence of documents, turn tradition so soon into epic poetry. The principle that elicits histories out of records is the same that breeds legends out of remembered events. In both cases the facts are automatically foreshortened and made to cluster, as it were providentially, about a chosen interest. The historian's politics, philosophy, or romantic imagination furnishes a vital nucleus for reflection. All that falls within that particular vortex is included in the mental picture, the rest is passed over and tends to drop out of sight. It is not possible to say, nor to think, everything at once; and the private interest which guides a man in selecting his materials imposes itself inevitably on the events he relates and especially on their grouping and significance.

History is always written wrong, and so always needs to be rewritten. The conditions of expression and even of memory dragoon the facts and put a false front on diffuse experience. What is interesting is brought forward as if it had been central and efficacious in the march of events, and harmonies are turned into causes. Kings and generals are endowed with motives appropriate to what the historian values in their actions; plans are imputed to them prophetic of their actual achievements, while the thoughts that really preoccupied them remain buried in

absolute oblivion. Such falsification is inevitable, and an honest historian is guilty of it only against his will. He would wish, as he loves the truth, to see and to render it entire. But the limits of his book and of his knowledge force him to be partial. It is only a very great mind, seasoned by large wisdom, that can lend such an accent and such a carrying-power to a few facts as to make them representative of all reality.

The aim is truth.

Some historians, indeed, are so frankly partisan or cynical that they avowedly write history with a view to effect, either political or literary. Moralising historians belong to this school, as well as those philosophers who worship evolution. They sketch every situation with malice and twist it, as if it were an argument, to bring out a point, much as fashionable portrait-painters sometimes surcharge the characteristic, in order to make a bold effect at a minimum expense of time and devotion. And yet the truly memorable aspect of a man is that which he wears in the sunlight of common day, with all his generic humanity upon him. His most interesting phase is not that which he might assume under the lime-light of satirical or literary comparisons. The characteristic is after all the inessential. It marks a peripheral variation in the honest and sturdy lump. To catch only the heartless shimmer of individuality is to paint a costume without the body that supports it. Therefore a broad and noble historian sets down

all within his apperception. His literary interests are forgotten; he is wholly devoted to expressing the passions of the dead. His ideal, emanating from his function and chosen for no extraneous reason, is to make his heroes think and act as they really thought and acted in the world.

Nevertheless the opposite happens, sometimes to a marked and even scandalous degree. As legend becomes in a few generations preposterous myth, so history, after a few rehandlings and condensations, becomes unblushing theory. Now theory—when we use the word for a schema of things' relations and not for contemplation of them in their detail and fulness—is an expedient to cover ignorance and remedy confusion. The function of history, if it could be thoroughly fulfilled, would be to render theory unnecessary. Did we possess a record of all geological changes since the creation we should need no geological theory to suggest to us what those changes must have been. Hypothesis is like the rule of three: it comes into play only when one of the terms is unknown and needs to be inferred from those which are given. The ideal historian, since he would know all the facts, would need no hypotheses, and since he would imagine and hold all events together in their actual juxtapositions he would need no classifications. The intentions, acts, and antecedents of every mortal would be seen in their precise places, with no imputed

qualities or scope; and when those intentions had been in fact fulfilled, the fulfilments too would occupy their modest position in the rank and file of marching existence. To omniscience the idea of cause and effect would be unthinkable. If all things were perceived together and coexisted for thought, as they actually flow through being, on one flat phenomenal level, what sense would there be in saying that one element had compelled another to appear? The relation of cause is an instrument necessary to thought only when thought is guided by presumption. We say, "If this thing had happened, that other thing would have followed"—a hypothesis which would lapse and become unmeaning had we always known all the facts. For no supposition contrary to fact would then have entered discourse.

Indirect methods of attaining it.

This ideal of direct omniscience is, however, impossible to attain; not merely accidental frailties, but the very nature of things stands in the way. Experience cannot be suspended or sustained in being, because its very nucleus is mobile and in shifting cannot retain its past phases bodily, but only at best some trace or representation of them. Memory itself is an expedient by which what is hopelessly lost in its totality may at least be partly kept in its beautv or significance; and experience can be enlarged in no other way than by carrying into the moving present the lesson

and transmitted habit of much that is past. History is naturally reduced to similar indirect methods of recovering what has lapsed. The historian's object may be to bring the past again before the mind in all its living reality, but in pursuing that object he is obliged to appeal to inference, to generalisation, and to dramatic fancy. We may conveniently distinguish in history, as it is perforce written by men, three distinct elements, which we may call historical investigation, historical theory, and historical romance.

Historical research a part of physics.

Historical investigation is the natural science of the past. The circumstance that its documents are usually literary may somewhat disguise the physical character and the physical principles of this science; but when a man wishes to discover what really happened at a given moment, even if the event were somebody's thought, he has to read his sources, not for what they say, but for what they imply. In other words. the witnesses cannot be allowed merely to speak for themselves, after the gossiping fashion familiar in Herodotus; their testimony has to be interpreted according to the laws of evidence. The past needs to be reconstructed out of reports, as in geology or archæology it needs to be reconstructed out of stratifications and ruins. A man's memory or the report in a newspaper is a fact justifying certain inferences about its

probable causes according to laws which such phenomena betray in the present when they are closely scrutinised. This reconstruction is often very difficult, and sometimes all that can be established in the end is merely that the tradition before us is certainly false; somewhat as a perplexed geologist might venture on no conclusion except that the state of the earth's crust was once very different from what it is now.

Verification here indirect.

A natural science dealing with the past labours under the disadvantage of not being able to appeal to experiment. The facts it terminates upon cannot be recovered, so that they may verify in sense the hypothesis that had inferred them. The hypothesis can be tested only by current events; it is then turned back upon the past, to give assurance of facts which themselves are hypothetical and remain hanging, as it were, to the loose end of the hypothesis itself. A hypothetical fact is a most dangerous creature, since it lives on the credit of a theory which in turn would be bankrupt if the fact should fail. Inferred past facts are more deceptive than facts prophesied, because while the risk of error in the inference is the same, there is no possibility of discovering that error; and the historian, while really as speculative as the prophet, can never be found out.

Most facts known to man, however, are reached by inference, and their reality may be wisely assumed so long as the principle by which

they are inferred, when it is applied in the present, finds complete and constant verification. Presumptions involved in memory and tradition give the first hypothetical facts we count upon; the relations which these first facts betray supply the laws by which facts are to be concatenated; and these laws may then be used to pass from the first hypothetical facts to hypothetical facts of a second order, forming a background and congruous extension to those originally assumed. This expansion of discursive science can go on for ever, unless indeed the principles of inference employed in it involve some present existence, such as a skeleton in a given tomb, which direct experience fails to verify. Then the theory itself is disproved and the whole galaxy of hypothetical facts which clustered about it forfeit their credibility.

Futile ideal to survey all facts.

Historical investigation has for its aim to fix the order and character of events throughout past time in all places. The task is frankly superhuman, because no block of real existence, with its infinitesimal detail, can be recorded, nor if somehow recorded could it be dominated by the mind; and to carry on a survey of this social continuum *ad infinitum* would multiply the difficulty. The task might also be called infrahuman, because the sort of omniscience which such complete historical science would achieve would merely furnish materials for intelligence: it would be inferior to intel-

ligence itself. There are many things which, as Aristotle says, it is better not to know than to know—namely, those things which do not count in controlling the mind's fortunes nor enter into its ideal expression. Such is the whole flux of immediate experience in other minds or in one's own past; and just as it is better to forget than to remember a nightmare or the by-gone sensations of sea-sickness, so it is better not to conceive the sensuous pulp of alien experience, something infinite in amount and insignificant in character.

An attempt to rehearse the inner life of everybody that has ever lived would be no rational endeavour. Instead of lifting the historian above the world and making him the most consummate of creatures, it would flatten his mind out into a passive after-image of diffuse existence, with all its horrible blindness, strain, and monotony. Reason is not come to repeat the universe but to fulfil it. Besides, a complete survey of events would perforce register all changes that have taken place in matter since time began, the fields of geology, astronomy, palæontology, and archæology being all, in a sense, included in history. Such learning would dissolve thought in a vertigo, if it had not already perished of boredom. Historical research is accordingly a servile science which may enter the Life of Reason to perform there some incidental service, but which ought to lapse as soon as that service is performed.

The profit of studying history lies in some-

thing else than in a dead knowledge of what happens to have happened. A seductive alternative might be to say that the profit of it lies in *understanding* what has happened, in perceiving the principles and laws that govern social evolution, or the meaning which events have. We are hereby launched upon a region of physico-ethical speculation where any man with a genius for quick generalisation can swim at ease. To find the one great cause why Rome fell, especially if no one has ever thought of it before, or to expound the true import of the French Revolution, or to formulate in limpid sentences the essence of Greek culture—what could be more tempting or more purely literary? It would ill become the author of this book to decry allegorical expressions, or a cavalierlike fashion of dismissing whole periods and tendencies with a verbal antithesis. We must have exercises in apperception, a work of imagination must be taken imaginatively, and a landscape painter must be suffered to be, at his own risk, as impressionistic as he will. If Raphael, when he was designing the *School of Athens,* had said to himself that Aristotle should point down to a fact and Plato up to a meaning, or when designing the *Disputa* had conceived that the proudest of intellects, weary of argument and learning, should throw down his books and turn to revelation for guidance, there would have been much historical pertinence in those conceptions; yet the figures would

Historical theory.

have been allegorical, contracting into a decorative design events that had been dispersed through centuries and emotions that had only cropped up here and there, with all manner of variations and alloys, when the particular natural situation had made them inevitable. So the Renaissance might be spoken of as a person and the Reformation as her step-sister, and something might be added about the troubles of their home life; but would it be needful in that case to enter a warning that these units were verbal merely, and that the phenomena and the forces really at work had been multitudinous and infinitesimal?

It is arbitrary.

In fine, historical terms mark merely rhetorical unities, which have no dynamic cohesion, and there are no historical laws which are not at bottom physical, like the laws of habit—those expressions of Newton's first law of motion. An essayist may play with historical apperception as long as he will and always find something new to say, discovering the ideal nerve and issue of a movement in a different aspect of the facts. The truly proportionate, constant, efficacious relations between things will remain material. Physical causes traverse the moral units at which history stops, determining their force and duration, and the order, so irrelevant to intent, in which they succeed one another. Even the single man's life and character have subterranean sources; how should the outer expression and influence of that character have sources

more superficial than its own? Yet we cannot trace mechanical necessity down to the more stable units composing a personal mechanism, and much less, therefore, to those composing a complex social evolution. We accordingly translate the necessity, obviously lurking under life's commonplace yet unaccountable shocks, into verbal principles, names for general impressive results, that play some rôle in our ideal philosophy. Each of these idols of the theatre is visible only on a single stage and to duly predisposed spectators. The next passion affected will throw a differently coloured calcium light on the same pageant, and there will be no end of rival evolutions and incompatible ideal principles crossing one another at every interesting event.

Such a manipulation of history, when made by persons who underestimate their imaginative powers, ends in asserting that events have directed themselves prophetically upon the interests which they arouse. Apart from the magic involved and the mockery of all science, there is a difficulty here which even a dramatic idealist ought to feel. The interests affected are themselves many and contrary. If history is to be understood teleologically, which of all the possible ends it might be pursuing shall we think really endowed with regressive influence and responsible for the movement that is going to realise it? Did Columbus, for instance, discover America so that George Washington might exist and that some day foot-

ball and the Church of England may prevail throughout the world? Or was it (as has been seriously maintained) in order that the converted Indians of South America might console Saint Peter for the defection of the British and Germans? Or was America, as Hegel believed, ideally superfluous, the absolute having become self-conscious enough already in Prussia? Or shall we say that the real goal is at an infinite distance and unimaginable by us, and useless, therefore, for understanding anything?

In truth, whatever plausibility the providential view of a given occurrence may have is dependent on the curious limitation and selfishness of the observer's estimations. Sheep are providentially designed for men; but why not also for wolves, and men for worms and microbes? If the historian is willing to accept such a suggestion, and to become a blind worshipper of success, applauding every issue, however lamentable for humanity, and calling it admirable tragedy, he may seem for a while to save his theory by making it mystical; yet presently this last illusion will be dissipated when he loses his way in the maze and finds that all victors perish in their turn and everything, if you look far enough, falls back into the inexorable vortex. This is the sort of observation that the Indian sages made long ago; it is what renders their philosophy, for all its practical impotence, such an irrefragable record of experience, such a superior, definitive perception of

the flux. Beside it, our progresses of two centuries and our philosophies of history, embracing one-quarter of the earth for three thousand years, seem puerile vistas indeed. Shall all eternity and all existence be for the sake of what is happening here to-day, and to me? Shall we strive manfully to the top of this particular wave, on the ground that its foam is the culmination of all things for ever?

There is a sense, of course, in which definite political plans and moral aspirations may well be fulfilled by events. Our ancestors, sharing and anticipating our natures, may have had in many respects our actual interests in view, as we may have those of posterity. Such ideal co-operation extends far, where primary interests are concerned; it is rarer and more qualified where a fine and fragile organisation is required to support the common spiritual life. Even in these cases, the aim pursued and attained is not the force that operates, since the result achieved had many other conditions besides the worker's intent, and that intent itself had causes which it knew nothing of. Every "historical force" pompously appealed to breaks up on inspection into a cataract of miscellaneous natural processes and minute particular causes. It breaks into its mechanical constituents and proves to have been nothing but an *effet d'ensemble* produced on a mind whose habits and categories are essentially rhetorical.

This sort of false history or philosophy of his-

tory might be purified, like so many other things, by self-knowledge. If the philosopher in reviewing events confessed that he was scrutinising them in order to abstract from them whatever tended to illustrate his own ideals, as he might look over a crowd to find his friends, the operation would become a perfectly legitimate one. The events themselves would be left for scientific inference to discover, where credible reports did not testify to them directly; and the causes of events would be left to some theory of natural evolution, to be stated, according to the degree of knowledge attained, in terms more and more exact and mechanical. In the presence of the past so defined imagination and will, however, would not abdicate their rights, and a sort of retrospective politics, an estimate of events in reference to the moral ideal which they embodied or betrayed, might supervene upon positive history. This estimate of evolution might well be called a philosophy of history, since it would be a higher operation performed on the results of natural science, to give a needful basis and illustration to the ideal. The present work is an essay in that direction.

A moral critique of the past is possible.

The ideal which in such a review would serve as the touchstone for estimation, if it were an enlightened ideal, would recognise its own natural basis, and therefore would also recognise that under other conditions

How it might be just.

other ideals, no less legitimate, may have arisen and may have been made the standard for a different judgment on the world. Historical investigation, were its resources adequate, would reveal to us what these various ideals have been. Every animal has his own, and whenever individuals or nations have become reflective they have known how to give articulate expression to theirs. That all these ideals could not have been realised in turn or together is an immense misfortune, the irremediable half-tragedy of life, by which we also suffer. In estimating the measure of success achieved anywhere a liberal historian, who does not wish to be bluntly irrational, will of course estimate it from *all* these points of view, considering all real interests affected, in so far as he can appreciate them. This is what is meant by putting the standard of value, not in some arbitrary personal dogma but in a variegated omnipresent happiness.

It is by no means requisite, therefore, in disentangling the Life of Reason, to foresee what ultimate form the good might some day take, much less to make the purposes of the philosopher himself, his time, or his nation the test of all excellence. This test is the perpetual concomitant ideal of the life it is applied to. As all could not be well in the world if my own purposes were defeated, so the general excellence of things would be heightened if other men's purposes also had been fulfilled. Each will is a true centre for universal

estimation. As each will, therefore, comes to expression, real and irreversible values are introduced into the world, and the historian, in estimating what has been hitherto achieved, needs to make himself the spokesman for all past aspirations.

If the Egyptian poets sang well, though that conduces not at all to our advantage, and though all those songs are now dumb, the Life of Reason was thereby increased once for all in pith and volume. Brief erratic experiments made in living, if they were somewhat successful in their day, remain successes always: and this is the only kind of success that in the end can be achieved at all. The philosopher that looks for what is good in history and measures the past by the scale of reason need be no impertinent dogmatist on that account. Reason would not be reason but passion if it did not make all passions in all creatures constituents of its own authority. The judgments it passes on existence are only the judgments which existence, so far, has passed on itself, and these are indelible and have their proportionate weight though others of many different types may surround or succeed them.

To inquire what everybody has thought about the world, and into what strange shapes every passionate dream would fain have transformed existence, might be merely a part of historical investigation. These facts of preference and estimation might be made to stand side by side with all

other facts in that absolute physical order which the universe must somehow possess. In the reference book of science they would all find their page and line. But it is not for the sake of making vain knowledge complete that historians are apt to linger over heroic episodes and commanding characters in the world's annals. It is not even in the hope of discovering just to what extent and in how many directions experience has been a tragedy. The mathematical balance of failure and success, even if it could be drawn with accuracy, would not be a truth of moral importance, since whatever that balance might be for the world at large, success and benefit here, from the living point of view, would be equally valid and delightful; and however good or however bad the universe may be it is always worth while to make it better.

Transition to historical romance.

What engages the historian in the reconstruction of moral life, such as the past contained, is that he finds in that life many an illustration of his own ideals, or even a necessary stimulus in defining what his ideals are. Where his admiration and his sympathy are awakened, he sees noble aims and great achievements, worthy of being minutely studied and brought vividly before later generations. Very probably he will be led by moral affinities with certain phases of the past to attribute to those phases, in their abstraction and by virtue of their moral dignity, a material effi-

cacy which they did not really have; and his interest in history's moral will make him turn history itself into a fable. This abuse may be abated, however, by having recourse to impartial historical investigation, that will restore to the hero all his circumstantial impotence, and to the glorious event all its insignificant causes. Certain men and certain episodes will retain, notwithstanding, their intrinsic nobility; and the historian, who is often a politician and a poet rather than a man of science, will dwell on those noble things so as to quicken his own sense for greatness and to burnish in his soul ideals that may have remained obscure for want of scrutiny or may have been tarnished by too much contact with a sordid world.

History so conceived has the function of epic or dramatic poetry. The moral life represented may actually have been lived through; but that circumstance is incidental merely and what makes the story worth telling is its pertinence to the political or emotional life of the present. To revive past moral experience is indeed wellnigh impossible unless the living will can still covet or dread the same issues; historical romance cannot be truthful or interesting when profound changes have taken place in human nature. The reported acts and sentiments of early peoples lose their tragic dignity in our eyes when they lose their pertinence to our own aims. So that a recital of history with an eye to its

Possibility of genuine epics.

dramatic values is possible only when that history is, so to speak, our own, or when we assimilate it to ours by poetic license.

The various functions of history have been generally carried on simultaneously and with little consciousness of their profound diversity. Since historical criticism made its appearance, the romantic interest in the past, far from abating, has fed eagerly on all the material incidents and private gossip of remote times. This sort of petty historical drama has reflected contemporary interests, which have centred so largely in material possessions and personal careers; while at the same time it has kept pace with the knowledge of minutiæ attained by archæology. When historical investigation has reached its limits a period of ideal reconstruction may very likely set in. Indeed were it possible to collect in archives exhaustive accounts of everything that has ever happened, so that the curious man might always be informed on any point of fact that interested him, historical imagination might grow free again in its movements. Not being suspected of wishing to distort facts which could so easily be pointed to, it might become more conscious of its own moral function, and it might turn unblushingly to what was important and inspiring in order to put it with dramatic force before the mind. Such a treatment of history would reinstate that epic and tragic poetry which has become obsolete; it might well be written in verse, and

would at any rate be frankly imaginative; it might furnish a sort of ritual, with scientific and political sanctions, for public feasts. Tragedies and epics are such only in name if they do not deal with the highest interests and destinies of a people; and they could hardly deal with such ideals in an authoritative and definite way, unless they found them illustrated in that people's traditions.

Historic romance is a work of art, not of science, and its fidelity to past fact is only an expedient, often an excellent and easy one, for striking the key-note of present ideals. The insight attained, even when it is true insight into what some one else felt in some other age, draws its force and sublimity from current passions, passions potential in the auditor's soul. Mary Queen of Scots, for instance, doubtless repeated, in many a fancied dialogue with Queen Elizabeth, the very words that Schiller puts into her mouth in the central scene of his play, "*Denn ich bin Euer König!*" Yet the dramatic force of that expression, its audacious substitution of ideals for facts, depends entirely on the scope which we lend it. Different actors and different readers would interpret it differently. Some might see in it nothing but a sally in a woman's quarrel, reading it with the accent of mere spite and irritation. Then the tragedy, not perhaps without historic truth, would be reduced to a loud comedy. Other interpreters might find in the

Literal truth abandoned.

phrase the whole feudal system, all the chivalry, legality, and foolishness of the Middle Ages. Then the drama would become more interesting, and the poor queen's cry, while that of a mind sophisticated and fanatical, would have great pathos and keenness. To reach sublimity, however, that moment would have to epitomise ideals which we deeply respected. We should have to believe in the sanctity of canon law and in the divine right of primogeniture. That a woman may have been very unhappy or that a state may have been held together by personal allegiance does not raise the fate of either to the tragic plane, unless "laws that are not of to-day nor yesterday," aspirations native to the heart, shine through those legendary misfortunes.

It would matter nothing to the excellence of Schiller's drama which of these interpretations might have been made by Mary Stuart herself at any given moment; doubtless her attitude toward her rival was coloured on different occasions by varying degrees of political insight and moral fervour. The successful historical poet would be he who caught the most significant attitude which a person in that position could possibly have assumed, and his Mary Stuart, whether accidentally resembling the real woman or not, would be essentially a mythical person. So Electra and Antigone and Helen of Troy are tragic figures absolved from historical accuracy, although possibly if the personages of heroic times were known

to us we might find that our highest imagination had been anticipated in their consciousness.

History exists to be transcended.

Of the three parts into which the pursuit of history may be divided—investigation, theory, and story-telling—not one attains ideal finality. Investigation is merely useful, because its intrinsic ideal—to know every detail of everything—is not rational, and its acceptable function can only be to offer accurate information upon such points as are worth knowing for some ulterior reason. Historical theory, in turn, is a falsification of causes, since no causes are other than mechanical; it is an arbitrary foreshortening of physics, and it dissolves in the presence either of adequate knowledge or of clear ideals. Finally, historical romance passes, as it grows mature, into epics and tragedies, where the moral imagination disengages itself from all allegiance to particular past facts. Thus history proves to be an imperfect field for the exercise of reason; it is a provisional discipline; its values, with the mind's progress, would empty into higher activities. The function of history is to lend materials to politics and to poetry. These arts need to dominate past events, the better to dominate the present situation and the ideal one. A good book of history is one that helps the statesman to formulate and to carry out his plans, or that helps the tragic poet to conceive what is most glorious in human destiny. Such a book, as knowledge and ignorance are now mingled, will

have to borrow something from each of the methods by which history is commonly pursued. Investigation will be necessary, since the needful facts are not all indubitably known; theory will be necessary too, so that those facts may be conceived in their pertinence to public interests, and the latter may thereby be clarified; and romance will not be wholly excluded, because the various activities of the mind about the same matter cannot be divided altogether, and a dramatic treatment is often useful in summarising a situation, when all the elements of it cannot be summoned up in detail before the mind.

Its great rôle.

Fragmentary, arbitrary, and insecure as historical conceptions must remain, they are nevertheless highly important. In human consciousness the indispensable is in inverse ratio to the demonstrable. Sense is the foundation of everything. Without sense memory would be both false and useless. Yet memory rather than sense is knowledge in the pregnant acceptation of the word; for in sense object and process are hardly distinguished, whereas in memory significance inheres in the datum, and the present vouches for the absent. Similarly history, which is derived from memory, is superior to it; for while it merely extends memory artificially it shows a higher logical development than memory has and is riper for ideal uses. Trivial and useless matter has dropped out. Inference has gone a step farther, thought is more largely

representative, and testimony conveyed by the reports of others or found in monuments leads the speculative mind to infer events that must have filled the remotest ages. This information is not passive or idle knowledge; it truly *informs* or shapes the mind, giving it new aptitudes. As an efficacious memory modifies instinct, by levelling it with a wider survey of the situation, so a memory of what human experience has been, a sense of what it is likely to be under specific circumstances, gives the will a new basis. What politics or any large drama deals with is a will cast into historic moulds, an imagination busy with what we call great interests. Great interests are a gift which history makes to the heart. A barbarian is no less subject to the past than is the civic man who knows what his past is and means to be loyal to it; but the barbarian, for want of a trans-personal memory, crawls among superstitions which he cannot understand or revoke and among persons whom he may hate or love, but whom he can never think of raising to a higher plane, to the level of a purer happiness. The whole dignity of human endeavour is thus bound up with historic issues; and as conscience needs to be controlled by experience if it is to become rational, so personal experience itself needs to be enlarged ideally if the failures and successes it reports are to touch impersonal interests.

CHAPTER III

MECHANISM

Recurrent forms in nature.

A retrospect over human experience, if a little extended, can hardly fail to come upon many interesting recurrences. The seasons make their round and the generations of men, like the forest leaves, repeat their career. In this its finer texture history undoubtedly repeats itself. A study of it, in registering so many recurrences, leads to a description of habit, or to natural history. To observe a recurrence is to divine a mechanism. It is to analyse a phenomenon, distinguishing its form, which alone recurs, from its existence, which is irrevocable; and that the flux of phenomena should turn out, on closer inspection, to be composed of a multitude of recurring forms, regularly interwoven, is the ideal of mechanism. The forms, taken ideally and in themselves, are what reflection first rescues from the flux and makes a science of; they constitute that world of eternal relations with which dialectic is conversant. To note here and there some passing illustration of these forms is one way of studying experience. The observer, the poet, the historian merely *define*

what they see. But these incidental illustrations of form (called by Plato phenomena) may have a method in their comings and goings, and this method may in turn be definable. It will be a new sort of constant illustrated in the flux; and this we call a law. If events could be reduced to a number of constant forms moving in a constant medium according to a constant law, a maximum of constancy would be introduced into the flux, which would thereby be proved to be mechanical.

The form of events, abstracted from their material presence, becomes a general mould to which we tend to assimilate new observations. Whatever in particular instances may contravene the accredited rule, we attribute without a qualm to unknown variations in the circumstances, thus saving our faith in order at all hazards and appealing to investigation to justify the same. Only when another rule suggests itself which leaves a smaller margin unaccounted for in the phenomena do we give up our first generalisation. Not even the rudest superstition can be criticised or dislodged scientifically save by another general rule, more exact and trustworthy than the superstition. The scepticism which comes from distrust of abstraction and disgust with reckoning of any sort is not a scientific force; it is an intellectual weakness.

Generalities are indeed essential to understanding, which is apt to impose them hastily upon particulars. Confirmation is not needed to create

prejudice. It suffices that a vivid impression should once have cut its way into the mind and settled there in a fertile soil; it will entwine itself at once with its chance neighbours and these adventitious relations will pass henceforth for a part of the fact. Repetition, however, is a good means of making or keeping impressions vivid and almost the only means of keeping them unchanged. Prejudices, however refractory to new evidence, evolve inwardly of themselves. The mental soil in which they lie is in a continual ferment and their very vitality will extend their scope and change their application. Generalisations, therefore, when based on a single instance, will soon forget it and shift their ground, as unchecked words shift their meaning. But when a phenomenon actually recurs the generalisations founded on it are reinforced and kept identical, and prejudices so sustained by events make man's knowledge of nature.

Natural science consists of general ideas which look for verification in events, and which find it. The particular instance, once noted, is thrown aside like a squeezed orange, its significance in establishing some law having once been extracted. Science, by this flight into the general, lends immediate experience an interest and scope which its parts, taken blindly, could never possess; since if we remained sunk in the moments of existence and never abstracted their character from their pres-

Their discovery makes the flux calculable.

ence, we should never know that they had any relation to one another. We should feel their incubus without being able to distinguish their dignities or to give them names. By analysing what we find and abstracting what recurs from its many vain incidents we can discover a sustained structure within, which enables us to foretell what we may find in future. Science thus articulates experience and reveals its skeleton.

Skeletons are not things particularly congenial to poets, unless it be for the sake of having something truly horrible to shudder at and to frighten children with: and so a certain school of philosophers exhaust their rhetoric in convincing us that the objects known to science are artificial and dead, while the living reality is infinitely rich and absolutely unutterable. This is merely an ungracious way of describing the office of thought and bearing witness to its necessity. A body is none the worse for having some bones in it, even if they are not all visible on the surface. They are certainly not the whole man, who nevertheless runs and leaps by their leverage and smooth turning in their sockets; and a surgeon's studies in dead anatomy help him excellently to set a living joint. The abstractions of science are extractions of truths. Truths cannot of themselves constitute existence with its irrational concentration in time, place, and person, its hopeless flux, and its vital exuberance; but they can be true of existence; they can disclose that structure by which its parts

cohere materially and become ideally inferable from one another.

Science becomes demonstrable in proportion as it becomes abstract. It becomes in the same measure applicable and useful, as mathematics witnesses, whenever the abstraction is judiciously made and has seized the profounder structural features in the phenomenon. These features are often hard for human eyes to discern, buried as they may be in the internal infinitesimal texture of things. Things accordingly seem to move on the world's stage in an unaccountable fashion, and to betray magic affinities to what is separated from them by apparent chasms. The types of relation which the mind may observe are multifarious. Any chance conjunction, any incidental harmony, will start a hypothesis about the nature of the universe and be the parent image of a whole system of philosophy. In self-indulgent minds most of these standard images are dramatic, and the cue men follow in unravelling experience is that offered by some success or failure of their own. The sanguine, having once found a pearl in a dunghill, feel a glorious assurance that the world's true secret is that everything in the end is ordered for everybody's benefit —and that is optimism. The atrabilious, being ill at ease with themselves, see the workings everywhere of insidious sin, and conceive that the world is a dangerous place of trial. A somewhat more observant intellect may decide that what exists is

Looser principles tried first.

a certain number of definite natures, each striving to preserve and express itself; and in such language we still commonly read political events and our friend's actions. At the dawn of science a Thales, observing the ways and the conditions of things somewhat more subtly, will notice that rain, something quite adventitious to the fields, is what covers them with verdure, that the slime breeds life, that a liquid will freeze to stone and melt to air; and his shrewd conclusion will be that everything is water in one disguise or another. It is only after long accumulated observation that we can reach any exact law of nature; and this law we hardly think of applying to living things. These have not yet revealed the secret of their structure, and clear insight is vouchsafed us only in such regions as that of mathematical physics, where cogency in the ideal system is combined with adequacy to explain the phenomena.

Mechanism for the most part hidden.

These exact sciences cover in the gross the field in which human life appears, the antecedents of this life, and its instruments. To a speculative mind, that had retained an ingenuous sense of nature's inexhaustible resources and of man's essential continuity with other natural things, there could be no ground for doubting that similar principles (could they be traced in detail) would be seen to preside over all man's action and passion. A thousand indications, drawn from introspection and from history, would be found to confirm this specula-

tive presumption. It is not only earthquakes and floods, summer and winter, that bring human musings sharply to book. Love and ambition are unmistakable blossomings of material forces, and the more intense and poetical a man's sense is of his spiritual condition the more loudly will he proclaim his utter dependence on nature and the identity of the moving principle in him and in her.

Mankind and all its works are undeniably subject to gravity and to the law of projectiles; yet what is true of these phenomena in bulk seems to a superficial observation not to be true of them in detail, and a person may imagine that he subverts all the laws of physics whenever he wags his tongue. Only in inorganic matter is the ruling mechanism open to human inspection: here changes may be seen to be proportionate to the elements and situation in which they occur. Habit here seems perfectly steady and is called necessity, since the observer is able to deduce it unequivocally from given properties in the body and in the external bodies acting upon it. In the parts of nature which we call living and to which we impute consciousness, habit, though it be fatal enough, is not so exactly measurable and perspicuous. Physics cannot account for that minute motion and pullulation in the earth's crust of which human affairs are a portion. Human affairs have to be surveyed under categories lying closer to those employed in memory and legend.

These looser categories are of every sort—grammatical, moral, magical—and there is no knowing when any of them will apply or in what measure. Between the matters covered by the exact sciences and vulgar experience there remains, accordingly, a wide and nebulous gulf. Where we cannot see the mechanism involved in what happens we have to be satisfied with an empirical description of appearances as they first fall together in our apprehension; and this want of understanding in the observer is what popular philosophy calls intelligence in the world.

Yet presumably pervasive.

That this gulf is apparent only, being due to inadequacy and confusion in human perception rather than to incoherence in things, is a speculative conviction altogether trustworthy. Any one who can at all catch the drift of experience—moral no less than physical —must feel that mechanism rules the whole world. There are doubleness and diversity enough in things to satiate the greatest lover of chaos; but that a cosmos nevertheless underlies the superficial play of sense and opinion is what all practical reason must assume and what all comprehended experience bears witness to. A cosmos does not mean a disorder with which somebody happens to be well pleased; it means a necessity from which every one must draw his happiness. If a principle is efficacious it is to that extent mechanical. For to be efficacious a principle must apply necessarily and proportionately; it must assure us that where

the factors are the same as on a previous occasion the quotient will be the same also.

Now, in order that the flux of things should contain a repetition, elements must be identified within it; these identical elements may then find themselves in an identical situation, on which the same result may ensue which ensued before. If the elements were not constant and recognisable, or if their relations did not suffice to determine the succeeding event, no observation could be transferred with safety from the past to the future. Thus art and comprehension would be defeated together. Novelties in the world are not lacking, because the elements entering at any moment into a given combination have never before entered into a combination exactly similar. Mechanism applies to the matter and minute texture of things; but its applying there will create, at each moment, fresh ideal wholes, formal unities which mind emanates from and represents. The result will accordingly always be unprecedented in the total impression it produces, in exact proportion to the singularity of the situation in hand. Mechanical processes are not like mathematical relations, because they *happen*. What they express the form of is a flux, not a truth or an ideal necessity. The situation may therefore always be new, though produced from the preceding situation by rules which are invariable, since the preceding situation was itself novel.

Mechanism might be called the dialectic of the

irrational. It is such a measure of intelligibility as is compatible with flux and with existence. Existence itself being irrational and change unintelligible, the only necessity they are susceptible of is a natural or empirical necessity, impinging at both ends upon brute matters of fact. The existential elements, their situation, number, affinities, and mutual influence all have to be begged before calculation can begin. When these surds have been accepted at their face value, inference may set to work among them; yet the inference that mechanism will continue to reign will not amount to certain knowledge until the event inferred has come to give it proof. Calculation in physics differs from pure dialectic in that the ultimate object it looks to is not ideal. Theory here must revert to the immediate flux for its sanction, whereas dialectic is a centrifugal emanation from existence and never returns to its point of origin. It remains suspended in the ether of those eternal relations which forms have, even when found embedded in matter.

Inadequacy of consciousness.

If the total flux is continuous and naturally intelligible, why is the part felt by man so disjointed and opaque? An answer to this question may perhaps be drawn from the fact that consciousness apparently arises to express the functions only of extremely complicated organisms. The basis of thought is vastly more elaborate than its deliverance. It takes a wonderful brain and exquisite senses to produce a few

stupid ideas. The mind starts, therefore, with a tremendous handicap. In order to attain adequate practical knowledge it would have to represent clearly its own conditions; for the purpose of mind is its own furtherance and perfection, and before that purpose could be fulfilled the mind's interests would have to become parallel to the body's fortunes. This means that the body's actual relations in nature would have to become the mind's favourite themes in discourse. Had this harmony been attained, the more accurately and intensely thought was exercised the more stable its status would become and the more prosperous its undertakings, since lively thought would then be a symptom of health in the body and of mechanical equilibrium with the environment.

The body's actual relations, however, on which health depends, are infinitely complex and immensely extended. They sweep the whole material universe and are intertwined most closely with all social and passionate forces, with their incalculable mechanical springs. Meantime the mind begins by being a feeble and inconsequent ghost. Its existence is intermittent and its visions unmeaning. It fails to conceive its own interests or the situations that might support or defeat those interests. If it pictures anything clearly, it is only some phantastic image which in no way represents its own complex basis. Thus the parasitical human mind, finding what clear knowledge it has laughably insufficient to inter-

pret its destiny, takes to neglecting knowledge altogether and to hugging instead various irrational ideas. On the one hand it lapses into dreams which, while obviously irrelevant to practice, express the mind's vegetative instincts; hence art and mythology, which substitute play-worlds for the real one on correlation with which human prosperity and dignity depend. On the other hand, the mind becomes wedded to conventional objects which mark, perhaps, the turning-points of practical life and plot the curve of it in a schematic and disjointed fashion, but which are themselves entirely opaque and, as we say, material. Now as matter is commonly a name for things not understood, men materially minded are those whose ideas, while practical, are meagre and blind, so that their knowledge of nature, if not invalid, is exceedingly fragmentary. This grossness in common sense, like irrelevance in imagination, springs from the fact that the mind's representative powers are out of focus with its controlling conditions.

Its articulation inferior to that of its objects.

In other words, sense ought to correspond in articulation with the object to be represented—otherwise the object's structure, with the fate it imports, cannot be transferred into analogous ideas. Now the human senses are not at all fitted to represent an organism on the scale of the human body. They catch its idle gestures but not the inner processes which control its action. The

senses are immeasurably too gross. What to them is a *minimum visibile,* a just perceptible atom, is in the body's structure, very likely, a system of worlds, the inner cataclysms of which count in producing that so-called atom's behaviour and endowing it with affinities apparently miraculous. What must the seed of animals contain, for instance, to be the ground, as it notoriously is, for every physical and moral property of the offspring? Or what must the system of signals and the reproductive habit in a brain be, for it to coordinate instinctive movements, learn tricks, and remember? Our senses can represent at all adequately only such objects as the solar system or a work of human architecture, where the unit's inner structure and fermentation may be provisionally neglected in mastering the total. The architect may reckon in bricks and the astronomer in planets and yet foresee accurately enough the practical result. In a word, only what is extraordinarily simple is intelligible to man, while only what is extraordinarily complex can support intelligence. Consciousness is essentially incompetent to understand what most concerns it, its own vicissitudes, and sense is altogether out of scale with the objects of practical interest in life.

One consequence of this profound maladjustment is that science is hard to attain and is at first paradoxical. The change of scale required is violent and frustrates all the mind's rhetorical habits. There is a constant feeling of strain and

much flying back to the mother-tongue of myth and social symbol. Every wrong hypothesis is seized upon and is tried before any one will entertain the right one. Enthusiasm for knowledge is chilled by repeated failures and a great confusion cannot but reign in philosophy. A man with an eye for characteristic features in various provinces of experience is encouraged to deal with each upon a different principle; and where these provinces touch or actually fuse, he is at a loss what method of comprehension to apply. There sets in, accordingly, a tendency to use various methods at once or a different one on each occasion, as language, custom, or presumption seems to demand. Science is reduced by philosophers to plausible discourse, and the more plausible the discourse is, by leaning on all the heterogeneous prejudices of the hour, the more does it foster the same and discourage radical investigation.

Science consequently retarded,

Thus even Aristotle felt that good judgment and the dramatic habit of things altogether excluded the simple physics of Democritus. Indeed, as things then stood, Democritus had no right to his simplicity, except that divine right which comes of inspiration. His was an indefensible faith in a single radical insight, which happened nevertheless to be true. To justify that insight forensically it would have been necessary to change the range of human vision, making it telescopic in one region and microscopic in another; whereby

the objects so transfigured would have lost their familiar aspect and their habitual context in discourse. Without such a startling change of focus nature can never seem everywhere mechanical. Hence, even to this day, people with broad human interests are apt to discredit a mechanical philosophy. Seldom can penetration and courage in thinking hold their own against the miscellaneous habits of discourse; and nobody remembers that moral values must remain captious, and imaginative life ignoble and dark, so long as the whole basis and application of them is falsely conceived. Discoveries in science are made only by near-sighted specialists, while the influence of public sentiment and policy still works systematically against enlightenment.

and speculation rendered necessary.

The maladaptation of sense to its objects has a second consequence: that speculation is in a way nobler for man than direct perception. For direct perception is wholly inadequate to render the force, the reality, the subtle relations of the object perceived, unless this object be a shell only, like a work of fine art, where nothing counts but the surface. Since the function of perception is properly to give understanding and dominion, direct perception is a defeat and, as it were, an insult to the mind, thus forced to busy itself about so unintelligible and dense an apparition. Æsthetic enthusiasm cares nothing about what the object inwardly is, what is its efficacious movement and real life. It revels

selfishly in the harmonies of perception itself, harmonies which perhaps it attributes to the object through want of consideration. These æsthetic objects, which have no intrinsic unity or cohesion, lapse in the most melancholy and inexplicable fashion before our eyes. Then we cry that beauty wanes, that life is brief, and that its prizes are deceptive. Our minds have fed on casual aspects of nature, like tints in sunset clouds. Imaginative fervour has poured itself out exclusively on these apparitions, which are without relevant backing in the world; and long, perhaps, before this life is over, which we called too brief, we begin to pine for another, where just those images which here played so deceptively on the surface of the flux may be turned into fixed and efficacious realities. Meantime speculation amuses us with prophecies about what such realities might be. We look for them, very likely, in the wrong place, namely, in human poetry and eloquence, or at best in dialectic; yet even when stated in these mythical terms the hidden world divined in meditation seems nobler and, as we say, more real than the objects of sense. For we hope, in those speculative visions, to reach the permanent, the efficacious, the stanch principles of experience, something to rely on in prospect and appeal to in perplexity.

Science, in its prosaic but trustworthy fashion, passes likewise beyond the dreamlike unities and cadences which sense discloses; only, as science aims at controlling its speculation by experiment,

the hidden reality it discloses is exactly like what sense perceives, though on a different scale, and not observable, perhaps, without a magic carpet of hypothesis, to carry the observer to the ends of the universe or, changing his dimensions, to introduce him into those infinitesimal abysses where nature has her workshop. In this region, were it sufficiently explored, we might find just those solid supports and faithful warnings which we were looking for with such ill success in our rhetorical speculations. The machinery disclosed would not be human; it would be machinery. But it would for that very reason serve the purpose which made us look for it instead of remaining, like the lower animals, placidly gazing on the pageants of sense, till some unaccountable pang forced us to spasmodic movement. It is doubtless better to find material engines—not necessarily inanimate, either—which may really serve to bring order, security, and progress into our lives, than to find impassioned or ideal spirits, that can do nothing for us except, at best, assure us that they are perfectly happy.

Dissatisfaction with mechanism partly natural,

The reigning aversion to mechanism is partly natural and partly artificial. The natural aversion cannot be wholly overcome. Like the aversion to death, to old age, to labour, it is called forth by man's natural situation in a world which was not made for him, but in which he grew. That the efficacious structure of things should not

be intentionally spectacular nor poetical, that its units should not be terms in common discourse, nor its laws quite like the logic of passion, is of course a hard lesson to learn. The learning, however—not to speak of its incidental delights—is so extraordinarily good for people that only with that instruction and the blessed renunciations it brings can clearness, dignity, or virility enter their minds. And of course, if the material basis of human strength could be discovered and better exploited, the free activity of the mind would be not arrested but enlarged. Geology adds something to the interest of landscape, and botany much to the charm of flowers; natural history increases the pleasure with which we view society and the justice with which we judge it. An instinctive sympathy, a solicitude for the perfect working of any delicate thing, as it makes the ruffian tender to a young child, is a sentiment inevitable even toward artificial organisms. Could we better perceive the fine fruits of order, the dire consequences of every specific cruelty or jar, we should grow doubly considerate toward all forms; for we exist through form, and the love of form is our whole real inspiration.

and partly artificial.

The artificial prejudice against mechanism is a fruit of party spirit. When a myth has become the centre or sanction for habits and institutions, these habits and institutions stand against any conception incompatible with that myth. It matters nothing that the val-

ues the myth was designed to express may remain standing without it, or may be transferred to its successor. Social and intellectual inertia is too great to tolerate so simple an evolution. It divides opinions not into false and true but into high and low, or even more frankly into those which are acceptable and comforting to its ruffled faith and those which are dangerous, alarming, and unfortunate. Imagine Socrates "viewing with alarm" the implications of an argument! This artificial prejudice is indeed modern and will not be eternal. Ancient sages, when they wished to rebuke the atheist, pointed to the very heavens which a sentimental religion would nowadays gladly prove to be unreal, lest the soul should learn something of their method. Yet the Ptolemaic spheres were no more manlike and far less rich in possibilities of life than the Copernican star-dust. The ancients thought that what was intelligible was divine. Order was what they meant by intelligence, and order productive of excellence was what they meant by reason. When they noticed that the stars moved perpetually and according to law, they seriously thought they were beholding the gods. The stars as we conceive them are not in that sense perfect. But the order which nature does not cease to manifest is still typical of all order, and is sublime. It is from these regions of embodied law that intelligibility and power combined come to make their covenant with us, as with all generations.

Biassed judgments inspired by moral inertia.

The emotions and the moral principles that are naturally allied to materialism suffer an eclipse when materialism, which is properly a primary or dogmatic philosophy, breathing courage and victory, appears as a destructive force and in the incongruous rôle of a critic. One dogmatism is not fit to criticise another; their conflict can end only in insults, sullenness, and an appeal to that physical drift and irrational selection which may ultimately consign one party to oblivion. But a philosophy does ill to boast of such borrowed triumphs. The next turn of the wheel may crush the victor, and the opinions hastily buried may rise again to pose as the fashionable and superior insights of a later day. To criticise dogmatism it is necessary to be a genuine sceptic, an honest transcendentalist, that falls back on the immediate and observes by what principles of logical architecture the ultimate, the reality discovered, has been inferred from it. Such criticism is not necessarily destructive; some construction and some belief being absolutely inevitable, if reason and life are to operate at all, criticism merely offers us the opportunity of revising and purifying our dogmas, so as to make them reasonable and congruous with practice. Materialism may thus be reinstated on transcendental grounds, and the dogma at first uttered in the flush of intelligent perception, with no scruple or self-consciousness, may be repeated after a thorough examina-

tion of heart, on the ground that it is the best possible expression of experience, the inevitable deliverance of thought. So approached, a dogmatic system will carry its critical justification with it, and the values it enshrines and secures will not be doubtful. The emotions it arouses will be those aroused by the experience it explains. Causes having been found for what is given, these causes will be proved to have just that beneficent potency and just that distressing inadequacy which the joys and failures of life show that the reality has, whatever this reality may otherwise be. The theory will add nothing except the success involved in framing it. Life being once for all what it is, no physics can render it worse or better, save as the knowledge of physics, with insight into the causes of our varied fortunes, is itself an achievement and a new resource.

A theory is not an unemotional thing. If music can be full of passion, merely by giving form to a single sense, how much more beauty or terror may not a vision be pregnant with which brings order and method into everything that we know. Materialism has its distinct æsthetic and emotional colour, though this may be strangely affected and even reversed by contrast with systems of an incongruous hue, jostling it accidentally in a confused and amphibious mind. If you are in the habit of believing in special providences, or of expecting to continue your romantic adventures in a second life, materialism will dash your hopes

most unpleasantly, and you may think for a year or two that you have nothing left to live for. But a thorough materialist, one born to the faith and not half plunged into it by an unexpected christening in cold water, will be like the superb Democritus, a laughing philosopher. His delight in a mechanism that can fall into so many marvellous and beautiful shapes, and can generate so many exciting passions, should be of the same intellectual quality as that which the visitor feels in a museum of natural history, where he views the myriad butterflies in their cases, the flamingoes and shell-fish, the mammoths and gorillas. Doubtless there were pangs in that incalculable life, but they were soon over; and how splendid meantime was the pageant, how infinitely interesting the universal interplay, and how foolish and inevitable those absolute little passions. Somewhat of that sort might be the sentiment that materialism would arouse in a vigorous mind, active, joyful, impersonal, and in respect to private illusions not without a touch of scorn.

Positive emotions proper to materialism.

To the genuine sufferings of living creatures the ethics that accompanies materialism has never been insensible; on the contrary, like other merciful systems, it has trembled too much at pain and tended to withdraw the will ascetically, lest the will should be defeated. Contempt for mortal sorrows is reserved for those who drive with hosannas the Juggernaut car of absolute optimism. But

against evils born of pure vanity and self-deception, against the verbiage by which man persuades himself that he is the goal and acme of the universe, laughter is the proper defence. Laughter also has this subtle advantage, that it need not remain without an overtone of sympathy and brotherly understanding; as the laughter that greets Don Quixote's absurdities and misadventures does not mock the hero's intent. His ardour was admirable, but the world must be known before it can be reformed pertinently, and happiness, to be attained, must be placed in reason.

Oblivious of Democritus, the unwilling materialists of our day have generally been awkwardly intellectual and quite incapable of laughter. If they have felt anything, they have felt melancholy. Their allegiance and affection were still fixed on those mythical sentimental worlds which they saw to be illusory. The mechanical world they believed in could not please them, in spite of its extent and fertility. Giving rhetorical vent to their spleen and prejudice, they exaggerated nature's meagreness and mathematical dryness. When their imagination was chilled they spoke of nature, most unwarrantably, as dead, and when their judgment was heated they took the next step and called it unreal. A man is not blind, however, because every part of his body is not an eye, nor every muscle in his eye a nerve sensitive to light. Why, then, is nature dead, although it swarms with living

The material world not dead nor ugly,

organisms, if every part is not obviously animate? And why is the sun dark and cold, if it is bright and hot only to animal sensibility? This senseless lamentation is like the sophism of those Indian preachers who, to make men abandon the illusions of self-love, dilated on the shocking contents of the human body. Take off the skin, they cried, and you will discover nothing but loathsome bleeding and quivering substances. Yet the inner organs are well enough in their place and doubtless pleasing to the microbes that inhabit them; and a man is not hideous because his cross-section would not offer the features of a beautiful countenance. So the structure of the world is not therefore barren or odious because, if you removed its natural outer aspect and effects, it would not make an interesting landscape. Beauty being an appearance and life an operation, that is surely beautiful and living which so operates and so appears as to manifest those qualities.

nor especially cruel.

It is true that materialism prophesies an ultimate extinction for man and all his works. The horror which this prospect inspires in the natural man might be mitigated by reflection; but, granting the horror, is it something introduced by mechanical theories and not present in experience itself? Are human things inwardly stable? Do they belong to the eternal in any sense in which the operation of material forces can touch their immortality? The panic which seems to seize some minds at the thought of a

merely natural existence is something truly hysterical; and yet one wonders why ultimate peace should seem so intolerable to people who not so many years ago found a stern religious satisfaction in consigning almost the whole human race to perpetual torture, the Creator, as Saint Augustine tells us, having in his infinite wisdom and justice devised a special kind of material fire that might avail to burn resurrected bodies for ever without consuming them. A very real truth might be read into this savage symbol, if we understood it to express the ultimate defeats and fruitless agonies that pursue human folly; and so we might find that it gave mythical expression to just that conditioned fortune and inexorable flux which a mechanical philosophy shows us the grounds of. Our own vices in another man seem particularly hideous; and so those actual evils which we take for granted when incorporated in the current system strike us afresh when we see them in a new setting. But it is not mechanical science that introduced mutability into things nor materialism that invented death.

Mechanism to be judged by its fruits.

The death of individuals, as we observe daily in nature, does not prevent the reappearance of life; and if we choose to indulge in arbitrary judgments on a subject where data fail us, we may as reasonably wish that there might be less life as that there might be more. The passion for a large and permanent population in the universe is not

obviously rational; at a great distance a man must view everything, including himself, under the form of eternity, and when life is so viewed its length or its diffusion becomes a point of little importance. What matters then is quality. The reasonable and humane demand to make of the world is that such creatures as exist should not be unhappy and that life, whatever its quantity, should have a quality that may justify it in its own eyes. This just demand, made by conscience and not by an arbitrary fancy, the world described by mechanism does not fulfil altogether, for adjustments in it are tentative, and much friction must precede and follow upon any vital equilibrium attained. This imperfection, however, is actual, and no theory can overcome it except by verbal fallacies and scarcely deceptive euphemisms. What mechanism involves in this respect is exactly what we find: a tentative appearance of life in many quarters, its disappearance in some, and its reinforcement and propagation in others, where the physical equilibrium attained insures to it a natural stability and a natural prosperity.

CHAPTER IV

HESITATIONS IN METHOD

When Democritus proclaimed the sovereignty of mechanism, he did so in the oracular fashion proper to an ancient sage. He found it no harder to apply his atomic theory to the mind and to the gods than to solids and fluids. It sufficed to conceive that such an explanation might be possible, and to illustrate the theory by a few scattered facts and trenchant hypotheses. When Descartes, after twenty centuries of verbal physics, reintroduced mechanism into philosophy, he made a striking modification in its claims. He divided existence into two independent regions, and it was only in one, in the realm of extended things, that mechanism was expected to prevail. Mental facts, which he approached from the side of abstracted reflection and Platonic ideas, seemed to him obviously non-extended, even when they represented extension; and with them mechanism could have nothing to do. Descartes had recovered in the science of mechanics a firm nucleus for physical theory, a stronghold from which it had

Mechanism restricted to one-half of existence.

become impossible to dislodge scientific methods. There, at any rate, form, mass, distance, and other mathematical relations governed the transformation of things. Yet the very clearness and exhaustiveness of this mechanical method, as applied to gross masses in motion, made it seem essentially inapplicable to anything else. Descartes was far too radical and incisive a thinker, however, not to feel that it must apply throughout nature. Imaginative difficulties due to the complexity of animal bodies could not cloud his rational insight. Animal bodies, then, were mere machines, clean-cut and cold engines like so many anatomical manikins. They explained themselves and all their operations, talking and building temples being just as truly a matter of physics as the revolution of the sky. But the soul had dropped out, and Descartes was the last man to ignore the soul. There had dropped out also the secondary qualities of matter, all those qualities, namely, which are negligible in mechanical calculations. Mechanism was in truth far from universal; all mental facts and half the properties of matter, as matter is revealed to man, came into being without asking leave; they were interlopers in the intelligible universe. Indeed, Descartes was willing to admit that these inexplicable bystanders might sometimes put their finger in the pie, and stir the material world judiciously so as to give it a new direction, although without adding to its substance or to its force.

The situation so created gave the literary philosophers an excellent chance to return to the attack and to swallow and digest the new-born mechanism in their facile systems. Theologians and metaphysicians in one quarter and psychologists in another found it easy and inevitable to treat the whole mechanical world as a mere idea. In that case, it is true, the only existences that remained remained entirely without calculable connections; everything was a divine trance or a shower of ideas falling by chance through the void. But this result might not be unwelcome. It fell in well enough with that love of emotional issues, that want of soberness and want of cogency, which is so characteristic of modern philosophers. Christian theology still remained the background and chief point of reference for speculation; if its eclectic dogmas could be in part supported or in part undermined, that constituted a sufficient literary success, and what became of science was of little moment in comparison.

Men of science not speculative.

Science, to be sure, could very well take care of itself and proceeded in its patient course without caring particularly what status the metaphysicians might assign to it. Not to be a philosopher is even an advantage for a man of science, because he is then more willing to adapt his methods to the state of knowledge in his particular subject, without insisting on ultimate intelligibility; and he has perhaps more joy of his discoveries than he might

have if he had discounted them in his speculations. Darwin, for instance, did more than any one since Newton to prove that mechanism is universal, but without apparently believing that it really was so, or caring about the question at all. In natural history, observation has not yet come within range of accurate processes; it merely registers habits and traces empirical derivations. Even in chemistry, while measure and proportion are better felt, the ultimate units and the radical laws are still problematical. The recent immense advances in science have been in acquaintance with nature rather than in insight. Greater complexity, greater regularity, greater *naturalness* have been discovered everywhere; the profound analogies in things, their common evolution, have appeared unmistakably; but the inner texture of the process has not been laid bare.

This cautious peripheral attack, which does so much honour to the scientific army and has won it so many useful victories, is another proof that science is nothing but common knowledge extended. It is willing to reckon in any terms and to study any subject-matter; where it cannot see necessity it will notice law; where laws cannot be stated it will describe habits; where habits fail it will classify types; and where types even are indiscernible it will not despise statistics. In this way studies which are scientific in spirit, however loose their results, may be carried on in social matters, in political economy, in anthropology, in

psychology. The historical sciences, also, philology and archæology, have reached tentatively very important results; it is enough that an intelligent man should gather in any quarter a rich fund of information, for the movement of his subject to pass somehow to his mind: and if his apprehension follows that movement—not breaking in upon it with extraneous matter—it will be scientific apprehension.

Confusion in semi-moral subjects.

What confuses and retards science in these ambiguous regions is the difficulty of getting rid of the foreign element, or even of deciding what the element native to the object is. In political economy, for instance, it is far from clear whether the subject is moral, and therefore to be studied and expressed dialectically, or whether it is descriptive, and so in the end a matter of facts and of mechanics. Are you formulating an interest or tracing a sequence of events? And if both simultaneously, are you studying the world in order to see what acts, in a given situation, would serve your purpose and so be right, or are you taking note of your own intentions, and of those of other people, in order to infer from them the probable course of affairs? In the first case you are a moralist observing nature in order to use it; you are defining a policy, and that definition is not knowledge of anything except of your own heart. Neither you nor any one else may ever take such a single-minded and unchecked course in the world as the one you are

excogitating. No one may ever have been guided in the past by any such absolute plan.

For this same reason, if (to take up the other supposition) you are a naturalist studying the actual movement of affairs, you would do well not to rely on the conscious views or intentions of anybody. A natural philosopher is on dangerous ground when he uses psychological or moral terms in his calculation. If you use such terms—and to forbid their use altogether would be pedantic—you should take them for conventional literary expressions, covering an unsolved problem; for these views and intentions have a brief and inconsequential tenure of life and their existence is merely a sign for certain conjunctions in nature, where processes hailing from afar have met in a man, soon to pass beyond him. If they figure as causes in nature, it is only because they represent the material processes that have brought them into being. The existential element in mental facts is not so remote from matter as Descartes imagined. Even if we are not prepared to admit with Democritus that matter is what makes them up (as it well might if "matter" were taken in a logical sense)* we should agree that their substance is in

* The term "matter" (which ought before long to reappear in philosophy) has two meanings. In popular science and theology it commonly means a group of things in space, like the atoms of Democritus or the human body and its members. Such matter plainly exists. Its particles are concretions in existence like the planets; and if a given hypothesis describing them turns out to be wrong, it is wrong only because this matter

mechanical flux, and that their form, by which they become moral unities, is only an ideal aspect

exists so truly and in such discoverable guise that the hypothesis in question may be shown to misrepresent its constitution.

On the other hand, in Aristotle and in literary speech, matter means something good to make other things out of. Here it is a concretion in discourse, a dialectical term; being only an aspect or constituent of every existence, it cannot exist by itself. A state of mind, like everything not purely formal, has matter of this sort in it. Actual love, for instance, differs *materially* from the mere idea or possibility of love, which is all love would be if the matter or body of it were removed. This matter is what idealists, bent on giving it a grander name, call pure feeling, absolute consciousness, or metaphysical will. These phrases are all used improperly to stand for the existence or presence of things apart from their character, or for the mere strain and dead weight of being. Matter is a far better term to use in the premises, for it suggests the method as well as the fact of brute existence. The surd in experience—its non-ideal element—is not an indifferent vehicle for what it brings, as would be implied by calling it pure feeling or absolute consciousness. Nor is it an act accepting or rejecting objects, as would be implied by calling it will. In truth, the surd conditions not merely the being of objects but their possible quantity, the time and place of their appearance, and their degree of perfection compared with the ideals they suggest. These important factors in whatever exists are covered by the term matter and give it a serious and indispensable rôle in describing and feeling the world.

Aristotle, it may be added, did not adhere with perfect consistency to the dialectical use of this word. Matter is sometimes used by him for substance or for actual beings having both matter and form. The excuse for this apparent lapse is, of course, that what taken by itself is a piece of formed matter or an individual object may be regarded as mere material for something else which it helps to constitute, as wheat is matter for flour, and flour for bread. Thus the dialectical and non-demonstrative use of the term to indicate one aspect of everything could glide into its vulgar acceptation, to indicate one class of things.

of that moving substance. Moral unities are created by a point of view, as right and left are, and for that reason are not efficacious; though of course the existences they enclose, like the things lying to the left and to the right, move in unison with the rest of nature.

People doubtless do well to keep an eye open for morals when they study physics, and *vice versa,* since it is only by feeling how the two spheres hang together that the Life of Reason can be made to walk on both feet. Yet to discriminate between the two is no scholastic subtlety. There is the same practical inconvenience in taking one for the other as in trying to gather grapes from thistles. A hybrid science is sterile. If the reason escapes us, history should at least convince us of the fact, when we remember the issue of Aristotelian physics and of cosmological morals. Where the subject-matter is ambiguous and the method double, you have scarcely reached a result which seems plausible for the moment, when a rival school springs up, adopting and bringing forward the submerged element in your view, and rejecting your achievement altogether. A seesaw and endless controversy thus take the place of a steady, co-operative advance. This disorder reigns in morals, metaphysics, and psychology, and the conflicting schools of political economy and of history loudly proclaim it to the world.

The modesty of men of science, their aversion (or incapacity) to carry their principles over into

speculation, has left the greater part of physics or the theory of existence to the metaphysicians. What they have made of it does not concern us here, since the result has certainly not been a science; indeed they have obscured the very notion that there should be a science of all existence and that metaphysics, if it is more than a name for ultimate physics, can be nothing but dialectic, which does not look toward existence at all. But the prevalence of a mythical physics, purporting to describe the structure of the universe in terms quite other than those which scientific physics could use, has affected this scientific physics and seriously confused it. Its core, in mechanics, to be sure, could not be touched; and the detail even of natural history and chemistry could not be disfigured: but the general aspect of natural history could be rendered ambiguous in the doctrine of evolution; while in psychology, which attempted to deal with that half of the world which Descartes had not subjected to mechanism, confusion could hold undisputed sway.

"Physic of metaphysic begs defence."

There is a sense in which the notion of evolution is involved in any mechanical system. Descartes indeed had gone so far as to describe, in strangely simple terms, how the world, with all its detail, might have been produced by starting any motion anywhere in the midst of a plenum at rest. The idea of evolution could not be more curtly put forth; so much so

Evolution by mechanism.

that Descartes had to arm himself against the inevitable charge that he was denying the creation, by protesting that his doctrine was a supposition contrary to fact, and that though the world *might* have been so formed, it was really created as Genesis recorded. Moreover, in antiquity, every Ionian philosopher had conceived a gradual crystallisation of nature; while Empedocles, in his magnificent oracles, had anticipated Darwin's philosophy without Darwin's knowledge. It is clear that if the forces that hold an organism together are mechanical, and therefore independent of the ideal unities they subtend, those forces suffice to explain the origin of the organism, and can have produced it. Darwin's discoveries, like every other advance in physical insight, are nothing but filling for that abstract assurance. They show us how the supposed mechanism really works in one particular field, in one stage of its elaboration. As earlier naturalists had shown us how mechanical causes might produce the miracle of the sunrise and the poetry of the seasons, so Darwin showed us how similar causes might secure the adaptation of animals to their habitat. Evolution, so conceived, is nothing but a detailed account of mechanical origins.

Evolution by ideal attraction.

At the same time the word evolution has a certain pomp and glamour about it which fits ill with so prosaic an interpretation. In the unfolding of a bud we are wont to see, as it were, the fulfilment of a prede-

termined and glorious destiny; for the seed was an epitome or condensation of a full-blown plant and held within it, in some sort of potential guise, the very form which now peeps out in the young flower. Evolution suggests a prior involution or contraction and the subsequent manifestation of an innate ideal. Evolution should move toward a fixed consummation the approaches to which we might observe and measure. Yet evolution, in this prophetic sense of the word, would be the exact denial of what Darwin, for instance, was trying to prove. It would be a return to Aristotelian notions of heredity and potential being; for it was the essence of Aristotle's physics—of which his theology was an integral part and a logical capping—that the forms which beings approached pre-existed in other beings from which they had been inherited, and that the intermediate stages during which the butterfly shrank to a grub could not be understood unless we referred them to their origin and their destiny. The physical essence and potency of seeds lay in their ideal relations, not in any actual organisation they might possess in the day of their eclipse and slumber. An egg evolved into a chicken not by mechanical necessity—for an egg had a comparatively simple structure—but by virtue of an ideal harmony in things; since it was natural and fitting that what had come from a hen should lead on to a hen again. The ideal nature possessed by the parent, hovering over the passive seed, magically induced

it to grow into the parent's semblance; and growth was the gradual approach to the perfection which this ancestral essence prescribed. This was why Aristotle's God, though in character an unmistakable ideal, had to be at the same time an actual existence; since the world would not have known which way to move or what was its inner ideal, unless this ideal, already embodied somewhere else, drew it on and infused movement and direction into the world's structureless substance.

The underlying Platonism in this magical physics is obvious, since the natures that Aristotle made to rule the world were eternal natures. An individual might fail to be a perfect man or a perfect monkey, but the specific human or simian ideal, by which he had been formed in so far as he was formed at all, was not affected by this accidental resistance in the matter at hand, as an adamantine seal, even if at times the wax by defect or impurity failed to receive a perfect impression, would remain unchanged and ready to be stamped perpetually on new material.

The contrast is obvious between this Platonic physics and a naturalism like that of Darwin. The point of evolution, as selection produces it, is that new species may arise. The very title of Darwin's book "The Origin of Species" is a denial of Aristotelianism and, in the pregnant sense, of evolution. It suggests that the type approached by each generation may differ from that

If species are evolved they cannot guide evolution.

approached by the previous one; that not merely the degree of perfection, but the direction of growth, may vary. The individual is not merely unfolded from an inner potentiality derived from a like ancestor and carrying with it a fixed eternal ideal, but on the contrary the very ground plan of organisation may gradually change and a new form and a new ideal may appear. Spontaneous variations—of course mechanically caused *—may occur and may modify the hereditary form of animals. These variations, superposed upon one another, may in time constitute a nature wholly unlike its first original. This accidental, cumulative evolution accordingly justifies a declaration of moral liberty. I am not obliged to aspire to the nature my father aspired to, for the ground of my being is partly new. In me nature is making a novel experiment. I am the adoring

* It has been suggested—what will not party spirit contrive?—that these variations, called spontaneous by Darwin because not predetermined by heredity, might be spontaneous in a metaphysical sense, free acts with no material basis or cause whatsoever. Being free, these acts might deflect evolution—like Descartes' soul acting on the pineal gland—into wonderful new courses, prevent dissolution, and gradually bring on the kingdom of Heaven, all as the necessary implication of the latest science and the most atheistic philosophy. It may not be needless to observe that if the variations were absolutely free, *i. e.*, intrusions of pure chance, they would tend every which way quite as much as if they were mechanically caused; while if they were kept miraculously in line with some far-off divine event, they would not be free at all, but would be due to metaphysical attraction and a magic destiny prepared in the eternal; and so we should be brought round to Aristotelian physics again.

creator of a new spiritual good. My duties have shifted with my shifting faculties, and the ideal which I propose to myself, and alone can honestly propose, is unprecedented, the expression of a moving existence and without authority beyond the range of existences congruous with mine.

All that is scientific or Darwinian in the theory of evolution is accordingly an application of mechanism, a proof that mechanism lies at the basis of life and morals. The Aristotelian notion of development, however, was too deeply rooted in tradition for it to disappear at a breath. Evolution as conceived by Hegel, for instance, or even by Spencer, retained Aristotelian elements, though these were disguised and hidden under a cloud of new words. Both identify evolution with progress, with betterment; a notion which would naturally be prominent in any one with enlightened sympathies living in the nineteenth century, when a new social and intellectual order was forcing itself on a world that happened largely to welcome the change, but a notion that has nothing to do with natural science. The fittest to live need not be those with the most harmonious inner life nor the best possibilities. The fitness might be due to numbers, as in a political election, or to tough fibre, as in a tropical climate. Of course a form of being that circumstances make impossible or hopelessly laborious had better dive under and cease for the moment to be; but the circumstances that render it inopportune do not

Intrusion of optimism.

render it essentially inferior. Circumstances have no power of that kind; and perhaps the worst incident in the popular acceptance of evolution has been a certain brutality thereby introduced into moral judgment, an abdication of human ideals, a mocking indifference to justice, under cover of respect for what is bound to be, and for the rough economy of the world. Disloyalty to the good in the guise of philosophy had appeared also among the ancients, when their political ethics had lost its authority, just as it appeared among us when the prestige of religion had declined. The Epicureans sometimes said that one should pursue pleasure because all the animals did so, and the Stoics that one should fill one's appointed place in nature, because such was the practice of clouds and rivers.

Evolution according to Hegel.

Hegel possessed a keen scent for instability in men's attitudes and opinions; he had no need of Darwin's facts to convince him that in moral life, at least, there were no permanent species and that every posture of thought was an untenable half-way station between two others. His early contact with Protestant theology may have predisposed him to that opinion. At any rate he had no sympathy with that Platonism that allowed everything to have its eternal ideal, with which it might ultimately be identified. Such ideals would be finite, they would arrest the flux, and they would try to break loose from their enveloping conditions. Hegel was no

moralist in the Socratic sense, but a naturalist seeking formulas for the growth of moral experience. Instead of questioning the heart, he somewhat satirically described its history. At the same time he was heir to that mythology which had deified the genetic or physical principle in things, and though the traditional myths suffered cruel operations at his hands, and often died of explanation, the mythical principle itself remained untouched and was the very breath of his nostrils. He never doubted that the formula he might find for the growth of experience would be also the ultimate good. What other purpose could the world have than to express the formula according to which it was being generated?

In this honest conviction we see the root, perhaps, of that distaste for correct physics that prevails among many who call themselves idealists. If physics were for some reason to be adored, it would be disconcerting to find in physics nothing but atoms and a void. It is hard to understand, however, why a fanciful formula expressing the evolution of this perturbed universe, and painting it no better than it is, should be more worshipful than an exact formula meant to perform the same office. A myth that enlarged the world and promised a complete transformation of its character might have its charms; but the improvement is not obvious that accrues by making the drift of things, just as it drifts, its own standard. Yet for Hegel it mattered nothing how unstable all

ideals might be, since the only use of them was to express a principle of transition, and this principle was being realised, eternally and unawares, by the self-devouring and self-transcending purposes rolling in the flux.

This philosophy might not be much relished if it were more frankly expressed; yet something of the sort floats vaguely before most minds when they think of evolution. The types of being change, they say: in this sense the Aristotelian notion of a predetermined form unfolding itself in each species has yielded to a more correct and more dynamic physics. But the changes, so people imagine, express a predetermined ideal, no longer, of course, the ideal of these specific things, but one overarching the cosmic movement. The situation might be described by saying that this is Aristotle's view adapted to a world in which there is only one species or only one individual. The earlier phases of life are an imperfect expression of the same nature which the later phases express more fully. Hence the triumphant march of evolution and the assumption that whatever is later is necessarily better than what went before. If a child were simply the partial expression of a man, his single desire would be to grow up, and when he was grown up he would embody all he had been striving for and would be happy for ever after. So if man were nothing but a halting reproduction of divinity and destined to become God,

The conservative interpretation.

his whole destiny would be fulfilled by apotheosis. If this apotheosis, moreover, were an actual future event, something every man and animal was some day to experience, evolution might really have a final goal, and might lead to a new and presumably better sort of existence—existence in the eternal. Somewhat in this fashion evolution is understood by the party that wish to combine it with a refreshed patristic theology.

The radical one.

There is an esoteric way, however, of taking these matters which is more in sympathy both with natural evolution and with transcendental philosophy. If we assert that evolution is infinite, no substantive goal can be set to it. The goal will be the process itself, if we could only open our eyes upon its beauty and necessity. The apotheosis will be retroactive, nay, it has already taken place. The insight involved is mystical, yet in a way more just to the facts than any promise of ulterior blisses. For it is not really true that a child has no other ideal than to become a man. Childhood has many an ideal of its own, many a beauty and joy irrelevant to manhood, and such that manhood is incapable of retaining or containing them. If the ultimate good is really to contain and retain all the others, it can hardly be anything but their totality—the infinite history of experience viewed under the form of eternity. At that remove, however, the least in the kingdom of Heaven is even as the greatest, and the idea of evolution, as of time, is

"taken up into a higher unity." There could be no real pre-eminence in one man's works over those of another; and if faith, or insight into the equal service done by all, still seemed a substantial privilege reserved for the elect, this privilege, too, must be an illusion, since those who do not know how useful and necessary they are must be as useful and necessary as those who do. An absolute preference for knowledge or self-consciousness would be an unmistakably human and finite ideal—something to be outgrown.

Megalomania.

What practically survives in these systems, when their mysticism and naturalism have had time to settle, is a clear enough standard. It is a standard of inclusion and quantity. Since all is needful, and the justifying whole is infinite, there would seem to be a greater dignity in the larger part. As the best copy of a picture, other things being equal, would be one that represented it all, so the best expression of the world, next to the world itself, would be the largest portion of it any one could absorb. Progress would then mean annexation. Growth would not come by expressing better an innate soul which involved a particular ideal, but by assimilating more and more external things till the original soul, by their influence, was wholly recast and unrecognisable. This moral agility would be true merit; we should always be "striving onward." Life would be a sort of demonic vortex, boiling at the centre and omnivorous at the cir-

cumference, till it finally realised the supreme vocation of vortices, to have "their centre everywhere and their circumference nowhere." This somewhat troubled situation might seem sublime to us, transformed as we too should be; and so we might reach the most remarkable and doubtless the "highest" form of optimism—optimism in hell.

Chaos in the theory of mind.

Confusing as these cross-currents and revulsions may prove in the field where mechanism is more or less at home, in the field of material operations, they are nothing to the primeval chaos that still broods over the other hemisphere, over the mental phase of existence. The difficulty is not merely that no mechanism is discovered or acknowledged here, but that the phenomena themselves are ambiguous, and no one seems to know when he speaks of mind whether he means something formal and ideal, like Platonic essences and mathematical truths, or reflection and intelligence, or sensation possessing external causes and objects, or finally that ultimate immediacy or brute actuality which is characteristic of any existence. Other even vaguer notions are doubtless often designated by the word psychical; but these may suffice for us to recognise the initial dilemmas in the subject and the futility of trying to build a science of mind, or defining the relation of mind to matter, when it is not settled whether mind means the form of matter, as with the Platonists, or the

effect of it, as with the materialists, or the seat and false knowledge of it, as with the transcendentalists, or perhaps after all, as with the panpsychists, mind means exactly matter itself.*

To see how equivocal everything is in this region, and possibly to catch some glimpse of whatever science or sciences might some day define it, we may revert for a moment to the origin of human notions concerning the mind. If either

* The monads of Leibniz could justly be called minds, because they had a dramatic destiny, and the most complex experience imaginable was the state of but one monad, not an aggregate view or effect of a multitude in fusion. But the recent improvements on that system take the latter turn. Mind-stuff, or the material of mind, is supposed to be contained in large quantities within any known feeling. Mind-stuff, we are given to understand, is diffused in a medium corresponding to apparent space (what else would a real space be?); it forms quantitative aggregates, its transformations or aggregations are mechanically governed, it endures when personal consciousness perishes, it is the substance of bodies and, when duly organised, the potentiality of thought. One might go far for a better description of matter. That any material must be material might have been taken for an axiom; but our idealists, in their eagerness to show that *Gefuehl ist Alles*, have thought to do honour to feeling by forgetting that it is an expression and wishing to make it a stuff.

There is a further circumstance showing that mind-stuff is but a bashful name for matter. Mind-stuff, like matter, can be only an element in any actual being. To make a thing or a thought out of mind-stuff you have to rely on the *system* into which that material has fallen; the substantive ingredients, from which an actual being borrows its intensive quality, do not contain its individuating form. This form depends on ideal relations subsisting between the ingredients, relations which are not feelings but can be rendered only by propositions.

everything or nothing that men came upon in their primitive day-dream had been continuous in its own category and traceable through the labyrinth of the world, no mind and no self-consciousness need ever have appeared at all. The world might have been as magical as it pleased; it would have remained single, one budding sequence of forms with no transmissible substance beneath them. These forms might have had properties we now call physical and at the same time qualities we now call mental or emotional; there is nothing originally incongruous in such a mixture, chaotic and perverse as it may seem from the vantage-ground of subsequent distinctions. Existence might as easily have had any other form whatsoever as the one we discover it to have in fact. And primitive men, not having read Descartes, and not having even distinguished their waking from their dreaming life nor their passions from their environment, might well stand in the presence of facts that seem to us full of inward incongruity and contradiction; indeed, it is only because original data were of that chaotic sort that we call ourselves intelligent for having disentangled them and assigned them to distinct sequences and alternative spheres.

Origin of self-consciousness.

The ambiguities and hesitations of theory, down to our own day, are not all artificial or introduced gratuitously by sophists. Even where prejudice obstructs progress, that prejudice itself has some ancient and ingenuous source. Our perplexities

are traces of a primitive total confusion; our doubts are remnants of a quite gaping ignorance. It was impossible to say whether the phantasms that first crossed this earthly scene were merely instinct with passion or were veritable passions stalking through space. Material and mental elements, connections natural and dialectical, existed mingled in that chaos. Light was as yet inseparable from inward vitality and pain drew a visible cloud across the sky. Civilised life is that early dream partly clarified; science is that dense mythology partly challenged and straightened out.

The flux, however, was meantime full of method, if only discrimination and enlarged experience could have managed to divine it. Its inconstancy, for one thing, was not so entire that no objects could be fixed within it, or marshalled in groups, like the birds that flock together. Animals could be readily distinguished from the things about them, their rate of mobility being so much quicker; and one animal in particular would at once be singled out, a more constant follower than any dog, and one whose energies were not merely felt but often spontaneously exerted—a phenomenon which appeared in no other part of the world. This singular animal every one called himself. One object was thus discovered to be the vehicle for perceiving and affecting all the others, a movable seat or tower from which the world might be surveyed.

The external influences to which this body, with its discoursing mind, seemed to be subject were by no means all visible and material. Just as one's own body was moved by passions and thoughts which no one else could see—and this secrecy was a subject for much wonder and self-congratulation—so evidently other things had a spirit within or above them to endow them with wit and power. It was not so much to contain sensation that this spirit was needed (for the body could very well feel) as to contrive plans of action and discharge sudden force into the world on momentous occasions. How deep-drawn, how far-reaching, this spirit might be was not easily determined; but it seemed to have unaccountable ways and to come and go from distant habitations. Things past, for instance, were still open to its inspection; the mind was not credited with constructing a fresh image of the past which might more or less resemble that past; a ray of supernatural light, rather, sometimes could pierce to the past itself and revisit its unchangeable depths. The future, though more rarely, was open to spirit in exactly the same fashion; destiny could on occasion be observed. Things distant and preternatural were similarly seen in dreams. There could be no doubt that all those objects existed; the only question was where they might lie and in what manner they might operate. A vision was a visitation and a dream was a journey. The spirit was a great traveller, and just as it

The notion of spirit.

could dart in every direction over both space and time, so it could come thence into a man's presence or even into his body, to take possession of it. Sense and fancy, in a word, had not been distinguished. As to be aware of vision is a great sign of imagination, so to be aware of imagination is a great sign of understanding.

The spirit had other prerogatives, of a more rational sort. The truth, the right were also spirits; for though often invisible and denied by men, they could emerge at times from their invisible lairs to deal some quick blow and vindicate their divinity. The intermittence proper to phenomena is universal and extreme; only the familiar conception of nature, in which the flux becomes continuous, now blinds us in part to that fact. But before the days of scientific thinking only those things which were found unchanged and which seemed to lie passive were conceived to have had in the interval a material existence. More stirring apparitions, instead of being referred to their material constituents and continuous basis in nature, were referred to spirit. We still say, for instance, that war *comes on.* That phrase would once have been understood literally. War, being something intermittent, must exist somehow unseen in the interval, else it would not return; that rage, so people would have fancied, is therefore a spirit, it is a god. Mars and Ares long survived the phase of thought to which they owed their divinity; and believers had to rely on habit

and the witness of antiquity to support their irrational faith. They little thought how absolutely simple and inevitable had been the grammar by which those figures, since grown rhetorical, had been first imposed upon the world.

The notion of sense.

Another complication soon came to increase this confusion. When material objects were discovered and it became clear that they had comparatively fixed natures, it also became clear that with the motions of one's body all other things seemed to vary in ways which did not amount to a permanent or real metamorphosis in them; for these things might be found again unchanged. Objects, for instance, seemed to grow smaller when we receded from them, though really, as we discovered by approaching and measuring them anew, they had remained unchanged. These private aspects or views of things were accordingly distinguished from the things themselves, which were lodged in an intelligible sphere, raised above anybody's sensibility and existing independently. The variable aspects were due to the body; they accompanied its variations and depended on its presence and organs. They were conceived vaguely to exist in one's head or, if they were emotional, in one's heart; but anatomy would have had some difficulty in finding them there. They constituted what is properly called the mind—the region of sentience, emotion, and soliloquy.

The mind was the region where those aspects

which real things present to the body might live and congregate. So understood, it was avowedly and from the beginning a realm of mere appearance and depended entirely on the body. It should be observed, however, that the limbo of divine and ideal things, which is sometimes also called the mind, is very far from depending obviously on the body and is said to do so only by a late school of psychological sceptics. To primitive apprehension spirit, with its ideal prerogatives, was something magical and oracular. Its prophetic intuitions were far from being more trivial than material appearances. On the contrary those intuitions were momentous and inspiring. Their scope was indefinite and their value incalculable in every sense of the word. The disembodied spirit might well be immortal, since absent and dead things were familiar to it. It was by nature present wherever truth and reality might be found. It was prophetic; the dreams it fell into were full of auguries and secret affinities with things to come. Myth and legend, hatched in its womb, were felt to be divinely inspired, and genius seemed to be the Muses' voice heard in a profound abstraction, when vulgar perception yielded to some kind of clairvoyance having a higher authority than sense. Such a spirit might naturally be expected to pass into another world, since it already dwelt there at intervals, and brought thence its mysterious reports. Its incursions into the physical sphere alone seemed

miraculous and sent a thrill of awe through the unaccustomed flesh.

The ideal element in the world was accordingly regarded at first as something sacred and terrifying. It was no vulgar presence or private product, and though its destiny might be to pass half the time, like Persephone, under ground, it could not really be degraded. The human mind, on the other hand, the region of sentience and illusion, was a familiar affair enough. This familiarity, indeed, for a long time bred contempt and philosophers did not think the personal equation of individuals, or the refraction of things in sense, a very important or edifying subject for study. In time, however, sentience had its revenge. As each man's whole experience is bound to his body no less than is the most trivial optical illusion, the sphere of sense is the transcendental ground or *ratio cognoscendi* of every other sphere. It suffices, therefore, to make philosophy retrospective and to relax the practical and dogmatic stress under which the intellect operates, for all the discoveries made through experience to collapse into the experience in which they were made. A complete collapse of objects is indeed inconvenient, because it would leave no starting-point for reasoning and no faith in the significance of reason itself; but partial collapses, now in the region of physics, now in that of logic and morals, are very easy and exciting feats for criticism to perform.

Competition between the two.

Passions when abstracted from their bodily causes and values when removed from their objects will naturally fall into the body's mind, and be allied with appearances. Shrewd people will bethink themselves to attribute almost all the body's acts to some preparatory intention or motive in its mind, and thus attain what they think knowledge of human nature. They will encourage themselves to live among dramatic fictions, as when absorbed in a novel; and having made themselves at home in this upper story of their universe, they will find it amusing to deny that it has a ground floor. The chance of conceiving, by these partial reversals of science, a world composed entirely without troublesome machinery is too tempting not to be taken up, whatever the ulterior risks; and accordingly, when once psychological criticism is put in play, the sphere of sense will be enlarged at the expense of the two rational worlds, the material and the ideal.

The rise of scepticism.

Consciousness, thus qualified by all the sensible qualities of things, will exercise an irresistible attraction over the supernatural and ideal realm, so that all the gods, all truths, and all ideals, as they have no place among the sufficing causes of experience, will be identified with decaying sensations. And presently those supposed causes themselves will be retraced and drawn back into the immediate vortex, until the sceptic has packed away nature, with all space and time, into the sphere of sensuous

illusion, the distinguishing characteristic of which was that it changed with the changes in the human body. The personal idealists will declare that all body is a part of some body's mind. Thus, by a curious reversion, the progress of reflection has led to hopeless contradictions. Sense, which was discovered by observing the refraction and intermittence to which appearances were subject, in seeming to be quite different from what things were, now tries to subsist when the things it was essentially contrasted with have been abolished. The intellect becomes a Penelope, whose secret pleasure lies in undoing its ostensible work; and science, becoming pensive, loves to relapse into the dumb actuality and nerveless reverie from which it had once extricated a world.

The occasion for this sophistication is worth noting; for if we follow the thread which we have trailed behind us in entering the labyrinth we shall be able at any moment to get out; especially as the omnivorous monster lurking in its depths is altogether harmless. A moral and truly transcendental critique of science, as of common sense, is never out of place, since all such a critique does is to assign to each conception or discovery its place and importance in the Life of Reason. So administered, the critical cathartic will not prove a poison and will not inhibit the cognitive function it was meant to purge. Every belief will subsist that finds an empirical and logical warrant; while that a belief is a belief and not a sensation

will not seem a ground for not entertaining it, nor for subordinating it to some gratuitous assurance. But a psychological criticism, if it is not critical of psychology itself, and thinks to substitute a science of absolute sentience for physics and dialectic, would rest on sophistry and end wholly in bewilderment. The subject-matter of an absolute psychology would vanish in its hands, since there is no sentience which is not at once the effect of something physical and the appearance of something ideal. A calculus of feelings, uninterpreted and referred to nothing ulterior, would furnish no alternative system to substitute for the positive sciences it was seeking to dislodge. In fact, those who call ordinary objects unreal do not, on that account, find anything else to think about. Their exorcism does not lay the ghost, and they are limited to addressing it in uncivil language. It was not idly that reason in the beginning excogitated a natural and an ideal world, a labour it might well have avoided if appearance as it stands made a thinkable or a practical universe.

CHAPTER V

PSYCHOLOGY

If psychology is a science, many things that books of psychology contain should be excluded from it. One is social imagination. Nature, besides having a mechanical form and wearing a garment of sensible qualities, makes a certain inner music in the beholder's mind, inciting him to enter into other bodies and to fancy the new and profound life which he might lead there. Who, as he watched a cat basking in the sun, has not passed into that vigilant eye and felt all the leaps potential in that luxurious torpor? Who has not attributed some little romance to the passer-by? Who has not sometimes exchanged places even with things inanimate, and drawn some new moral experience from following the movement of stars or of daffodils? All this is idle musing or at best poetry; yet our ordinary knowledge of what goes on in men's minds is made of no other stuff. True, we have our own mind to go by, which presumably might be a fair sample of what men's minds are; but unfortunately our notion of ourselves is of all notions the most biassed and idealistic. If

Mind reading not science.

we attributed to other men only such obvious reasoning, sound judgment, just preferences, honest passions, and blameless errors as we discover in ourselves, we should take but an insipid and impractical view of mankind.

In fact, we do far better: for what we impute to our fellow-men is suggested by their conduct or by an instant imitation of their gesture and expression. These manifestations, striking us in all their novelty and alien habit, and affecting our interests in all manner of awkward ways, create a notion of our friends' natures which is extremely vivid and seldom extremely flattering.

Such romancing has the cogency proper to dramatic poetry; it is persuasive only over the third person, who has never had, but has always been about to have, the experience in question. Drawn from the potential in one's self, it describes at best the possible in others. The thoughts of men are incredibly evanescent, merely the foam of their labouring natures; and they doubtless vary much more than our trite classifications allow for. This is what makes passions and fashions, religions and philosophies, so hard to conceive when once the trick of them is a little antiquated. Languages are hardly more foreign to one another than are the thoughts uttered in them. We should give men credit for originality at least in their dreams, even if they have little of it to show elsewhere; and as it was discovered but recently that all memories are not furnished with

the like material images, but often have no material images whatever, so it may have to be acknowledged that the disparity in men's soliloquies is enormous, and that some races, perhaps, live content without soliloquising at all.

Experience a reconstruction.

Nevertheless, in describing what happens, or in enforcing a given view of things, we constantly refer to universal experience as if everybody was agreed about what universal experience is and had personally gathered it all since the days of Adam. In fact, each man has only his own, the remnant saved from his personal acquisitions. On the basis of this his residual endowment, he has to conceive all nature, with whatever experiences may have fallen there to the lot of others. Universal experience is a comfortable fiction, a distinctly ideal construction, and no fund available for any one to draw from; which of course is not to deny that tradition and books, in transmitting materially the work of other generations, tend to assimilate us also to their mind. The result of their labours, in language, learning, and institutions, forms a hothouse in which to force our seedling fancy to a rational growth; but the influence is physical, the environment is material, and its ideal background or significance has to be inferred by us anew, according to our imaginative faculty and habits. Past experience, apart from its monuments, is fled for ever out of mortal reach. It is now a parcel of the motionless ether,

of the ineffectual truth about what once was. To know it we must evoke it within ourselves, starting from its inadequate expressions still extant in the world. This reconstruction is highly speculative and, as Spinoza noted, better evidence of what we are than of what other men have been.

The honest art of education.

When we appeal to general experience, then, what we really have to deal with is our interlocutor's power of imagining that experience; for the real experience is dead and ascended into heaven, where it can neither answer nor hear. Our agreements or divergences in this region do not touch science; they concern only friendship and unanimity. All our proofs are, as they say in Spain, pure conversation; and as the purpose and best result can be only to kindle intelligence and propagate an ideal art, the method should be Socratic, genial, literary. In these matters, the alternative to imagination is not science but sophistry. We may perhaps entangle our friends in their own words, and force them for the moment to say what they do not mean, and what it is not in their natures to think; but the bent bow will spring back, perhaps somewhat sharply, and we shall get little thanks for our labour. There would be more profit in taking one another frankly by the hand and walking together along the outskirts of real knowledge, pointing to the material facts which we all can see, nature, the monuments, the texts, the actual ways and institutions of men; and in

the presence of such a stimulus, with the contagion of a common interest, the plastic mind would respond of itself to the situation, and we should be helping one another to understand whatever lies within the range of our fancy, be it in antiquity or in the human heart. That would be a true education; and while the result could not possibly be a science, not even a science of people's states of mind, it would be a deepening of humanity in ourselves and a wholesome knowledge of our ignorance.

In what is called psychology this loose, imaginative method is often pursued, although the field covered may be far narrower. Any generic experience of which a writer pretends to give an exact account must be reconstructed *ad hoc;* it is not the experience that necessitates the description, but the description that recalls the experience, defining it in a novel way. When La Rochefoucauld says, for instance, that there is something about our friends' troubles that secretly pleases us, many circumstances in our own lives, or in other people's, may suddenly recur to us to illustrate that *aperçu;* and we may be tempted to say, There is a truth. But is it a scientific truth? Or is it merely a bit of satire, a ray from a literary flashlight, giving a partial clearness for a moment to certain jumbled memories? If the next day we open a volume of Adam Smith, and read that man is naturally benevolent, that he cannot but enact

Arbitrary readings of the mind.

and share the vicissitudes of his fellow-creatures, and that another man's imminent danger or visible torment will cause in him a distress little inferior to that felt by the unfortunate sufferer, we shall probably think this a truth also, and a more normal and a profounder truth than the other. But is it a law? Is it a scientific discovery that can lead us to definite inferences about what will happen or help us to decompose a single event, accurately and without ambiguity, into its component forces? Not only is such a thing impossible, but the Scotch philosopher's amiable generalities, perhaps largely applicable to himself and to his friends of the eighteenth century, may fail altogether to fit an earlier or a later age; and every new shade of brute born into the world will ground a new "theory of the moral sentiments."

The whole cogency of such psychology, therefore, lies in the ease with which the hearer, on listening to the analysis, recasts something in his own past after that fashion. These endless rival apperceptions regard facts that, until they are referred to their mechanical ground, show no continuity and no precision in their march. The apperception of them, consequently, must be doubly arbitrary and unstable, for there is no method in the subject-matter and there is less in the treatment of it. The views, however, are far from equal in value. Some may be more natural, eloquent, enlightening, than others; they may serve better the essential purpose of reflection,

which is to pick out and bring forward continually out of the past what can have a value for the present. The spiritual life in which this value lies is practical in its associations, because it understands and dominates what touches action; yet it is contemplative in essence, since successful action consists in knowing what you are attempting and in attempting what you can find yourself achieving. Plan and performance will alike appeal to imagination and be appreciated through it; so that what trains imagination refines the very stuff that life is made of. Science is instrumental in comparison, since the chief advantage that comes of knowing accurately is to be able, with safety, to imagine freely. But when it is science and accurate knowledge that we pursue, we should not be satisfied with literature.

Human nature appealed to rather than described.

When discourse on any subject would be persuasive, it appeals to the interlocutor to think in a certain dynamic fashion, inciting him, not without leading questions, to give shape to his own sentiments. Knowledge of the soul, insight into human nature and experience, are no doubt requisite in such an exercise; yet this insight is in these cases a vehicle only, an instinctive method, while the result aimed at is agreement on some further matter, conviction and enthusiasm, rather than psychological information. Thus if I declare that the storms of winter are not so unkind as benefits forgot, I say something which if true

has a certain psychological value, for it could be inferred from that assertion that resentment is generally not proportionate to the injury received but rather to the surprise caused, so that it springs from our own foolishness more than from other people's bad conduct. Yet my observation was not made in the interest of any such inferences: it was made to express an emotion of my own, in hopes of kindling in others a similar emotion. It was a judgment which others were invited to share. There was as little exact science about it as if I had turned it into frank poetry and exclaimed, "Blow, blow, thou winter's wind!" Knowledge of human nature might be drawn even from that apostrophe, and a very fine shade of human feeling is surely expressed in it, as Shakespeare utters it; but to pray or to converse is not for that reason the same thing as to pursue science.

Now it constantly happens in philosophic writing that what is supposed to go on in the human mind is described and appealed to in order to support some observation or illustrate some argument —as continually, for instance, in the older English critics of human nature, or in these very pages. What is offered in such cases is merely an invitation to think after a certain fashion. A way of grasping or interpreting some fact is suggested, with a more or less civil challenge to the reader to resist the suasion of his own experience so evoked and represented. Such a method of

appeal may be called psychological, in the sense that it relies for success on the total movement of the reader's life and mind, without forcing a detailed assent through ocular demonstration or pure dialectic; but the psychology of it is a method and a resource rather than a doctrine. The only doctrine aimed at in such philosophy is a general reasonableness, a habit of thinking straight from the elements of experience to its ultimate and stable deliverance. This is what in his way a poet or a novelist would do. Fiction swarms with such sketches of human nature and such renderings of the human mind as a critical philosopher depends upon for his construction. He need not be interested in the pathology of individuals nor even in the natural history of man; his effort is wholly directed toward improving the mind's economy and infusing reason into it as one might religion, not without diligent self-examination and a public confession of sin. The human mind is nobody's mind in particular, and the science of it is necessarily imaginative. No one can pretend in philosophic discussion any more than in poetry that the experience described is more than typical. It is given out not for a literal fact, existing in particular moments or persons, but for an imaginative expression of what nature and life have impressed on the speaker. In so far as others live in the same world they may recognise the experience so expressed by him and adopt his interpretation; but the aptness of his

descriptions and analyses will not constitute a science of mental states, but rather—what is a far greater thing—the art of stimulating and consolidating reflection in general.

There is a second constituent of current psychology which is indeed a science, but not a science of matters of fact—I mean the dialectic of ideas. The character of father, for example, implies a son, and this relation, involved in the ideas both of son and of father, implies further that a transmitted essence or human nature is shared by both. Every idea, if its logical texture is reflected upon, will open out into a curious world constituted by distinguishing the constituents of that idea more clearly and making explicit its implicit structure and relations. When an idea has practical intent and is a desire, its dialectic is even more remarkable. If I love a man I thereby love all those who share whatever makes me love him, and I thereby hate whatever tends to deprive him of this excellence. If it should happen, however, that those who resembled him most in amiability—say by flattering me no less than he did—were precisely his mortal enemies, the logic of my affections would become somewhat involved. I might end either by striving to reconcile the rivals or by discovering that what I loved was not the man at all, but only an office exercised by him in my regard which any one else might also exercise.

Dialectic in psychology.

These inner lucubrations, however, while they

lengthen the moment's vista and deepen present intent, give no indication whatever about the order or distribution of actual feelings. They are out of place in a psychology that means to be an account of what happens in the world. For these dialectical implications do not actually work themselves out. They have no historical or dynamic value. The man that by mistake or courtesy I call a father may really have no son, any more than Herodotus for being the father of history; or having had a son, he may have lost him; or the creature sprung from his loins may be a misshapen idiot, having nothing ideal in common with his parent. Similarly my affection for a friend, having causes much deeper than discourse, may cling to him through all transformations in his qualities and in his attitude toward me; and it may never pass to others for resembling him, nor take, in all its days, a Platonic direction. The impulse on which that dialectic was based may exhaust its physical energy, and all its implications may be nipped in the bud and be condemned for ever to the limbo of things unborn.

Spinoza on the passions.

Spinoza's account of the passions is a beautiful example of dialectical psychology, beautiful because it shows so clearly the possibilities and impossibilities in such a method. Spinoza began with self-preservation, which was to be the principle of life and the root of all feelings. The violence done to physics appears in this beginning. Self-preservation, taken

strictly, is a principle not illustrated in nature, where everything is in flux, and where habits destructive or dangerous to the body are as conspicuous as protective instincts. Physical mechanism requires reproduction, which implies death, and it admits suicide. Spinoza himself, far too noble a mind to be fixed solely on preserving its own existence, was compelled to give self-preservation an extravagant meaning in order to identify it with "intellectual love of God" or the happy contemplation of that natural law which destroyed all individuals. To find the self-preserving man you must take him after he has ceased to grow and before he has begun to love. Self-preservation, being thus no principle of natural history, the facts or estimations classed under that head need to be referred instead to one of two other principles—either to mechanical equilibrium and habit, or to dialectical consistency in judgment.

Self-preservation might express, perhaps, the values which conceived events acquire in respect to a given attitude of will, to an arrested momentary ideal. The actual state of any animal, his given instincts and tensions, are undoubtedly the point of origin from which all changes and relations are morally estimated; and if this attitude is afterward itself subjected to estimation, that occurs by virtue of its affinity or conflict with the living will of another moment. Valuation is dialectical, not descriptive, nor contemplative of a natural process. It might accordingly be devel-

oped by seeing what is implied in the self-preservation, or rather expression, of a will which by that dialectic would discover its ideal scope.

Such a principle, however, could never explain the lapse of that attitude itself. A natural process cannot be governed by the ideal relations which conceived things acquire by being represented in one of its moments. Spinoza, however, let himself wander into this path and made the semblance of an attempt, indeed not very deceptive, to trace the sequence of feelings by their mutual implication. The changes in life were to be explained by what the crystallised posture of life might be at a single instant. The arrow's flight was to be deduced from its instantaneous position. A passion's history was to be the history of what would have been its expression if it had had no history at all.

A principle of estimation cannot govern events.

A man suffered by destiny to maintain for ever a single unchanged emotion might indeed think out its multifarious implications much in Spinoza's way. It is in that fashion that parties and sects, when somewhat stable, come to define their affinities and to know their friends and enemies all over the universe of discourse. Suppose, for instance, that I feel some titillation on reading a proposition concerning the contrast between Paul's idea of Peter and Peter's idea of himself, a titillation which is accompanied by the idea of Spinoza, its external cause. Now he who loves an effect

must proportionately love its cause, and titillation accompanied by the idea of its external cause is, Spinoza has proved, what men call love. I therefore find that I love Spinoza. Having got so far, I may consider further, referring to another demonstration in the book, that if some one gives Spinoza joy—Hobbes, for instance—my delight in Spinoza's increased perfection, consequent upon his joy and my love of him, accompanied by the idea of Hobbes, its external cause, constitutes love on my part for the redoubtable Hobbes as well. Thus the periphery of my affections may expand indefinitely, till it includes the infinite, the ultimate external cause of all my titillations. But how these interesting discoveries are interrupted before long by a desire for food, or by an indomitable sense that Hobbes and the infinite are things I do *not* love, is something that my dialectic cannot deduce; for it was the values radiating from a given impulse, the implications of its instant object, that were being explicated, not at all the natural forces that carry a man through that impulse and beyond it to the next phase of his dream, a phase which if it continues the former episode must continue it spontaneously, by grace of mechanical forces.

When dialectic is thus introduced into psychology, an intensive knowledge of the heart is given out for distributive knowledge of events. Such a study, when made by a man of genius, may furnish good spiritual reading, for it will reveal what

our passions mean and what sentiments they would lead to if they could remain fixed and dictate all further action. This insight may make us aware of strange inconsistencies in our souls, and seeing how contrary some of our ideals are to others and how horrible, in some cases, would be their ultimate expression, we may be shocked into setting our house in order; and in trying to understand ourselves we may actually develop a self that can be understood. Meantime this inner discipline will not enlighten us about the march of affairs. It will not give us a key to evolution, either in ourselves or in others. Even while we refine our aspirations, the ground they sprang from will be eaten away beneath our feet. Instead of developing yesterday's passion, to-day may breed quite another in its place; and if, having grown old and set in our mental posture, we are incapable of assuming another, and are condemned to carrying on the dialectic of our early visions into a newborn world, to be a schoolmaster's measuring-rod for life's infinite exuberance, we shall find ourselves at once in a foreign country, speaking a language that nobody understands. No destiny is more melancholy than that of the dialectical prophet, who makes more rigid and tyrannous every day a message which every day grows less applicable and less significant.

That remaining portion of psychology which is a science, and a science of matters of fact, is physiological; it belongs to natural history and

constitutes the biology of man. Soul, which was not originally distinguished from life, is there studied in its natural operation in the body and in the world. Psychology then remains what it was in Aristotle's *De Anima*—an ill-developed branch of natural science, pieced out with literary terms and perhaps enriched by occasional dramatic interpretations. The specifically mental or psychic element consists in the feeling which accompanies bodily states and natural situations. This feeling is discovered and distributed at the same time that bodies and other material objects are defined; for when a man begins to decipher permanent and real things, and to understand that they are merely material, he thereby sets apart, in contrast with such external objects, those images and emotions which can no longer enter into the things' texture. The images and emotions remain, however, attached to those things, for they are refractions of them through bodily organs, or effects of their presence on the will, or passions fixed upon them as their object.

Scientific psychology a part of biology.

In parts of biology which do not deal with man observers do not hesitate to refer in the same way to the pain, the desire, the intention, which they may occasionally read in an animal's aspect. Darwin, for instance, constantly uses psychical language: his birds love one another's plumage and their æsthetic charms are factors in natural selection. Such little fables do not detract from the

scientific value of Darwin's observations, because we see at once what the fables mean. The description keeps close enough to the facts observed for the reader to stop at the latter, rather than at the language in which they are stated. In the natural history of man such interpretation into mental terms, such microscopic romance, is even easier and more legitimate, because language allows people, perhaps before their feelings are long past, to describe them in terms which are understood to refer directly to mental experience. Familiarity in the sign, to be sure, often hides in these cases a great vagueness and unseizableness in the facts; yet a beginning in defining distinctly the mental phase of natural situations has been made in those small autobiographies which introspective writers sometimes compose, or which are taken down in hospitals and laboratories from the lips of "subjects." What a man under special conditions may say he feels or thinks adds a constituent phase to his natural history; and were these reports exact and extended enough, it would become possible to enumerate the precise sensations and ideas which accompany every state of body and every social situation.

Confused attempt to detach the psychic element.

This advantage, however, is the source of that confusion and sophistry which distinguish the biology of man from the rest of physics. Attention is there arrested at the mental term, in forgetfulness of the situation which gave it warrant,

and an invisible world, composed of these imagined experiences, begins to stalk behind nature and may even be thought to exist independently. This metaphysical dream may be said to have two stages: the systematic one, which is called idealism, and an incidental one which pervades ordinary psychology, in so far as mental facts are uprooted from their basis and deprived of their expressive or spiritual character, in order to be made elements in a dynamic scheme. This battle of feelings, whether with atoms or exclusively with their own cohorts, might be called a primitive materialism, rather than an idealism, if idealism were to retain its Platonic sense; for forms and realisations are taken in this system for substantial elements, and are made to figure either as a part or as the whole of the matter composing the world.

Phenomena specifically mental certainly exist, since natural phenomena and ideal truths are concentrated and telescoped in apprehension, besides being weighted with an emotion due to their effect on the person who perceives them. This variation, which reality suffers in being reported to perception, turns the report into a mental fact distinguishable from its subject-matter.

Differentia of the psychic.

When the flux is partly understood and the natural world has become a constant presence, the whole flux itself, as it flowed originally, comes to be called a mental flux, because its elements and method are seen to

differ from the elements and method embodied in material objects or in ideal truth. The primitive phenomena are now called mental because they all deviate from the realities to be ultimately conceived. To call the immediate mental is therefore correct and inevitable when once the ultimate is in view; but if the immediate were all, to call it mental would be unmeaning.

The visual image of a die, for instance, has at most three faces, none of them quite square; no hired artificer is needed to produce it; it cannot be found anywhere nor shaken in any box; it lasts only for an instant; thereafter it disappears without a trace—unless it flits back unaccountably through the memory—and it leaves no ponderable dust or ashes to attest that it had a substance. The opposite of all this is true of the die itself. But were no material die in existence, the image itself would be material; for, however evanescent, it would occupy space, have geometrical shape, colour, and magic dynamic destinies. Its transformations as it rolled on the idea of a table would be transformations in nature, however unaccountable by any steady law. Such material qualities a mental fact can retain only in the spiritual form of representation. A representation of matter is immaterial, but a material image, when no object exists, is a material fact. If the Absolute, to take an ultimate case, perceived nothing but space and atoms (perceiving itself, if you will, therein), space and atoms would

be its whole nature, and it would constitute a perfect materialism. The fact that materialism was true would not of itself constitute an idealism worth distinguishing from its opposite. For a vehicle or locus exists only when it makes some difference to the thing it carries, presenting it in a manner not essential to its own nature.

Approach to irrelevant sentience.

The qualification of being by the mental medium may be carried to any length. As the subject-matter recedes the mental datum ceases to have much similarity or inward relevance to what is its cause or its meaning. The report may ultimately become, like pure pain or pleasure, almost wholly blind and irrelevant to any world; yet such emotion is none the less immersed in matter and dependent on natural changes both for its origin and for its function, since a significant pleasure or pain makes comments on the world and involves ideals about what ought to be happening there.

Mental facts synchronise with their basis, for no thought hovers over a dead brain and there is no vision in a dark chamber; but their tenure of life is independent of that of their objects, since thought may be prophetic or reminiscent and is intermittent even when its object enjoys a continuous existence. Mental facts are similar to their objects, since things and images have, intrinsically regarded, the same constitution; but images do not move in the same plane with things and their parts are in no proportionate dynamic

relation to the parts of the latter. Thought's place in nature is exiguous, however broad the landscape it represents; it touches the world tangentially only, in some ferment of the brain. It is probably no atom that supports the soul (as Leibnitz imagined), but rather some cloud of atoms shaping or remodelling an organism. Mind in this case would be, in its physical relation to matter, what it feels itself to be in its moral attitude toward the same; a witness to the interesting aspects of matter and a realisation of its forms.

Mental facts, moreover, are highly selective; especially does this appear in respect to the dialectical world, which is in itself infinite, while the sum of human logic and mathematics, though too long for most men's patience, is decidedly brief. If we ask ourselves on what principle this selection and foreshortening of truth takes place in the mind, we may perhaps come upon the real bond and the deepest contrast between mind and its environment. The infinity of formal truth is disregarded in human thought when it is irrelevant to practice and to happiness; the infinity of nature is represented there in violent perspective, centring about the body and its interests. The seat and starting-point of every mental survey is a brief animal life. A mind seems, then, to be a consciousness of the body's interests, expressed in terms of what affects that body, as if in the Babel

Perception represents things in their practical relation to the body.

of nature a man heard only the voices that pronounced his name. A mind is a private view; it is gathered together in proportion as physical sensibility extends its range and makes one stretch of being after another tributary to the animal's life, and in proportion also as this sensibility is integrated, so that every organ in its reaction enlists the resources of every other organ as well. A personal will and intelligence thus arise; and they direct action from within with a force and freedom which are exactly proportionate to the material forces, within and without the body, which the soul has come to represent.

In other words, mind raises to an actual existence that *form* in material processes which, had the processes remained wholly material, would have had only ideal or imputed being—as the stars would not have been divided into the signs of the Zodiac but for the fanciful eye of astrologers. Automata might arise and be destroyed without any value coming or going; only a form-loving observer could say that anything fortunate or tragic had occurred, as poets might at the budding or withering of a flower. Some of nature's automata, however, love themselves, and comment on the form they achieve or abandon; these constellations of atoms are genuine beasts. Their consciousness and their interest in their own individuality rescues that individuality from the realm of discourse and from having merely imputed limits.

That the basis of mind lies in the body's interests rather than in its atoms may seem a doctrine somewhat too poetical for psychology; yet may not poetry, superposed on material existence and supported by it, be perhaps the key to mind? Such a view hangs well together with the practical and prospective character of consciousness, with its total dependence on the body, its cognitive relevance to the world, and its formal disparity from material being. Mind does not accompany body like a useless and persistent shadow; it is significant and it is intermittent. Much less can it be a link in physiological processes, processes irrelevant to its intent and incompatible with its immaterial essence. Consciousness seems to arise when the body assumes an attitude which, being an attitude, supervenes upon the body's elements and cannot be contained within them. This attitude belongs to the whole body in its significant operation, and the report of this attitude, its expression, requires survey, synthesis, appreciation—things which constitute what we call mentality. This remains, of course, the mentality of that material situation; it is the voice of that particular body in that particular pass. The mind therefore represents its basis, but this basis (being a *form* of material existence and not matter itself) is neither vainly reduplicated by representation nor used up materially in the process.

Mind the existence in which form becomes actual.

Representation is far from idle, since it brings

to focus those mechanical unities which otherwise would have existed only potentially and at the option of a roving eye. In evoking consciousness nature makes this delimination real and unambiguous; there are henceforth actual centres and actual interests in the mechanical flux. The flux continues to be mechanical, but the representation of it supervening has created values which, being due to imputation, could not exist without being imputed, while at the same time they could not have been imputed without being attached to one object or event rather than to another. Material dramas are thus made moral and raised to an existence of their own by being expressed in what we call the souls of animals and men; a mind is the entelechy of an organic body.* It is a region where form breeds an existence to express it, and destiny becomes important by being felt. Mind adds to being a new and needful witness so soon as the constitution of being gives foothold to apperception of its movement, and offers something in which it is possible to ground an interest.

That Aristotle has not been generally followed in views essentially so natural and pregnant as these is due no doubt to want of thoroughness in conceiving them, not only on the part of his read-

* Aristotle called the soul the first entelechy of such a body. This first entelechy is what we should call life, since it is possessed by a man asleep. The French I know but do not use is in its first entelechy; the French I am actually speaking is in its second. Consciousness is therefore the second or actualised entelechy of its body.

ers but even on his own part; for he treated the soul, which should be on his own theory only an expression and an unmoved mover, as a power and an efficient cause. Analysis had not gone far enough in his day to make evident that all dynamic principles are mechanical and that mechanism can obtain only among objects; but by this time it should no longer seem doubtful that mental facts can have no connection except through their material basis and no mutual relevance except through their objects.

Attempt at idealistic physics.

There is indeed a strange half-assumption afloat, a sort of reserved faith which every one seems to respect but nobody utters, to the effect that the mental world has a mechanism of its own, and that ideas intelligently produce and sustain one another. Systematic idealists, to be sure, have generally given a dialectical or moral texture to the cosmos, so that the passage from idea to idea in experience need not be due, in their physics, to any intrinsic or proportionate efficacy in these ideas themselves. The march of experience is not explained at all by such high cosmogonies. They abandon that practical calculation to some science of illusion that has to be tolerated in this provisional life. Their own understanding is of things merely in the gross, because they fall in with some divine plan and produce, unaccountably enough, some interesting harmony. Empirical idealists, on the contrary, in making a metaphysics out of

psychology, hardly know what they do. The laws of experience which they refer to are all laws of physics. It is only the "possibilities" of sensation that stand and change according to law; the sensations themselves, if not referred to those permanent possibilities, would be a chaos worse than any dream.

Correct and scrupulous as empiricism may be when it turns its face backward and looks for the seat, the criterion, and the elements of knowledge, it is altogether incoherent and self-inhibited when it looks forward. It can believe in nothing but in what it conceives, if it would rise at all above a stupid immersion in the immediate; yet the relations which attach the moments of feeling together are material relations, implying the whole frame of nature. Psychology can accordingly conceive nothing but the natural world, with its diffuse animation, since this is the only background that the facts suggest or that, in practice, anybody can think of. If empiricism trusted the intellect, and consented to immerse flying experience in experience understood, it would become ordinary science and ordinary common sense. Deprecating this result, for no very obvious reason, it has to balance itself on the thin edge of an unwilling materialism, with a continual protestation that it does not believe in anything that it thinks. It is wholly entangled in the prevalent sophism that a man must renounce a belief when he discovers how he has formed it, and that

our ancestors—at least the remoter ones—begin to exist when we discover them.

When Descartes, having composed a mechanical system of the world, was asked by admiring ladies to say something about the passions, what came into his mind was characteristically simple and dialectical. Life, he thought, was a perpetual conflict between reason and the emotions. The soul had its own natural principle to live by, but was diverted from that rational path by the waves of passion that beat against it and sometimes flooded it over. That was all his psychology. Ideal entities in dramatic relations, in a theatre which had to be borrowed, of course, from the other half of the world; because while a material mechanism might be conceived without minds in it, minds in action could not be conceived without a material mechanism—at least a represented one—lying beneath and between. Spinoza made a great improvement in the system by attaching the mind more systematically to the body, and studying the parts which organ and object played in qualifying knowledge; but his conception of mental unities and mental processes remained literary, or at best, as we have seen, dialectical. No shadow of a principle at once psychic and genetic appeared in his philosophy. All mind was still a transcript of material facts or a deepening of moral relations.

The idea of explaining the flow of ideas without reference to bodies appeared, however, in the

principle of association. This is the nearest approach that has yet been made to a physics of disembodied mind—something which idealism sadly needs to develop. A terrible incapacity, however, appears at once in the principle of association; for even if we suppose that it could account for the flow of ideas, it does not pretend to supply any basis for sensations. And as the more efficient part of association—association by contiguity—is only a repetition in ideas of the order once present in impressions, the whole question about the march of mental experience goes back to what association does not touch, namely, the origin of sensations. What everybody assumed, of course, was that the order and quality of sensations were due to the body; but their derivation was not studied. Hume ignored it as much as possible, and Berkeley did not sacrifice a great deal when he frankly suggested that the production of sensation must be the direct work of God.

Association not efficient.

This tendency not to recognise the material conditions of mind showed itself more boldly in the treatment of ideation. We are not plainly aware (in spite of headaches, fatigue, sleep, love, intoxication, and madness) that the course of our thoughts is as directly dependent on the body as is their inception. It was therefore possible, without glaring paradox, to speak as if ideas caused one another. They followed, in recurring, the order they had first had in experience, as when we

learn something by heart. Why, a previous verse being given, we should sometimes be unable to repeat the one that had often followed it before, there was no attempt to explain: it sufficed that reverie often seemed to retrace events in their temporal order. Even less dependent on material causes seemed to be the other sort of association, association by similarity. This was a feat for the wit and the poet, to jump from China to Peru, by virtue of some spark of likeness that might flash out between them.

Much natural history has been written and studied with the idea of finding curious facts. The demand has not been for constant laws or intelligibility, but for any circumstance that could arrest attention or divert the fancy. In this spirit, doubtless, instances of association were gathered and classified. It was the young ladies' botany of mind. Under association could be gathered a thousand interesting anecdotes, a thousand choice patterns of thought. Talk of the wars, says Hobbes, once led a man to ask what was the value of a Roman penny. But why only once? The wars must have been often mentioned when the delivering up of King Charles did not enter any mind; and when it did, this would not have led any one to think of Judas and the thirty pence, unless he had been a good royalist and a good Christian—and then only by a curious accident. It was not these ideas, then, in their natural capacity that suggested one another;

It describes coincidences.

but some medium in which they worked, once in the world, opened those particular avenues between them. Nevertheless, no one cared to observe that each fact had had many others, never recalled, associated with it as closely as those which were remembered. Nor was the matter taken so seriously that one needed to ask how, among all similar things, similarity could decide which should be chosen; nor how among a thousand contiguous facts one rather than another should be recalled for contiguity's sake.

The best instance, perhaps, of regular association might be found in language and its meaning; for understanding implies that each word habitually calls up its former associates. Yet in what, psychologically considered, does understanding a word consist? What concomitants does the word "horse" involve in actual sentience? Hardly a clear image such as a man might paint; for the name is not confined to recalling one view of one animal obtained at one moment. Perhaps all that recurs is a vague sense of the environment, in nature and in discourse, in which that object lies. The word "kite" would immediately make a different region warm in the world through which the mind was groping. One would turn in idea to the sky rather than to the ground, and feel suggestions of a more buoyant sort of locomotion.

Understanding is based on instinct and expressed in dialectic.

Understanding has to be described in terms of its potential outcome, since the incandescent proc-

ess itself, as it exists in transit, will not suffer stable terms to define it. Potentiality is something which each half of reality reproaches the other with; things are potential to feeling because they are not life, and feelings are potential to science because they elude definition. To understand, therefore, is to know what to do and what to say in the sign's presence; and this practical knowledge is far deeper than any echo casually awakened in fancy at the same time. Instinctive recognition has those echoes for the most superficial part of its effect. Because I understand what "horse" means, the word can make me recall some episode in which a horse once figured. This understanding is instinctive and practical and, if the phrase may be pardoned, it is the body that understands. It is the body, namely, that contains the habit and readiness on which understanding hangs; and the sense of understanding, the instant rejection of whatever clashes and makes nonsense in that context, is but a transcript of the body's education. Actual mind is all above board; it is all speculative, vibrant, the fruit and gift of those menial subterranean processes. Some generative processes may be called psychic in that they minister to mind and lend it what little continuity it can boast of; but they are not processes in consciousness. Processes in consciousness are æsthetic or dialectical processes, focussing a form rather than ushering in an existence. Mental activity has a character altogether alien to association: it

is spiritual, not mechanical; an entelechy, not a genesis.

For these and other reasons association has fallen into some disrepute; but it is not easy to say what, in absolute psychology, has come to take its place. If we speak of suggestion, a certain dynamic turn seems to be given to the matter; yet in what sense a perception suggests its future development remains a mystery. That a certain ripening and expansion of consciousness goes on in man, not guided by former collocations of ideas, is very true; for we do not fall in love for the first time because this person loved and these ardent emotions have been habitually associated in past experience. And any impassioned discourse, opening at every turn into new vistas, shows the same sort of vegetation. Yet to observe that consciousness is automatic is not to disclose the mechanism by which it evolves. The theory of spontaneous growth offers less explanation of events, if that be possible, than the theory of association. It is perhaps a better description of the facts, since at least it makes no attempt to deduce them from one another.

Suggestion a fancy name for automatism.

If, on the contrary, a relation implied in the burden or will of the moment be invoked, the connection established, so far as it goes, is dialectical. Where a dialectical correspondence is not found, a material cause would have to be appealed to. Such a half-dialectical

and will another.

psychology would be like Schopenhauer's, quite metaphysical. It might be a great improvement on an absolute psychology, because it would restore, even if in mythical terms, a background and meaning to life. The unconscious Absolute Will, the avid Genius of the Species, the all-attracting Platonic Ideas are fabulous; but beneath them it is not hard to divine the forces of nature. This volitional school supplies a good stepping-stone from metaphysics back to scientific psychology. It remains merely to substitute instinct for will, and to explain that instinct—or even will, if the term be thought more consoling—is merely a word covering that operative organisation in the body which controls action, determines affinities, dictates preferences, and sustains ideation.

Double attachment of mind to nature.

What scientific psychology has to attempt—for little has been accomplished—may be reduced to this: To develop physiology and anthropology until the mechanism of life becomes clear, at least in its general method, and then to determine, by experiment and by well-sifted testimony, what conscious sublimation each of those material situations attains, if indeed it attains any. There will always remain, no doubt, many a region where the machinery of nature is too fine for us to trace or eludes us by involving agencies that we lack senses to perceive. In these regions where science is denied we shall have to be satisfied with landscape-painting. The more obvious results

and superficial harmonies perceived in those regions will receive names and physics will be arrested at natural history. Where these unexplained facts are mental it will not be hard to do more systematically what common sense has done already, and to attach them, as we attach love or patriotism, to the natural crises that subtend them.

This placing of mental facts is made easy by the mental facts themselves, since the connection of mind with nature is double, and even when the derivation of a feeling is obscure we have but to study its meaning, allowing it to tell us what it is interested in, for a roundabout path to lead us safely back to its natural basis. It is superfluous to ask a third person what circumstances produce hunger: hunger will lead you unmistakably enough to its point of origin, and its extreme interest in food will not suffer you long to believe that want of nourishment has nothing to do with its cause. And it is not otherwise with higher emotions and ideas. Nothing but sophistry can put us in doubt about what conscience represents; for conscience does not say, square the circle, extinguish mankind so as to stop its sufferings, or steal so as to benefit your heirs. It says, Thou shalt not kill, and it also says, Thou shalt worship the Lord thy God who brought thee out of the land of Egypt. So that conscience, by its import and incidence, clearly enough declares what it springs from—a social tradition; and what it represents—the interests,

real or imaginary, of the community in which you were reared.

Where psychology depends on literature, where both its units and its method are poetical, there can be no talk of science. We may as justly, or as absurdly, speak of the spirit of an age or of a religion as of a man's character or a river's god. Particulars in illustration may have good historic warrant, but the unities superimposed are ideal. Such metaphors may be very useful, for a man may ordinarily be trusted to continue his practices and a river its beneficent or disastrous floods; and since those rhetorical forms have no existence in nature we may continue to frame them as may be most convenient for discourse.

Is the subject-matter of psychology absolute being?

When psychology is a science, then, it describes the flying consciousness that accompanies bodily life. It is the science of feeling or absolute appearance, taken exactly as it seems or feels. Does such a psychology, we may be tempted to ask, constitute scientific knowledge of reality? Is it at last the true metaphysics? This question would have to be answered in the negative, yet not without some previous discriminations. There is honesty in the conviction that sentience is a sort of absolute; it is something which certainly exists. The first Cartesian axiom applies to it, and to feel, even doubtfully, that feeling existed would be to posit its existence. The science that describes sentience describes at least a part of ex-

istence. Yet this self-grounding of consciousness is a suspicious circumstance: it renders it in one sense the typical reality and in another sense perhaps the sorriest illusion.

"Reality" is an ambiguous term. If we mean by it the immediate, then sentience would be a part if not the whole of reality; for what we mean by sentience or consciousness is the immediate in so far as we contain it, and whatever self-grounded existence there may be elsewhere can be conceived by us only mythically and on that analogy, as if it were an extension or variation of sentience. Psychology would then be knowledge of reality, for even when consciousness contains elaborate thoughts that might be full of illusions, psychology takes them only as so much feeling, and in that capacity they are real enough. At the same time, while our science terminates upon mere feeling, it can neither discover nor describe that feeling except in terms of something quite different; and the only part of psychology that perhaps penetrates to brute sentience is the part that is not scientific. The knowledge that science reaches about absolute states of mind is relative knowledge; these states of mind are approached from without and are defined by their surrounding conditions and by their ideal objects. They are known by being enveloped in processes of which they themselves are not aware. Apart from this setting, the only feeling known is that which is

Sentience is representable only in fancy.

endured. After the fact, or before, or from any other point of vantage, it cannot be directly revealed; at best it may be divined and re-enacted. Even this possible repetition would not constitute knowledge unless the imaginative reproduction were identified with or attributed to some natural fact; so that an adventitious element would always attach to any recognised feeling, to any feeling reported to another mind. It could not be known at all unless something were known about it, so that it might not pass, as otherwise it would, for a mere ingredient of present sentience.

It is precisely by virtue of this adventitious element that the re-enacted feeling takes its place in nature and becomes an object of knowledge. Science furnishes this setting; the jewel—precious or false—must be supplied by imagination. Romance, dramatic myth, is the only instrument for knowing this sort of "reality." A flying moment, if at all *understood* or underpinned, or if seen in its context, would be not known absolutely as it had been felt, but would be known scientifically and as it lay in nature. But dramatic insight, striving to pierce through the machinery of the world and to attain and repeat what dreams may be going on at its core, is no science; and the very notion that the dreams are internal, that they make the interior or substance of bodies, is a crude materialistic fancy. Body, on the contrary, is the substance or instrument of mind, and has to be looked for beneath it. The mind is itself ethereal

and plays about the body as music about a violin, or rather as the sense of a page about the print and paper. To look for it *within* is not to understand what we are looking for.

Knowledge of the immediate elsewhere is accordingly visionary in its method, and furthermore, if, by a fortunate chance, it be true in fact, it is true only of what in itself is but appearance; for the immediate, while absolutely real in its stress or presence, is indefinitely ignorant and false in its deliverance. It knows itself, but in the worst sense of the word knowledge; for it knows nothing of what is true about it, nothing of its relations and conditions. To pierce to this blind "reality" or psychic flux, which is nothing but flying appearance, we must rely on fortune, or an accidental harmony between imitative fancy in us now and original sentience elsewhere. It is accordingly at least misleading to give the name of "reality" to this appearance, which is entirely lost and inconsequential in its being, without trace of its own status, and consequently approachable or knowable only by divination, as a dream might call to another dream.

The conditions and objects of sentience, which are not sentience, are also real.

It is preferable to give a more Platonic meaning to the word and to let "reality" designate not what is merely felt diffusely but what is true about those feelings. Then dramatic fancy, psychology of the sympathetic sort, would not be able to reach reality at all. On the

other hand scientific psychology, together with all other sciences, would have reality for its object; for it would disclose what really was true about sentient moments, without stopping particularly to sink abstractedly into their inner quality or private semblance. It would approach and describe the immediate as a sentient factor in a natural situation, and show us to what extent that situation was represented in that feeling. This representation, by which the dignity and interest of pure sentience would be measured, might be either pictorial or virtual; that is, a conscious moment might represent the environing world either scientifically, by understanding its structure, or practically, by instinctive readiness to meet it.

Mind knowable and important in so far as it represents other things.

What, for instance, is the reality of Napoleon? Is it what a telepathic poet, a complete Browning, might reconstruct? Is it Napoleon's life-long soliloquy? Or to get at the reality should we have to add, as scientific psychology would, the conditions under which he lived, and their relation to his casual feelings? Obviously if Napoleon's thoughts had had no reference to the world we should not be able to recover them; or if by chance such thoughts fell some day to our share, we should attribute them to our own mental luxuriance, without suspecting that they had ever visited another genius. Our knowledge of his life, even where it is imaginative, depends upon scien-

tific knowledge for its projection; and his fame and immortality depend on the degree to which his thoughts, being rooted in the structure of the world and pertinent to it, can be rationally reproduced in others and attributed to him. Napoleon's consciousness might perhaps be more justly identified with the truth or reality of him than could that of most people, because he seems to have been unusually cognisant of his environment and master of the forces at work in it and in himself. He understood his causes and function, and knew that he had *arisen,* like all the rest of history, and that he stood for the transmissible force and authority of greater things. Such a consciousness can be known in proportion as we, too, possess knowledge, and is worth the pains; something which could not be said of the absolute sentience of Dick or Harry, which has only material being, brute existence, without relevance to anything nor understanding of itself.

The circumstances, open to science, which surround consciousness are thus real attributes of a man by which he is truly known and distinguished. Appearances are the qualities of reality, else realities would be without place, time, character, or interrelation. In knowing that Napoleon was a Corsican, a short man with a fine countenance, we know appearances only; but these appearances are true of the reality. And if the presumable inner appearances, Napoleon's long soliloquy, were separated from the others, those

inner appearances would not belong to Napoleon nor have any home in the knowable world. That which physics, with its concomitant psychology, might discover in a man is the sum of what is true about him, seeing that a man is a concretion in existence, the fragment of a world, and not a definition. Appearances define the constituent elements of his reality, which could not be better known than through their means.

CHAPTER VI

THE NATURE OF INTENT

Common knowledge passes from memory to history and from history to mechanism; and having reached that point it may stop to look back, not without misgivings, over the course it has traversed, and thus become psychology. These investigations, taken together, constitute physics, or the science of existence. But this is only half of science and on the whole the less interesting and less fundamental half. No existence is of moment to a man, not even his own, unless it touches his will and fulfils or thwarts his intent. Unless he is concerned that existences should be of specific kinds, unless he is interested in form, he can hardly be interested in being. At the very least in terms of pleasure versus pain, light versus darkness, comfort versus terror, the flying moment must be loaded with obloquy or excellence if its passage is not to remain a dead fact, and to sink from the sphere of actuality altogether into that droning limbo of potentialities which we call matter. Being which is indifferent to form is only the material of being. To exist is nothing if you

Dialectic better than physics.

have nothing to do, if there is nothing to choose or to distinguish, or if those things which belong to a chosen form are not gathered into it before your eyes, to express what we call a truth or an excellence.

Existence naturally precedes any idealisation of it which men can contrive (since they, at least, must exist first), yet in the order of values knowledge of existence is subsidiary to knowledge of ideals. If it be true that a good physics is as yet the predominant need in science, and that man is still most troubled by his ignorance of matters of fact, this circumstance marks his illiberal condition. Without knowledge of existence nothing can be done; but nothing is really done until something else is known also, the use or excellence that existence may have. It is a great pity that those finer temperaments that are naturally addressed to the ideal should have turned their energies to producing bad physics, or to preventing others from establishing natural truths; for if physics were established on a firm basis the idealists would for the first time have a free field. They might then recover their proper function of expressing the mind honestly, and disdain the sorry attempt to prolong confusion and to fish in troubled waters.

Perhaps if physical truth had not been so hugely misrepresented in men's faith and conduct, it would not need to be minutely revealed or particularly emphasised. When the conditions

surrounding life are not rightly faced by instinct they are inevitably forced upon reflection through painful shocks; and for a long time the new habit thus forced upon men brings to consciousness not so much the movement of consciousness itself as the points at which its movement impinges on the external world and feels checks and frictions. Physics thus becomes inordinately conspicuous (as when philology submerges the love of letters) for lack of a good disposition that should allow us to take physics for granted. Much in nature is delightful to know and to keep in mind, but much also (the whole infinite remainder) is obscure and uninteresting; and were we practically well adjusted to its issue we might gladly absolve ourselves from studying its processes. In a world that in extent and complexity so far outruns human energies, physical knowledge ought to be largely virtual; that is, nature ought to be represented by a suitable attitude toward it, by the attitude which reason would dictate were knowledge complete, and not by explicit ideas.

Maladjustments to nature render physics conspicuous and unpleasant.

The ancients were happily inspired when they imagined that beyond the gods and the fixed stars the cosmos came to an end, for the empyrean beyond was nothing in particular, nothing to trouble one's self about. Many existences are either out of relation to man altogether or have so infinitesimal an influence on his experience that they may be suffi-

Physics should be largely virtual.

ciently represented there by an atom of star-dust; and it is probable that if, out of pure curiosity, we wished to consider very remote beings and had the means of doing so, we should find the detail of existence in them wholly incommensurable with anything we can conceive. Such beings could be known virtually only, in that we might speak of them in the right key, representing them in appropriate symbols, and might move in their company with the right degree of respectful indifference.

The present situation of science, however, reverses the ideal one. Physics, in so far as it exists, is explicit, and at variance with our acquired attitude toward things; so that we may justly infer, by the shock our little knowledge gives us, that our presumptions and assumptions have been so egregious that more knowledge would give us still greater shocks. Meantime dialectic, or knowledge of ideal things, remains merely virtual. The ideal usually comes before us only in revulsions which we cannot help feeling against some scandalous situation or some intolerable muddle. We have no time or genius left, after our agitated soundings and balings, to think of navigation as a fine art, or to consider freely the sea and sky or the land we are seeking. The proper occupation of the mind is gone, or rather not initiated.

and dialectic explicit.

A further bad consequence of this illiberal state is that, among many who have, in spite of the times, adoration in their souls, to adore physics,

to worship Being, seems a philosophical religion, whereas, of course, it is the essence of idolatry. The true God is an object of intent, an ideal of excellence and knowledge, not a term belonging to sense or to probable hypothesis or to the prudent management of affairs. After we have squared our accounts with nature and taken sufficient thought for our bodily necessities, the eyes can be lifted for the first time to the eternal. The rest was superstition and the quaking use of a false physics. That appeal to the supernatural which while the danger threatens is but forlorn medicine, after the blow has fallen may turn to sublime wisdom. This wisdom has cast out the fear of material evils, and dreads only that the divine should not come down and be worthily entertained among us. In art, in politics, in that form of religion which is superior, and not inferior, to politics and art, we define and embody intent; and the intent embodied dignifies the work and lends interest to its conditions. So, in science, it is dialectic that makes physics speculative and worthy of a free mind. The baser utilities of material knowledge would leave life itself perfectly vain, if they did not help it to take on an ideal shape. Ideal life, in so far as it constitutes science, is dialectical. It consists in seeing how things hang together perspicuously and how the later phases of any process fill out—as in good music—the tendency and promise of what went before. This derivation may be mathematical or it may be

moral; but in either case the data and problem define the result, dialectic being insight into their inherent correspondence.

Intent is one of many evidences that the intellect's essence is practical. Intent is action in the sphere of thought; it corresponds to transition and derivation in the natural world. Analytic psychology is obliged to ignore intent, for it is obliged to regard it merely as a feeling; but while the feeling of intent is a fact like any other, intent itself is an aspiration, a passage, the recognition of an object which not only is not a part of the feeling given but is often incapable of being a feeling or a fact at all. What happened to motion under the Eleatic analysis happens to intent under an anatomising reflection. The parts do not contain the movement of transition which makes them a whole. Moral experience is not expressible in physical categories, because while you may give place and date for every feeling that something is important or is absurd, you cannot so express what these feelings have discovered and have wished to confide to you. The importance and the absurdity have disappeared. Yet it is this pronouncement concerning what things are absurd or important that makes the intent of those judgments. To touch it you have to enter the moral world; that is, you have to bring some sympathetic or hostile judgment to bear on those you are considering and to meet intent, not by noting its existence, but by estimating

Intent is vital and indescribable.

its value, by collating it with your own intent. If some one says two and two are five, you are no counter-mathematician when you conscientiously put it down that he said so. Your science is not relevant to his intent until you run some risk yourself in that arena and say, No: two and two are four.

Feelings and ideas, when plucked and separately considered, do not retain the intent that made them cognitive or living; yet in their native medium they certainly lived and knew. If this ideality or transcendence seems a mystery, it is such only in the sense in which every initial or typical fact is mysterious. Every category would be unthinkable if it were not actually used. The mystery in this instance has, however, all that can best serve to make a mystery homely and amiable. It is supported by a strong analogy to other familiar mysteries. The fact that intellect has intent, and does not constitute or contain what it envisages, is like the fact that time flows, that bodies gravitate, that experience is gathered, or that existence is suspended between being and not being. Propagation in animals is mysterious and familiar in the same fashion. Cognition, too, is an expedient for vanquishing instability. As reproduction circumvents mortality and preserves a semblance of permanence in the midst of change, so intent regards what is not yet, or not here, or what exists no longer. Thus the pulverisation proper to exis-

It is analogous to flux in existence.

tence is vanquished by thought, which in a moment announces or commemorates other moments, together with the manner of their approach or recession. The mere image of what is absent constitutes no knowledge of it; a dream is not knowledge of a world like it existing elsewhere; it is simply another more fragile world. What renders the image cognitive is the intent that projects it and deputes it to be representative. It is cognitive only in use, when it is the vehicle of an assurance which may be right or wrong, because it takes something ulterior for its standard.

We may give intent a somewhat more congenial aspect if we remember that thought comes to animals in proportion to their docility in the world and to their practical competence. The more plastic a being is to experience, so long as he retains vital continuity and a cumulative structure, the more intelligent he becomes. Intelligence is an expression of adaptation, of impressionable and prophetic structure. What wonder, then, that intelligence should speak of the things that inspire it and that lend it its oracular and practical character, namely, of things at that moment absent and merely potential, in other words, of the surrounding world? Mere feeling might suffice to translate into consciousness each particle of protoplasm in its isolation; but to translate the relations of that particle to what is not itself and to express its response to those environing presences, intent and conscious sig-

It expresses natural life.

nification are required. Intellect transcends the given and means the absent because life, of which intellect is the fulfilment or entelechy, is itself absorbed from without and radiated outward. As life depends on an equilibrium of material processes which reach far beyond the individual they sustain in being, so intent is a recognition of outlying existences which sustain in being that very sympathy by which they are recognised. Intent and life are more than analogous. If we use the word life in an ideal sense, the two are coincident, for, as Aristotle says, the act proper to intellect is life.* The flux is so pervasive, so subtle in its persistency, that even those miracles which suspend it must somehow share its destiny. Intent bridges many a chasm, but only by leaping across. The life that is sustained for years, the political or moral purpose that may bind whole races together, is condemned to be partly a memory and partly a plan and wholly an ideal. Its scope is nothing but the range to which it can continually extend its sympathies and its power of representation. Its moments have nothing in common except their loyalties and a conspiring interest in what is not themselves.

It has a material basis.

This moral energy, so closely analogous to physical interplay, is of course not without a material basis. Spiritual sublimation does not consist in not using matter but in using it up, in making it all useful. When life

* Cf. the motto on the title-page.

becomes rational it continues to be mechanical and to take up room and energy in the natural world. That new direction of attention upon form which finds in facts instances of ideas, does not occur without a certain heat and labour in the brain. In its most intimate and supernatural functions intellect has natural conditions. In dreams and madness intent is confused and wayward, in idiocy it is suspended altogether; nor has discourse any other pledge that it is addressing kindred interlocutors except that which it receives from the disposition and habit of bodies. People who have not yet been born into the world have not yet begun to think about it.

There is, of course, an inner dialectical relevance among all propositions that have the same ideal theme, no matter how remote or unknown to one another those who utter the propositions may be; but the medium in which this infinite dialectical network is woven is motionless, and indifferent to the direction in which thought might traverse it; in other words, it is not discourse or intelligence but eternal truth. From the point of view of experience this prior dialectical relation of form to form is merely potential; for the thoughts between which it would obtain need never exist or be enacted. There is society only among incarnate ideas; and it is only by expressing some material situation that an idea is selected out of the infinity of not impossible ideas and promoted to the temporal dignity of actual thought.

Moreover, even if the faculty of intelligence were disembodied and could exist in a vacuum, it would still be a vain possession if no data were given for it to operate upon and if no particular natural structure, animal, social, or artistic, were at hand for intelligence to ally itself to and defend. Reason would in that case die of inanition; it would have no subject-matter and no sanction, as well as no seat. Intelligence is not a substance; it is a principle of order and of art; it requires a given situation and some particular natural interest to bring it into play. In fact, it is nothing but a name for the empire which conscious, but at bottom irrational, interests attain over the field in which they operate; it is the fruition of life, the token of successful operation.

It is necessarily relevant to earth.

Every theme or motive in the Life of Reason expresses some instinct rooted in the body and incidental to natural organisation. The intent by which memory refers to past or absent experience, or the intent by which perception becomes recognition, is a transcript of relations in which events actually stand to one another. Such intent represents modifications of structure and action important to life, modifications that have responded to forces on which life is dependent. Both desire and meaning translate into cognitive or ideal energy, into intent, mechanical relations subsisting in nature. These mechanical relations give practical force to the thought that expresses them,

and the thought in turn gives significance and value to the forces that subserve it. Fulfilment is mutual, in one direction bringing material potentialities to the light and making them actual and conscious, and in the other direction embodying intent in the actual forms of things and manifesting reason. Nothing could be more ill-considered than the desire to disembody reason. Reason cries aloud for reunion with the material world which she needs not only for a basis but, what concerns her even more, for a theme.

In private and silent discourse, when words and grammar are swathed in reverie, the material basis and reference of thought may be forgotten. Desire and intent may then seem to disport themselves in a purely ideal realm; moral or logical tensions alone may seem to determine the whole process. Meditative persons are even inclined to regard the disembodied life which they think they enjoy at such times as the true and native form of experience; all organs, applications, and expressions of thought they deprecate and call accidental. As some pious souls reject dogma to reach pure faith and suspend prayer to enjoy union, so some mystical logicians drop the world in order to grasp reality. It is an exquisite suicide; but the energy and ideal that sustain such a flight are annihilated by its issue, and the soul drops like a paper balloon consumed by the very flame that wafted it. No thought is found without an organ; none is conceivable without an ex-

pression which is that organ's visible emanation; and none would be significant without a subject-matter lying in the world of which that organ is a part.

The natural structure underlying intent is latent in silent thought, and its existence might be denied by a sceptical thinker over whose mind the analogies and spirit of physics exercised little influence. This hypothetical structure is not, however, without obvious extensions which imply its existence even where we do not perceive it directly. A smile or a blush makes visible to the observer movements which must have been at work in the body while thought occupied the mind —even if, as more often happens, the blush or smile did not precede and introduce the feeling they suggest, the feeling which in our verbal mythology is said to cause them. No one would be so simple as to suppose that such involuntary signs of feeling spring directly and by miracle out of feeling. They surely continue some previous bodily commotion which determines their material character, so that laughter, for instance, becomes a sign of amusement rather than of rage, which it might just as well have represented, so far as the abstract feeling itself is concerned.

The basis of intent becomes appreciable in language.

In the same way a sigh, a breath, a word are but the last stage and superficial explosion of nervous tensions, tensions which from the point of view of their other eventual expressions we might call

interplaying impulses or potential memories. As these material seethings underlay the budding thought, so the uttered word, when it comes, underlies the perfect conception. The word, in so far as it is material, undeniably continues an internal material process, for aphasia and garrulity have known physical causes. In the vibrations which we call words the hidden complexities of cerebral action fly out, so to speak, into the air; they become recognisable sounds emitted by lips and tongue and received by the ear. The uttered word produces an obvious commotion in nature; through it thought, being expressed in that its material basis is extended outward, becomes at the same moment rational and practical; for its expression enters into the chain of its future conditions and becomes an omen of that thought's continuance, repetition, and improvement. Thought's rational function consists, as we then perceive, in expressing a natural situation and improving that situation by expressing it, until such expression becomes a perfect and adequate state of knowledge, which justifies both itself and its conditions. Expression makes thought a power in the very world from which thought drew its being, and renders it in some measure self-sustaining and self-assured.

A thirsty man, let us say, begs for drink. Had his petition been a wordless desire it might have been supposed, though falsely, to be a disembodied and quite immaterial event, a transcendental atti-

tude of will, without conditions or consequences, but somehow with an absolute moral dignity. But when the petition became articulate and audible to a fellow-mortal, who thereupon proceeded to fetch a cup of water, the desire, through the cry that expressed it, obviously asserted itself in the mechanical world, to which it already secretly belonged by virtue of its cause, a parched body. This material background for moral energy, which even an inarticulate yearning would not have lacked, becomes in language an overt phenomenon, linked observably with all other objects and processes.

Language is accordingly an overflow of the physical basis of thought. It is an audible gesture, more refined than the visible, but in the same sense an automatic extension of nervous and muscular processes. Words underlie the thought they are said to express—in truth it is the thought that is the flower and expression of the language—much as the body underlies the mind.

Language contains side by side two distinct elements. One is the meaning or sense of the words —a logical projection given to sensuous terms. The other is the sensuous vehicle of that meaning—the sound, sign, or gesture. This sensuous term is a fulcrum for the lever of signification, a *point d'appui* which may be indefinitely attenuated in rapid discourse, but not altogether discarded. Intent though it vaults high must have something to

Intent starts from a datum,

spring from, or it would lend meaning to nothing. The minimal sensuous term that subsists serves as a clue to a whole system of possible assertions radiating from it. It becomes the sign for an essence or idea, a logical hypostasis corresponding in discourse to that material hypostasis of perceptions which is called an external thing.

The hypostasised total of rational and just discourse is the truth. Like the physical world, the truth is external and in the main potential. Its ideal consistency and permanence serve to make it a standard and background for fleeting assertions, just as the material hypostasis called nature is the standard and background for all momentary perceptions. What exists of truth in direct experience is at any moment infinitesimal, as what exists of nature is, but all that either contains might be represented in experience at one time or another.*

* Not, of course, in human experience, which is incapable of containing the heart of a flea, much less what may be endured in remoter spheres. But if an intelligence were constructed *ad hoc* there is nothing real that might not fall within the scope of experience. The difference between existence and truth on the one side and knowledge or representation on the other may be reduced to this: that knowledge brings what exists or what is true under apperception, while being diffuses what is understood into an impartial subsistence. As truth is indistinguishable from an absolute motionless intellect, which should no longer be a function of life but merely a static order, so existence is indistinguishable from an absolute motionless experience, which should no longer be a foreshortening or representation of anything. This existence would be motionless in the sense that it would "mark time," for of course every fact in it might be a fact of transition. The whole system, however, would have a static ideal constitution, since the fact that things

The tensions and relations of words which make grammar or make poetry are immediate in essence, the force of language being just as empirical as the reality of things. To ask a thinker what he means by meaning is as futile as to ask a carpenter what he means by wood; to discover it you must emulate them and repeat their experience—which indeed you will hardly be able to do if some sophist has so entangled your reason that you can neither understand what you see nor assert what you mean. But as the carpenter's acquaintance with wood might be considerably refined if he became a naturalist or liberalised if he became a carver, so a casual speaker's sense of what he means might be better focussed by dialectic and more delicately shaded by literary training. Meantime the vital act called intent, by which consciousness becomes cognitive and practical, would remain at heart an indescribable experience, a sense of spiritual life as radical and specific as the sense of heat.

and is carried by a feeling.

Significant language forms a great system of ideal tensions, contained in the mutual relations of parts of speech, and of clauses in propositions. Of these tensions the intent in a man's mind at any moment is a living specimen. Experience at that moment may have a significance, a transitive force, that asks to be enshrined in some perma-

change in a certain way or stand in a certain order is as much a fact as any other; and it is not a logical necessity, either, but a brute matter of fact that might well have been otherwise.

nent expression; the more acute and irrevocable the crisis is, the more urgent the need of transmitting to other moments some cognisance of what was once so great. But were this experience to exhale its spirit in a vacuum, using no conventional and transmissible medium of expression, it would be foiled in its intent. It would leave no monument and achieve no immortality in the world of representation; for the experience and its expression would remain identical and perish together, just as a perception and its object would remain identical and perish together if there were no intelligence to discover the material world, to which the perplexing shifts of sensation may be habitually referred. Spontaneous expression, if it is to be recognisable and therefore in effect expressive, labours under the necessity of subordinating itself to an ideal system of expressions, a permanent language in which its spontaneous utterances may be embedded. By virtue of such adoption into a common medium expression becomes interpretable; a later moment may then reconstruct the past out of its surviving memorial.

It demands conventional expression.

Intent, beside the form it has in language, where it makes the soul of grammar, has many other modes of expression, in mathematical and logical reasoning, in action, and in those contemplated and suspended acts which we call estimation, policy, or morals. Moral philosophy, the wisdom of Socrates, is merely a consideration of

intent. In intent we pass over from existence to ideality, the nexus lying in the propulsive nature of life which could not have been capped by any form of knowledge which was not itself in some way transitive and ambitious. Intent, though it looks away from existence and the actual, is the most natural and pervasive of things. Physics and dialectic meet in this: that the second brings to fruition what the first describes, namely, existence, and that both have their transcendental root in the flux of being. Matter cannot exist without some form, much as by shedding every form in succession it may proclaim its aversion to fixity and its radical formlessness or infinitude. Nor can form, without the treacherous aid of matter, pass from its ideal potentiality into selected and instant being.

A fable about matter and form.

In order to live—if such a myth may be allowed—the Titan Matter was eager to disguise his incorrigible vagueness and pretend to be something. He accordingly addressed himself to the beautiful company of Forms, sisters whom he thought all equally beautiful, though their number was endless, and equally fit to satisfy his heart. He wooed them hypocritically, with no intention of wedding them; yet he uttered their names in such seductive accents (called by mortals intelligence and toil) that the virgin goddesses offered no resistance—at least such of them as happened to be near or of a facile disposition. They were pres-

ently deserted by their unworthy lover; yet they, too, in that moment's union, had tasted the sweetness of life. The heaven to which they returned was no longer an infinite mathematical paradise. It was crossed by memories of earth, and a warmer breath lingered in some of its lanes and grottoes. Henceforth its nymphs could not forget that they had awakened a passion, and that, unmoved themselves, they had moved a strange indomitable giant to art and love.

CHAPTER VII

DIALECTIC

Dialectic elaborates given forms.

The advantage which the mechanical sciences have over history is drawn from their mathematical form. Mathematics has somewhat the same place in physics that conscience has in action; it seems to be a directive principle in natural operations where it is only a formal harmony. The formalistic school, which treats grammar in all departments as if it were the ground of import rather than a means of expressing it, takes mathematics also for an oracular deliverance, springing full-armed out of the brain, and setting up a canon which all concrete things must conform to. Thus mathematical science has become a mystery which a myth must be constructed to solve. For how can it happen, people ask, that pure intuition, retreating into its cell, can evolve there a prodigious system of relations which it carries like a measuring-rod into the world and lo! everything in experience submits to be measured by it? What pre-established harmony is this between the spinning cerebral silkworm and nature's satins and brocades?

If we but knew, so the myth runs, that experience can show no patterns but those which the prolific Mind has woven, we should not wonder at this necessary correspondence. The Mind having decreed of its own motion, while it sat alone before the creation of the world, that it would take to dreaming mathematically, it evoked out of nothing all formal necessities; and later, when it felt some solicitation to play with things, it imposed those forms upon all its toys, admitting none of any other sort into the nursery. In other words, perception perfected its grammar before perceiving any of its objects, and having imputed that grammar to the materials of sense, it was able to perceive objects for the first time and to legislate further about their relations.

The most obvious artifices of language are often the most deceptive and bring on epidemic prejudices. What is this Mind, this machine existing prior to existence? The mind that exists is only a particular department or focus of existence; its principles cannot be its own source, much less the source of anything in other beings. Mathematical principles in particular are not imposed on existence or on nature *ab extra*, but are found in and abstracted from the subject-matter and march of experience. To exist things have to wear some form, and the form they happen to wear is largely mathematical. This being the case, the mind in shaping its barbarous prosody somewhat more closely to the nature of things,

learns to note and to abstract the form that so strikingly defines them. Once abstracted and focussed in the mind, these forms, like all forms, reveal their dialectic; but that things conform to that dialectic (when they do) is not wonderful, seeing that it is the obvious form of things that the mind has singled out, not without practical shrewdness, for more intensive study.

Forms are abstracted from existence by intent.

The difference between ideal and material knowledge does not lie in the ungenerated oracular character of one of them in opposition to the other; in both the data are inexplicable and irrational, and in both investigation is tentative, observant, and subject to control by the subject-matter. The difference lies, rather, in the direction of speculation. In physics, which is at bottom historical, we study what happens; we make inventories and records of events, of phenomena, of juxtapositions. In dialectic, which is wholly intensive, we study what is; we strive to clarify and develop the essence of what we find, bringing into focus the inner harmonies and implications of forms—forms which our attention or purpose has defined initially. The intuitions from which mathematical deduction starts are highly generic notions drawn from observation. The lines and angles of geometers are ideals, and their ideal context is entirely independent of what may be their context in the world; but they are found in the world, and their ideals are suggested by very

common sensations. Had they been invented, by some inexplicable parthenogenesis in thought, it would indeed have been a marvel had they found application. Philosophy has enough notions of this inapplicable sort—usually, however, not very recondite in their origin—to show that dialectic, when it seems to control existence, must have taken more than one hint from the subject world, and that in the realm of logic, too, nothing submits to be governed without representation.

When dialectic is employed, as in ethics and metaphysics, upon highly complex ideas—concretions in discourse which cover large blocks of existence—the dialectician in defining and in deducing often reaches notions which cease to apply in some important respect to the object originally intended. Thus Socrates, taking "courage" for his theme, treats it dialectically and expresses the intent of the word by saying that courage must be good, and then develops the meaning of good, showing that it means the choice of the greater benefit; and finally turns about and ends by saying that courage is consequently the choice of the greater benefit and identical with wisdom. Here we have a process of thought ending in a paradox which, frankly, misrepresents the original meaning. For "courage" meant not merely something desirable but something having a certain animal and psychological aspect. The emotion and gesture of it had not been excluded from the

Confusion comes of imperfect abstraction, or ambiguous intent.

idea. So that while the argument proves to perfection that unwise courage is a bad thing, it does not end with an affirmation really true of the original concept. The instinct which we call courage, with an eye to its psychic and bodily quality, is not always virtuous or wise. Dialectic, when it starts with confused and deep-dyed feelings, like those which ethical and metaphysical terms generally stand for, is thus in great danger of proving unsatisfactory and being or seeming sophistical.

The mathematical dialectician has no such serious dangers to face. When, having observed the sun and sundry other objects, he frames the idea of a circle and tracing out its intent shows that the circle meant cannot be squared, there is no difficulty in reverting to nature and saying that the sun's circle cannot be squared. For there is no difference in intent between the circularity noted in the sun and that which is the subject of the demonstration. The geometer has made in his first reflection so clear and violent an abstraction from the sun's actual bulk and qualities that he will never imagine himself to be speaking of anything but a concretion in discourse. The concretion in nature is never legislated about nor so much as thought of except possibly when, under warrant of sense, it is chosen to illustrate the concept investigated dialectically. It does not even occur to a man to ask if the sun's circle can be squared, for every one understands that the sun

is circular only in so far as it conforms to the circle's ideal nature; which is as if Socrates and his interlocutors had clearly understood that the *virtue* of courage in an intemperate villain meant only whatever in his mood or action was rational and truly desirable, and had then said that courage, so understood, was identical with wisdom or with the truly rational and desirable rule of life.

The applicability of mathematics is not vouched for by mathematics but by sense, and its application in some distant part of nature is not vouched for by mathematics but by inductive arguments about nature's uniformity, or by the character which the notion, "a distant part of nature," already possesses. Inapplicable mathematics, we are told, is perfectly thinkable, and systematic deductions, in themselves valid, may be made from concepts which contravene the facts of perception. We may suspect, perhaps, that even these concepts are framed by analogy out of suggestions found in sense, so that some symbolic relevance or proportion is kept, even in these dislocated speculations, to the matter of experience. It is like a new mythology; the purely fictitious idea has a certain parallelism and affinity to nature and moves in a human and familiar way. Both data and method are drawn from applicable science, elements of which even myth, whether poetic or mathematical, may illustrate by a sort of variant or fantastic reduplication.

The fact that mathematics applies to existence is empirical.

The great glory of mathematics, like that of virtue, is to be useful while remaining free. Number and measure furnish an inexhaustible subject-matter which the mind can dominate and develop dialectically as it is the mind's inherent office to develop ideas. At the same time number and measure are the grammar of sense; and the more this inner logic is cultivated and refined the greater subtlety and sweep can be given to human perception. Astronomy on the one hand and mechanical arts on the other are fruits of mathematics by which its worth is made known even to the layman, although the born mathematician would not need the sanction of such an extraneous utility to attach him to a subject that has an inherent cogency and charm. Ideas, like other things, have pleasure in propagation, and even when allowance is made for birth-pangs and an occasional miscarriage, their native fertility will always continue to assert itself. The more ideal and frictionless the movement of thought is, the more perfect must be the physiological engine that sustains it. The momentum of that silent and secluded growth carries the mind, with a sense of pure disembodied vision, through the logical labyrinth; but the momentum is vital, for the truth itself does not move.

Whether the airy phantoms thus brought into being are valued and preserved by the world is an ulterior point of policy which the pregnant mathematician does not need to consider in bring-

ing to light the legitimate burden of his thoughts. But were mathematics incapable of application, did nature and experience, for instance, illustrate nothing but Parmenides' Being or Hegel's Logic, the dialectical cogency which mathematics would of course retain would not give this science a very high place in the Life of Reason. Mathematics would be an amusement, and though apparently innocent, like a game of patience, it might even turn out to be a wasteful and foolish exercise for the mind; because to deepen habits and cultivate pleasures irrelevant to other interests is a way of alienating ourselves from our general happiness. Distinction and a curious charm there may well be in such a pursuit, but this quality is perhaps traceable to affinities and associations with other more substantial interests, or is due to the ingenious temper it denotes, which touches that of the wit or magician. Mathematics, if it were nothing more than a pleasure, might conceivably become a vice. Those addicted to it might be indulging an atavistic taste at the expense of their humanity. It would then be in the position now occupied by mythology and mysticism. Even as it is, mathematicians share with musicians a certain partiality in their characters and mental development. Masters in one abstract subject, they may remain children in the world; exquisite manipulators of the ideal, they may be erratic and clumsy in their earthly ways. Immense as are the uses and wide

Its moral value is therefore contingent.

the applications of mathematics, its texture is too thin and inhuman to employ the whole mind or render it harmonious. It is a science which Socrates rejected for its supposed want of utility; but perhaps he had another ground in reserve to justify his humorous prejudice. He may have felt that such a science, if admitted, would endanger his thesis about the identity of virtue and knowledge.

Quantity submits easily to dialectical treatment.

Mathematical method has been the envy of philosophers, perplexed and encumbered as they are with the whole mystery of existence, and they have attempted at times to emulate mathematical cogency. Now the lucidity and certainty found in mathematics are not inherent in its specific character as the science of number or dimension; they belong to dialectic as a whole, which is essentially elucidation. The effort to explain meanings is in most cases abortive because these meanings melt in our hands—a defeat which Hegel would fain have consecrated, together with all other evils, into necessity and law. But the merit of mathematics is that it is so much less Hegelian than life; that it holds its own while it advances, and never allows itself to misrepresent its original intent. In all it finds to say about the triangle it never comes to maintain that the triangle is really a square. The privilege of mathematics is simply to have offered the mind, for dialectical treatment, a material to which dia-

lectical treatment could be honestly applied. This material consists in certain general aspects of sensation—its extensity, its pulsation, its distribution into related parts. The wakefulness that originally makes these abstractions is able to keep them clear, and to elaborate them infinitely without contradicting their essence.

For this reason it is always a false step in mathematical science, a step over its brink into the abyss beyond, when we try to reduce its elements to anything not essentially sensible. Intuition must continue to furnish the subject of discourse, the axioms, and the ultimate criteria and sanctions. Calculation and transmutation can never make their own counters or the medium in which they move. So that space, number, continuity, and every other elementary intuition remains at bottom opaque—opaque, that is, to mathematical science; for it is no paradox, but an obvious necessity, that the data of a logical operation should not be producible by its workings. Reason would have nothing to do if it had no irrational materials. Saint Augustine's rhetoric accordingly covered—as so often with him—a profound truth when he said of time that he knew what it was when no one asked him, but if any one asked him he did not know; which may be restated by saying that time is an intuition, an aspect of crude experience, which science may work with but which it can never arrive at.

When a concretion is formed in discourse and

an intent is attained in consciousness, predicates accrue to the subject in a way which is perfectly empirical. Dialectic is not retrospective; it does not consist in recovering ground previously surveyed. The accretion of new predicates comes in answer to chance questions, questions raised, to be sure, about a given theme. The subject is fixed by the mind's intent and it suffices to compare any tentative assertion made about it with that intent itself to see whether the expression suggested for it is truly dialectical and thoroughly honest. Dialectic verifies by reconsideration, by equation of tentative results with fixed intentions. It does not verify, like the sciences of existence, by comparing a hypothesis with a new perception. In dialectic no new *perception* is wanted; the goal is to understand the old fact, to give it an aureole and not a progeny. It is a transubstantiation of matter, a passage from existence to eternity. In this sense dialectic is "synthetic *a priori*"; it analyses an intent which demanded further elucidation and had fixed the direction and principle of its expansion. If this intent is abandoned and a new subject is introduced surreptitiously, a fallacy is committed; yet the correct elucidation of ideas is a true progress, nor could there be any progress unless the original idea were better expressed and elicited as we proceeded; so that constancy in intent and advance in explication are the two requisites of a cogent deduction.

Constancy and progress in intent.

The question in dialectic is always what is true, what can be said, about *this;* and the demonstrative pronoun, indicating an act of selective attention, raises the object it selects to a concretion in discourse, the relations of which in the universe of discourse it then proceeds to formulate. At the same time this dialectical investigation may be full of surprises. Knowledge may be so truly enriched by it that *knowledge,* in an ideal sense, only begins when dialectic has given some articulation to being. Without dialectic an animal might follow instinct, he might have vivid emotions, expectations, and dreams, but he could hardly be said to know anything or to guide his life with conscious intent. The accretions that might come empirically into any field of vision would not be new predicates to be added to a known thing, unless the logical and functional mantle of that thing fell upon them and covered them. While the right of particulars to existence is their own, granted them by the free grace of heaven, their ability to enlarge our knowledge on any particular subject—their relevance or incidence in discourse —hangs on their fulfilling the requirements which that subject's dialectical nature imposes on all its expressions.

Intent determines the functional essence of objects.

It is on this ground, for instance, that the image of a loaf of bread is so far from being the loaf of bread itself. External resemblance is nothing; even psychological derivation or superposi-

tion is nothing; the intent, rather, which picks out what that object's function and meaning shall be, alone defines its idea; and this function involves a locus and a status which the image does not possess. Such admirable iridescence as the image might occasionally put on—in the fine arts, for instance—would not constitute any iridescence or transformation in the thing; nor would identity of aspect preserve the thing if its soul, if its utility, had disappeared. Herein lies the ground for the essential or functional distinction between primary and secondary qualities in things, a distinction which a psychological scepticism has so hastily declared to be untenable. If it was discovered, said these logicians, that space was perceived through reading muscular sensations, space, and the muscles too, were thereby proved to be unreal. This remarkable sophism passed muster in the philosophical world for want of attention to dialectic, which might so easily have shown that what a thing *means* is spatial distinction and mechanical efficacy, and that the origin of our perceptions, which are all equally bodily and dependent on material stimulation, has nothing to do with their respective claims to hypostasis. It is intent that makes objects objects; and the same intent, defining the function of things, defines the scope of those qualities which are essential to them. In the flux substances and shadows drift down together; it is reason that discerns the difference.

Purposes need dialectical articulation as much as essences do, and without an articulate and fixed purpose, without an ideal, action would collapse into mere motion or conscious change. It is notably in this region that elucidation constitutes progress; for to understand the properties of number may be less important than empirically to count; but to see and feel the values of things in all their distinction and fulness is the ultimate fruit of efficiency; it is mastery in that art of life for which all the rest is apprenticeship. Dialectic of this sort is practised intuitively by spiritual minds; and even when it has to be carried on argumentatively it may prove very enlightening. That the excellence of courage is identical with that of wisdom still needs to be driven home; and that the excellence of poetry is identical with that of all other things probably sounds like a blind paradox. Yet did not all excellences conspire to one end and meet in one Life of Reason, how could their relative value be estimated, or any reflective sanction be found for them at all? The miscellaneous, captious fancies of the will, the menagerie of moral prejudices, still call for many a Socrates to tame them. So long as courage means a grimace of mind or body, the love of it is another grimace. But if it meant the value, recognisable by reason and diffused through all life, which that casual attitude or feeling might have, then we should be launched upon the quest for wisdom.

Also the scope of ideals.

The want of integration in moral views is like what want of integration would be in arithmetic if we declared that it was the part of a man and a Christian to maintain that *my* two equals four or that a *green* fifteen is a hundred. These propositions might have incidental lights and shades in people's lives to make them plausible and precious; but they could not be maintained by one who had clarified his intent in naming and adding. For then the arithmetical relations would be abstracted, and their incidental associates would drop out of the account. So a man who is in pursuit of things for the good that is in them must recognise and (if reason avails) must pursue what is good in them all. Strange customs and unheard-of thoughts may then find their appropriate warrant; just as in higher mathematical calculations very wonderful and unforeseen results may be arrived at, which a man will not accept without careful reconsideration of the terms and problem before him; but if he finds the unexpected conclusion flowing from those premises, he will have enlarged his knowledge of his art and discovered a congenial good. He will have made progress in the Socratic science of knowing his own intent.

Double status of mathematics.

Mathematics, for all its applications in nature, is a part of ideal philosophy. It is logic applied to certain simple intuitions. These intuitions and many of their developments happen to appear in that effi-

cacious and self-sustaining moiety of being which we call material; so that mathematics is *per accidens* the dialectical study of nature's efficacious form. Its use and application in the world rather hide its dialectical principle. Mathematics owes its public success to the happy choice of a simple and widely diffused subject-matter; it owes its inner cogency, however, to its ideality and the merely adventitious application it has to existence. Mathematics has come to seem the type of good logic because it is an illustration of logic in a sphere so highly abstract in idea and so pervasive in sense as to be at once manageable and useful.

The delights and triumphs of mathematics ought, therefore, to be a great encouragement to ideal philosophy. If in a comparatively uninteresting field attention can find so many treasures of harmony and order, what beauties might it not discover in interpreting faithfully ideas nobler than extension and number, concretions closer to man's spiritual life? But unfortunately the logic of values is subject to voluntary and involuntary confusions of so discouraging a nature that the flight of dialectic in that direction has never been long and, even when short, often disastrous. What is needed, as the example of mathematics shows, is a steadfast intent and an adventurous inquiry. It would not occur to a geometer to ask with trepidation what difference it would make to the Pythagorean proposition if the hypothenuse were said to be wise and good. Yet metaphysi-

cians, confounding dialectic with physics and thereby corrupting both, will discuss for ever the difference it makes to substance whether you call it matter or God. Nevertheless, no decorative epithets can give substance any other attributes than those which it has; that is, other than the actual appearances that substance is needed to support. Similarly, neither mathematicians nor astronomers are exercised by the question whether π created the ring of Saturn; yet naturalists and logicians have not rejected the analogous problem whether the good did or did not create the animals.

So long as in using terms there is no fixed intent, no concretion in discourse with discernible predicates, controversy will rage as conceptions waver and will reach no valid result. But when the force of intellect, once having arrested an idea amid the flux of perceptions, avails to hold and examine that idea with perseverance, not only does a flash of light immediately cross the mind, but deeper and deeper vistas are opened there into ideal truth. The principle of dialectic is intelligence itself; and as no part of man's economy is more vital than intelligence (since intelligence is what makes life aware of its destiny), so no part has a more delightful or exhilarating movement. To understand is pre-eminently to live, moving not by stimulation and external compulsion, but by inner direction and control. Dialectic is related to observation as art is to industry; it uses what the

Practical rôle of dialectic.

other furnishes; it is the fruition of experience. It is not an alternative to empirical pursuits but their perfection; for dialectic, like art, has no special or private subject-matter, nor any obligation to be useless. Its subject-matter is all things, and its function is to compare them in form and worth, giving the mind speculative dominion over them. It profits by the flux to fix its signification. This is precisely what mathematics does for the abstract form and multitude of sensible things; it is what dialectic might do everywhere, with the same incidental utility, if it could settle its own attitude and learn to make the passions steadfast and calm in the consciousness of their ultimate objects.

Hegel's satire on dialectic.

The nature of dialectic might be curiously illustrated by reference to Hegel's Logic; and though to approach the subject from Hegel's satirical angle is not, perhaps, quite honest or fair, the method has a certain spice. Hegel, who despised mathematics, saw that in other departments the instability of men's meanings defeated their desire to understand themselves. This insecurity in intent he found to be closely connected with change of situation, with the natural mutability of events and opinions in the world. Instead of showing, however, what inroads passion, oblivion, sophistry, and frivolity may make into dialectic, he bethought himself to represent all these incoherences, which are indeed significant of natural changes, as the march of

dialectic itself, thus identified with the process of evolution and with natural law. The romance of an unstable and groping theology, full of warm intentions and impossible ideas, he took to be typical of all experience and of all science.

In that impressionable age any effect of *chiaro-oscuro* caught in the moonlight of history could find a philosopher to exalt it into the darkly luminous secret of the world. Hegel accordingly decreed that men's habit of self-contradiction constituted their providential function, both in thought and in morals; and he devoted his Logic to showing how every idea they embraced (for he never treated an idea otherwise than as a creed), when pressed a little, turned into its opposite. This opposite after a while would fall back into something like the original illusion; whereupon a new change of insight would occur and a new thought would be accepted until, the landscape changing, attention would be attracted to a fresh aspect of the matter and conviction would wander into a new labyrinth of false steps and half-meanings. The sum total of these wanderings, when viewed from above, formed an interesting picture. A half-mystical, half-cynical reflection might take a certain pleasure in contemplating it; especially if, in memory of Calvin and the Stoics, this situation were called the expression of Absolute Reason and Divine Will.

We may think for a moment that we have grasped the elusive secret of this philosophy and

that it is simply a Calvinism without Christianity, in which God's glory consists in the damnation of quite all his creatures. Presently, however, the scene changes again, and we recognise that Creator and creation, ideal and process, are identical, so that the glory belongs to the very multitude that suffers. But finally, as we rub our eyes, the whole revelation collapses into a platitude, and we discover that this glory and this damnation were nothing but unctuous phrases for the vulgar flux of existence.

That nothing is what we mean by it is perfectly true when we in no case know what we mean. Thus a man who is a mystic by nature may very well become one by reflection also. Not knowing what he wants nor what he is, he may believe that every shift carries him nearer to perfection. A temperamental and quasi-religious thirst for inconclusiveness and room to move on lent a certain triumphant note to Hegel's satire; he was sure it all culminated in something, and was not sure it did not culminate in himself. The system, however, as it might strike a less egotistical reader, is a long demonstration of man's ineptitude and of nature's contemptuous march over a path paved with good intentions. It is an idealism without respect for ideals; a system of dialectic in which a psychological flux (not, of course, psychological science, which would involve terms dialectically fixed and determinate) is made systematically to obliterate intended meanings.

This spirited travesty of logic has enough historical truth in it to show that dialectic must always stand, so to speak, on its apex; for life is changeful, and the vision and interest of one moment are not understood in the next. Theological dialectic rings hollow when once faith is dead; grammar looks artificial when a language is foreign; mathematics itself seems shallow when, like Hegel, we have no love for nature's intelligible mechanism nor for the clear structure and constancy of eternal things. Ideal philosophy is a flower of the spirit and varies with the soil. If mathematics suffers so little contradiction, it is only because the primary aspects of sensation which it elaborates could not lapse from the world without an utter break in its continuity. Otherwise though mathematics might not be refuted it might well be despised, like an obsolete ontology. Its boasted necessity and universality would not help it at all if experience should change so much as to present no further mathematical aspect. Those who expect to pass at death into a non-spatial and supertemporal world, where there will be no detestable extended and unthinking substances, and nothing that need be counted, will find their hard-learned mathematics sadly superfluous there. The memory of earthly geometry and arithmetic will grow pale amid that floating incense and music, where dialectic, if it survives at all, will have to busy itself on new intuitions.

Dialectic expresses a given intent.

So, too, when the landscape changes in the moral world, when new passions or arts make their appearance, moral philosophy must start afresh on a new foundation and try to express the ideals involved in the new pursuits. To this extent experience lends colour to Hegel's dialectical physics; but he betrayed, like the sincere pantheist he was, the finite interests that give actual values to the world, and he wished to bestow instead a groundless adoration on the law that connected and defeated every ideal. Such a genius, in spite of incisive wit and a certain histrionic sympathy with all experience, could not be truly free; it could not throw off its professional priestcraft, its habit of ceremonious fraud on the surface, nor, at heart, its inhuman religion.

Its empire is ideal and autonomous.

The sincere dialectician, the genuine moralist, must stand upon human, Socratic ground. Though art be long, it must take a short life for its basis and an actual interest for its guide. The liberal dialectician has the gift of conversation; he does not pretend to legislate from the throne of Jehovah about the course of affairs, but asks the ingenuous heart to speak for itself, guiding and checking it only in its own interest. The result is to express a given nature and to cultivate it; so that whenever any one possessing such a nature is born into the world he may use this calculation, and more easily understand and justify his mind. Of course, if experience were no longer the same, and faculties had

entirely varied, the former interpretation could no longer serve. Where nature shows a new principle of growth the mind must find a new method of expression, and move toward other goals. Ideals are not forces stealthily undermining the will; they are possible forms of being that would frankly express it. These forms are invulnerable, eternal, and free; and he who finds them divine and congenial and is able to embody them at least in part and for a season, has to that extent transfigured life, turning it from a fatal process into a liberal art.

CHAPTER VIII

PRERATIONAL MORALITY

Empirical alloy in dialectic.

When a polyglot person is speaking, foreign words sometimes occur to him, which he at once translates into the language he happens to be using. Somewhat in the same way, when dialectic develops an idea, suggestions for this development may come from the empirical field; yet these suggestions soon shed their externality and their place is taken by some genuine development of the original notion. In constructing, for instance, the essence of a circle, I may have started from a hoop. I may have observed that as the hoop meanders down the path the roundness of it disappears to the eye, being gradually flattened into a straight line, such as the hoop presents when it is rolling directly away from me. I may now frame the idea of a mathematical circle, in which all diameters are precisely equal, in express contrast to the series of ellipses, with very unequal diameters, which the floundering hoop has illustrated in its career. When once, however, the definition of the circle is attained, no watching of hoops is any longer requisite. The ellipse can be generated ideally out of the definition, and would have been generated,

like asymptotes and hyperbolas, even if never illustrated in nature at all. Lemmas from a foreign tongue have only served to disclose a great fecundity in the native one, and the legitimate word that the context required has supplanted the casual stranger that may first have ushered it into the mind.

When the idea which dialectic is to elaborate is a moral idea, a purpose touching something in the concrete world, lemmas from experience often play a very large part in the process. Their multitude, with the small shifts in aspiration and esteem which they may suggest to the mind, often obscures the dialectical process altogether. In this case the foreign term is never translated into the native medium; we never make out what ideal connection our conclusion has with our premises, nor in what way the conduct we finally decide upon is to fulfil the purpose with which we began. Reflection merely beats about the bush, and when a sufficient number of prejudices and impulses have been driven from cover, we go home satisfied with our day's ranging, and feeling that we have left no duty unconsidered; and our last bird is our final resolution.

When morality is in this way non-dialectical, casual, impulsive, polyglot, it is what we may call prerational morality. There is indeed reason in it, since every deliberate precept expresses some reflection by which impulses have been compared and modi-

Arrested rationality in morals.

fied. But such chance reflection amounts to moral perception, not to moral science. Reason has not begun to educate her children. This morality is like knowing chairs from tables and things near from distant things, which is hardly what we mean by natural science. On this stage, in the moral world, are the judgments of Mrs. Grundy, the aims of political parties and their maxims, the principles of war, the appreciation of art, the commandments of religious authorities, special revelations of duty to individuals, and all systems of intuitive ethics.

Its emotional and practical power.

Prerational morality is vigorous because it is sincere. Actual interests, rooted habits, appreciations the opposite of which is inconceivable and contrary to the current use of language, are embodied in special precepts; or they flare up of themselves in impassioned judgments. It is hardly too much to say, indeed, that prerational morality is morality proper. Rational ethics, in comparison, seems a kind of politics or wisdom, while postrational systems are essentially religions. If we thus identify morality with prerational standards, we may agree also that morality is no science in itself, though it may become, with other matters, a subject for the science of anthropology; and Hume, who had never come to close quarters with any rational or postrational ideal, could say with perfect truth that morality was not founded on reason. Instinct is of course not founded on rea-

son, but *vice versa;* and the maxims enforced by tradition or conscience are unmistakably founded on instinct. They might, it is true, become materials for reason, if they were intelligently accepted, compared, and controlled; but such a possibility reverses the partisan and spasmodic methods which Hume and most other professed moralists associate with ethics. Hume's own treatises on morals, it need hardly be said, are pure psychology. It would have seemed to him conceited, perhaps, to inquire what ought really to be done. He limited himself to asking what men tended to think about their doings.

The chief expression of rational ethics which a man in Hume's world would have come upon lay in the Platonic and Aristotelian writings; but these were not then particularly studied nor vitally understood. The chief illustration of postrational morality that could have fallen under his eyes, the Catholic religion, he would never have thought of as a philosophy of life, but merely as a combination of superstition and policy, well adapted to the lying and lascivious habits of Mediterranean peoples. Under such circumstances ethics could not be thought of as a science; and whatever gradual definition of the ideal, whatever prescription of what ought to be and to be done, found a place in the thoughts of such philosophers formed a part of their politics or religion and not of their reasoned knowledge.

There is, however, a dialectic of the will; and

that is the science which, for want of a better name, we must call ethics or moral philosophy. The interweaving of this logic of practice with various natural sciences that have man or society for their theme, leads to much confusion in terminology and in point of view. Is the good, we may ask, what anybody calls good at any moment, or what anybody calls good on reflection, or what all men agree to call good, or what God calls good, no matter what all mankind may think about it? Or is true good something that perhaps nobody calls good nor knows of, something with no other characteristic or relation except that it is simply good?

Moral science is an application of dialectic, not a part of anthropology.

Various questions are involved in such perplexing alternatives; some are physical questions and others dialectical. Why any one values anything at all, or anything in particular, is a question of physics; it asks for the causes of interest, judgment, and desire. To esteem a thing good is to express certain affinities between that thing and the speaker; and if this is done with self-knowledge and with knowledge of the thing, so that the felt affinity is a real one, the judgment is invulnerable and cannot be asked to rescind itself. Thus if a man said hemlock was good to drink, we might say he was mistaken; but if he explained that he meant good to drink in committing suicide, there would be nothing pertinent left to say: for to adduce that to commit suicide is not good would

be impertinent. To establish that, we should have to go back and ask him if he valued anything—life, parents, country, knowledge, reputation; and if he said no, and was sincere, our mouths would be effectually stopped—that is, unless we took to declamation. But we might very well turn to the bystanders and explain what sort of blood and training this man possessed, and what had happened among the cells and fibres of his brain to make him reason after that fashion. The causes of morality, good or bad, are physical, seeing that they are causes.

The science of ethics, however, has nothing to do with causes, not in that it need deny or ignore them but in that it is their fruit and begins where they end. Incense rises from burning coals, but it is itself no conflagration, and will produce none. What ethics asks is not why a thing is called good, but whether it is good or not, whether it is right or not so to esteem it. Goodness, in this ideal sense, is not a matter of opinion, but of nature. For intent is at work, life is in active operation, and the question is whether the thing or the situation responds to that intent. So if I ask, Is four really twice two? the answer is not that most people say so, but that, in saying so, I am not misunderstanding myself. To judge whether things are *really* good, intent must be made to speak; and if this intent may itself be judged later, that happens by virtue of other intents comparing the first with their own direction.

Hence good, when once the moral or dialectical attitude has been assumed, means not what is called good but what is so; that is, what *ought* to be called good. For intent, beneath which there is no moral judgment, sets up its own standard, and ideal science begins on that basis, and cannot go behind it to ask why the obvious good is good at all. Naturally, there is a reason, but not a moral one; for it lies in the physical habit and necessity of things. The reason is simply the propulsive essence of animals and of the universal flux, which renders forms possible but unstable, and either helpful or hurtful to one another. That nature should have this constitution, or intent this direction, is not a good in itself. It is esteemed good or bad as the intent that speaks finds in that situation a support or an obstacle to its ideal. As a matter of fact, nature and the very existence of life cannot be thought wholly evil, since no intent is wholly at war with these its conditions; nor can nature and life be sincerely regarded as wholly good, since no moral intent stops at the facts; nor does the universal flux, which infinitely overflows any actual synthesis, altogether support any intent it may generate.

Estimation the soul of philosophy.

Philosophers would do a great discourtesy to estimation if they sought to justify it. It is all other acts that need justification by this one. The good greets us initially in every experience and in every object. Remove from anything its share of excel-

lence and you have made it utterly insignificant, irrelevant to human discourse, and unworthy of even theoretic consideration. Value is the principle of perspective in science, no less than of rightness in life. The hierarchy of goods, the architecture of values, is the subject that concerns man most. Wisdom is the first philosophy, both in time and in authority; and to collect facts or to chop logic would be idle and would add no dignity to the mind, unless that mind possessed a clear humanity and could discern what facts and logic are good for and what not. The facts would remain facts and the truths truths; for of course values, accruing on account of animal souls and their affections, cannot possibly create the universe those animals inhabit. But both facts and truths would remain trivial, fit to awaken no pang, no interest, and no rapture. The first philosophers were accordingly sages. They were statesmen and poets who knew the world and cast a speculative glance at the heavens, the better to understand the conditions and limits of human happiness. Before their day, too, wisdom had spoken in proverbs. *It is better,* every adage began: *Better this than that.* Images or symbols, mythical or homely events, of course furnished subjects and provocations for these judgments; but the residuum of all observation was a settled estimation of things, a direction chosen in thought and life because it was better. Such was philosophy in the beginning and such is philosophy still.

To one brought up in a sophisticated society, or in particular under an ethical religion, morality seems at first an external command, a chilling and arbitrary set of requirements and prohibitions which the young heart, if it trusted itself, would not reckon at a penny's worth. Yet while this rebellion is brewing in the secret conclave of the passions, the passions themselves are prescribing a code. They are inventing gallantry and kindness and honour; they are discovering friendship and paternity. With maturity comes the recognition that the authorised precepts of morality were essentially not arbitrary; that they expressed the genuine aims and interests of a practised will; that their alleged alien and supernatural basis (which if real would have deprived them of all moral authority) was but a mythical cover for their forgotten natural springs. Virtue is then seen to be admirable essentially, and not merely by conventional imputation. If traditional morality has much in it that is out of proportion, much that is unintelligent and inert, nevertheless it represents on the whole the verdict of reason. It speaks for a typical human will chastened by a typical human experience.

Moral discriminations are natural and inevitable.

Gnomic wisdom, however, is notoriously polychrome, and proverbs depend for their truth entirely on the occasion they are applied to. Almost every wise saying has an opposite one, no less wise, to balance it; so that a

A choice of proverbs.

man rich in such lore, like Sancho Panza, can always find a venerable maxim to fortify the view he happens to be taking. In respect to foresight, for instance, we are told, Make hay while the sun shines, A stitch in time saves nine, Honesty is the best policy, Murder will out, Woe unto you, ye hypocrites, Watch and pray, Seek salvation with fear and trembling, and *Respice finem.* But on the same authorities exactly we have opposite maxims, inspired by a feeling that mortal prudence is fallible, that life is shorter than policy, and that only the present is real; for we hear, A bird in the hand is worth two in the bush, *Carpe diem, Ars longa, vita brevis,* Be not righteous overmuch, Enough for the day is the evil thereof, Behold the lilies of the field, Judge not, that ye be not judged, Mind your own business, and It takes all sorts of men to make a world. So when some particularly shocking thing happens one man says, *Cherchez la femme,* and another says, Great is Allah.

That these maxims should be so various and partial is quite intelligible when we consider how they spring up. Every man, in moral reflection, is animated by his own intent; he has something in view which he prizes, he knows not why, and which wears to him the essential and unquestionable character of a good. With this standard before his eyes, he observes easily—for love and hope are extraordinarily keen-sighted—what in action or in circumstances forwards his purpose

and what thwarts it; and at once the maxim comes, very likely in the language of the particular instance before him. Now the interests that speak in a man are different at different times; and the outer facts or measures which in one case promote that interest may, where other less obvious conditions have changed, altogether defeat it. Hence all sorts of precepts looking to all sorts of results.

Their various representative value.

Prescriptions of this nature differ enormously in value; for they differ enormously in scope. By chance, or through the insensible operation of experience leading up to some outburst of genius, intuitive maxims may be so central, so expressive of ultimate aims, so representative, I mean, of all aims in fusion, that they merely anticipate what moral science would have come to if it had existed. This happens much as in physics ultimate truths may be divined by poets long before they are discovered by investigators; the *vivida vis animi* taking the place of much recorded experience, because much unrecorded experience has secretly fed it. Such, for instance, is the central maxim of Christianity, Love thy neighbour as thyself. On the other hand, what is usual in intuitive codes is a mixture of some elementary precepts, necessary to any society, with others representing local traditions or ancient rites: so Thou shalt not kill, and Thou shalt keep holy the Sabbath day, figure side by side in the Decalogue. When Antig-

one, in her sublimest exaltation, defies human enactments and appeals to laws which are not of to-day nor yesterday, no man knowing whence they have arisen, she mixes various types of obligation in a most instructive fashion; for a superstitious horror at leaving a body unburied—something decidedly of yesterday—gives poignancy in her mind to natural affection for a brother—something indeed universal, yet having a well-known origin. The passionate assertion of right is here, in consequence, more dramatic than spiritual; and even its dramatic force has suffered somewhat by the change in ruling ideals.

Conflict of partial moralities.

The disarray of intuitive ethics is made painfully clear in the conflicts which it involves when it has fostered two incompatible growths in two centres which lie near enough to each other to come into physical collision. Such ethics has nothing to offer in the presence of discord except an appeal to force and to ultimate physical sanctions. It can instigate, but cannot resolve, the battle of nations and the battle of religions. Precisely the same zeal, the same patriotism, the same readiness for martyrdom fires adherents to rival societies, and fires them especially in view of the fact that the adversary is no less uncompromising and fierce. It might seem idle, if not cruel and malicious, to wish to substitute one historical allegiance for another, when both are equally arbitrary, and the existing one is the more congenial

to those born under it; but to feel this aggression to be criminal demands some degree of imagination and justice, and sectaries would not be sectaries if they possessed it.

Truly religious minds, while eager perhaps to extirpate every religion but their own, often rise above national jealousies; for spirituality is universal, whatever churches may be. Similarly politicians often understand very well the religious situation; and of late it has become again the general practice among prudent governments to do as the Romans did in their conquests, and to leave people free to exercise what religion they have, without pestering them with a foreign one. On the other hand the same politicians are the avowed agents of a quite patent iniquity; for what is their ideal? To substitute their own language, commerce, soldiers, and tax-gatherers for the tax-gatherers, soldiers, commerce, and language of their neighbours; and no means is thought illegitimate, be it fraud in policy or bloodshed in war, to secure this absolutely nugatory end. Is not one country as much a country as another? Is it not as dear to its inhabitants? What then is gained by oppressing its genius or by seeking to destroy it altogether?

Here are two flagrant instances where prerational morality defeats the ends of morality. Viewed from within, each religious or national fanaticism stands for a good; but in its outward operation it produces and becomes an evil. It is

possible, no doubt, that its agents are really so far apart in nature and ideals that, like men and mosquitoes, they can stand in physical relations only, and if they meet can meet only to poison or to crush one another. More probably, however, humanity in them is no merely nominal essence; it is definable ideally, as essences are defined, by a partially identical function and intent. In that case, by studying their own nature, they could rise above their mutual opposition, and feel that in their fanaticism they were taking too contracted a view of their own souls and were hardly doing justice to themselves when they did such great injustice to others.

The Greek ideal.

How prerational morality may approach the goal, and miss it, is well illustrated in the history of Hellenism. Greek morals may be said to have been inspired by two prerational sentiments, a naturalistic religion and a local patriotism. Could Plato have succeeded in making that religion moral, or Alexander in universalising that patriotism, perhaps Greece might have been saved and we might all be now at a very different level of civilisation. Both Plato and Alexander failed, in spite of the immense and lasting influence of their work; for in both cases the after-effects were spurious, and the new spirit was smothered in the dull substances it strove to vivify.

Greek myth was an exuberant assertion of the rights of life in the universe. Existence could

not but be joyful and immortal, if it had once found, in land, sea, or air, a form congruous with that element. Such congruity would render a being stable, efficient, beautiful. He would achieve a perfection grounded in skilful practice and in a thorough rejection of whatever was irrelevant. These things the Greeks called virtue. The gods were perfect models of this kind of excellence; for of course the amours of Zeus and Hermes' trickery were, in their hearty fashion, splendid manifestations of energy. This natural divine virtue carried no sense of responsibility with it, but it could not fail to diffuse benefit because it radiated happiness and beauty. The worshipper, by invoking those braver inhabitants of the cosmos, felt he might more easily attain a corresponding beauty and happiness in his paternal city.

Imaginative exuberance and political discipline.

The source of myth had been a genial sympathy with nature. The observer, at ease himself, multiplied ideally the potentialities of his being; but he went farther in imagining what life might yield abroad, freed from every trammel and necessity, than in deepening his sense of what life was in himself, and of what it ought to be. This moral reflection, absent from mythology, was supplied by politics. The family and the state had a soberer antique religion of their own; this hereditary piety, together with the laws, prescribed education, customs, and duties. The city drew its

walls close about the heart, and while it fostered friendship and reason within, without it looked to little but war. A splendid physical and moral discipline was established to serve a suicidal egoism. The city committed its crimes, and the individual indulged his vices of conduct and estimation, hardly rebuked by philosophy and quite unrebuked by religion. Nevertheless, religion and philosophy existed, together with an incomparable literature and art, and an unrivalled measure and simplicity in living. A liberal fancy and a strict civic regimen, starting with different partial motives and blind purposes, combined by good fortune into an almost rational life.

It was inevitable, however, when only an irrational tradition supported the state, and kept it so weak amid a world of enemies, that this state should succumb; not to speak of the mean animosities, the license in life, and the spirit of mockery that inwardly infested it. The myths, too, faded; they had expressed a fleeting moment of poetic insight, as patriotism had expressed a fleeting moment of unanimous effort; but what force could sustain such accidental harmonies? The patriotism soon lost its power to inspire sacrifice, and the myth its power to inspire wonder; so that the relics of that singular civilisation were scattered almost at once in the general flood of the world.

The Greek ideal has fascinated many men in all ages, who have sometimes been in a position

to set a fashion, so that the world in general has pretended also to admire. But the truth is Hellas, in leaving so many heirlooms to mankind, has left no constitutional benefit; it has taught the conscience no lesson. We possess a great heritage from Greece, but it is no natural endowment. An artistic renaissance in the fifteenth century and a historical one in the nineteenth have only affected the trappings of society. The movement has come from above. It has not found any response in the people. While Greek morality, in its contents or in the type of life it prescribes, comes nearer than any other prerational experiment to what reason might propose, yet it has been less useful than many other influences in bringing the Life of Reason about. The Christian and the Moslem, in refining their more violent inspiration, have brought us nearer to genuine goodness than the Greek could by his idle example. Classic perfection is a seedless flower, imitable only by artifice, not reproducible by generation. It is capable of influencing character only through the intellect, the means by which character can be influenced least. It is a detached ideal, responding to no crying and actual demand in the world at large. It never passed, to win the right of addressing mankind, through a sufficient novitiate of sorrow.

Sterility of Greek example.

The Hebrews, on the contrary, who in comparison with the Greeks had a barbarous idea of hap-

piness, showed far greater moral cohesion under the pressure of adversity. They integrated their purposes into a fanaticism, but they integrated them; and the integrity that resulted became a mighty example. It constituted an ideal of character not the less awe-inspiring for being merely formal. We need not marvel that abstract commandments should have impressed the world more than concrete ideals. To appreciate an ideal, to love and serve it in the full light of science and reason, would require a high intelligence, and, what is rarer still, noble affinities and renunciations which are not to be looked for in an undisciplined people. But to feel the truth and authority of an abstract maxim (as, for instance, Do right and shame the devil), a maxim applicable to experience on any plane, nothing is needed but a sound wit and common honesty. Men know better what is right and wrong than what is ultimately good or evil; their conscience is more vividly present to them than the fruits which obedience to conscience might bear; so that the logical relation of means to ends, of methods to activities, eludes them altogether. What is a necessary connection between the given end, happiness, and the normal life naturally possessing it, appears to them as a miraculous connection between obedience to God's commands and enjoyment of his favour. The evidence of this miracle astonishes them and fills them with zeal. They are strengthened to per-

Prerational morality among the Jews.

severe in righteousness under any stress of misfortune, in the assurance that they are being put to a temporary test and that the reward promised to virtue will eventually be theirs.

The development of conscience.

Thus a habit of faithfulness, a trust in general principles, is fostered and ingrained in generation after generation—a rare and precious heritage for a race so imperfectly rational as the human. Reason would of course justify the same constancy in well-doing, since a course of conduct would not be right, but wrong, if its ultimate issue were human misery. But as the happiness secured by virtue may be remote and may demand more virtue to make it appreciable, the mere rationality of a habit gives it no currency in the world and but little moral glow in the conscience. We should not, therefore, be too much offended at the illusions which play a part in moral integration. Imagination is often more efficacious in reaching the gist and meaning of experience than intelligence can be, just because imagination is less scrupulous and more instinctive. Even physical discoveries, when they come, are the fruit of divination, and Columbus had to believe he might sail westward to India before he could actually hit upon America. Reason cannot create itself, and nature, in producing reason, has to feel her way experimentally. Habits and chance systems of education have to arise first and exercise upon individuals an irrational suasion favourable to rational ends. Men long live in

substantial harmony with reality before they recognise its nature. Organs long exist before they reach their perfect function. The fortunate instincts of a race destined to long life and rationality express themselves in significant poetry before they express themselves in science.

The service which Hebraism has rendered to mankind has been instrumental, as that rendered by Hellenism has been imaginative. Hebraism has put earnestness and urgency into morality, making it a matter of duty, at once private and universal, rather than what paganism had left it, a mass of local allegiances and legal practices. The Jewish system has, in consequence, a tendency to propaganda and intolerance; a tendency which would not have proved nefarious had this religion always remained true to its moral principle; for morality is coercive and no man, being autonomous, has a right to do wrong. Conscience, thus reinforced by religious passion, has been able to focus a general abhorrence on certain great scandals—slavery and sodomy could be practically suppressed among Christians, and drunkenness among Moslems. The Christian principle of charity also owed a part of its force to Hebraic tradition. For the law and the prophets were full of mercy and loving kindness toward the faithful. What Moses had taught his people Christ and his Hellenising disciples had the beautiful courage to preach to all mankind. Yet this virtue of charity, on its subtler and more

metaphysical side, belongs to the spirit of redemption, to that ascetic and quasi-Buddhistic element in Christianity to which we shall presently revert. The pure Jews can have no part in such insight, because it contradicts the positivism of their religion and character and their ideal of worldly happiness.

Need of Hebraic devotion to Greek aims.

As the human body is said to change all its substance every seven years, and yet is the same body, so the Hebraic conscience might change all its tenets in seven generations and be the same conscience still. Could this abstract moral habit, this transferable earnestness, be enlisted in rational causes, the Life of Reason would have gained a valuable instrument. Men would possess the "single eye," and the art, so difficult to an ape-like creature with loose moral feelings, of acting on principle. Could the vision of an adequate natural ideal fall into the Hebraising mind, already aching for action and nerved to practical enthusiasm, that ideal vision might become efficacious and be largely realised in practice. The abstract power of self-direction, if enlightened by a larger experience and a more fertile genius, might give the Life of Reason a public embodiment such as it has not had since the best days of classic antiquity. Thus the two prerational moralities out of which European civilisation has grown, could they be happily superposed, would make a rational polity.

The objects of human desire, then, until reason has compared and experience has tested them, are a miscellaneous assortment of goods, unstable in themselves and incompatible with one another. It is a happy chance if a tolerable mixture of them recommends itself to a prophet or finds an adventitious acceptance among a group of men. Intuitive morality is adequate while it simply enforces those obvious and universal laws which are indispensable to any society, and which impose themselves everywhere on men under pain of quick extinction—a penalty which many an individual and many a nation continually prefers to pay. But when intuitive morality ventures upon speculative ground and tries to guide progress, its magic fails. Ideals are tentative and have to be critically viewed. A moralist who rests in his intuitions may be a good preacher, but hardly deserves the name of philosopher. He cannot find any authority for his maxims which opposite maxims may not equally invoke. To settle the relative merits of rival authorities and of hostile consciences it is necessary to appeal to the only real authority, to experience, reason, and human nature in the living man. No other test is conceivable and no other would be valid; for no good man would ever consent to regard an authority as divine or binding which essentially contradicted his own conscience. Yet a conscience which is irreflective and incorrigible is too hastily

Prerational morality marks an acquisition but offers no programme.

satisfied with itself, and not conscientious enough: it needs cultivation by dialectic. It neglects to extend to all human interests that principle of synthesis and justice by which conscience itself has arisen. And so soon as the conscience summons its own dicta for revision in the light of experience and of universal sympathy, it is no longer called conscience, but reason. So, too, when the spirit summons its traditional faiths, to subject them to a similar examination, that exercise is not called religion, but philosophy. It is true, in a sense, that philosophy is the purest religion and reason the ultimate conscience; but so to name them would be misleading. The things commonly called by those names have seldom consented to live at peace with sincere reflection. It has been felt vaguely that reason could not have produced them, and that they might suffer sad changes by submitting to it; as if reason could be the *ground* of anything, or as if everything might not find its consummation in becoming rational.

CHAPTER IX

RATIONAL ETHICS

In moral reprobation there is often a fanatical element, I mean that hatred which an animal may sometimes feel for other animals on account of their strange aspect, or because their habits put him to serious inconvenience, or because these habits, if he himself adopted them, might be vicious in him. Such aversion, however, is not a rational sentiment. No fault can be justly found with a creature merely for not resembling another, or for flourishing in a different physical or moral environment. It has been an unfortunate consequence of mythical philosophies that moral emotions have been stretched to objects with which a man has only physical relations, so that the universe has been filled with monsters more or less horrible, according as the forces they represented were more or less formidable to human life. In the same spirit, every experiment in civilisation has passed for a crime among those engaged in some other experiment. The foreigner has seemed an insidious rascal, the heretic a pestilent sinner, and any material ob-

Moral passions represent private interests.

stacle a literal devil; while to possess some unusual passion, however innocent, has brought obloquy on every one unfortunate enough not to be constituted like the average of his neighbours.

Ethics, if it is to be a science and not a piece of arbitrary legislation, cannot pronounce it sinful in a serpent to be a serpent; it cannot even accuse a barbarian of loving a wrong life, except in so far as the barbarian is supposed capable of accusing himself of barbarism. If he is a perfect barbarian he will be inwardly, and therefore morally, justified. The notion of a barbarian will then be accepted by him as that of a true man, and will form the basis of whatever rational judgments or policy he attains. It may still seem dreadful to him to be a serpent, as to be a barbarian might seem dreadful to a man imbued with liberal interests. But the degree to which moral science, or the dialectic of will, can condemn any type of life depends on the amount of disruptive contradiction which, at any reflective moment, that life brings under the unity of apperception. The discordant impulses therein confronted will challenge and condemn one another; and the court of reason in which their quarrel is ventilated will have authority to pronounce between them.

The physical repulsion, however, which everybody feels to habits and interests which he is incapable of sharing is no part of rational estimation, large as its share may be in the fierce preju-

dices and superstitions which prerational morality abounds in. The strongest feelings assigned to the conscience are not moral feelings at all; they express merely physical antipathies.

Toward alien powers a man's true weapon is not invective, but skill and strength. An obstacle is an obstacle, not a devil; and even a moral life, when it actually exists in a being with hostile activities, is merely a hostile power. It is not hostile, however, in so far as it is moral, but only in so far as its morality represents a material organism, physically incompatible with what the thinker has at heart.

Material conflicts cannot be abolished by reason, because reason is powerful only where they have been removed. Yet where opposing forces are able mutually to comprehend and respect one another, common ideal interests at once supervene, and though the material conflict may remain irrepressible, it will be overlaid by an intellectual life, partly common and unanimous. In this lies the chivalry of war, that we acknowledge the right of others to pursue ends contrary to our own. Competitors who are able to feel this ideal comity, and who leading different lives in the flesh lead the same life in imagination, are incited by their mutual understanding to rise above that material ambition, perhaps gratuitous, that has made them enemies. They may ultimately wish to renounce that temporal good which de-

Common ideal interests may supervene.

prives them of spiritual goods in truth infinitely greater and more appealing to the soul—innocence, justice, and intelligence. They may prefer an enlarged mind to enlarged frontiers, and the comprehension of things foreign to the destruction of them. They may even aspire to detachment from those private interests which, as Plato said,* do not deserve to be taken too seriously; the fact that we must take them seriously being the ignoble part of our condition.

Of course such renunciations, to be rational, must not extend to the whole material basis of life, since some physical particularity and efficiency are requisite for bringing into being that very rationality which is to turn enemies into friends. The need of a material basis for spirit is what renders partial war with parts of the world the inevitable background of charity and justice. The frontiers at which this warfare is waged may, however, be pushed back indefinitely. Within the sphere organised about a firm and generous life a Roman peace can be established. It is not what is assimilated that saps a creative will, but what remains outside that ultimately invades and disrupts it. In exact proportion to its vigour, it wins over former enemies, civilises the barbarian, and even tames the viper, when the eye is masterful and sympathetic enough to dispel hatred and fear. The more rational an institution is the less it suffers by making conces-

*Laws. VII. 803. B.

sions to others; for these concessions, being just, propagate its essence. The ideal commonwealth can extend to the limit at which such concessions cease to be just and are thereby detrimental. Beyond or below that limit strife must continue for physical ascendancy, so that the power and the will to be reasonable may not be undermined. Reason is an operation in nature, and has its root there. Saints cannot arise where there have been no warriors, nor philosophers where a prying beast does not remain hidden in the depths.

To this extent there is rational society.

Perhaps the art of politics, if it were practised scientifically, might obviate open war, religious enmities, industrial competition, and human slavery; but it would certainly not leave a free field for all animals nor for all monstrosities in men. Even while admitting the claims of monsters to be treated humanely, reason could not suffer them to absorb those material resources which might be needed to maintain rational society at its highest efficiency. We cannot, at this immense distance from a rational social order, judge what concessions individual genius would be called upon to make in a system of education and government in which all attainable goods should be pursued scientifically. Concessions would certainly be demanded, if not from well-trained wills, still from inevitable instincts, reacting on inevitable accidents. There is tragedy in perfection, because the universe in which perfec-

tion arises is itself imperfect. Accidents will always continue to harass the most consummate organism; they will flow in both from the outer world and from the interstices, so to speak, of its own machinery; for a rational life touches the irrational at its core as well as at its periphery. In both directions it meets physical force and can subsist only by exercising physical force in return. The range of rational ethics is limited to the intermediate political zone, in which existences have attained some degree of natural unanimity.

It should be added, perhaps, that the frontiers between moral and physical action are purely notional. Real existences do not lie wholly on one or the other side of them. Every man, every material object, has moral affinities enveloping an indomitable vital nucleus or brute personal kernel; this moral essence is enveloped in turn by untraceable relations, radiating to infinity over the natural world. The stars enter society by the light and knowledge they afford, the time they keep, and the ornament they lavish; but they are mere dead weights in their substance and cosmological puzzles in their destiny. You and I possess manifold ideal bonds in the interests we share; but each of us has his poor body and his irremediable, incommunicable dreams. Beyond the little span of his foresight and love, each is merely a physical agency, preparing the way quite irresponsibly for undreamt-of revolutions and alien lives.

A truly rational morality, or social regimen, has never existed in the world and is hardly to be looked for. What guides men and nations in their practice is always some partial interest or some partial disillusion. A rational morality would imply perfect self-knowledge, so that no congenial good should be needlessly missed—least of all practical reason or justice itself; so that no good congenial to other creatures would be needlessly taken from them. The total value which everything had from the agent's point of view would need to be determined and felt efficaciously; and, among other things, the total value which this point of view, with the conduct it justified, would have for every foreign interest which it affected. Such knowledge, such definition of purpose, and such perfection of sympathy are clearly beyond man's reach. All that can be hoped for is that the advance of science and commerce, by fostering peace and a rational development of character, may bring some part of mankind nearer to that goal; but the goal lies, as every ultimate ideal should, at the limit of what is possible, and must serve rather to measure achievements than to prophesy them.

A rational morality not attainable,

In lieu of a rational morality, however, we have rational ethics; and this mere idea of a rational morality is something valuable. While we wait for the sentiments, customs, and laws which should embody

but its principle clear.

perfect humanity and perfect justice, we may observe the germinal principle of these ideal things; we may sketch the ground-plan of a true commonwealth. This sketch constitutes rational ethics, as founded by Socrates, glorified by Plato, and sobered and solidified by Aristotle. It sets forth the method of judgment and estimation which a rational morality would apply universally and express in practice. The method, being very simple, can be discovered and largely illustrated in advance, while the complete self-knowledge and sympathy are still wanting which might avail to embody that method in the concrete and to discover unequivocally where absolute duty and ultimate happiness may lie.

It is the logic of an autonomous will.

This method, the Socratic method, consists in accepting any estimation which any man may sincerely make, and in applying dialectic to it, so as to let the man see what he really esteems. What he really esteems is what ought to guide his conduct; for to suggest that a rational being ought to do what he feels to be wrong, or ought to pursue what he genuinely thinks is worthless, would be to impugn that man's rationality and to discredit one's own. With what face could any man or god say to another: Your duty is to do what you cannot know you ought to do; your function is to suffer what you cannot recognise to be worth suffering? Such an attitude amounts to imposture and excludes society; it is the attitude of a

detestable tyrant, and any one who mistakes it for moral authority has not yet felt the first heart-throb of philosophy.

More even than natural philosophy, moral philosophy is something Greek: it is the appanage of freemen. The Socratic method is the soul of liberal conversation; it is compacted in equal measure of sincerity and courtesy. Each man is autonomous and all are respected; and nothing is brought forward except to be submitted to reason and accepted or rejected by the self-questioning heart. Indeed, when Socrates appeared in Athens mutual respect had passed into democracy and liberty into license; but the stalwart virtue of Socrates saved him from being a sophist, much as his method, when not honestly and sincerely used, might seem to countenance that moral anarchy which the sophists had expressed in their irresponsible doctrines. Their sophistry did not consist in the private *seat* which they assigned to judgment; for what judgment is there that is not somebody's judgment at some moment? The sophism consisted in ignoring the living moment's *intent*, and in suggesting that no judgment could refer to anything ulterior, and therefore that no judgment could be wrong: in other words that each man at each moment was the theme and standard, as well as the seat, of his judgment.

Socrates' science.

Socrates escaped this folly by force of honesty, which is what saves from folly in dialectic.

He built his whole science precisely on that intent which the sophists ignored; he insisted that people should declare sincerely what they meant and what they wanted; and on that living rock he founded the persuasive and ideal sciences of logic and ethics, the necessity of which lies all in free insight and in actual will. This will and insight they render deliberate, profound, unshakable, and consistent. Socrates, by his genial midwifery, helped men to discover the truth and excellence to which they were naturally addressed. This circumstance rendered his doctrine at once moral and scientific; scientific because dialectical, moral because expressive of personal and living aspirations. His ethics was not like what has since passed under that name—a spurious physics, accompanied by commandments and threats. It was a pliant and liberal expression of ideals, inwardly grounded and spontaneously pursued. It was an exercise in self-knowledge.

Its opposition to sophistry and moral anarchy.

Socrates' liberality was that of a free man ready to maintain his will and conscience, if need be, against the whole world. The sophists, on the contrary, were sycophants in their scepticism, and having inwardly abandoned the ideals of their race and nation—which Socrates defended with his homely irony—they dealt out their miscellaneous knowledge, or their talent in exposition, at the beck and for the convenience of others. Their theory was that each man having a right

to pursue his own aims, skilful thinkers might, for money, furnish any fellow-mortal with instruments fitted to his purpose. Socrates, on the contrary, conceived that each man, to achieve his aims must first learn to distinguish them clearly; he demanded that rationality, in the form of an examination and clarification of purposes, should precede any selection of external instruments. For how should a man recognise anything useful unless he first had established the end to be subserved and thereby recognised the good? True science, then, was that which enabled a man to disentangle and attain his natural good; and such a science is also the art of life and the whole of virtue.

The autonomous moralist differs from the sophist or ethical sceptic in this: that he retains his integrity. In vindicating his ideal he does not recant his human nature. In asserting the initial right of every impulse in others, he remains the spokesman of his own. Knowledge of the world, courtesy, and fairness do not neutralise his positive life. He is thoroughly sincere, as the sophist is not; for every man, while he lives, embodies and enacts some special interest; and this truth, which those who confound psychology with ethics may think destructive of all authority in morals, is in fact what alone renders moral judgment possible and respectable. If the sophist declares that what his nature attaches him to is not "really" a good, because it would not be

a good, perhaps, for a different creature, he is a false interpreter of his own heart, and rather discreditably stultifies his honest feelings and actions by those theoretical valuations which, in guise of a mystical ethics, he gives out to the world. Socratic liberality, on the contrary, is consistent with itself, as Spinozistic naturalism is also; for it exercises that right of private judgment which it concedes to others, and avowedly builds up the idea of the good on that natural inner foundation on which everybody who has it at all must inevitably build it. This functional good is accordingly always relative and good for something; it is the ideal which a vital and energising soul carries with it as it moves. It is identical, as Socrates constantly taught, with the useful, the helpful, the beneficent. It is the complement needed to perfect every art and every activity after its own kind.

Its vitality.

Rational ethics is an embodiment of volition, not a description of it. It is the expression of living interest, preference, and categorical choice. It leaves to psychology and history a free field for the description of moral phenomena. It has no interest in slipping far-fetched and incredible myths beneath the facts of nature, so as to lend a non-natural origin to human aspirations. It even recognises, as an emanation of its own force, that uncompromising truthfulness with which science assigns all forms of moral life to their place in the mechanical sys-

tem of nature. But the rational moralist is not on that account reduced to a mere spectator, a physicist acknowledging no interest except the interest in facts and in the laws of change. His own spirit, small by the material forces which it may stand for and express, is great by its prerogative of surveying and judging the universe; surveying it, of course, from a mortal point of view, and judging it only by its kindliness or cruelty to some actual interest, yet, even so, determining unequivocally a part of its constitution and excellence. The rational moralist represents a force energising in the world, discovering its affinities there and clinging to them to the exclusion of their hateful opposites. He represents, over against the chance facts, an ideal embodying the particular demands, possibilities, and satisfactions of a specific being.

This dogmatic position of reason is not uncritically dogmatic; on the contrary, it is the sophistical position that is uncritically neutral. All criticism needs a dogmatic background, else it would lack objects and criteria for criticism. The sophist himself, without confessing it, enacts a special interest. He bubbles over with convictions about the pathological and fatal origin of human beliefs, as if that could prevent some of them from being more trustworthy and truer than others. He is doubtless right in his psychology; his own ideas have their natural causes and their chance of signifying something real.

His scepticism may represent a wider experience than do the fanaticisms it opposes. But this sceptic also lives. Nature has sent her saps abundantly into him, and he cannot but nod dogmatically on that philosophical tree on which he is so pungent a berry. His imagination is unmistakably fascinated by the pictures it happens to put together. His judgment falls unabashed, and his discourse splashes on in its dialectical march, every stepping-stone an unquestioned idea, every stride a categorical assertion. Does he deny this? Then his very denial, in its promptness and heat, audibly contradicts him and makes him ridiculous. Honest criticism consists in being consciously dogmatic, and conscientiously so, like Descartes when he said, "I am." It is to sift and harmonise all assertions so as to make them a faithful expression of actual experience and inevitable thought.

Genuine altruism is natural self-expression.

Now will, no less than that reason which avails to render will consistent and far-reaching, animates natural bodies and expresses their functions. It has a radical bias, a foregone, determinate direction, else it could not be a will nor a principle of preference. The knowledge of what other people desire does not abolish a man's own aims. Sympathy and justice are simply an expansion of the soul's interests, arising when we consider other men's lives so intently that something in us imitates and re-enacts their experience, so that

we move partly in unison with their movement, recognise the reality and initial legitimacy of their interests, and consequently regard their aims in our action, in so far as our own status and purposes have become identical with theirs. We are not less ourselves, nor less autonomous, for this assimilation, since we assimilate only what is in itself intelligible and congruous with our mind and obey only that authority which can impose itself on our reason.

The case is parallel to that of knowledge. To know all men's experience and to comprehend their beliefs would constitute the most cogent and settled of philosophies. Thought would then be reasonably adjusted to all the facts of history, and judgment would grow more authoritative and precise by virtue of that enlightenment. So, too, to understand all the goods that any man, nay, that any beast or angel, may ever have pursued, would leave man still necessitous of food, drink, sleep, and shelter; he would still love; the comic, the loathsome, the beautiful would still affect him with unmistakable direct emotions. His taste might no doubt gain in elasticity by those sympathetic excursions into the polyglot world; the plastic or dramatic quality which had enabled him to feel other creatures' joys would grow by exercise and new overtones would be added to his gamut. But the foundations of his nature would stand; and his possible happiness, though some new and precious threads might be woven

into it, would not have a texture fundamentally different.

The radical impulses at work in any animal must continue to speak while he lives, for they are his essence. A true morality does not have to be adopted; the parts of it best practised are those which are never preached. To be "converted" would be to pass from one self-betrayal to another. It would be to found a new morality on a new artifice. The morality which has genuine authority exists inevitably and speaks autonomously in every common judgment, self-congratulation, ambition, or passion that fills the vulgar day. The pursuit of those goods which are the only possible or fitting crown of a man's life is predetermined by his nature; he cannot choose a law-giver, nor accept one, for none who spoke to the purpose could teach him anything but to know himself. Rational life is an art, not a slavery; and terrible as may be the errors and the apathy that impede its successful exercise, the standard and goal of it are given intrinsically. Any task imposed externally on a man is imposed by force only, a force he has the right to defy so soon as he can do so without creating some greater impediment to his natural vocation.

Reason expresses impulses,

Rational ethics, then, resembles prerational precepts and half-systems in being founded on impulse. It formulates a natural morality. It is a settled method of achieving ends to which man is drawn

by virtue of his physical and rational constitution. By this circumstance rational ethics is removed from the bad company of all artificial, verbal, and unjust systems of morality, which in absolving themselves from relevance to man's endowment and experience merely show how completely irrelevant they are to life. Once, no doubt, each of these arbitrary systems expressed (like the observance of the Sabbath) some practical interest or some not unnatural rite; but so narrow a basis of course has to be disowned when the precepts so originating have been swollen into universal tyrannical laws. A rational ethics reduces them at once to their slender representative rôle; and it surrounds and buttresses them on every side with all other natural ideals.

but impulses reduced to harmony.

Rational ethics thus differs from the prerational in being complete. There is one impulse which intuitive moralists ignore: the impulse to reflect. Human instincts are ignorant, multitudinous, and contradictory. To satisfy them as they come is often impossible, and often disastrous, in that such satisfaction prevents the satisfaction of other instincts inherently no less fecund and legitimate. When we apply reason to life we immediately demand that life be consistent, complete, and satisfactory when reflected upon and viewed as a whole. This view, as it presents each moment in its relations, extends to all moments affected by the action or maxim under discussion; it has

no more ground for stopping at the limits of what is called a single life than at the limits of a single adventure. To stop at selfishness is not particularly rational. The same principle that creates the ideal of a self creates the ideal of a family or an institution.

The conflict between selfishness and altruism is like that between any two ideal passions that in some particular may chance to be opposed; but such a conflict has no obstinate existence for reason. For reason the person itself has no obstinate existence. The *character* which a man achieves at the best moment of his life is indeed something ideal and significant; it justifies and consecrates all his coherent actions and preferences. But *the man's life,* the circle drawn by biographers around the career of a particular body, from the womb to the charnel-house, and around the mental flux that accompanies that career, is no significant unity. All the substances and efficient processes that figure within it come from elsewhere and continue beyond; while all the rational objects and interests to which it refers have a transpersonal status. Self-love itself is concerned with public opinion; and if a man concentrates his view on private pleasures, these may qualify the fleeting moments of his life with an intrinsic value, but they leave the life itself shapeless and infinite, as if sparks should play over a piece of burnt paper.

Self-love artificial.

The limits assigned to the mass of sentience attributed to each man are assigned conventionally; his prenatal feelings, his forgotten dreams, and his unappropriated sensations belong to his body and for that reason only are said to belong to him. Each impulse included within these limits may be as directly compared with the represented impulses of other people as with the represented impulses expected to arise later in the same body. Reason lives among these represented values, all of which have their cerebral seat and present efficacy over the passing thought; and reason teaches this passing thought to believe in and to respect them equally. Their right is not less clear, nor their influence less natural, because they may range over the whole universe and may await their realisation at the farthest boundaries of time. All that is physically requisite to their operation is that they should be vividly represented; while all that is requisite rationally, to justify them in qualifying actual life by their influence, is that the present act should have some tendency to bring the represented values about. In other words, a rational mind would consider, in its judgment and action, every interest which that judgment or action at all affected; and it would conspire with each represented good in proportion, not to that good's intrinsic importance, but to the power which the present act might have of helping to realise that good.

If pleasure, because it is commonly a result of

satisfied instinct, may by a figure of speech be called the aim of impulse, happiness, by a like figure, may be called the aim of reason. The direct aim of reason is harmony; yet harmony, when made to rule in life, gives reason a noble satisfaction which we call happiness. Happiness is impossible and even inconceivable to a mind without scope and without pause, a mind driven by craving, pleasure, and fear. The moralists who speak disparagingly of happiness are less sublime than they think. In truth their philosophy is too lightly ballasted, too much fed on prejudice and quibbles, for happiness to fall within its range. Happiness implies resource and security; it can be achieved only by discipline. Your intuitive moralist rejects discipline, at least discipline of the conscience; and he is punished by having no lien on wisdom. He trusts to the clash of blind forces in collision, being one of them himself. He demands that virtue should be partisan and unjust; and he dreams of crushing the adversary in some physical cataclysm.

The sanction of reason is happiness.

Such groping enthusiasm is often innocent and romantic; it captivates us with its youthful spell. But it has no structure with which to resist the shocks of fortune, which it goes out so jauntily to meet. It turns only too often into vulgarity and worldliness. A snow-flake is soon a smudge, and there is a deeper purity in the diamond. Happiness is hidden from a free and casual will;

it belongs rather to one chastened by a long education and unfolded in an atmosphere of sacred and perfected institutions. It is discipline that renders men rational and capable of happiness, by suppressing without hatred what needs to be suppressed to attain a beautiful naturalness. Discipline discredits the random pleasures of illusion, hope, and triumph, and substitutes those which are self-reproductive, perennial, and serene, because they express an equilibrium maintained with reality. So long as the result of endeavour is partly unforeseen and unintentional, so long as the will is partly blind, the Life of Reason is still swaddled in ignominy and the animal barks in the midst of human discourse. Wisdom and happiness consist in having recast natural energies in the furnace of experience. Nor is this experience merely a repressive force. It enshrines the successful expressions of spirit as well as the shocks and vetoes of circumstance; it enables a man to know himself in knowing the world and to discover his ideal by the very ring, true or false, of fortune's coin.

With this brief account we may leave the subject of rational ethics. Its development is impossible save in the concrete, when a legislator, starting from extant interests, considers what practices serve to render those interests vital and genuine, and what external alliances might lend them support and a more glorious expression. The

Moral science impeded by its chaotic data,

difficulty in carrying rational policy very far comes partly from the refractory materials at hand, and partly from the narrow range within which moral science is usually confined. The materials are individual wills naturally far from unanimous, lost for the most part in frivolous pleasures, rivalries, and superstitions, and little inclined to listen to a law-giver that, like a new Lycurgus, should speak to them of unanimity, simplicity, discipline, and perfection. Devotion and singlemindedness, perhaps possible in the cloister, are hard to establish in the world; yet a rational morality requires that all lay activities, all sweet temptations, should have their voice in the conclave. Morality becomes rational precisely by refusing either to accept human nature, as it sprouts, altogether without harmony, or to mutilate it in the haste to make it harmonious. The condition, therefore, of making a beginning in good politics is to find a set of men with well-knit character and cogent traditions, so that there may be a firm soil to cultivate and that labour may not be wasted in ploughing the quicksands.

and its unrecognised scope.

When such a starting-point is given, moral values radiate from it to the very ends of the universe; and a failure to appreciate the range over which rational estimation spreads is a second obstacle to sound ethics. Because of this failure the earnest soul is too often intent on escaping to heaven, while the gross politician is suffered to declaim about

the national honour, and to promise this client an office, this district a favour, and this class an iniquitous advantage. Politics is expected to be sophistical; and in the soberest parliaments hardly an argument is used or an ideal invoked which is not an insult to reason. Majorities work by a system of bribes offered to the more barren interests of men and to their more blatant prejudices. The higher direction of their lives is relegated to religion, which, unhappily, is apt to suffer from hereditary blindness to natural needs and to possible progress. The idea that religion, as well as art, industry, nationality, and science, should exist only for human life's sake and in order that men may live better in this world, is an idea not even mooted in politics and perhaps opposed by an official philosophy. The enterprise of individuals or of small aristocratic bodies has meantime sown the world which we call civilised with some seeds and nuclei of order. There are scattered about a variety of churches, industries, academies, and governments. But the universal order once dreamt of and nominally almost established, the empire of universal peace, all-permeating rational art, and philosophical worship, is mentioned no more. An unformulated conception, the prerational ethics of private privilege and national unity, fills the background of men's minds. It represents feudal traditions rather than the tendency really involved in contemporary industry, science, or

philanthropy. Those dark ages, from which our political practice is derived, had a political theory which we should do well to study; for their theory about a universal empire and a catholic church was in turn the echo of a former age of reason, when a few men conscious of ruling the world had for a moment sought to survey it as a whole and to rule it justly.

Modern rational ethics, however, or what approaches most nearly to such a thing, has one advantage over the ancient and mediæval; it has profited by Christian discipline and by the greater gentleness of modern manners. It has recognised the rights of the dumb majority; it has revolted against cruelty and preventable suffering and has bent itself on diffusing well-being—the well-being that people want, and not the so-called virtues which a supercilious aristocracy may find it convenient to prescribe for them. It has based ethics on the foundation on which actual morality rests; on nature, on the necessities of social life, on the human instincts of sympathy and justice.

Fallacy in democratic hedonism.

It is all the more to be regretted that the only modern school of ethics which is humane and honestly interested in progress should have given a bad technical expression to its generous principles and should have substituted a dubious psychology for Socratic dialectic. The mere fact that somebody somewhere enjoys or dislikes a thing cannot give

direction to a rational will. That fact indicates a moral situation but does not prescribe a definite action. A partial harmony or maladjustment is thereby proved to exist, but the method is not revealed by which the harmony should be sustained or the maladjustment removed. A given harmony can be sustained by leaving things as they are or by changing them together. A maladjustment can be removed by altering the environment or by altering the man. Pleasures may be attached to anything, and to pursue them in the abstract does not help to define any particular line of conduct. The particular ideal preexists in the observer; the mathematics of pleasure and pain cannot oblige him, for instance, to prefer a hundred units of mindless pleasure enjoyed in dreams to fifty units diffused over labour and discourse. He need not limit his efforts to spreading needless comforts and silly pleasures among the million; he need not accept for a goal a child's caprices multiplied by infinity. Even these caprices, pleasures, and comforts doubtless have their claims; but these claims have to be adjudicated by the agent's autonomous conscience, and he will give them the place they fill in his honest ideal of what it would be best to have in the world, not the place which they might pretend to usurp there by a sort of physical pressure. A conscience is a living function, expressing a particular nature; it is not a passive medium where heterogeneous values can find their

balance by virtue of their dead weight and number.

A moralist is called upon, first of all, to decide in what things pleasure ought to be found. Of course his decision, if he is rational, will not be arbitrary; it will conscientiously express his own nature—on which alone honest ideals can rest—without attempting to speak for the deafening and inconstant convocation of the whole sentient universe. Duty is a matter of self-knowledge, not of statistics. A living and particular will therein discovers its affinities, broadens its basis, acknowledges its obligations, and co-operates with everything that will co-operate with it; but it continues throughout to unfold a particular life, finding its supports and extensions in the state, the arts, and the universe. It cannot for a moment renounce its autonomy without renouncing reason and perhaps decreeing the extinction both of its own bodily basis and of its ideal method and policy.

Utilitarianism needs to be transferred to Socratic and dialectical ground, so that interest in absent interests may take its place in a concrete ideal. It is a noble thing to be sensitive to others' hardships, and happy in their happiness; but it is noble because it refines the natural will without enfeebling it, offering it rather a new and congenial development, one entirely predetermined by the fundamental structure of human nature. Were man

Sympathy a conditional duty.

not gregarious, were he not made to be child, friend, husband, and father by turns, his morality would not be social, but, like that of some silk-worm or some seraph, wholly industrious or wholly contemplative. Parental and sexual instincts, social life and the gift of co-operation carry sympathy implicitly with them, as they carry the very faculty to recognise a fellow-being. To make this sympathy explicit and to find one's happiness in exercising it is to lay one's foundations deeper in nature and to expand the range of one's being. Its limits, however, would be broken down and moral dissolution would set in if, forgetting his humanity, a man should bid all living creatures lapse with him into a delicious torpor, or run into a cycle of pleasant dreams, so intense that death would be sure to precede any awakening out of them. Great as may be the advance in charity since the days of Socrates, therefore, the advance is within the lines of his method; to trespass beyond them would be to recede.

This situation is repeated on a broader stage. A statesman entrusted with power should regard nothing but his country's interests; to regard anything else would be treason. He cannot allow foreign sentiment or private hobbies to make him misapply the resources of his fellow-countrymen to their own injury. But he may well have an enlightened view of the interests which he serves; he might indeed be expected to take a more pro-

found and enlightened view of them than his countrymen were commonly capable of, else he would have no right to his eminent station. He should be the first to feel that to inflict injury or foster hatred among other populations should not be a portion of a people's happiness. A nation, like a man, is something ideal. Indestructible mountains and valleys, crawled over by any sort of race, do not constitute its identity. Its essence is a certain spirit, and only what enters into this spirit can bind it morally, or preserve it.

If a drop of water contains a million worlds which I, in swallowing, may ruin or transform, that is Allah's business; mine is to clarify my own intent, to cling to what ideals may lie within the circle of my experience and practical imagination, so that I may have a natural ground for my loyalties, and may be constant in them. It would not be a rational ambition to wish to multiply the population of China by two, or that of America by twenty, after ascertaining that life there contained an overplus of pleasure. To weed a garden, however, would be rational, though the weeds and their interests would have to be sacrificed in the process. Utilitarianism took up false ground when it made right conduct terminate in miscellaneous pleasures and pains, as if in their isolation they constituted all that morality had to consider, and as if respect offered to them, somehow in proportion to their quantity, were the true

All life, and hence right life, finite and particular.

conscience. The true conscience is rather an integrated natural will, chastened by clear knowledge of what it pursues and may attain. What morality has to consider is the form of life, not its quantity. In a world that is perhaps infinite, moral life can spring only from definite centres and is neither called upon nor able to estimate the whole, nor to redress its balance. It is the free spirit of a part, finding its affinities and equilibrium in the material whole which it reacts on, and which it is in that measure enabled to understand.

CHAPTER X

POST-RATIONAL MORALITY

Socratic ethics retrospective.

When Socrates and his two great disciples composed a system of rational ethics they were hardly proposing practical legislation for mankind. One by his irony, another by his frank idealism, and the third by his preponderating interest in history and analysis, showed clearly enough how little they dared to hope. They were merely writing an eloquent epitaph on their country. They were publishing the principles of what had been its life, gathering piously its broken ideals, and interpreting its momentary achievement. The spirit of liberty and co-operation was already dead. The private citizen, debauched by the largesses and petty quarrels of his city, had become indolent and mean-spirited. He had begun to question the utility of religion, of patriotism, and of justice. Having allowed the organ for the ideal to atrophy in his soul, he could dream of finding some sullen sort of happiness in unreason. He felt that the austere glories of his country, as a Spartan regimen might have preserved them, would not benefit that baser part of him which

alone remained. Political virtue seemed a useless tax on his material profit and freedom. The tedium and distrust proper to a disintegrated society began to drive him to artificial excitements and superstitions. Democracy had learned to regard as enemies the few in whom public interest was still represented, the few whose nobler temper and traditions still coincided with the general good. These last patriots were gradually banished or exterminated, and with them died the spirit that rational ethics had expressed. Philosophers were no longer suffered to have illusions about the state. Human activity on the public stage had shaken off all allegiance to art or reason.

Rise of disillusioned moralities.

The biographer of reason might well be tempted to ignore the subsequent attitudes into which moral life fell in the West, since they all embodied a more or less complete despair, and, having abandoned the effort to express the will honestly and dialectically, they could support no moral science. The point was merely to console or deceive the soul with some substitute for happiness. Life is older and more persistent than reason, and the failure of a first experiment in rationality does not deprive mankind of that mental and moral vegetation which they possessed for ages in a wild state before the advent of civilisation. They merely revert to their uncivil condition and espouse whatever imaginative ideal comes to hand,

by which some semblance of meaning and beauty may be given to existence without the labour of building this meaning and beauty systematically out of its positive elements.

Not to study these imaginative ideals, partial and arbitrary as they are, would be to miss one of the most instructive points of view from which the Life of Reason may be surveyed: the point of view of its satirists. For moral ideals may follow upon philosophy, just as they may precede it. When they follow, at least so long as they are consciously embraced in view of reason's failure, they have a quite particular value. Aversion to rational ideals does not then come, as the intuitionist's aversion does, from moral incoherence or religious prejudice. It does not come from lack of speculative power. On the contrary, it may come from undue haste in speculation, from a too ready apprehension of the visible march of things. The obvious irrationality of nature as a whole, too painfully brought home to a musing mind, may make it forget or abdicate its own rationality. In a decadent age, the philosopher who surveys the world and sees that the end of it is even as the beginning, may not feel that the intervening episode, in which he and all he values after all figure, is worth consideration; and he may cry, in his contemplative spleen, that *all* is vanity.

If you should still confront him with a theory of the ideal, he would not be reduced, like the

pre-rational moralists in a similar case, to mere inattention and bluster. If you told him that every art and every activity involves a congruous good, and that the endeavour to realise the ideal in every direction is an effort of which reason necessarily approves, since reason is nothing but the method of that endeavour, he would not need to deny your statements in order to justify himself. He might admit the naturalness, the spontaneity, the ideal sufficiency of your conceptions; but he might add, with the smile of the elder and the sadder man, that he had experience of their futility. "You Hellenisers," he might say, "are but children; you have not pondered the little history you know. If thought were conversant with reality, if virtue were stable and fruitful, if pains and policy were ultimately justified by a greater good arising out of them—then, indeed, a life according to reason might tempt a philosopher. But unfortunately not one of those fond assumptions is true. Human thought is a meaningless phantasmagoria. Virtue is a splendid and laborious folly, when it is not a pompous garment that only looks respectable in the dark, being in truth full of spots and ridiculous patches. Men's best laid plans become, in the casual cross-currents of being, the occasion of their bitterest calamities. How, then, live? How justify in our eyes, let us not say the ways of God, but our own ways?"

Such a position may be turned dialectically by

invoking whatever positive hopes or convictions the critic may retain, who while he lives cannot be wholly without them. But the position is specious and does not collapse, like that of the intuitionist, at the first breath of criticism. Pessimism, and all the moralities founded on despair, are not pre-rational but post-rational. They are the work of men who more or less explicitly have conceived the Life of Reason, tried it at least imaginatively, and found it wanting. These systems are a refuge from an intolerable situation: they are experiments in redemption. As a matter of fact, animal instincts and natural standards of excellence are never eluded in them, for no moral experience has other terms; but the part of the natural ideal which remains active appears in opposition to all the rest and, by an intelligible illusion, seems to be no part of that natural ideal because, compared with the commoner passions on which it reacts, it represents some simpler or more attenuated hope — the appeal to some very humble or very much chastened satisfaction, or to an utter change in the conditions of life.

The illusion subsisting in them.

Post-rational morality thus constitutes, in intention if not in fact, a criticism of all experience. It thinks it is not, like pre-rational morality, an arbitrary selection from among co-ordinate precepts. It is an effort to subordinate all precepts to one, that points to some single eventual

good. For it occurs to the founders of these systems that by estranging oneself from the world, or resting in the moment's pleasure, or mortifying the passions, or enduring all sufferings in patience, or studying a perfect conformity with the course of affairs, one may gain admission to some sort of residual mystical paradise; and this thought, once conceived, is published as a revelation and accepted as a panacea. It becomes in consequence (for such is the force of nature) the foundation of elaborate institutions and elaborate philosophies, into which the contents of the worldly life are gradually reintroduced.

When human life is in an acute crisis, the sick dreams that visit the soul are the only evidence of her continued existence. Through them she still envisages a good; and when the delirium passes and the normal world gradually re-establishes itself in her regard, she attributes her regeneration to the ministry of those phantoms, a regeneration due, in truth, to the restored nutrition and circulation within her. In this way post-rational systems, though founded originally on despair, in a later age that has forgotten its disillusions may come to pose as the only possible basis of morality. The philosophers addicted to each sect, and brought up under its influence, may exhaust criticism and sophistry to show that all faith and effort would be vain unless their particular nostrum was accepted; and so a curious party philosophy arises in which, after discred-

iting nature and reason in general, the sectary puts forward some mythical echo of reason and nature as the one saving and necessary truth. The positive substance of such a doctrine is accordingly pre-rational and perhaps crudely superstitious; but it is introduced and nominally supported by a formidable indictment of physical and moral science, so that the wretched idol ultimately offered to our worship acquires a spurious halo and an imputed majesty by being raised on a pedestal of infinite despair.

Epicurean refuge in pleasure.

Socrates was still living when a school of post-rational morality arose among the Sophists, which after passing quickly through various phases, settled down into Epicureanism and has remained the source of a certain consolation to mankind, which if somewhat cheap, is none the less genuine. The pursuit of pleasure may seem simple selfishness, with a tendency to debauchery; and in this case the pre-rational and instinctive character of the maxim retained would be very obvious. Pleasure, to be sure, is not the direct object of an unspoiled will; but after some experience and discrimination, a man may actually guide himself by a foretaste of the pleasures he has found in certain objects and situations. The criticism required to distinguish what pays from what does not pay may not often be carried very far; but it may sometimes be carried to the length of suppressing every natural instinct and natural hope, and of turning the

philosopher, as it turned Hegesias the Cyrenaic, into a eulogist of death.

The post-rational principle in the system then comes to the fore, and we see clearly that to sit down and reflect upon human life, picking out its pleasant moments and condemning all the rest, is to initiate a course of moral retrenchment. It is to judge what is worth doing, not by the innate ambition of the soul, but by experience of incidental feelings, which to a mind without creative ideas may seem the only objects worthy of pursuit. That life ought to be accompanied by pleasure and exempt from pain is certain; for this means that what is agreeable to the whole process of nature would have become agreeable also to the various partial impulses involved—another way of describing organic harmony and physical perfection. But such a desirable harmony cannot be defined or obtained by picking out and isolating from the rest those occasions and functions in which it may already have been reached. These partial harmonies may be actual arrests or impediments in the whole which is to be made harmonious; and even when they are innocent or helpful they cannot serve to determine the form which the general harmony might take on. They merely illustrate its principle. The organism in which this principle of harmony might find pervasive expression is still potential, and the ideal is something of which, in its concrete form, no man has had experience. It in-

volves a propitious material environment, perfect health, perfect arts, perfect government, a mind enlarged to the knowledge and enjoyment of all its external conditions and internal functions. Such an ideal is lost sight of when a man cultivates his garden-plot of private pleasures, leaving it to chance and barbarian fury to govern the state and quicken the world's passions.

Even Aristippus, the first and most delightful of hedonists, who really enjoyed the pleasures he advocated and was not afraid of the incidental pains—even Aristippus betrayed the post-rational character of his philosophy by abandoning politics, mocking science, making his peace with all abuses that fostered his comfort, and venting his wit on all ambitions that exceeded his hopes. A great temperament can carry off a rough philosophy. Rebellion and license may distinguish honourable souls in an age of polite corruption, and a grain of sincerity is better, in moral philosophy, than a whole harvest of conventionalities. The violence and shamelessness of Aristippus were corrected by Epicurus; and a balance was found between utter despair and utter irresponsibility. Epicureanism retrenched much: it cut off politics. religion, enterprise, and passion. These things it convicted of vanity, without stopping to distinguish in them what might be inordinate from what might be rational. At the same time it retained friendship, freedom of soul, and intellectual light. It cultivated unworldliness with-

out superstition and happiness without illusion. It was tender toward simple and honest things, scornful and bitter only against pretence and usurpation. It thus marked a first halting-place in the retreat of reason, a stage where the soul had thrown off only the higher and more entangling part of her burden and was willing to live, in somewhat reduced circumstances, on the remainder. Such a philosophy expresses well the genuine sentiment of persons, at once mild and emancipated, who find themselves floating on the ebb-tide of some civilisation, and enjoying its fruits, without any longer representing the forces that brought that civilisation about.

Stoic recourse to conformity.

The same emancipation, without its mildness, appeared in the Cynics, whose secret it was to throw off all allegiance and all dependence on circumstance, and to live entirely on inner strength of mind, on pride and inflexible humour. The renunciation was far more sweeping than that of Epicurus, and indeed wellnigh complete; yet the Stoics, in underpinning the Cynical self-sufficiency with a system of physics, introduced into the life of the sect a contemplative element which very much enlarged and ennobled its sympathies. Nature became a sacred system, the laws of nature being eulogistically called rational laws, and the necessity of things, because it might be foretold in auguries, being called providence. There was some intellectual confusion in all this; but con-

templation, even if somewhat idolatrous, has a purifying effect, and the sad and solemn review of the cosmos to which the Stoic daily invited his soul, to make it ready to face its destiny, doubtless liberated it from many an unworthy passion. The impressive spectacle of things was used to remind the soul of her special and appropriate function, which was to be rational. This rationality consisted partly in insight, to perceive the necessary order of things, and partly in conformity, to perceive that this order, whatever it might be, could serve the soul to exercise itself upon, and to face with equanimity.

Despair, in this system, flooded a much larger area of human life; everything, in fact, was surrendered except the will to endure whatever might come. The concentration was much more marked, since only a formal power of perception and defiance was retained and made the sphere of moral life; this rational power, at least in theory, was the one peak that remained visible above the deluge. But in practice much more was retained. Some distinction was drawn, however unwarrantably, between external calamities and human turpitude, so that absolute conformity and acceptance might not be demanded by the latter; although the chief occasion which a Stoic could find to practise fortitude and recognise the omnipresence of law was in noting the universal corruption of the state and divining its ruin. The obligation to conform to nature

(which, strictly speaking, could not be disregarded in any case) was interpreted to signify that every one should perform the offices conventionally attached to his station. In this way a perfunctory citizenship and humanity were restored to the philosopher. But the restored life was merely histrionic: the Stoic was a recluse parading the market-place and a monk disguised in armour. His interest and faith were centred altogether on his private spiritual condition. He cultivated the society of those persons who, he thought, might teach him some virtue. He attended to the affairs of state so as to exercise his patience. He might even lead an army to battle, if he wished to test his endurance and make sure that philosophy had rendered him indifferent to the issue.

Conformity the core of Islam,

The strain and artifice of such a discipline, with merely formal goals and no hope on earth or in heaven, could not long maintain itself; and doubtless it existed, at a particular juncture, only in a few souls. Resignation to the will of God, says Bishop Butler, is *the whole of piety;* yet mere resignation would make a sorry religion and the negation of all morality, unless the will of God was understood to be quite different from his operation in nature. To turn Stoicism into a workable religion we need to qualify it with some pre-rational maxims. Islam, for instance, which boasts that in its essence it is nothing but the primitive and natural religion of mankind, consists in

abandoning oneself to the will of God or, in other words, in accepting the inevitable. This will of God is learned for the most part by observing the course of nature and history, and remembering the fate meted out habitually to various sorts of men. Were this all, Islam would be a pure Stoicism, and Hebraic religion, in its ultimate phase, would be simply the eloquence of physics. It would not, in that case, be a moral inspiration at all, except as contemplation and the sense of one's nothingness might occasionally silence the passions and for a moment bewilder the mind. On recovering from this impression, however, men would find themselves enriched with no self-knowledge, armed with no precepts, and stimulated by no ideal. They would be reduced to enacting their incidental impulses, as the animals are, quite as if they had never perceived that in doing so they were fulfilling a divine decree. Enlightened Moslems, accordingly, have often been more Epicurean than Stoical; and if they have felt themselves (not without some reason) superior to Christians in delicacy, in *savoir vivre*, in kinship with all natural powers, this sense of superiority has been quite rationalistic and purely human. Their religion contributed to it only because it was simpler, freer from superstition, nearer to a clean and pleasant regimen in life. Resignation to the will of God being granted, expression of the will of man might more freely begin.

enveloped in arbitrary doctrines.

What made Islam, however, a positive and contagious novelty was the assumption that God's will might be incidentally revealed to prophets before the event, so that past experience was not the only source from which its total operation might be gathered. In its opposition to grosser idolatries Islam might appeal to experience and challenge those who trusted in special deities to justify their worship in face of the facts. The most decisive facts against idolaters, however, were not yet patent, but were destined to burst upon mankind at the last day—and most unpleasantly for the majority. Where Mohammed speaks in the name of the universal natural power he is abundantly scornful toward that fond paganism which consists in imagining distinct patrons for various regions of nature or for sundry human activities. In turning to such patrons the pagan regards something purely ideal or, as the Koran shrewdly observes, worships his own passions. Allah, on the contrary, is overwhelmingly external and as far as possible from being ideal. He is indeed the giver of all good things, as of all evil, and while his mercies are celebrated on every page of the Koran, these mercies consist in the indulgence he is expected to show to his favourites, and the exceeding reward reserved for them after their earthly trials. Allah's mercy does not exclude all those senseless and unredeemed cruelties of which nature is daily guilty; nay, it shines all the

more conspicuously by contrast with his essential irresponsibility and wanton wrath, a part of his express purpose being to keep hell full of men and demons.

The tendency toward enlightenment which Islam represents, and the limits of that enlightenment, may be illustrated by the precept about unclean animals. Allah, we are told, being merciful and gracious, made the world for man's use, with all the animals in it. We may therefore justly slaughter and devour them, in so far as comports with health; but, of course, we may not eat animals that have died a natural death, nor those offered in sacrifice to false gods, nor swine; for to do so would be an abomination.

The latter alone lend it practical force.

Unfortunately religious reformers triumph not so much by their rational insight as by their halting, traditional maxims. Mohammed felt the unity of God like a philosopher; but people listened to him because he preached it like a sectary. God, as he often reminds us, did not make the world for a plaything; he made it in order to establish distinctions and separate by an immense interval the fate of those who conform to the truth from the fate of those who ignore it. Human life is indeed beset with enough imminent evils to justify this urgent tone in the Semitic moralist and to lend his precepts a stern practical ring, absent from merely Platonic idealisms. But this stringency, which is called positivism when

the conditions of welfare are understood, becomes fanaticism when they are misrepresented. Had Mohammed spoken only of the dynamic unity in things, the omnipresence of destiny, and the actual conditions of success and failure in the world, he would not have been called a prophet or have had more than a dozen intelligent followers, scattered over as many centuries; but the weakness of his intellect, and his ignorance of nature, made the success of his mission. It is easier to kindle righteous indignation against abuses when, by abating them, we further our personal interests; and Mohammed might have been less zealous in denouncing false gods had his own God been altogether the true one. But, in the heat of his militancy, he descends so far as to speak of *God's interests* which the faithful embrace, and of fighting in *God's cause.* By these notions, so crudely pre-rational, we are allowed to interpret and discount the pantheistic sublimities with which in most places we are regaled; and in order that a morality, too weak to be human, may not wither altogether in the fierce light of the Absolute, we are led to humanise the Absolute into a finite force, needing our support against independent enemies. So complete is the bankruptcy of that Stoic morality which thinks to live on the worship of That which Is.

As extremes are said to meet, so we may say that a radical position is often the point of de-

parture for opposite systems. Pantheism, or religion and morality abdicating in favour of physics, may, in practice, be interpreted in contrary ways. To be in sympathy with the Whole may seem to require us to outgrow and discard every part; yet, on the other hand, there is no obvious reason why Being should love its essence in a fashion that involves hating every possible form of Being. The worshipper of Being accordingly assumes now one, now the other, of two opposite attitudes, according as the society in which he lives is in a pre-rational or a post-rational state of culture. Pantheism is interpreted pre-rationally, as by the early Mohammedans, or by the Hegelians, when people are not yet acquainted, or not yet disgusted, with worldliness; the Absolute then seems to lend a mystical sanction to whatever existences or tendencies happen to be afoot. Morality is reduced to sanctioning reigning conventions, or reigning passions, on the authority of the universe. Thus the Moslems, by way of serving Allah, could extend their conquests and cultivate the arts and pleasures congenial to a self-sufficing soul, at once indolent and fierce; while the transcendentalists of our times, by way of accepting their part in the divine business, have merely added a certain speculative loftiness to the maxims of some sect or the chauvinism of some nation.

Moral ambiguity in pantheism.

To accept everything, however, is not an easy

nor a tolerable thing, unless you are naturally well pleased with what falls to your share. However the Absolute may feel, a moral creature has to hate some forms of being; and if the age has thrust these forms before a man's eyes, and imposed them upon him, not being suffered by his pantheism to blame the Absolute he will (by an inconsistency) take to blaming himself. It will be his finitude, his inordinate claims, his enormous effrontery in having any will or any preference in particular, that will seem to him the source of all evil and the single blot on the infinite lucidity of things. Pantheism, under these circumstances, will issue in a post-rational morality. It will practise asceticism and look for a mystical deliverance from finite existence.

Under stress, it becomes ascetic and requires a mythology.

Under these circumstances myth is inevitably reintroduced. Without it, no consolation could be found except in the prospect of death and, awaiting that, in incidental natural satisfactions; whereby absorption in the Absolute might come to look not only impossible but distinctly undesirable. To make retreat out of human nature seem a possible vocation, this nature itself must, in some myth, be represented as unnatural; the soul that this life stifles must be said to come from elsewhere and to be fitted to breathe some element far rarer and finer than this sublunary fog.

A curious foothold for such a myth was fur-

nished by the Socratic philosophy. Plato, wafted by his poetic vision too far, perhaps, from the utilitarianism of his master, had eulogised concretions in discourse at the expense of existences and had even played with cosmological myths, meant to express the values of things, by speaking as if these values had brought things into being. The dialectical terms thus contrasted with natural objects, and pictured as natural powers, furnished the dogmas needed at this juncture by a post-rational religion. The spell which dialectic can exercise over an abstracted mind is itself great; and it may grow into a sacred influence and a positive revelation when it offers a sanctuary from a weary life in the world. Out of the play of notions carried on in a prayerful dream wonderful mysteries can be constructed, to be presently announced to the people and made the core of sacramental injunctions. When the tide of vulgar superstition is at the flood and every form of quackery is welcome, we need not wonder that a theosophy having so respectable a core—something, indeed, like a true logic misunderstood—should gain many adherents. Out of the names of things and of virtues a mystic ladder could be constructed by which to leave the things and the virtues themselves behind; but the sagacity and exigencies of the school would not fail to arrange the steps in this progress—the end of which was unattainable except, perhaps, in a momentary

A supernatural world made by the Platonist out of dialectic.

ecstasy—so that the obvious duties of men would continue, for the nonce, to be imposed upon them. The chief difference made in morals would be only this: that the positive occasions and sanctions of good conduct would no longer be mentioned with respect, but the imagination would be invited to dwell instead on mystical issues.

The Hebraic cry for redemption.

Neo-Platonic morality, through a thousand learned and vulgar channels, permeated Christianity and entirely transformed it. Original Christianity was, though in another sense, a religion of redemption. The Jews, without dreaming of original sin or of any inherent curse in being finite, had found themselves often in the sorest material straits. They hoped, like all primitive peoples, that relief might come by propitiating the deity. They knew that the sins of the fathers were visited upon the children even to the third and fourth generation. They had accepted this idea of joint responsibility and vicarious atonement, turning in their unphilosophical way this law of nature into a principle of justice. Meantime the failure of all their cherished ambitions had plunged them into a penitential mood. Though in fact pious and virtuous to a fault, they still looked for repentance—their own or the world's—to save them. This redemption was to be accomplished in the Hebrew spirit, through long-suffering and devotion to the Law, with the Hebrew solidarity, by vicarious attribution of

merits and demerits within the household of the faith.

Such a way of conceiving redemption was far more dramatic, poignant, and individual than the Neo-Platonic; hence it was far more popular and better fitted to be a nucleus for religious devotion. However much, therefore, Christianity may have insisted on renouncing the world, the flesh, and the devil, it always kept in the background this perfectly Jewish and pre-rational craving for a delectable promised land. The journey might be long and through a desert, but milk and honey were to flow in the oasis beyond. Had renunciation been fundamental or revulsion from nature complete, there would have been no much-trumpeted last judgment and no material kingdom of heaven. The renunciation was only temporary and partial; the revulsion was only against incidental evils. Despair touched nothing but the present order of the world, though at first it took the extreme form of calling for its immediate destruction. This was the sort of despair and renunciation that lay at the bottom of Christian repentance; while hope in a new order of this world, or of one very like it, lay at the bottom of Christian joy. A temporary sacrifice, it was thought, and a partial mutilation would bring the spirit miraculously into a fresh paradise. The pleasures nature had grudged or punished, grace was to offer as a reward for faith and patience. The earthly life which was vain

as an experience was to be profitable as a trial. Normal experience, appropriate exercise for the spirit, would thereafter begin.

Christianity is thus a system of postponed rationalism, a rationalism intercepted by a supernatural version of the conditions of happiness. Its moral principle is reason—the only moral principle there is; its motive power is the impulse and natural hope to be and to be happy. Christianity merely renews and reinstates these universal principles after a first disappointment and a first assault of despair, by opening up new vistas of accomplishment, new qualities and measures of success. The Christian field of action being a world of grace enveloping the world of nature, many transitory reversals of acknowledged values may take place in its code. Poverty, chastity, humility, obedience, self-sacrifice, ignorance, sickness, and dirt may all acquire a religious worth which reason, in its direct application, might scarcely have found in them; yet these reversed appreciations are merely incidental to a secret rationality, and are justified on the ground that human nature, as now found, is corrupt and needs to be purged and transformed before it can safely manifest its congenital instincts and become again an authoritative criterion of values. In the kingdom of God men would no longer need to do penance, for life there would be truly natural and there the soul would be at last in her native sphere.

The two factors meet in Christianity.

This submerged optimism exists in Christianity, being a heritage from the Jews; and those Protestant communities that have rejected the pagan and Platonic elements that overlaid it have little difficulty in restoring it to prominence. Not, however, without abandoning the soul of the gospel; for the soul of the gospel, though expressed in the language of Messianic hopes, is really post-rational. It was not to marry and be given in marriage, or to sit on thrones, or to unravel metaphysical mysteries, or to enjoy any of the natural delights renounced in this life, that Christ summoned his disciples to abandon all they had and to follow him. There was surely a deeper peace in his self-surrender. It was not a new thing even among the Jews to use the worldly promises of their exoteric religion as symbols for inner spiritual revolutions; and the change of heart involved in genuine Christianity was not a fresh excitation of gaudy hopes, nor a new sort of utilitarian, temporary austerity. It was an emptying of the will, in respect to all human desires, so that a perfect charity and contemplative justice, falling like the Father's gifts ungrudgingly on the whole creation, might take the place of ambition, petty morality, and earthly desires. It was a renunciation which, at least in Christ himself and in his more spiritual disciples, did not spring from disappointed illusion or lead to other unregenerate illusions even more sure to be dispelled by events. It sprang rather from

a native speculative depth, a natural affinity to the divine fecundity, serenity, and sadness of the world. It was the spirit of prayer, the kindliness and insight which a pure soul can fetch from contemplation.

This mystical detachment, supervening on the dogged old Jewish optimism, gave Christianity a double aspect, and had some curious consequences in later times. Those who were inwardly convinced—as most religious minds were under the Roman Empire—that all earthly things were vanity, and that they plunged the soul into an abyss of nothingness if not of torment, could, in view of brighter possibilities in another world, carry their asceticism and their cult of suffering farther than a purely negative system, like the Buddhistic, would have allowed. For a discipline that is looked upon as merely temporary can contradict nature more boldly than one intended to take nature's place. The hope of unimaginable benefits to ensue could drive religion to greater frenzies than it could have fallen into if its object had been merely to silence the will. Christianity persecuted, tortured, and burned. Like a hound it tracked the very scent of heresy. It kindled wars, and nursed furious hatreds and ambitions. It sanctified, quite like Mohammedanism, extermination and tyranny. All this would have been impossible if, like Buddhism, it had looked only to peace and the liberation of souls. It looked beyond; it

Consequent electicism.

dreamt of infinite blisses and crowns it should be crowned with before an electrified universe and an applauding God. These were rival baits to those which the world fishes with, and were snapped at, when seen, with no less avidity. Man, far from being freed from his natural passions, was plunged into artificial ones quite as violent and much more disappointing. Buddhism had tried to quiet a sick world with anæsthetics; Christianity sought to purge it with fire.

Another consequence of combining, in the Christian life, post-rational with pre-rational motives, a sense of exile and renunciation with hopes of a promised land, was that esoteric piety could choose between the two factors, even while it gave a verbal assent to the dogmas that included both. Mystics honoured the post-rational motive and despised the pre-rational; positivists clung to the second and hated the first. To the spiritually minded, whose religion was founded on actual insight and disillusion, the joys of heaven could never be more than a symbol for the intrinsic worth of sanctity. To the worldling those heavenly joys were nothing but a continuation of the pleasures and excitements of this life, serving to choke any reflections which, in spite of himself, might occasionally visit him about the vanity of human wishes. So that Christianity, even in its orthodox forms, covers various kinds of morality, and its philosophical incoherence betrays itself in disruptive movements, profound schisms,

and total alienation on the part of one Christian from the inward faith of another. Trappist or Calvinist may be practising a heroic and metaphysical self-surrender while the busy-bodies of their respective creeds are fostering, in God's name, all their hot and miscellaneous passions.

This contradiction, present in the overt morality of Christendom, cannot be avoided, however, by taking refuge again in pure asceticism. Every post-rational system is necessarily self-contradictory. Its despair cannot be universal nor its nihilism complete so long as it remains a coherent method of action, with particular goals and a steady faith that their attainment is possible. The renunciation of the will must stop at the point where the will to be saved makes its appearance: and as this desire may be no less troublesome and insistent than any other, as it may even become a tormenting obsession, the mystic is far from the end of his illusions when he sets about to dispel them. There is one rational method to which, in post-rational systems, the world is still thought to be docile, one rational endeavour which nature is sure to crown with success. This is the method of deliverance from existence, the effort after salvation. There is, let us say, a law of Karma, by which merit and demerit accruing in one incarnation pass on to the next and enable the soul to rise continuously through a series of stages. Thus the world, though called illusory, is not

The negation of naturalism never complete.

wholly intractable. It provides systematically for an exit out of its illusions. On this rational ordinance of phenomena, which is left standing by an imperfect nihilism, Buddhist morality is built. Rational endeavour remains possible because experience is calculable and fruitful in this one respect, that it dissolves in the presence of goodness and knowledge.

Similarly in Christian ethics, the way of the cross has definite stations and a definite end. However negative this end may be thought to be, the assurance that it may be attained is a remnant of natural hope in the bosom of pessimism. A complete disillusion would have involved the neglect of such an assurance, the denial that it was possible or at least that it was to be realised under specific conditions. That conversion and good works lead to something worth attaining is a new sort of positivistic hope. A complete scepticism would involve a doubt, not only concerning the existence of such a method of salvation, but also (what is more significant) concerning the importance of applying it if it were found. For to assert that salvation is not only possible but urgently necessary, that every soul is now in an intolerable condition and should search for an ultimate solution to all its troubles, a restoration to a normal and somehow blessed state—what is this but to assert that the nature of things has a permanent constitution, by conformity with which man may secure his happiness? More-

over, we assert in such a faith that this natural constitution of things is discoverable in a sufficient measure to guide our action to a successful issue. Belief in Karma, in prayer, in sacraments, in salvation is a remnant of a natural belief in the possibility of living successfully. The remnant may be small and "expressed in fancy." Transmigration or an atonement may be chimerical ideas. Yet the mere fact of reliance upon something, the assumption that the world is steady and capable of rational exploitation, even if in a supernatural interest and by semi-magical means, amounts to an essential loyalty to postulates of practical reason, an essential adherence to natural morality.

The pretension to have reached a point of view from which *all* impulse may be criticised is accordingly an untenable pretension. It is abandoned in the very systems in which it was to be most thoroughly applied. The instrument of criticism must itself be one impulse surviving the wreck of all the others; the vision of salvation and of the way thither must be one dream among the rest. A single suggestion of experience is thus accepted while all others are denied; and although a certain purification and revision of morality may hence ensue, there is no real penetration to a deeper principle than spontaneous reason, no revelation of a higher end than the best possible happiness. One sporadic growth of human nature may be substituted for its whole

luxuriant vegetation; one negative or formal element of happiness may be preferred to the full entelechy of life. We may see the Life of Reason reduced to straits, made to express itself in a niggardly and fantastic environment; but we have, in principle and essence, the Life of Reason still, empirical in its basis and rational in its method, its substance impulse and its end happiness.

Spontaneous values rehabilitated.

So much for the umbilical cord that unites every living post-rational system to the matrix of human hopes. There remains a second point of contact between these systems and rational morality: the reinstated natural duties which all religions and philosophies, in order to subsist among civilised peoples, are at once obliged to sanction and somehow to deduce from their peculiar principles. The most plausible evidence which a supernatural doctrine can give of its truth is the beauty and rationality of its moral corollaries. It is instructive to observe that a gospel's congruity with natural reason and common humanity is regarded as the decisive mark of its supernatural origin. Indeed, were inspiration not the faithful echo of plain conscience and vulgar experience there would be no means of distinguishing it from madness. Whatever poetic idea a prophet starts with, in whatever intuition or analogy he finds a hint of salvation, it is altogether necessary that he should hasten to interpret his oracle in such a manner that it may sanction without disturb-

ing the system of indispensable natural duties, although these natural duties, by being attached artificially to supernatural dogmas, may take on a different tone, justify themselves by a different rhetoric, and possibly suffer real transformation in some minor particulars. Systems of post-rational morality are not original works: they are versions of natural morality translated into different metaphysical languages, each of which adds its peculiar flavour, its own genius and poetry, to the plain sense of the common original.

In the doctrine of Karma, for instance, experience of retribution is ideally extended and made precise. Acts, daily experience teaches us, form habits; habits constitute character, and each man's character, as Heraclitus said, is his guardian deity, the artisan of his fate. We need but raise this particular observation to a solitary eminence, after the manner of post-rational thinking; we need but imagine it to underlie and explain all other empirical observations, so that character may come to figure as an absolute cause, of which experience itself is an attendant result. Such arbitrary emphasis laid on some term of experience is the source of each metaphysical system in turn. In this case the surviving dogma will have yielded an explanation of our environment no less than of our state of heart by instituting a deeper spiritual law, a certain balance of merit and demerit in the soul, accruing to it through a series

A witness out of India.

of previous incarnations. This fabulous starting-point was gained by an imaginary extension of the law of moral continuity and natural retribution; but when, accepting this starting-point, the believer went on to inquire what he should do to be saved and to cancel the heavy debts he inherited from his mythical past, he would merely enumerate the natural duties of man, giving them, however, a new sanction and conceiving them as if they emanated from his new-born metaphysical theory. This theory, apart from a natural conscience and traditional code, would have been perfectly barren. The notion that every sin must be expiated does not carry with it any information about what acts are sins.

This indispensable information must still be furnished by common opinion. Those acts which bring suffering after them, those acts which arouse the enmity of our fellows and, by a premonition of that enmity, arouse our own shame —those are assumed and deputed to be sinful; and the current code of morality being thus borrowed without begging leave, the law of absolute retribution can be brought in to paint the picture of moral responsibility in more glaring colours and to extend the vista of rewards and punishments into a rhetorical infinite. Buddhistic morality was natural morality intensified by this forced sense of minute and boundless responsibility. It was coloured also by the negative, pessimistic justification which this dogma gives to

moral endeavour. Every virtue was to be viewed as merely removing guilt and alleviating suffering, knowledge itself being precious only as a means to that end. The ultimate inspiration of right living was to be hope of perfect peace—a hope generously bestowed by nature on every spirit which, being linked to the flux of things, is conscious of change and susceptible of weariness, but a hope which the irresponsible Oriental imagination had disturbed with bad dreams. A pathetic feminine quality was thereby imparted to moral feeling; we were to be good for pity's sake, for the sake of a great distant deliverance from profound sorrows.

Dignity of post-rational morality.

The pathetic idiosyncrasy of this religion has probably enabled it to touch many a heart and to lift into speculation many a life otherwise doomed to be quite instinctive and animal. It has kept morality pure—free from that admixture of worldly and partisan precepts with which less pessimistic systems are encumbered. Restraint can be rationally imposed on a given will only by virtue of evils which would be involved in its satisfaction, by virtue, in other words, of some actual demand whose disappointment would ensue upon inconsiderate action. To save, to cure, to nourish are duties far less conditional than would be a supposed duty to acquire or to create. There is no harm in merely not being, and privation is an evil only when, after we exist, it deprives us of

something naturally requisite, the absence of which would defeat interests already launched into the world. If there is something in a purely remedial system of morality which seems one-sided and extreme, we must call to mind the far less excusable one-sidedness of those moralities of prejudice to which we are accustomed in the Occident—the ethics of irrational acquisitiveness, irrational faith, and irrational honour. Buddhistic morality, so reasonable and beautifully persuasive, rising so willingly to the ideal of sanctity, merits in comparison the profoundest respect. It is lifted as far above the crudities of intuitionism as the whisperings of an angel are above a schoolboy's code.

A certain bias and deviation from strict reason seems, indeed, inseparable from any moral reform, from any doctrine that is to be practically and immediately influential. Socratic ethics was too perfect an expression to be much of a force. Philosophers whose hearts are set on justice and pure truth often hear reproaches addressed to them by the fanatic, who contrasts the conspicuous change in this or that direction accomplished by his preaching with the apparent impotence of reason and thought. Reason's resources are in fact so limited that it is usually reduced to guerilla warfare: a general plan of campaign is useless when only insignificant forces obey our commands. Moral progress is for that reason often greatest when some nobler passion or more fortunate

prejudice takes the lead and subdues its meaner companions without needing to rely on the consciousness of ultimate benefits hence accruing to the whole life. So a pessimistic and merely remedial morality may accomplish reforms which reason, with its broader and milder suasion, might have failed in. If certain rare and precious virtues can thus be inaugurated, under the influence of a zeal exaggerating its own justification, there will be time later to insist on the complementary truths and to tack in the other direction after having been carried forward a certain distance by this oblique advance.

Absurdities nevertheless involved.

At the same time neglect of reason is never without its dangers and its waste. The Buddhistic system itself suffers from a fundamental contradiction, because its framers did not acknowledge the actual limits of retribution nor the empirical machinery by which benefits and injuries are really propagated. It is an onerous condition which religions must fulfil, if they would prevail in the world, that they must have their roots in the past. Buddhism had its mission of salvation; but to express this mission to its proselytes it was obliged to borrow the language of the fantastic metaphysics which had preceded it in India. The machinery of transmigration had to serve as a scaffolding to raise the monument of mercy, purity, and spirituality. But this fabulous background given to life was really inconsistent with

what was best in the new morality; just as in Christianity the post-rational evangelical ideals of redemption and regeneration, of the human will mystically reversed, were radically incompatible with the pre-rational myths about a creation and a political providence. The doctrine of Karma was a hypostasis of moral responsibility; but in making responsibility dynamic and all-explaining, the theory discountenanced in advance the charitable efforts of Buddhism—the desire to instruct and save every fellow-creature. For if all my fortunes depend upon my former conduct, I am the sole artificer of my destiny. The love, the pity, the science, or the prayers of others can have no real influence over my salvation. They cannot diminish by one tittle my necessary sufferings, nor accelerate by one instant the period which my own action appoints for my deliverance. Perhaps another's influence might, in the false world of time and space, change the order or accidental vesture of my moral experiences; but their quantity and value, being the exact counterpart of my free merits and demerits, could not be affected at all by those extraneous doings.

Therefore the empirical fact that we can help one another remains in Buddhism (as in any retributive scheme) only by a serious inconsistency; and since this fact is the sanction of whatever moral efficacy can be attributed to Buddhism, in sobering, teaching, and saving mankind, anything inconsistent with it is fundamentally

repugnant to the whole system. Yet on that repugnant and destructive dogma of Karma Buddhism was condemned to base its instruction. This is the heavy price paid for mythical consolations, that they invalidate the moral values they are intended to emphasise. Nature has allowed the innocent to suffer for the guilty, and the guilty, perhaps, to die in some measure unpunished. To correct this imperfection we feign a closed circle of personal retributions, exactly proportionate to personal deserts. But thereby, without perceiving it, we have invalidated all political and social responsibility, and denied that any man can be benefited or injured by any other. Our moral ambition has overleaped itself and carried us into a non-natural world where morality is impotent and unmeaning.

Post-rational systems accordingly mark no real advance and offer no genuine solution to spiritual enigmas. The saving force each of them invokes is merely some remnant of that natural energy which animates the human animal. Faith in the supernatural is a desperate wager made by man at the lowest ebb of his fortunes; it is as far as possible from being the source of that normal vitality which subsequently, if his fortunes mend, he may gradually recover. Under the same religion, with the same posthumous alternatives and mystic harmonies hanging about them, different races, or the same race at different periods, will manifest the most

The soul of positivism in all ideals.

opposite moral characteristics. Belief in a thousand hells and heavens will not lift the apathetic out of apathy or hold back the passionate from passion; while a newly planted and ungalled community, in blessed forgetfulness of rewards or punishments, of cosmic needs or celestial sanctions, will know how to live cheerily and virtuously for life's own sake, putting to shame those thin vaticinations. To hope for a second life, to be had gratis, merely because this life has lost its savour, or to dream of a different world, because nature seems too intricate and unfriendly, is in the end merely to play with words; since the supernatural has no permanent aspect or charm except in so far as it expresses man's natural situation and points to the satisfaction of his earthly interests. What keeps supernatural morality, in its better forms, within the limits of sanity is the fact that it reinstates in practice, under novel associations and for motives ostensibly different, the very natural virtues and hopes which, when seen to be merely natural, it had thrown over with contempt. The new dispensation itself, if treated in the same spirit, would be no less contemptible; and what makes it genuinely esteemed is the restored authority of those human ideals which it expresses in a fable.

The extent of this moral restoration, the measure in which nature is suffered to bloom in the sanctuary, determines the value of post-rational moralities. They may preside over a good life,

personal or communal, when their symbolism, though cumbrous, is not deceptive; when the supernatural machinery brings man back to nature through mystical circumlocutions, and becomes itself a poetic echo of experience and a dramatic impersonation of reason. The peculiar accent and emphasis which it will not cease to impose on the obvious lessons of life need not then repel the wisest intelligence. True sages and true civilisations can accordingly flourish under a dispensation nominally supernatural; for that supernaturalism may have become a mere form in which imagination clothes a rational and humane wisdom.

Moribund dreams and perennial realities.

People who speak only one language have some difficulty in conceiving that things should be expressed just as well in some other; a prejudice which does not necessarily involve their mistaking words for things or being practically misled by their inflexible vocabulary. So it constantly happens that supernatural systems, when they have long prevailed, are defended by persons who have only natural interests at heart; because these persons lack that speculative freedom and dramatic imagination which would allow them to conceive other moulds for morality and happiness than those to which a respectable tradition has accustomed them. Sceptical statesmen and academic scholars sometimes suffer from this kind of numbness; it is intelligible that they should mistake

the forms of culture for its principle, especially when their genius is not original and their chosen function is to defend and propagate the local traditions in which their whole training has immersed them. Indeed, in the political field, such concern for decaying myths may have a pathetic justification; for however little the life or dignity of man may be jeopardised by changes in language, languages themselves are not indifferent things. They may be closely bound up with the peculiar history and spirit of nations, and their disappearance, however necessary and on the whole propitious, may mark the end of some stirring chapter in the world's history. Those whose vocation is not philosophy and whose country is not the world may be pardoned for wishing to retard the migrations of spirit, and for looking forward with apprehension to a future in which their private enthusiasms will not be understood.

The value of post-rational morality, then, depends on a double conformity on its part with the Life of Reason. In the first place some natural impulse must be retained, some partial ideal must still be trusted and pursued by the prophet of redemption. In the second place the intuition thus gained and exclusively put forward must be made the starting-point for a restored natural morality. Otherwise the faith appealed to would be worthless in its operation, as well as fanciful in its basis, and it could never become a mould for thought or action in a civilised society.

CHAPTER XI

THE VALIDITY OF SCIENCE

The same despair or confusion which, when it overtakes human purposes, seeks relief in arbitrary schemes of salvation, when it overtakes human knowledge, may breed arbitrary substitutes for science. There are post-rational systems of nature as well as of duty. Most of these are myths hardly worth separating from the post-rational moralities they adorn, and have been sufficiently noticed in the last chapter; but a few aspire to be critical revisions of science, themselves scientific. It may be well, in bringing this book to a close, to review these proposed revisions. The validity of science is at stake, and with it the validity of that whole Life of Reason which science crowns, and justifies to reflection.

Various modes of revising science.

There are many degrees and kinds of this critical retractation. Science may be accepted bodily, while its present results are modified by suggesting speculatively what its ultimate results might be. This is natural philosophy or legitimate metaphysics. Or science may be accepted in part, and in part subjected to control by some other alleged vehicle of knowledge. This is traditional or in-

tuitive theology. Or science may be retracted and withdrawn altogether, on the ground that it is but methodological fiction, its facts appearances merely, and its principles tendencies to feign. This is transcendentalism; whereupon a dilemma presents itself. We may be invited to abstain from all hypostasis or hearty belief in anything, and to dwell only on the consciousness of imaginative activity in a vacuum—which is radical idealism. Or we may be assured that, science being a dream, we may awake from it into another cosmos, built upon principles quite alien to those illustrated in nature or applicable in practice—which is idealism of the mythical sort. Finally it may occur to us that the criticism of science is an integral part of science itself, and that a transcendental method of survey, which marshals all things in the order of their discovery, far from invalidating knowledge can only serve to separate it from incidental errors and to disclose the relative importance of truths. Science would then be rehabilitated by criticism. The primary movement of the intellect would not be condemned by that subsequent reflection which it makes possible, and which collates its results. Science, purged of all needless realism and seen in its relation to human life, would continue to offer the only conception of reality which is pertinent or possible to the practical mind.

We may now proceed to discuss these various attitudes in turn.

A first and quite blameless way of criticising science is to point out that science is incomplete. That it grows fast is indeed its commonest boast; and no man of science is so pessimistic as to suppose that its growth is over. To wish to supplement science and to regard its conclusions as largely provisional is therefore more than legitimate. It is actually to share the spirit of inquiry and to feel the impulse toward investigation. When new truths come into view, old truths are thereby reinterpreted and put in a new light; so that the acquisitions of science not only admit of revision but loudly call for it, not wishing for any other authority or vindication than that which they might find in the context of universal truth.

Science its own best critic.

To revise science in this spirit would be merely to extend it. No new method, no transverse philosophy, would be requisite or fitted for the task. Knowledge would be transformed by more similar knowledge, not by some verbal manipulation. Yet while waiting for experience to grow and accumulate its lessons, a man of genius, who had drunk deep of experience himself, might imagine some ultimate synthesis. He might venture to carry out the suggestions of science and anticipate the conclusions it would reach when completed. The game is certainly dangerous, especially if the prophecy is uttered with any air of authority; yet with good luck and a fine instinct, such speculation may actually open the way to

discovery and may diffuse in advance that virtual knowledge of physics which is enough for moral and poetic purposes. Verification in detail is needed, not so much for its own sake as to check speculative errors; but when speculation is by chance well directed and hits upon the substantial truth, it does all that a completed science would do for mankind; since science, if ever completed, would immediately have to be summed up again and reduced to generalities. Under the circumstances of human life, ultimate truth must forego detailed verification and must remain speculative. The curse of modern philosophy is only that it has not drawn its inspiration from science; as the misfortune of science is that it has not yet saturated the mind of philosophers and recast the moral world. The Greek physicists, puerile as was their notion of natural mechanism, had a more integral view of things. They understood nature's uses and man's conditions in an honest and noble way. If no single phenomenon had been explained correctly by any philosopher from Thales to Lucretius, yet by their frank and studious contemplation of nature they would have liberated the human soul.

Obstruction by alien traditions.

Unfortunately the supplements to science which most philosophers supply in our day are not conceived in a scientific spirit. Instead of anticipating the physics of the future they cling to the physics of the past. They do not stimulate us by a picture,

however fanciful, of what the analogies of nature and politics actually point to; they seek rather to patch and dislocate current physics with some ancient myth, once the best physics obtainable, from which they have not learned to extricate their affections.

Sometimes these survivals are intended to modify scientific conceptions but slightly, and merely to soften a little the outlines of a cosmic picture to which religion and literature are not yet accustomed. There is a school of political conservatives who, with no specific interest in metaphysics, cannot or dare not break with traditional modes of expression, with the customs of their nation, or with the clerical classes. They accordingly append to current knowledge certain sentimental postulates, alleging that what is established by tradition and what appeals to the heart must somehow correspond to something which is needful and true. But their conventional attachment to a religion which in its original essence was perhaps mystical and revolutionary, scarcely modifies, in their eyes, the sum of practical assurances or the aim of human life. As language exercises some functions which science can hardly assume (as, for instance, in poetry and communication) so theology and metaphysics, which to such men are nothing but languages, might provide for inarticulate interests, and unite us to much that lies in the dim penumbra of our workaday world. Ancient revelations and mys-

teries, however incredible if taken literally, might therefore be suffered to flourish undisturbed, so long as they did not clash with any clear fact or natural duty. They might continue to decorate with a mystical aureole the too prosaic kernel of known truth.

Mythology and ritual, with the sundry divinations of poets, might in fact be kept suspended with advantage over human passion and ignorance, to furnish them with decent expression. But once indulged, divination is apt to grow arrogant and dogmatic. When its oracles have become traditional they are almost inevitably mistaken for sober truths. Hence the second kind of supplement offered to science, so that revelations with which moral life has been intertwined may find a place beside or beyond science. The effort is honest, but extraordinarily short-sighted. Whatever value those revelations may have they draw from actual experience or inevitable ideals. When the ground of that experience and those ideals is disclosed by science, nothing of any value is lost; it only remains to accustom ourselves to a new vocabulary and to shift somewhat the associations of those values which life contains or pursues. Revelations are necessarily mythical and subrational; they express natural forces and human interests in a groping way, before the advent of science. To stick in them, when something more honest and explicit is available, is in-

Needless anxiety for moral interests.

consistent with caring for attainable welfare or understanding the situation. It is to be stubborn and negligent under the cloak of religion. These prejudices are a drag on progress, moral no less than material; and the sensitive conservatism that fears they may be indispensable is entangled in a pathetic delusion. It is conservatism in a shipwreck. It has not the insight to embrace the fertile principles of life, which are always ready to renew life after no matter what natural catastrophe. The good laggards have no courage to strip for the race. Rather than live otherwise, and live better, they prefer to nurse the memories of youth and to die with a retrospective smile upon their countenance.

Science an imaginative and practical art.

Far graver than the criticism which shows science to be incomplete is that which shows it to be relative. The fact is undeniable, though the inferences made from it are often rash and gratuitous. We have seen that science is nothing but developed perception, interpreted intent, common-sense rounded out and minutely articulated. It is therefore as much an instinctive product, as much a stepping forth of human courage in the dark, as is any inevitable dream or impulsive action. Like life itself, like any form of determinate existence, it is altogether autonomous and unjustifiable from the outside. It must lean on its own vitality; to sanction reason there is only reason, and to corroborate sense there is nothing

but sense. Inferential thought is a venture not to be approved of, save by a thought no less venturesome and inferential. This is once for all the fate of a living being—it is the very essence of spirit—to be ever on the wing, borne by inner forces toward goals of its own imagining, confined to a passing apprehension of a represented world. Mind, which calls itself the organ of truth, is a permanent possibility of error. The encouragement and corroboration which science is alleged to receive from moment to moment may, for aught it knows, be simply a more ingenious self-deception, a form of that cumulative illusion by which madness can confirm itself, creating a whole world, with an endless series of martyrs, to bear witness to its sanity.

To insist on this situation may seem idle, since no positive doctrine can gain thereby in plausibility, and no particular line of action in reasonableness. Yet this transcendental exercise, this reversion to the immediate, may be recommended by way of a cathartic, to free the mind from ancient obstructions and make it hungrier and more agile in its rational faith. Scepticism is harmless when it is honest and universal; it clears the air and is a means of reorganising belief on its natural foundations. Belief is an inevitable accompaniment of practice and intent, both of which it will cling to all the more closely after a thorough criticism. When all beliefs are challenged together, the just and necessary ones

have a chance to step forward and to re-establish themselves alone. The doubt cast on science, when it is an ingenuous and impartial doubt, will accordingly serve to show what sort of thing science is, and to establish it on a sure foundation. Science will then be seen to be tentative, genial, practical, and humane, full of ideality and pathos, like every great human undertaking.

Arrière-pensée in transcendentalism.

Unfortunately a searching disintegration of dogma, a conscientious reversion to the immediate, is seldom practised for its own sake. So violent a disturbance of mental habits needs some great social upheaval or some revolutionary ambition to bring it about. The transcendental philosophy might never have been put forward at all, had its authors valued it for what it can really accomplish. The effort would have seemed too great and the result too nugatory. Their criticism of knowledge was not freely undertaken, with the pure speculative motive of understanding and purifying human science. They were driven on by the malicious psychology of their predecessors, by the perplexities of a sophistical scepticism, and by the imminent collapse of traditional metaphysics. They were enticed at the same time by the hope of finding a new basis for the religious myths associated with that metaphysics. In consequence their transcendentalism was not a rehearsal of the Life of Reason, a retrospect criticising and justifying the phases of human

progress. It was rather a post-rational system of theology, the dangerous cure to a harmless disease, inducing a panic to introduce a fable. The panic came from the assumption (a wholly gratuitous one) that a spontaneous constructive intellect cannot be a trustworthy instrument, that appearances cannot be the properties of reality, and that things cannot be what science finds that they are. We were forbidden to believe in anything we might discover or to trust in anything we could see. The artificial vacuum thus produced in the mind ached to be filled with something, and of course a flood of rhetorical commonplaces was at hand, which might rush in to fill it.

Its romantic sincerity.

The most heroic transcendentalists were but men, and having imagined that logic obliged them to abstain from every sort of hypostasis, they could not long remain true to their logic. For a time, being of a buoyant disposition, they might feel that nothing could be more exhilarating than to swim in the void, altogether free from settled conditions, altogether the ignorant creators of each moment's vision. Such a career evidently affords all sorts of possibilities, except perhaps the possibility of being a career. But when a man has strained every nerve to maintain an absolute fluidity and a painful fidelity to the immediate, he can hardly be blamed if he lapses at last into some flattering myth, and if having satisfied himself that all sci-

ence is fiction he proclaims some fairy-tale to be the truth. The episodes of experience, not being due to any conceivable machinery beneath, might come of mere willing, or at the waving of a dialectical wand. Yet apart from this ulterior inconsistency and backsliding into credulity, transcendentalism would hear nothing of causes or grounds. All phenomena existed for it on one flat level. We were released from all dogma and reinstated in the primordial assurance that we were all there was, but without understanding what we were, and without any means of controlling our destiny, though cheered by the magnificent feeling that that destiny was great.

Its constructive impotence.

It is intelligible that a pure transcendentalism of this sort should not be either stable or popular. It may be admired for its analytic depth and its persistency in tracing all supposed existences back to the experience that vouches for them. Yet a spirit that finds its only exercise in gloating on the consciousness that it is a spirit, one that has so little skill in expression that it feels all its embodiments to be betrayals and all its symbols to be misrepresentations, is a spirit evidently impotent and confused. It is self-inhibited, and cannot fulfil its essential vocation by reaching an embodiment at once definitive and ideal, philosophical and true. We may excuse a school that has done one original task so thoroughly as transcendentalism has

done its examination of the cognitive conscience, if it has failed to do something else to which it did not distinctly address itself and for which it had no aptitude—namely, to discover what is really true. But it becomes necessary to note this limitation, especially when it is virtually disallowed, and when science is systematically disparaged in favour of a method that is merely disintegrating and incapable of establishing a single positive truth.

The legitimacy of the transcendental method is so obvious that it is baffling when unfamiliar and trifling when understood. It is somewhat like the scientific discovery that man is an animal; for in spite of its pompous language and unction, transcendentalism, when not transcended, is a stopping short at the vegetative and digestive stage of consciousness, where nothing seems to be anything but a play of variations in the immediate. That is what science has risen from; it is the primordial slime. But to stop there and make life consist in hearing the mind work is illiberal and childish. Maturity lies in taking reason at its word and learning to believe and to do what it bids us. Inexperience, pedantry, and mysticism—three obstacles to wisdom—were not absent from those academic geniuses by whom transcendentalism was first brought forth. They became consequently entangled in their profundity, and never were masters of their purposes or of their tools.

The dethronement of empirical knowledge which these philosophers announced was occasioned by the discovery that empirical knowledge was ideal and hypothetical; that its terms, like all terms in thought, were thrown out during the fission or crystallisation of a growing experience. Science accordingly was merely a set of ideas; its subject-matter seemed to be sucked in and absorbed by the theory that presented it, so that when the history of science was written the whole substance and meaning of science was exhausted. This damaging implication, that what is ideal is imaginary and that what is inferred exists only in the fooled mind that infers it, would, if it were allowed, make short work of all philosophy. Theology would fare no better than science, and it is hard to see how transcendental idealism itself could stand, if it pretended to constitute an articulate theory of reality. All faith would be invalidated, since it would be proved to be faith only, having no real object. But then history itself is a science; and to represent a series of events or related phenomena in time would be to pretend to impossible knowledge. It would become necessary to retract and withdraw the alleged evolution of thought itself, in which science was to figure as an imaginative device and a passing episode. History and experience would be nothing but the idea of them; and the Absolute Ego or Absolute Life also, in so far as any-

Its dependence on common-sense.

thing could be said of it, would be simply an integral term in the discourse that described it. And this discourse, this sad residuum of reality, would remain an absolute datum without a ground, without a subject-matter, without a past, and without a future.

Its futility.

It suffices, therefore, to take the supposed negative implication in transcendentalism a little seriously to see that it leaves nothing standing but negation and imbecility; so that we may safely conclude that such a negative implication is gratuitous, and also that in taking the transcendental method for an instrument of reconstruction its professors were radically false to it. They took the starting-point of experience, on which they had fallen back, for its ultimate deliverance, and in reverting to protoplasm they thought they were rising to God. The transcendental method is merely retrospective; its use is to recover more systematically conceptions already extant and inevitable. It invalidates nothing in science; much less does it carry with it any rival doctrine of its own. Every philosophy, even materialism, may find a transcendental justification, if experience as it develops will yield no other terms. What has reason to tremble at a demand for its credentials is surely not natural science; it is rather those mystical theologies or romantic philosophies of history which aspire to take its place. Such lucubrations, even if reputed certain, can scarcely be

really credited or regarded in practice; while scientific tenets are necessarily respected, even when they are declared to be fictions. This nemesis is inevitable; for the mind must be inhabited, and the ideas with which science peoples it are simply its involuntary perceptions somewhat more clearly arranged.

Ideal science is self-justified.

That the relativity of science—its being an emanation of human life—is nothing against its truth appears best, perhaps, in the case of dialectic. Dialectic is valid by virtue of an intended meaning and felt congruity in its terms; but these terms, which intent fixes, are external and independent in their ideal nature, and the congruity between them is not created by being felt but, whether incidentally felt or not, is inherent in their essence. Mathematical thinking is the closest and most intimate of mental operations, nothing external being called in to aid; yet mathematical truth is as remote as possible from being personal or psychic. It is absolutely self-justified and is necessary before it is discovered to be so. Here, then, is a conspicuous region of truth, disclosed to the human intellect by its own internal exercise, which is nevertheless altogether independent, being eternal and indefeasible, while the thought that utters it is ephemeral.

The validity of material science, not being warranted by pure insight, cannot be so quickly made out; nevertheless it cannot be denied systemati-

cally, and the misunderstood transcendentalism which belittles physics contradicts its own basis. For how are we supposed to know that what we call facts are mere appearances and what we call objects mere creations of thought? We know this by physics. It is physiology, a part of physics, that assures us that our senses and brains are conditions of our experience. Were it not for what we know of the outer world and of our place in it, we should be incapable of attaching any meaning to subjectivity. The flux of things would then go on in their own medium, not in our minds; and no suspicion of illusion or of qualification by mind would attach to any event in nature. So it is in a dream; and it is our knowledge of physics, our reliance on the world's material coherence, that marks our awakening, and that constitutes our discovery that we exist as minds and are subject to dreaming. It is quite true that the flux, as it exists in men, is largely psychic; but only because the events it contains are effects of material causes and the images in it are flying shadows cast by solid external things. This is the meaning of psychic existence, and its differentia. Mind is an expression, weighted with emotion, of mechanical relations among bodies. Suppose the bodies all removed: at once the images formerly contrasted with those bodies would resume their inherent characteristics and mutual relation; they would become existences in their

Physical science is presupposed in scepticism.

own category, large, moving, coloured, distributed to right and left; that is, save for their values, they would become material things.

Physics is accordingly a science which, though hypothetical and only verifiable by experiment, is involved in history and psychology and therefore in any criticism of knowledge. The contradiction would be curious if a man should declare that his ideas were worthless, being due to his organs of sense, and that therefore these organs (since he had an idea of them) did not exist. Yet on this brave argument idealism chiefly rests. It asserts that bodies are mere ideas, because it is through our bodies that we perceive them. When physics has discovered the conditions under which knowledge of physics has arisen, physics is supposed to be spirited away; whereas, of course, it has only closed its circle and justified its sovereignty. Were all science retracted and reduced to symbolic calculation nothing would remain for this calculation to symbolise. The whole force of calling a theory merely a vehicle or method of thought, leading us to something different from itself, lies in having a literal knowledge of this other thing. But such literal knowledge is the first stage of science, which the other stages merely extend. So that when, under special circumstances, we really appeal to algebraic methods of expression and think in symbols, we do so in the hope of transcribing our terms,

It recurs in all understanding of perception.

when the reckoning is over, into the language of familiar facts. Were these facts not forthcoming, the symbolic machinery would itself become the genuine reality—since it is really given—and we should have to rest in it, as in the ultimate truth. This is what happens in mythology, when the natural phenomena expressed by it are forgotten. But natural phenomena themselves are symbols of nothing, because they are primary data. They are the constitutive elements of the reality they disclose.

Science contains all trustworthy knowledge.

The validity of science in general is accordingly established merely by establishing the truth of its particular propositions, in dialectic on the authority of intent and in physics on that of experiment. It is impossible to base science on a deeper foundation or to override it by a higher knowledge. What is called metaphysics, if not an anticipation of natural science, is a confusion of it with dialectic or a mixture of it with myths. If we have the faculty of being utterly sincere and of disintegrating the conventions of language and religion, we must confess that knowledge is only a claim we put forth, a part of that unfathomable compulsion by force of which we live and hold our painted world together for a moment. If we have any insight into mind, or any eye for human history, we must confess at the same time that the oracular substitutes for knowledge to which, in our perplexities, we might be tempted

to fly, are pathetic popular fables, having no other sanctity than that which they borrow from the natural impulses they play upon. To live by science requires intelligence and faith, but not to live by it is folly.

It suffices for the Life of Reason.

If science thus contains the sum total of our rational convictions and gives us the only picture of reality on which we should care to dwell, we have but to consult the sciences in detail to ascertain, as far as that is possible, what sort of a universe we live in. The result is as yet far from satisfactory. The sciences have not joined hands and made their results coherent, showing nature to be, as it doubtless is, all of one piece. The moral sciences especially are a mass of confusion. Negative, I think, must be the attitude of reason, in the present state of science, upon any hypothesis far outrunning the recorded history and the visible habitat of the human race. Yet exactly the same habits and principles that have secured our present knowledge are still active within us, and promise further discoveries. It is more desirable to clarify our knowledge within these bounds than to extend it beyond them. For while the reward of action is contemplation or, in more modern phrase, experience and consciousness, there is nothing stable or interesting to contemplate except objects relevant to action—the natural world and the mind's ideals.

Both the conditions and the standards of ac-

tion lie well within the territory which science, after a fashion, already dominates. But there remain unexplored jungles and monster-breeding lairs within our nominal jurisdiction which it is the immediate task of science to clear. The darkest spots are in man himself, in his fitful, irrational disposition. Could a better system prevail in our lives a better order would establish itself in our thinking. It has not been for want of keen senses, or personal genius, or a constant order in the outer world, that mankind have fallen back repeatedly into barbarism and superstition. It has been for want of good character, good example, and good government. There is a pathetic capacity in men to live nobly, if only they would give one another the chance. The ideal of political perfection, vague and remote as it yet seems, is certainly approachable, for it is as definite and constant as human nature. The knowledge of all relevant truth would be involved in that ideal, and no intellectual dissatisfaction would be felt with a system of ideas that should express and illumine a perfect life.

THE END