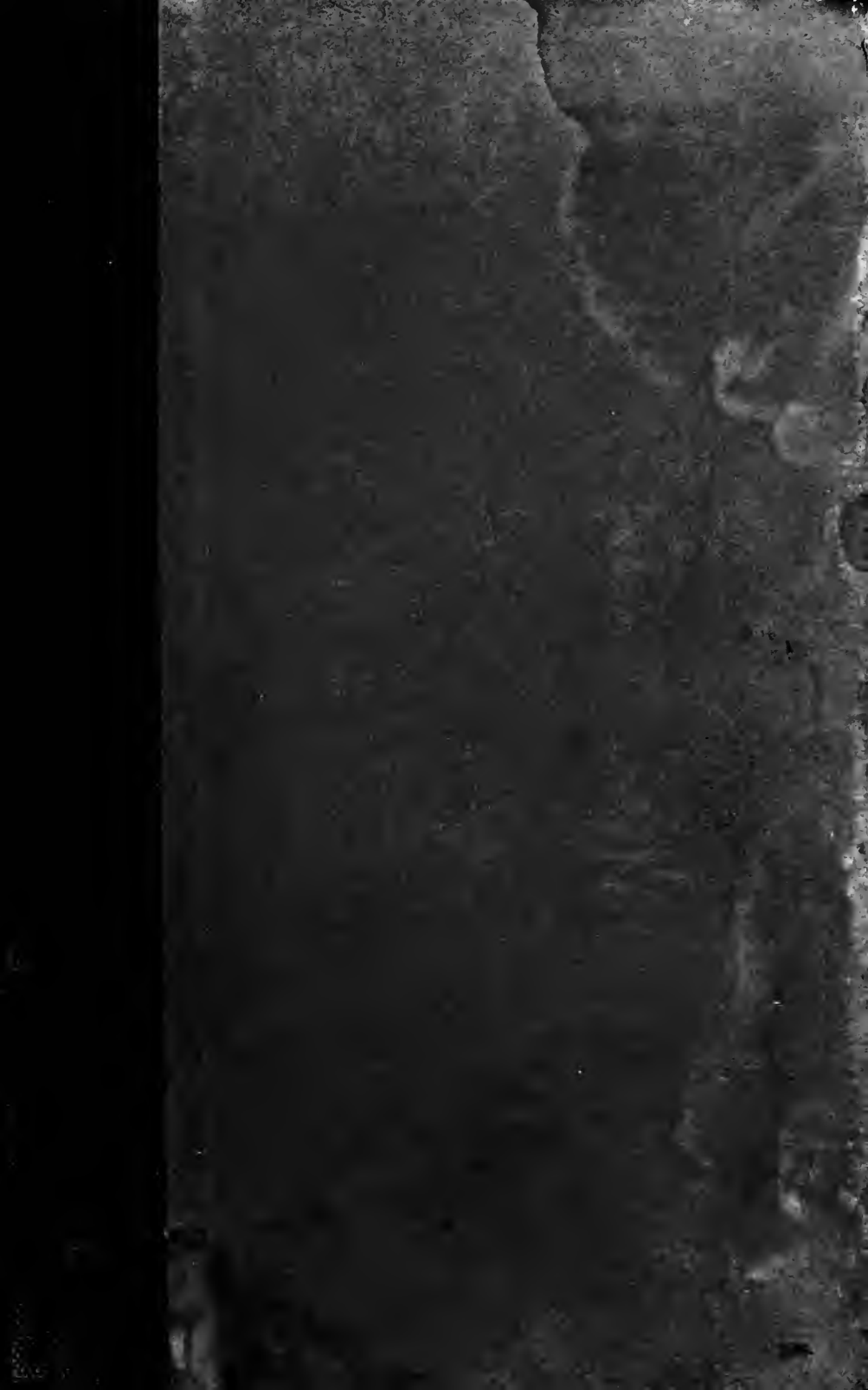

THE ETHICAL ASPECTS OF EVOLUTION

REGARDED AS

THE PARALLEL GROWTH OF OPPOSITE TENDENCIES

BY

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Ritorna a tua scienza,
Che vuol, quanto la cosa è più perfetta,
Più senta 'l bene e così la doglienza.

DANTE, *Inf.* vi. 106.

Non enim cogitationes meae, cogitationes vestrae; neque viae vestrae, viae meae, dicit Dominus. Quia sicut exaltantur caeli a terra, sic exaltatae sunt viae meae a viis vestris, et cogitationes meae a cogitationibus vestris.

Isaiah lv. 8, 9.

Veneramur autem et colimus Eum ob Dominium. Deus enim sine Dominio, Providentia et Causis finalibus, nihil aliud est quam fatum et Natura.

NEWTON, *Principia, Scholium generale* (ad fin.).

INTRODUCTION

THE purpose of the following essay is twofold; in the first place, to enforce the view that the process of evolution, whether it be forward and in the direction of further development, or backward and degenerative, has never exhibited the isolated advance or decay of any single principle in the pairs of opposites, such as good and evil, pain and pleasure, ignorance and knowledge, and many others, which enter into the total complex of human nature; but that, on the contrary, when any one of the partners in any such a pair has either grown or decreased, the other partner too has shared the growth or decrease to an approximately equal extent. The other half of our purpose has been to trace the connexion of this principle with ethics, or the systematic representation of our judgements on human conduct.

No long account of the circumstances in which this essay was produced is called for. The idea of evolution as the equal and parallel progression of opposites was suggested to me, while I was still an undergraduate, by the simultaneous study of Herbert Spencer and Schopenhauer. My mind was already prepared for its reception by the lesson taught by Tocqueville, that in the republican institutions of America, when compared with the institutions of the old world, special advantages were nearly counterbalanced by special drawbacks. At first my generalization only took in the contrasted pair of pleasure and pain; very soon it was extended to good and evil; and finally it came to embrace adaptation and misadaptation generally, or, in other words, the whole of the phenomena of life when regarded under the aspect of evolution. At this point it was my lot to enter a service whose absorbing duties left neither the leisure nor the appetite for abstract speculation, and the theory was not carried further. But it was far from being lost sight of. I had been much impressed by an idea of its magnitude,

and of the practical importance of the conclusions which might be drawn from it; it was seldom wholly absent from my thoughts, and I was determined that, as soon as circumstances were favourable, I would take it up again. The task, which I resumed in 1897, after an interval of thirty years, was this: to deduce a systematic explanation of human conduct from premisses which were neither optimist nor pessimist, but indifferent. The unifying principle of which I was in search did not occur to me till early in 1906. It is this: that though men's *actions* may be determined sometimes in the direction of progress, and at others in the direction of decay, the sole determinant of their *valuations* is sympathy with the process of development, or forward evolution.

The first lesson to be gained from a study of biological change is that it does not always follow the same direction. The immense progress which may be observed when the lowest forms of life are compared with the highest has not been obtained by a uniform advance along every channel in which change has run. In countless instances the process has been abruptly broken off by the extinction of the species. Where the species has survived, the change has been sometimes in the direction of increased complexity, in others, of simplification; and in innumerable instances the principle of evolution, after having effected only a very low grade of differentiation, does not appear to have asserted itself further; or the change, when it occurs, has been in details which do not involve either simplification or increased complexity of structure. For races which have attained a high degree of differentiation there may be, so far as the future can be predicted from the past, three possible futures; either destruction, or continued growth in complexity, or simplification—contrasted processes which may also be distinguished as development and degeneration. For mankind as a whole, the escape, except by extinction, from the alternative processes of evolutionary change, and the acquisition of permanently stationary conditions, is too purely speculative a conception to call for discussion. The

distinctive characteristic of forward evolution is not the elimination of defects, or the acquisition or preservation of advantages, but the parallel development of both defects and advantages, accompanied by a continually increasing output of energy.

When we inquire what are the most favourable conditions for survival, we find that increased complexity, or advance in evolution, is not one of them. Victims are taken from every grade, and the highest has no immunity. The explanation appears to be this—what is demanded for survival is a very nice adjustment of the whole organism to its surroundings. When that adjustment is disturbed, either by the excessive development of any single principle in the animal, to the prejudice of the rest of its organism, or by any excessive change in the environment (such, for instance, as the appearance on the scene of a competing species) to which the organism is unable to respond, destruction ensues. What, then, are required for survival are, first, a sufficient but not excessive plasticity, and, secondly, that, when an animal either advances or recedes, the development or the degeneration should be general, and not confined to any one part of its organism. This disturbance of the adjustment is at least as likely to take place in the higher as in the lower ranks of life. Finally, the changes in the environment are usually of a kind which cannot be foreseen.

This equal liability to extinction, which is common to all grades of evolution, we may express in other terms as the parallel progression of adaptation and misadaptation; thereby meaning that, so long as a species survives, the dangers to which it is exposed are always counterbalanced, but not more than counterbalanced, by its capacity for resistance. The ratio of gain to loss is constant. Both sides of the equation increase with its development, and diminish with its degeneration, and the gain and loss on either side are about equal throughout. The first ethical deduction from this principle is the following. It is fair to presume, at least provisionally, that what is true of the organism taken as a whole may also be true of each of the

pairs of opposites which enter into its composition. Among these pairs of opposites a prominent position is occupied by pleasure and pain. The presumption that our formula holds good of these is confirmed by an appeal to the facts of experience, and it is certainly better qualified to serve as the basis of ethical speculation than the wild and conflicting doctrines of optimism and pessimism, which have no other foundation than in the emotions of the men who profess them. If, however, pleasure and pain are so nearly equal at every stage of evolution that they cancel one another, no residue is left over when either is subtracted from the other; and if pleasure is the sole test of value, it follows necessarily that the value of life at all periods of evolution must be exactly equal, and that the value throughout is zero. This, however, is absurd; for we find that in fact some kinds of life are more highly valued than others. Every one, for example, would sooner be a free man than a slave, or a man than of any lower species of animal. Our problem, then, is to discover the grounds of these preferences.

Before we proceed to a direct attack on this problem we must decide on a plan of operations, and select the method by which it is to be guided. Our choice is limited. All inquiries must be either scientific or teleological, and none can be both. One of these infers the future from the past, and its standard of truth is agreement with the law of uniformity; the other classifies its subject-matter with reference to a future end, and its standard of truth is conformity with that end. It is impossible to apply both methods to the same subject-matter, because they are contradictory in this respect—that one must deny freedom of choice, and the other must affirm it.

Our employment of the scientific method is barred; for the following reasons. In the first place, because all preferences are based on valuations, and of values the law of uniformity tells us nothing. All values are determined with reference to a final end which is valuable in itself. The value of science itself is teleological, and is derived from the end which it subserves. The second disqualification is

this—that even if, conceivably, value could be discovered by scientific methods, we are unable, in the present conditions of knowledge, to apply those methods to the facts with which we are dealing—that is, to the internal phenomena of the consciousness—a disability which is suggested by, and accounts for, the vast difference in range and certainty between predictions which refer to events in external nature and those which refer to human action and its consequences. This limitation of our powers is generally recognized, and variously explained. Either the greater complexity of the phenomena of the human mind, or the obstacles in the way of isolating them for purposes of experiment, or both combined, may be sufficient reasons ; but a still more conclusive reason appears to be that they do not admit of being defined in terms of space. The application of the law of uniformity to external nature is conditioned by the possession of measurements of a high degree of exactness, and a slight initial error will completely falsify remote conclusions. Exact measurements cannot be obtained except for dimensions in space and time. Of these, the first are entirely wanting in the case of mental processes, and the second, if obtainable at all, which may be doubted, are of no practical use. All that we have to rely on are rough comparisons which never approach the degree of accuracy demanded by scientific methods. In this there is no cause for regret. The triumph of scientific method in all departments of knowledge would, by crippling the emotions and the imagination, bring about a dislocation of our present relations with the environment which it is difficult to suppose we should survive.

Our method, then, must be teleological, and our classification of objects as good or bad must be with reference to a final end which we locate in the future, and not with reference to the chain of past events. When a final end is regarded as the determinant of action, it is called a purpose. Each series of actions begins with a purpose. The universal purpose, and that is what we are in search of, is a single final end to which all separate purposes converge, and to

which they are means. The concept is anthropomorphic, and involves, first, freedom of choice, that is to say, absence of empirical compulsion ; secondly, alternatives from which the choice may be made ; and, in the third place, the intelligent application of a criterion. These attributes, in combination, constitute a personality. But a cosmic personality must differ from any personality of which we can form any conception. In the first place, it can have no alternatives to choose between, and therefore no choice, whether determined or free. Again, human purpose is always partial, and indifferent to by far the greater part of the results, whereas the cosmic purpose must include all the results of its energy. A purpose that intends everything that happens must be essentially different from human purpose. A personality of some kind must be postulated ; the necessities of our existence require it, and we should be compelled to assume it, even if human purpose were proved to be a chimera ; but it cannot be empirical.

If we criticize the concept of design in the light of the past history of evolution, we are led to the same conclusion. The history of the past discloses no single comprehensive aim to the attainment of which all subordinate processes have been directed. It is not harmony, for the essential characteristic of development is increased conflict ; nor the preservation of the species ; and this for two reasons—first, because the higher are at least equally liable to destruction with the lower, and, secondly, because the preservation of the species cannot be an end in itself, but must be explained with reference to some further end, of which we are in ignorance. Nor can it be any form of pleasure, for increase of pleasure is always attended by increase of pain ; nor, for a similar reason, any other element in human nature in isolation from its opposite. To say it is perfection tells us nothing, for, if perfection and the final end are the same thing, we know no more about the one than we do about the other.

There is indeed, as we have already remarked, one constant character which is distinctive of forward evolution—

that is, the evolution of force or energy, both in aggregate amount and in variety; and its concentration, through increased complexity of structure and specialization of function, either in individual organisms or in organized communities. This latter distinction gives rise to a number of difficult and important problems, which I have not been able to take up; but, in the main, the same principles contribute to the advance or the decay of both state and individual, and the omission is not fatal. Heroism is as valuable and self-indulgence as baneful to the one as to the other. But increase of force cannot be regarded as an end in itself, and is only valuable as a means to an end. It would be an impotent conclusion that the final end of evolution was force, but not force that was to be used in any assignable direction. And yet this is as far as we can go, unless we are willing to assert an end that is transcendental. Within the world of experience we find neither the type of personality nor the kind of final end which is demanded by the exigencies of a teleological explanation.

Enough, for the present, has been said about evolution. We may now approach the question of how human preferences are determined, and what is the general principle which explains why one kind of life or one line of conduct is valued more highly than another. Our first observation will be that what we have to examine for the detection of this principle is not the motives to conduct, but the judgements which we pass either on the motives or on the conduct itself. The detection of a universal motive would leave us exactly where we were. It would throw no light on the problem why we prefer one line of action to another; as the criterion between good and evil conduct could not possibly be found in a feature which was common to both. If all conduct is governed by the desire of happiness, it no doubt follows that good conduct is governed by that desire, as the part is included in the whole; but so also, and for the same reason, must bad conduct be governed; and the only conclusion possible is that the pursuit of happiness cannot be the test of goodness, inasmuch as it fails to distinguish

one class of conduct from the other. An opponent of Hedonism could find no better support to his own views than the admission, were it true, that happiness is the sole end of action. But, fortunately, or unfortunately, it does not square with facts.

If our actions were always guided by our estimates of value, and, which is the same thing, we invariably took the best of all the values that are offered to us, we should never act wrongly, for wrong conduct can mean nothing else but the preference of a lower over a higher value. All conduct being perfect, no ethical question could arise. The plea of compulsion would be irrelevant, for judgements of praise and blame postulate freedom. The mere facts that actions are wrongly motivated, and that men recognize and approve the good but follow what is worse, prove that the value at which we rate a motive is not proportionate to the strength of its influence on conduct. The primary subjects of our inquiry are, therefore, our judgements on motives, and not the degree of influence which those motives exercise on conduct. That our valuations exercise some influence on our conduct is not of course denied, and the stronger that influence is, the better will be the resultant conduct. When all other influences but those of the highest values are excluded, the conduct is faultless.

Our estimate of any specified kind of conduct (including both motives and acts) is based on the consideration that it helps or hinders the achievement of some end which we regard as good. When the end is known, we distinguish the conduct which conduces to it as useful. But the value of the same conduct lies not so much in its utility as in the value which we attach to the end it subserves. No means are *valuable* in themselves. If we attach a high value to the end, the conduct which helps us to realize it is not only useful, but also valuable. If the end is bad, the conduct is still useful, but it is the reverse of valuable. Now the ends of human conduct are innumerable, and of every conceivable degree of value and condemnation, and some general end must be given before we can explain

first, why we value some kinds of conduct and condemn others, and, secondly, why there are degrees both of value and of condemnation. If it is asked what that end is, the plain and certain answer is this—we do not know; and, until we discover it, we must be content to regard as good or bad in themselves all those empirical ends which we either value or condemn.

We need not, however, give up the inquiry on the first check. A further cross-examination of our value-judgements may wring from them, if not their whole secret, some knowledge, at any rate, that is worth having. Our first result is negative. No one of the ends which we have rejected as the possible final end of evolution can be accepted as the final end of human conduct; not harmony, because many men, and those not the least highly honoured, prefer a life of strenuous conflict; nor happiness, for there are very few who value nothing more, and they who do are not the most highly respected; nor, for the same want of comprehension, any other single recognized end of human action.

In another respect the valuations of conduct agree with the process of forward evolution. In the same way as the latter is endangered by the excessive development of any one principle which disturbs the adjustment of the whole specific complex to its surroundings; so, classes of motive which are usually of a high value cease to be admired when they are in excess. This principle, though its practical application is often a matter of some difficulty, may easily be exemplified. The religious motive is, normally, perhaps the most highly valued of all; but, when its influence becomes excessive, the value, instead of increasing, gives place to condemnation. It is then called bigotry, or superstition. It should be remarked that the law of excess applies only to the influence of empirical ends-in-themselves, and not to the means to those ends. There can be no excess of utility, or of the adaptation of means to a known end. If, to anticipate the conclusion of our argument, increase of force is the test of good conduct, and

the utility of force, as a means, consists in its promoting a transcendental end, there can be no excess in the development of force.

In close relation to the principle that values are to be sought for in our judgements and not in our motives is the distinction which must be drawn between subjective and objective values. The valuations of each individual will be very strongly biased by self-love. The same natural disposition to overrate the worth of his own children or own possessions will also affect each man's valuation of his own motives, and lead him to admire in himself conduct which may appear to others of little or no value. His judgements on the conduct of his neighbours will often, though not by any means always, be biased in the same direction, and give rise to a class of perverted values, which when they are taken to the market, will not be accepted by the great majority of dealers. The perversion may sometimes be in the opposite direction, and there are men who are led by a strong sense of their own unworthiness to depreciate unjustly their own motives; but such cases are not equally common. Judgements of a personal derivation, whether they are unduly favourable or unduly depreciative, are of no use in determining a scale of objective values. That must be found in the more general and lasting valuations of men who are not directly interested. The most striking illustration of this law is afforded by the motive of pleasure. Conduct which is guided by that motive is often rated highly by individuals, when that conduct is their own; but in the general estimation of mankind it has no value whatever—and here another distorting influence must be allowed for. What each man desires he values, while the desire lasts, at a much higher rate than when the desire is absent. The extravagant delusions of the lover are a matter of common observation. *Quisquis amat ranam, ranam putat esse Dianam.* But the principle is universal. His own comfort and his own pleasures are desired by every one, and, on that account, invested by him with an importance which is purely subjective, and is not

conceded by others who are not subject to the same deluding influence. Such objects are valued because they are desired, and not desired because they are valuable.

The best information we possess as to the conduct or personal qualities which are normally rated at a high value is to be found in the history of the past, and the established reputations of our predecessors on the stage of life. The estimates of any one age, like the judgements of an individual on his own conduct, are certain to be biased by the spirit of that age; and its distinctive principles of action will be invested with a fictitious and partial value. The great men of one age are not always the great men of the next. It is only the highest values that maintain their position for long, and it is to them we must turn for the primary indications of a persistent universal end of action. When we pass in review the great names whose title to reverence has stood the proof of time, we shall find one point which is common to all—that is, the extent and direction of the influence they have exerted on the fortunes of mankind. This is common to every kind of greatness; to the conqueror and the man of science, to the religious or the moral reformer, to eminence in art or literature; and the influence has always been in the direction, not of greater net happiness, for that, as we have seen, has not been the result, but of advance along that line of progress which separates men from cattle, and the civilized man from the savage—an advance which constitutes the only form of improvement which has a permanent and universal value. This criterion, which may be easily discerned in the case of the higher values, is equally applicable to lower values, degrees of value being roughly proportionate to degrees of influence. Personal eminence is no doubt admired on its own account, but not so greatly if it bears no fruit, and solely as a concrete exemplification of the advance which all men desire for themselves. On the other hand, all conduct which degrades a man, or threatens others with degradation, is the object of contempt and aversion. Now the essential property of forward evolution is increase of force, and force is not

valuable in itself, but as a means to an end which is unknown to us. The universal criterion of value is, therefore, approximation to an unknown end. Finally, all evolution up to the present day has taken the form of the parallel progression of opposites, and, as long as the same process is maintained, it must be impossible to discover that end within the world of experience.

There is thus disclosed an interesting parallel between the processes of nature and the mind of man. The deeds and desires of men may be either good or bad, as the processes of nature are sometimes beneficent and at others destructive; but their value-judgements are always such as we might put in the mouth of forward evolution, could that be represented as a person reflecting with approval on his own behaviour. The parallel development of adaptation and misadaptation, and the narrowness of the margin by which the organism, at all stages of evolution, maintains its existence against the hostile forces of decay and destruction, are reflected in the consciousness of man by the parallel growth of good and evil.

This, then, is our conclusion, and the main steps in the argument which leads up to it. One other point remains to be noticed. Ethics has frequently been identified with morality, and described as the science of morals, or of how a man ought to act; but, if it is a study of value-judgements, in their relation to a universal final end, this description appears to be incomplete. There are many classes of human achievement, which, if value means respect and admiration, take rank in the first class of values, though the term morality can only be applied to them, if at all, with an extreme violence to common usage which is an almost certain sign of faulty classification. It was not their moral qualities which gained for Julius Caesar or Socrates their assured eminence; and it would be clearly absurd to rule that all men ought to act as they acted. But of the value of their conduct there can be no question, and either there must be two or more ends of conduct or that value must be determined by the same end which determines the

values of morality. The first of these suppositions is inadmissible. By following up this clue we arrive at the first universal dichotomy of ethics. All values fall into one or the other of two classes. They are values, either of self-assertion or of self-effacement, of ambition or of goodness. Of this pair of opposites, both are necessary for further development, and, if the development is to be healthy and permanent, the growth of each must be roughly proportionate to the growth of the other.

For morality, in its more restricted sense, the whole scale of values is ultimately derived from the reactions of the conscience on the apprehension of acts either done or intended by the individual himself or by his neighbour. Those reactions (which are originally movements of attraction and repulsion), when they are clearly reflected on the consciousness, are generalized and translated into value-judgements. The value-judgements of the conscience are distinguished from all others, not only in their origin, but also in their sanctions; neglect being punished by remorse: and in their being accompanied by a peculiar feeling of compulsion or obligation. A code of values which is binding for each individual is given to him by his own conscience. Societies, making use of the value-judgements of their individual members, construct from them codes of morality, which differ from, and sometimes contradict, many of the judgements from which they are generalized, being usually more complete than the average, and on a slightly higher level. An abstract system of morality has for its basis the moral valuations of all the races of mankind, as far as they can be ascertained, those of a stage of development most nearly corresponding to our own taking the first rank as evidence.

Maxims of self-discipline and self-denial, and that is the general character of the maxims of morality, are difficult and painful to comply with; whereas self-assertion is, in comparison, both easy and pleasant. It is, perhaps, for this reason that the influence of religion is usually on the side of the former, and that the peculiar obligations of the conscience

are reinforced by the sanctions of divine law. Both morality and religion consist most readily with a view of the world of experience which is so far pessimist that it attaches little or no value to the inducements to action which that world has to offer us. Self-assertion, on the other hand, is inseparably bound up with the feeling which, when it becomes articulate, expresses itself in theories of optimism.

CHAPTER I

THE PARALLEL GROWTH OF OPPOSITES

Of all the attempts to give a systematic form to Hedonic theories of conduct, by far the most formidable and the most important is that which identifies, or exactly correlates, pleasure with adaptation, and pain with misadaptation. The great majority of writers on ethics have assumed the basis, whether it was optimist or pessimist, as their needs or their prepossessions dictated, and make no serious attempt to test the value of their premisses. This is true of the Utilitarians, who assumed as an indisputable axiom, that no other principle of conduct but the pursuit of pleasure and the avoidance of pain was even conceivable. The 'Synthetic' philosophy of Mr. H. Spencer, though, no doubt, it owes its life to the same social and intellectual atmosphere, differs from Utilitarianism in this—that, by incorporating Hedonism as an essential principle in all organic evolution, it raises it to the position of an integral element in a comprehensive explanation of life.[1] The whole theory deserves, therefore, especially careful consideration, and we shall find it worth our while to examine it on its biological side, leaving out of sight, for the present, all reference to pain and pleasure.

The theory is so recent, and so widely known, that it would be a waste of labour, and might at the same time distract the attention to irrelevant issues, to attempt to present it as a whole. The following short extracts give a general indication of the view which we propose to criticize.

The first, which are taken from Darwin's *Origin of Species*, give a picturesque account of the process of evolution, as it is conceived by the writer :—

'It may metaphorically be said that natural selection

[1] Cf. James, *Varieties of Religious Experience*, p. 91.

is daily and hourly scrutinizing throughout the world the slightest variations ; rejecting those that are bad, and adding up all that are good ; silently and insensibly working, wherever and whenever opportunity offers, at the improvement of each living being in relation to the organic and inorganic conditions of life (p. 95, 4th ed.). Natural selection can act on each part of each being solely through and for its advantage ' (id. p. 177) ; and ' as natural selection works solely by and for the good of each being, all corporal and mental endowments will tend to progress towards perfection ' (id. p. 577).

These may be supplemented by a passage from Dr. F. C. Schiller's essay in *Personal Idealism*, p. 58 :—

'The conception of natural selection was suggested by human selection. Its procedure by trying is so far analogous to that of our own intelligence, and it is denied to be that of an intelligence only because of a misunderstanding of the methodological character of the postulate of indefinite variation. We may, therefore, plausibly contend that if a superhuman intelligence is active in the formation of the Cosmos, its methods and its nature are the same as ours ; it also proceeds by experiment, and adapts means to ends, and learns from experience.'

The essential nature of this process, as conceived by Mr. H. Spencer,[1] is that it everywhere produces greater fitness to the conditions of existence, be they what they may. Applying alike to the lowest and highest forms of organization, there is in all cases a progressive adaptation, and a survival of the most adapted. This progressive adaptation consists in a multiplication of the points of contact between the organism and its environment, each new point being one of correspondence. Not only do no new points of conflict arise, but points of conflict already in existence are gradually eliminated by the disappearance, in the competition for survival, of those races in which they occur. The end to which the process is directed is a perfect life, constituted by a perfect correspondence of the organism with its environment. At that ultimate end of evolution

[1] H. Spencer, *Biology*, i. 354.

there would be no changes in the environment but such as the organism had adapted changes to meet; it would never fail in the efficiency with which it met them; there would be eternal existence, and universal knowledge.[1] Approximation to this desirable end is measured by the number of separate adaptations which have been accumulated, and, as this is the same thing as the number of distinguishable vital processes, it follows that the best adapted organism is also the most complex. Complexity of organization, and fitness to survive, are interchangeable terms.

This theory, pleasant though it may be, gains no support from a reference to the facts of experience. We may survey the whole of nature without finding a single instance where the number of adaptations has increased, while the number of misadaptations has decreased, or even remained stationary. What we find everywhere, in forward evolution, is a simultaneous and parallel increase of both. The difficulty and danger which attend our entrance into the world is an instance of misadaptation which is almost peculiar to the highest varieties of mankind. 'The ease with which a savage woman gives birth is much more like that of a wild beast. She will often deliver herself without aid, and, subject to the ceremonial rules of the tribe concerning uncleanness, in a very little time she is able to return to her usual occupations.'[2] The same holds good of the offspring. At no stage of life is the increased misadaptation of the higher animals to their environment more marked than in infancy. Even in the lower orders of vertebrates the young are still able to maintain themselves without the care of their parents; in the higher orders, such as birds and the more recently evolved mammals, the very young are dependent on them for food and shelter. But the full measure of infantile helplessness is only reached in man, and the species is weighted in the struggle for existence not only by the imperfect adaptation of the young, but also by the onerous duties which are thereby imposed

[1] H. Spencer, *Biology*, i. 88.
[2] Hartland, *Myth of Perseus*, ii. 401.

on the adults. Of the misadaptations which cut short the natural length of life, the most destructive is disease. In its worst and most repulsive forms of leprosy and syphilis it is peculiar to the human race; various kinds of mental malady are nearly so, and all these appear to be increasing rapidly among civilized races. Even if medical science more than keeps abreast with the development of disease—and that is doubtful—the preservation of large numbers of aged individuals, who would otherwise have given place to the more vigorous, will not necessarily prove of unmixed advantage to the race. Disease, which is the usual cause of death among men, counts for little or nothing among the lower animals.

It is, however, unconvincing to compare single processes, one with another, in respect to the advantages or disadvantages attached to each. The facts admit of a more general statement, namely, that every fresh modification, even if it answers, as most of them obviously do, some special purpose, at the same time is attended by new risks and disadvantages to the organism as a whole. This point has been so admirably expressed by Prof. Bateson, in the introduction to his *Materials for the Study of Variation*, that I venture to make use of his words:—

'It is obvious from inspection that any instinct or any organ may be of use; the real question we have to consider is of how much use it is. To know that the presence of a certain organ may lead to the preservation of a race is useless if we cannot tell how much preservation it can effect, how many individuals it can save that would otherwise be lost; unless we know also the degree to which its presence is harmful; unless, in fact, we know how its presence affects the profit and loss account of the organism. We have no right to consider the utility of a structure demonstrated, in the sense that we may use this demonstration as evidence of the causes which have led to the existence of the structure, until we have this quantitative knowledge of its utility, and are able to set off against it the cost of the production of the structure, and all the difficulties which its presence entails on the organism. . . . In the absence of correct and final estimates of utility, we must never use the utility of

a structure as a point of departure in considering the manner of its origin; for, though we can see that it is, or may be, useful, yet a little reflection will show that it is, or may be, harmful; but whether on the whole it is useful or on the whole harmful can only be guessed at. It thus happens that we can only get an indefinite knowledge of adaptation, which, for the purpose of our problem, is not an advance beyond the original knowledge that organisms are all more or less adapted to their circumstances.'

In other words, no special adaptation can be used as evidence of a higher or lower degree of general adaptation; and the general adaptation of a creature is the balance of all the advantages and disadvantages of all its separate organs, including some which appear to be altogether useless, though they are not always, on that account, wholly innocuous.

What is true of single structures is equally true of general conditions of life. The food of civilized nations is, no doubt, more varied than that of a savage, but that is not without corresponding drawbacks; it implies more varied wants; and a simple diet is perhaps more conducive to health and length of life. That it is more easily obtained is uncertain. The natives of Otaheite, when Captain Cook visited them, were better off in this respect than many more civilized nations have been. Animals and the lower races of man have no prerogative of famine. Every advance in personal security brings with it overcrowding, and an increased strain on the means of subsistence. These, again, are redressed by famine, war, disease, and pestilence. Artificial checks are likely to be a worse remedy than those provided by nature. They bring about a permanent degeneration of character, whereas the others pass by, and may leave the nation even stronger for what it has gone through. Sanguine inventors tell us that the discovery and improvement of explosives and engines of death will make war impossible: but there are worse evils than war—and a peace where it would be easy for every man to take his neighbour's life, or upset the social arrangements on which private and public security depend, would be one of them.

A still more general statement of the case is possible. Irrespective of the special uses and drawbacks of each organ regarded by itself, there is a general drawback which is common to all. That is, that by the destruction, or even by the imperfect functioning, of any one of them the activity of the whole organism may be impaired or finally arrested. Stated in its most general terms, forward evolution consists in the multiplication of parts combined with an increased solidarity between all of them. That this unity of purpose, with division of labour, must greatly benefit the output of work, in regard to both its quantity and its quality, is obvious; but it is not equally clear that it conduces to the stability of the animal, or of the race. A very slight injury may disable or kill a man, whereas a polypus will be none the worse for being cut into many fragments. The more highly specialized animal is far inferior to its lowly ancestors in the power of repairing damaged parts, and of reproducing them when lost, and every fresh specialization means a fresh source of danger added to those which existed before. Moreover, the more highly developed an organ is, the greater, as a rule, are both its value and its liability to derangement. It is only necessary to instance the eye and the brain of man.

When, therefore, we appeal to facts, we do not find that it is the most highly developed types that have subsisted longest in the general struggle with the environment. It is known that on continents mammals appear and disappear at a quicker rate than other and lower animals.[1] The protozoa have survived innumerable species of their more highly organized descendants, and are likely to survive many more. Of all the species which occupied the highest places immediately before the advent of man, scarcely one has endured to our day. In the special case of a conflict between different species, instances where the lower type triumphs over the higher are numerous. The degenerate dodder kills the most highly developed plants, wheat is destroyed by blight and rust, civilized empires have been overthrown by hordes of savages. The list is endless. In his own struggle

[1] *Origin of Species*, xii. 469, 4th edition.

for existence, it is not from his more highly developed competitors that man has cause to fear. The primitive forms of microscopic life are still his most vigorous and most formidable assailants.

Not only is it true that the same causes which produce increased adaptation, at the same time produce misadaptation, but the general process of change does not necessarily imply an increase of either. The definition of evolution as growth, accompanied by increase of structure, applies only to a limited proportion of the whole number of results, whose explanation must be sought for in the varied interaction of the same general laws.[1] Besides what may be called the forward type of evolution, we find some cases where the process is one of simplification of structure, and others where the change is merely qualitative, and does not, as far as observation tells us, affect the complexity of the organism in either direction. The barnacle is a favourite example of the first, and the caterpillar, which exchanged a brown colouring pigment for a green, of the second type of change. In the matter of mere growth also, as well as of structure, the progress may be in either direction. The male of the spider, the dwarf elephants whose fossil remains have been discovered in Malta, the pygmies of Central Africa, are examples of a loss of size which is not retrogressive, as it represents no previous stage in the generic history. How great a share of the whole process is supplied by the action of what may be called degenerative evolution we do not yet know, but it is at any rate far too considerable to be overlooked in calculating the future from the past.

Neither do we clearly understand under what conditions forward evolution is arrested, and the tendency to increased complexity gives place to a process of simplification; but it shows how little attention has been paid to this most important aspect of biological history that the increased plenty and security, which are reckoned by the synthetic philosopher among the distinctive features in advancing

[1] H. Spencer, *Biology*, i. 133, note

evolution, are, in fact, a sure source of retrogression. It has been remarked by Dr. Archdale Reid[1] that species undergo 'evolution only under adverse conditions, and degeneration only under beneficial conditions'. Prof. Ray Lankester, in his short essay on *Degeneration*,[2] writes to the same effect: 'Any new set of conditions occurring to an animal which render its food and safety very easily attained seem to lead, as a rule, to degeneration. The habit of parasitism clearly acts upon animal organization in this way. Let the parasitic life once be secured, and away go legs, jaws, eye, and ears; the active, highly-gifted crab, insect, or annelid, may become a mere sac, absorbing nourishment and laying eggs.' And Prof. Geddes: 'The reversion exhibited by so many species among the higher arthropods from sexual reproduction to more primitive forms of genesis is explained by pointing out that such species are peculiarly situated in obtaining abundant food with little exertion.'[3]

Prof. Lankester compares the purely physiological results with what occurs in a higher and more complex level of life, and observes that, in the same way, 'an active healthy man sometimes degenerates when he becomes suddenly possessed of a fortune, and Rome degenerated when possessed of the riches of the ancient world.' He might have added that degeneration appears to be no more likely than progression to bring about extinction. We have no reason to believe that parasites are losing ground in the struggle for existence, or that peoples who have been able to establish permanent relations in subordination to a dominant race have forfeited anything of their fitness to survive.

An examination of the results of artificial selection will confirm the view that increased complexity is no criterion of fitness to survive, and, at the same time, explain why it should not be. It will, I think, be admitted that, whatever results breeders and horticulturists may have secured,

[1] *Principles of Heredity*, p. 158.
[2] E. Ray Lankester, *Degeneration*, p. 33.
[3] *Evolution of Sex*, p. 287.

increased general adaptation to the surroundings has not been one of them. The giant strawberry, the pouter or fantail pigeon, the racehorse, the improved bullock, are not inferior in complexity to their wild congeners, but, instead of gaining or even remaining stationary in this respect, have lost the faculty of self-preservation, which is the distinguishing-mark of wild species; and, as soon as the breeder's protection is withdrawn, will either revert to something like their original form, or disappear in the struggle for existence. The wild forms, where they exist, are already so far adapted to their environment as to be able to persist while that remains unchanged, and artificial variations are nearly certain to disturb the balance on which their security depends. This principle is so well illustrated in a paper in the *Times* of September 9, 1899, that I need no apology for quoting the whole passage :—

'There are two ways in which science and invention can produce, and have produced, a large increase in the yield of sugar from the raw material, whether cane or beet. One is by inducing a larger initial richness in the sugar-producing juice, by means of experimental cultivation, and judicious selection of the plant which yields it. . . . The saccharine matter in any plant is, under natural conditions, a determinate and probably a constant factor in the physiological economy of the plant. Left to nature and itself, the plant will only produce just so much sugar as is conducive to its physiological well-being, and no more. But, just as we can by breeding and feeding induce in our domestic animals qualities neither native to the animal nor conducive to its physiological welfare, but specially adapted to the several uses we require the different animals to subserve, so, by a similar method of cultivation and selection, we can develop in plants, far beyond their physical needs, the particular qualities and capacities which best subserve our own purposes and requirements.'

In Germany, the yield of sugar in beetroot, 'owing to the invaluable assistance which German chemists have given to the agriculturists,' rose, during the period between 1840 and 1899 from 5·72 to 13 per cent.[1] If the improved

[1] *Contemporary Review*, May, 1904.

plant were grown under the same conditions as its wild ancestors, we may be assured that it would not maintain for long this artificial rate of production; and the chances would be against its survival in any form.

That the same result would ensue from any attempt to improve the human race by arts similar to those employed by the breeder of cattle is as nearly certain as anything untried can be. Force would be diverted to channels which engaged the interests of the day, at the expense of other channels, which, though less conspicuous, are equally or, perhaps, more necessary for the preservation of the race. The Greek would breed for beauty, the Red Indian for cruelty, the Italian for craftiness; but it is not to be expected that any nation would breed for poverty, chastity, and obedience. Even if we were contented with a combination of the more widely recognized virtues, such as courage, truth, and disinterestedness, with intellectual efficiency, physical strength, and sound bodily health, we should be confronted with a task such as no breeder would willingly undertake. But none of these could be safely neglected, and all together would not be enough to secure safety. The attempt would be beset by innumerable latent dangers, such as the best-informed could never divine, interference with the normal rate of reproduction being among the more likely. If designs for improving the race in respect to its present relations with the environment are fraught with more danger than profit, preparations to meet future changes must be pronounced wholly chimerical. That we have sufficient insight to predict the emergencies that must be provided for, and sufficient skill to produce the adaptations which those will demand, no sober judgement will assert. The elimination of well-defined pathological disorders, such as insanity, is not, of course, to be confounded in the same judgement with the attempt to enforce evolution along particular paths of our own selection; but even that is not without its dangers.

The only reasonable explanation of the failure of artificial breeding to produce organisms which are independent of

an artificial environment is that nature demands from the creature a nice adaptation in all its parts, which cannot be disturbed without the gravest danger to its continued existence. This principle applies when the environment is regarded as stationary, as Mr. H. Spencer sometimes appears to conceive it. In hypothetical conditions of that kind variation does not seem to be called for at all, and excessive variation would certainly be fatal. It is equally valid in a changing environment, such as that we are actually acquainted with. Excessive variation in that produces monsters, which, like the products of artificial breeding, are violent deviations from an established type, when there has been no corresponding variation in the environment, and for which, in the same way, the prospects of survival are slight, or none at all.

This delicate equilibrium between the different parts of an organism, and between the whole organism and its environment, is at least as necessary to survival in the highest forms of life as in the lowest. Indeed, it is likely to be more so, inasmuch as increased complexity is attended by increased liability to derangement. A watch is more likely to go out of order than a ploughshare. If this be true, increased complexity, instead of being the criterion of fitness to survive, is rather the reverse, and tells against the chance of survival; and the *a priori* probability appears to be, to some extent, confirmed by the comparative permanence of more and less highly developed types in the past, which has already been referred to.

Simplicity of structure is not, then, the criterion by which the destructive forces of nature are guided in their selection, and, as far as I know, no other has ever been suggested. No single characteristic of form or function, or assemblage of such characteristics, can be indicated as having served in the past, or being likely to serve in the future, as a constant source of danger to the creature possessing it. To say that the unfit are eliminated is mere tautology, unless some general quality can be detected which has always served as a criterion of unfitness. If we were able to distinguish

those qualities which tend to destruction, we should be able to predict, with some prospect of success, which of all existing races is next doomed, or at any rate from which stage of development the victim will be drawn. This foreknowledge is altogether denied to us. Even for those races in which it may be conjectured that the process has already commenced, the inference is based on a mere numerical decrease, and not on the observation of any deficiency which in past times, and for other races, has led to the same result. The elephant, when compared with other animals, is not wanting in intellect, or in physical strength, or in the social virtues, or in length of life, or in general complexity of structure.

Our conclusion, then, is that though there has obviously been a very great increase in the number and complexity of both adaptations and misadaptations, there is no evidence to show that either has gained on the other. Evolution, instead of contradicting, confirms the general accuracy of Hume's judgement, based on the contemplation of a supposed stationary order of nature:—

'Every animal has the requisite endowments; but these endowments are bestowed with so scrupulous an economy, that any considerable diminution must entirely destroy the creature. The human race, whose chief excellency is reason and sagacity, is of all others the most necessitous, and the most deficient in bodily advantages; without clothes, without arms, without food, without lodging, without any convenience of life, except what they owe to their own skill and industry. In short, nature seems to have formed an exact calculation of the necessities of her creatures, and, like a rigid master, has afforded them little more powers or endowments, than what are strictly sufficient to supply those necessities.'[1]

Biology crosses the frontier which divides it from ethics when it identifies increased complexity of structure with improvement; and, as in these notes biological questions are regarded solely with reference to their ethical implications, it is strictly relevant to inquire how far, and in what

[1] *Natural Religion*, Part XI.

sense, the identification is legitimate. In the first place, it is clear that, if the end of increased complexity is not immunity from destruction, and if that and improvement are identical, then neither can immunity from destruction be the end of improvement. What, then, do we mean when we speak of improvement ? Its bare definition is—a change which gives us satisfaction. In common parlance, the word is employed in two distinct senses, and the failure to discriminate between them has been a source of error in biological speculation. The object in the first kind of improvement is the elimination of defects ; the instrument is not discarded, but retained in a less faulty shape. The process in this case is usually one of simplification. In the second kind of improvement, the object is increased power, without reference to any other quality, and the original instrument is not improved, but superseded, probably in favour of one of an entirely different type. The process here is almost always in the direction of increased complexity. There may be some difficulty in illustrating these principles by concrete examples, but the distinction of aim is real, and important, and quite intelligible.

The improvement, then, in the machine itself, consists in the elimination of faults, in increased strength, in economy in wear, in changes in weight or structure, which, without altering its essential character, make it cost less, last longer, and more surely realize the special ends for which it is designed. The evolution of the brewer's dray and the barouche from the primitive cart running on wooden wheels may be taken as an example of this kind of improvement. The steam carriage is an example of the second kind. Instead of being an improved form of the carriages which it supersedes, it constitutes, by the incorporation of the motive power into itself, an entirely new type of machine ; and though, in respect to the main end of speedy transport, its advantages are unquestionable, it restores some of the faults which had been eliminated from the older form of carriage, and introduces many new ones of its own. It is heavier, more costly, less durable, and far more liable both to internal

derangement and to accidents from outside; it requires greater skill to keep in order, and is more frequently in want of repairs. It is much more powerful, but certainly not better adapted to its whole environment.

It is quite clear that the sense in which the word improvement is understood by evolutionists is the first. 'The more complete moving equilibrium, the better adjustment of inner to outer relations, the more perfect co-ordination of action,'[1] which are to bring mankind nearer to the ultimate end of eternal existence and universal knowledge, have their analogue in the slow processes by which the carriage of the wealthy was perfected from the country waggon. It is a prospect which some men would welcome, but unfortunately nothing of the kind is to be observed in nature. The improvement we observe there is of the second kind—that which makes the change from a barouche to a steam-carriage. Whether the transition was by imperceptible degrees, or sudden, as in the case of human inventions, is immaterial. In either case man is not an improved monkey, with its faults eliminated, and its virtues preserved, but a different animal—superior in the total amount of force it disposes of, but with drawbacks and disabilities greatly increased, both in degree, and in manner, and in variety. What constitutes his advance in evolution is increased power; but that does not carry with it any improvement in his chances of survival. Nevertheless, it is an improvement in the strictest sense of the word. It is a change which gives us the highest and most intense satisfaction of which we are capable; though, if adaptation be correlative to pleasure, and misadaptation to pain (a proposition which we need not stop to discuss), there is no clear balance of adaptation, and consequently none of pleasure. The satisfaction arises from the increase of power itself, and is not dependent on any supposed algedonic accompaniment.

A further distinction is this. The first kind of improvement has a more or less definite ideal of perfection to work up to. When a man improves a pistol, or a billiard-

[1] H. Spencer, *Biology*, iii. 497.

ball, or a sheep, or a sugar-cane, he knows with fair exactness what he wants. The second kind of improvement has no terminus or ideal, but is merely the continuation of an endless process. The processes of artificial selection differ from the processes of nature in this vital characteristic—that with the former we know what end is aimed at, with the second we do not.

Remembering, then, that every organism depends for its continued existence on a nice adjustment between its constituent parts and its environment, and that this proposition is equally true of every organism in all stages of evolution, we may go on to consider in what sense, if any, nature can be said to make a selection when one class goes under, and another remains, and still beholds the light of the sun. In order to do this, we must have a clear idea of what we mean by selection.

Selection, like improvement, is a concept borrowed from the furniture of the human mind. When applied to nature its use is anthropomorphic, and it cannot mean anything essentially different from what it means when applied to man. Even if the use is only by analogy, there still must be some points in common. Now the minimum of connotation for the term is the differential treatment of two objects. In the second place, the two objects between which the choice is made must themselves differ or have different implications; if two objects are exactly alike, they must be equally desirable or undesirable, and choice is impossible. In the third place, in order that choice may have any scientific value or meaning, it must be based on some known criterion. If a blind man selects one of two pictures, his choice is fortuitous; the next time he would probably select the other. Again, if we want to make any scientific use of our observations, we must know what the criterion is. Unless the criterion is known, the preferential action is no better for our purposes than a blind choice. Finally, in men at least, there must be free-will. This, of course, is not found in nature; but, if the other constituents in the concept of human selection were found in the processes of nature, it

would be quite a legitimate analogy to speak of those as selective.

What is meant by nature in biological theory is the whole environment, or everything that affects the organism from without. It may be doubted in what class the houses of men, or the nests of birds, or the webs of spiders, or other specific products of the organism itself, should be included; but this, though really a difficult question (the waste products of men, for instance, have a very important bearing on their life-history), must be passed by. The opposition between the organism and its environment may be taken for granted, without any exact delimitation of frontiers.

Nature, then, or the environment, is never exactly the same for two consecutive moments. Besides the constant changes, such as the alternations of night and day, summer and winter, to which all existing species must already have become adapted, there are always other processes which, by effecting permanent alterations in the conditions of life, demand permanent alterations in the structure of the individual organism, in order that its necessary adjustment to its surroundings may be restored. Theoretically, it makes no difference whether the changes are slow and secular, as when a glacial period supervenes, or sudden, like the irruption of a horde of barbarians. No doubt the second of these differs from the other in that it may be repelled, but then there will have been no permanent change —it will have been averted. If the barbarians succeed in establishing themselves, the former inhabitants must either adjust themselves to the new conditions, or depart, or cease to exist. The competition between two species for the means of subsistence is only a special case of change in the environment, and does not call for separate notice in a general discussion of the concept of natural selection. It will be remembered that it is not always the most highly organized which wins.

There are three different modes in which nature, or the environment, acts on the organism. Of these, two resemble

selection in all particulars except free-will; the third is not selective in any way. The first of these methods of operation has been already referred to. When a considerable change occurs in the organism with no corresponding change in the environment, the organism usually perishes; it is cut off by the environment. Here we have differential action on the part of the environment, which destroys one and spares another of two differing organisms, and we, further, have a criterion; that is, the compliance on the part of the organism with a definite standard of adjustment.

The second mode of action on the part of the environment, which is quasi-selective, takes place when there is a change in the environment without any change on the part of the organism of a kind to bring about a fresh adjustment. In that case those organisms which are affected by the change in the environment perish, while those which are not affected survive. When a gradual change is met, through variation, by a gradual readjustment, the organism in the process of variation escapes the destructive action of the environment; but the preservative principle in that case lies in the organism itself, and not in the environment.

The most satisfactory method for testing the law of survival would be to take a number of instances of conflict between two species, and to show, first, that in each case it was the most complex which survived, and, secondly, by what specific action (want of food or other) the environment brought about its victory. Unfortunately, this is not in our power. The law is purely *a priori*, and is unable to appeal for support or illustration to a single clear and well-established example. It may, however, help us to more distinct views as to what is meant by natural selection if we examine a supposed instance of its operation, which is quoted by Mr. Vernon in his essay on *Variation in Animals and Plants* (p. 350). Within the last hundred years or so the mice inhabiting a sandbank in the neighbourhood of Dublin have undergone a noticeable change in colour, and now harmonize much more closely with the sand than their pilgrim forefathers did. They also make their own

burrows, instead of using holes ready made for them by other animals. The suggested explanation is as follows: 'The development of the protective coloration and habits probably owes its origin to the short-eared owls and hawks which are noticed to frequent the sandhills, and which would more readily perceive and capture the darker mice.'[1]

This, though put forward as a crucial instance, does not appear to contain anything which bears out the theory as stated by the author, that 'evolution is brought about by the action of natural selection on variations, in selecting some, and rejecting others'. There was no evolution in the sense in which Mr. Vernon uses the word; no increase of complexity, or of fitness to survive, and if the word selection applied at all it was for destruction; the animals which did survive were wholly unaffected. The instance will, however, repay a closer examination.

It does not seem necessary to discuss the general bearings of the new protective habit of burrowing holes; our information on that point is insufficient. We are not told whether the mice found in their new quarters holes ready made for them by other animals. If they did, it is not clear why those should not have had the same protective value as holes made by themselves, especially as they were new to the work, and the other animals may be presumed to have had long practice. If they did not find them, then it is probable that their inherited instinct to have recourse to holes would have prompted them to make them, even if there had been no hawks to escape from.

The change of colour is more instructive, and suggests the following observations.

First. There was no struggle for existence between the mice which survived and the mice which succumbed. The island was roomy, and, for all we know, all the mice, whatever their colour, might have survived and multiplied, side by side, for an indefinite period—at any rate, competition is not said to have influenced the result. It was not a case under the law of struggle for existence.

[1] Loc. cit., p. 352.

Secondly. The selective agency, that is the hawks and short-eared owls, was purely destructive. It promoted no organic process in the mice which survived, nor helped in any way to preserve their lives.

Thirdly. The preservative principle resided in the animals themselves. Either there were grey individuals among the original immigrants—and their present numerical majority is due solely to the greater mortality of the brown mice—or the first appearance of grey mice may have been due to the superior mimetic capacity of some individuals when compared with others. In the latter case, as the mimetic faculty, though unevenly distributed, was probably not entirely wanting in any, the whole population might have become grey in time, even if the hawks had not appeared. The hawks certainly kept down the numbers of the total population of both colours, but they did not hasten the process of conversion; as it is incredible that they should have any stimulating influence on the mimetic faculty itself. Indeed, the whole of the change in the proportionate numbers of brown and grey may conceivably have been due to the gradual operation of the mimetic instinct, and not to the birds.

Again, if by evolution is meant increased complexity of structure, this is not a case of evolution at all. There may have been some slight changes in structure correlative with the change in colour, but there is no reason for supposing that they were in the direction of increased complexity. Nor did the lighter colour give a general advantage in the struggle for existence. If the migration had been to dark surroundings, it is the grey mice who would have been conspicuous. They would have succumbed, and the brown mice survived.

The last lesson which we have to draw from this supposed case of evolution is this. The destructive agency is not the whole environment, or any indefinite part of it, but the introduction of some definite new feature or incident. The organisms which are destroyed are those which are unable to react in the way they should to that incident only; in

all other respects they may be as well adapted as those which survive, or even better. In the case we have considered, it was the birds which selected the brown mice; but it is entirely beyond the capacity of man, and still more obviously of other organisms, to predict and take measures of protection against similar dangers. No superior keenness of intellectual or instinctive prevision could have warned the snipe that the swift and zigzag flight which is his peculiar safeguard against his feathered enemies would make him the favourite prey of the human sportsman. No single adaptation, not even intellectual superiority, however great an increase of power it may bring with it, can be relied on as a defence against all the unforeseen assaults that may be delivered by the environment; nor can any accumulation of them. If the one demanded by the special emergency is not present, all the others are unavailing. The degree of adaptation, if by that is meant the degree of complexity which has already been attained, is immaterial.

Enough for our present purpose has been said on those two modes, or general classes, of natural action which bear some resemblance to human selection. The third mode of natural action which we had in mind was the ordinary influence exercised by the environment generally on the forms of life exposed to it. Here, it is certain, nothing which remotely resembles selection can be found. The operations of nature are uniform, and show no traces of differential action when differing objects are exposed to them. The sun shines, and the rain falls on the just and the unjust alike; and when there is a difference in the effect, the whole of that difference must be traceable to differences in the organism itself and its reactions.

To go further into this question would involve the reopening of the whole problem on its biological side. For this I have no competence, and, fortunately, it is not material to the ethical problems with which I am concerned. But I am tempted to remark that there is no apparent reason why the changing demands of the environment should not be satisfied by stationary changes, such as we saw in the case

of the mice. Should that be true, it would be necessary to go to the germ itself for the principles which determine the course of evolution, and explain why one race gains in complexity and power, while another loses.

We are now in a position to recapitulate. The propositions in current theories of evolution which have a direct bearing on the theory of human conduct are the following :—

That evolution always consists in increased adaptation and decreased misadaptation ; that it is always identical with increased size and complexity of structure ; and that increased complexity is the criterion of fitness to survive. We have given reasons for dissenting from each of these propositions. That the misadaptations of the higher organisms greatly exceed, both in number and in degree, those of the lower is so plain a fact as to be beyond the reach of discussion ; evolution is not always in the direction of increased complexity, but often in the direction of increased simplicity of structure ; and, finally, increased complexity is no criterion of fitness to survive. Victims are drawn from all levels in the scale of evolution, and, as we have no other criterion (complexity being rejected) of fitness to survive—and as there can be no choice without a criterion—natural selection, in the sense in which that term is used by Mr. H. Spencer, is what that author calls a pseud-idea ; that is, a concept, which has no counterpart in the world of experience.

We have gone on to show that there is a sense in which nature can, without any outrage on the meaning of words, be said to select. When, however, nature chooses, it is always with the intent to destroy, and the criterion for destruction is incomplete adjustment between the organisms and the environment. All organisms, from the amoeba to the man, are equally well adapted to their environment, so long as they persist ; their mere existence is proof that the adjustment is sufficiently complete, and an adjustment that is more than that is an absurdity. This adjustment may be dislocated by one or both of two causes—a change in themselves, or a change in the environment ; and a serious

dislocation always entails destruction. The risks of dislocation are as great in the case of the higher as they are in the case of the lower organisms, or perhaps greater. So long as a race subsists it is fit; when it becomes unfit, it ceases to exist. Nature selects the unfit for destruction, and does not select the fit at all, but leaves them alone. There neither are, nor can be, degrees of fitness, the difference between a positive and a negative is not a difference of degree, and the survival of the fittest is another pseud-idea.

Finally, the word 'improvement', when applied to the process of forward evolution, means increase of power, but not elimination of defects, or enhanced fitness to survive. For the principles which bring about an accession of power we must probably go to the organism itself. If purpose is to be ascribed to nature, or the environment, it must be, first, to provide by its own changes against a stagnant level of life; and, secondly, in so far as it is stable, to arrange the results of its changes in classes, by cutting off those forms in which the internal principle of change is abnormal. It evokes order out of chaos, but is quite indifferent as to what the elements of that order may be.

The value of the general argument from evolution is this: it embraces the whole of our experience; and there is a strong presumption that what is found true for the process as a whole will also be found true for the subordinate processes by which that whole is constituted. If pleasure and pain were regarded by themselves, we might indeed observe, at all stages of the world's history, a steady advance in both; but when we proceeded to inquire on which side the growth had been most active, and how the balance stood at present, we should be thrown back on the argument from incomplete induction, and left a prey to the prejudices, illusions, and inexact concepts which rob it of all philosophical value. When, however, we discover that there are good reasons for believing (in the absence of exact measurements, knowledge is beyond our reach) that the general process has been one of the equal concurrent development of both of the contrary

processes of adaptation and misadaptation, we may, in the absence of any kind of opposing evidence, feel justified in extending the presumption to such strongly marked special factors in the sum total as pleasure and pain.

Our conclusion is confirmed by the observation of other factors. Good and evil, in the ethical sense, differ, among other things, from pain and pleasure, in having a much more recent origin. They may perhaps be predicated with some show of propriety of such of the higher animals as live in societies. When rooks mete out a collective vengeance on malefactors, we witness the operation of an instinct, which at least resembles in many respects the ethical impulses of humanity. Our ignorance of the processes of the rooks' consciousness debars us from bringing it under any distinctively human classification, and it is perhaps impossible to draw the line which divides the rudimentary principle from the organic product. In any exact sense, the moral qualities, as we know them, begin with man, and the earliest stage we can make use of for comparison is that of savages. Even within that narrow period we find the same concurrent progression of both sides of the antithesis. As in the case of pains and pleasures, so, here too, we find a growth in intensity, accompanied by an increase in number and variety, not in one direction only, but in both. If the virtues of the savage are fewer and simpler than those of the member of a civilized community, so also are his vices. The supreme heights of moral grandeur and the lowest abysses of depravity are alike closed to him. It is a matter of observation that the extreme manifestations of both are synchronous—the corruptions of the Roman Empire with the birth of the Christian virtues; the sublime heroism of the Middle Ages with their atrocious crimes. A commonplace age is undistinguished in either way. The numerical multiplication of duties ensues, in the first place, on an extension of the range of the ethical interests, and in the second, on the growth of new interests within the old; and every new duty is the occasion of a new virtue, or a new vice, according as it is observed or neglected. The family

gives rise, through many intermediate gradations, to the nation, and the nation to the empire; to the duties of patriotism are added the still undefined and loosely recognized duties to humanity, or even to the whole of animate nature. Throughout the process the great majority of the claims that have been established against the individual survive, and are neither merged nor relaxed. Similarly, within the nation, we see the birth of political parties; of classes such as noble and plebeian, or an even more minute subdivision into castes, or occupations, with distinct and often opposed interests, such as the agricultural and mercantile, and, within the mercantile, of guilds and trades unions; each with its separate claim on the individual, running concurrently with those of his family, of his country, and of humanity at large. The concentration which is demanded for the prosecution of great aims, becomes continually more difficult with the increasing number of distractions; failure is more frequent, and success demands a greater expenditure of moral force. The increase in social complexity, and advance in knowledge, give rise to new and more hateful forms of fraud, violence, and vice; and facilitate at once their perpetration and the escape of the offenders from punishment. As the temptations of a great city are greater than those of the country, so also is the strength of moral character which is required for their resistance.

Enough has been put forward to show that the growth has not been on one side only. It would indeed appear, at a first glance, that the growth of moral evil has been greatly preponderant. We may, however, be reassured when we reflect that evil is usually exhibited by acts of commission, which force themselves on the attention; whereas good more commonly consists in abstention, in the inhibitions, the self-denial which escapes observation, and can only be inferred. With the clue gained from a study of the general facts of evolution, we may regard it as probable that the increase on both sides of the moral equation has been approximately even, and that neither shows a decided balance in its favour when compared with the other.

There are many other pairs of opposites which obey the same law of parallel evolution. The range of our experience is continually enlarged by the acquisition of new facts, but we have no means of comparing the total mass of its contents with what still remains to be admitted. There is here no pair of opposites within our experience. The most reasonable supposition is that there is no finite universe of fact, and that, though we may recognize an advance beyond any fixed point, this implies no nearer approach to an ultimate end. If, however, by knowledge and ignorance we denote the number of problems which have been solved, and the number which have been stated and await solution, both of them terms within our experience, we may conjecture that the same law applies. It is at least certain that our ignorance, in this sense of the word, is far more massive now than it has been at any previous period in history.

Among other factors we may perhaps add the number and importance of the nervous processes which have attained consciousness, and of those which have not; our rational and instinctive principles of action; and, in another field, the functions of the individual and of collective bodies in social evolution.[1]

This is as far as we need go at present. In the following essay we propose to discuss more closely whether pleasure or pain predominates in the experience of men during their life on earth. The conclusion at which we have already arrived is this: a review of the general course of evolution raises a strong presumption that there is, in fact, no such balance, and that the development both of pleasure and of pain has been equal and parallel. It follows from this, that, if merely algedonic grounds be taken into consideration, birth and death ought to be matters of complete indifference. Is, then, the high value we all attach to life a delusion? Is it merely one of the innumerable devices for maintaining the balance between adaptation and misadaptation, which is necessary for the preservation of the

[1] Wundt, *Principles of Morality*, pp. 58, 59.

species? Or is it based on some ground or other which in any intelligible sense of the word can be called reasonable?

A very short answer to this question can be given at once. If the history of evolution has been the equal growth of opposites, this formula will certainly include positive and negative values. There will remain no balance over when either is subtracted from the other, and the positive value of life, as a general abstraction, will be zero. But if we consider particular lives, the value of each will be proportionate to the balance of positive value which it has realized. Or, if a more general statement be insisted on, it may be said that life is valuable in proportion to the greatness of the positive values which it offers us the prospect of realizing. The life of a free man is of more value than the life of a slave. Here, however, it must be remembered that, in offering positive values, life at the same time offers negative values in the same proportion, and what the actual resultant balance of value shall be is a matter which (from the point of view of ethics) depends entirely for each man on himself.

Before proceeding further, it is necessary first to qualify what has been said already, and then to limit its effect. The qualification is this: it is not to be understood that advance on both sides is exactly equal for every short period of time taken at haphazard. In the history of the individual despondency alternates with hope; the lively pleasures of growth are succeeded by the sober balance of middle age, and that, again, by the torpor of decay, or the pangs of a violent dissolution. Much also depends on the natural disposition. One man differs from another in his sensitiveness, not only to both generally, but also to either separately, and either pain or pleasure may predominate in the total sum of his experience. So it seems to be with nations. The same nation is not always equally prosperous, but has its vicissitudes, its expansion, and its ultimate extinction; and one nation differs from another in its natural capacity for enjoyment or for suffering. The conclusion at which we have arrived holds good only for extended periods, and on a general survey of mankind, and has no mathemati-

cally exact application for any place or time when taken by itself. Men who are so fortunate as to be born in a period of exceptional happiness, such as the era of the Antonines, or our own, are apt to mistake it for permanent,

'Come fè il merlo per poca bonaccia[1]';

but the winter of the middle ages followed the one, and who shall say what is in store for our own children?

Finally, our conclusions are limited by the present as elucidated by the past. The argument from continuity, to be valid for the future, demands a detailed and exhaustive knowledge of all the several factors in the total process, which we do not possess at the present, and have no reasonable prospect of ever attaining to. Beyond the present the result is purely negative. All that we are justified in saying of the future is, that nothing in our knowledge of the past is of a nature to confirm either the hopes of the optimist or the fears of the pessimist; and there are at least no positive grounds for an expectation that in the future, any more than in the past, either term in the algedonic equation will gain permanently on the other.

[1] Dante, *Purg.*, xiii. 123.

CHAPTER II

THE PARALLEL DEVELOPMENT OF PLEASURE AND PAIN

WHETHER the world as a whole is good or bad is a problem of the utmost moment in its bearing on all beliefs, both of religion and of ethics, that influence human conduct. Even the abstract generalizations of science, when it is concerned with the relations of man to outer nature, are tinged and moulded, in a way that is not always suspected, by the views on this subject that are held in the same age and society. Unfortunately, its attractions to the philosopher are not on a level with its importance. It gives no room for the exact treatment, or the certain conclusions of science : its method offers no opening to dialectical subtlety ; and the answer can never be more than a probable belief. The result has been a disposition to economize labour by accepting, without much inquiry, the prevalent opinion, whatever that may be.

In a controversy which has lasted since men began to think, and which is concerned with facts of daily observation, it might have been expected that the evidence was very evenly balanced, and that, by this time, some approach to an agreement had been arrived at ; or, at any rate, that the advocates on either side would be unable to claim more than a slight advantage for the views they championed. A decided excess either of good or of evil could hardly have escaped recognition. This expectation, however reasonable, would be disappointed. Now, as always, the optimist either denies altogether the existence of evil, or explains it as a delusion, or admits it only as a vanishing quantity, which is undeserving of notice at the present, and will some day be entirely eliminated ; while the beliefs of the pessimist with regard to good are equally extreme. It is

a negligible quantity at the best, and continually dwindling as we recede from the comparatively endurable conditions of savagery.

That this is no exaggeration may be seen from the following passages, of which the first is taken from the greatest Italian poet of the nineteenth century, and the other from one of the greatest of his contemporaries among the philosophers of Germany.

'A feeble, grey old man, half-clad, barefooted,
Bearing upon his back a crushing load,
O'er hill and dale, sharp stones, deep sand and rocks,
In wind and rain, in frost and scorching heat,
Toils breathless; toils through swamps and over torrents,
With many a painful fall, bleeding and torn;
Nor stays, nor takes repose; but ever strives
The sooner to attain that self-same spot,
Where all his weary round of toil began.
There, o'er the ghastly bounds of space
He plunges, and forgets the past.
Such, Maiden Moon, such is the life of man.'[1]

'It is absurd to suppose that the infinite misery which has its roots in the essential needs of our organism, and fills the whole world, can be without purpose, and merely fortuitous. Each individual case of unhappiness, by itself, might indeed appear to be an exception; but universal unhappiness is the rule. . . . We are like lambs sporting in a meadow, while the butcher is selecting with his eyes, first one, and then another, for slaughter. We are unaware, in our moments of happiness, of the misfortunes which fate may be preparing for us in the immediate future—disease, persecution, poverty, mutilation, blindness, madness, &c., &c.'[2]

For the other side, we may quote a passage from Plato which recalls the *πάντα καλὰ λίαν* of the first chapter of Genesis:—

'This is the beginning of creation and the world, as we shall do well in believing on the testimony of wise men: God desired that all things should be good, and nothing bad, as far as this could be accomplished. Wherefore also, find-

[1] Leopardi, *Canto d'un pastore errante dell' Asia.*

[2] Schopenhauer, *Parerga und Paralipomena*, ii. 312–13.

ing the whole visible sphere not at rest, but moving in an irregular and disorderly manner, out of disorder He brought order, considering that this was far better than the other. Now the deeds of him who is the best can never be or have been other than the fairest ; and the Creator, reflecting on the visible work of Nature, found that no unintelligent creature, taken as a whole, was fairer than the intelligent, taken as a whole ; and that intelligence could not exist in anything that was devoid of soul. For these reasons He put intelligence in soul, and soul in body, and framed the universe to be the best and fairest work in the order of Nature.' [1]

Or Epictetus :—

' Even as a mark is not set up for the purpose of being missed, so there is no such thing in the world as positive evil.' [2]

It would be a waste of time to make a selection of similar passages from the teeming pages of eighteenth-century literature ; but space may be found for two conflicting estimates of the worth of social evolution. According to Adam Smith, ' Human Society, when we contemplate it in a certain abstract and philosophical light, appears like a great, an immense machine, whose regular and harmonious movements produce a thousand agreeable effects ' : and he goes on to speak of ' the innumerable advantages of a cultivated and social above a savage and solitary life.' [3]

Contrast this with an account of the Nicobar Islands, which I have cut out of an Indian newspaper :—

' The one salient feature of social policy in these Makaron Nesoi—Islands of the Blest—is reported to be entire absence of subordination. There is no person in authority, neither chieftain nor head villager ; husbands have no control over their wives, or parents over their children ; every individual is a law to him- or herself. There are no proprietary rights, no wants, no duties. No one has any occasion to work, all their food and clothing being provided by Nature. The notion of paying tax or tribute is unknown. Each

[1] *Timaeus*, 30, Jowett's translation.
[2] *Encheiridion*, cap. 26.
[3] *Theory of Moral Sentiments*, Part VII, s. iii, cap. 1.

man is free to live as he likes, so far as he does not thereby prevent his neighbours from doing likewise. Money is of no value.'

The same extreme contrast of opinion divides the Englishman of to-day from the Russian, of whatever rank or condition either may be—noble or peasant, rich or poor, learned or illiterate. To the first, the social order is an almost unmixed good, and every stage in its development a gain; to the other, it is an unmixed evil, and the only refuge from despair lies in the prospect of destroying all vestiges of it, and beginning afresh with a clean slate.

If either of these directly opposed views rested on a rational foundation, we should expect to find them organically connected with different schools of ethical thought. Consistency seems to demand that those who make happiness the proper end of conduct should be of the opinion that it is at least attainable; but this is far from being the case. Hegesias, who represented the uncompromising Hedonism of the Cyrenaics, held that 'Happiness is altogether impossible, for the body is full of sufferings of all kinds, with which the soul must sympathize, and be distressed. Fate often defeats our hopes, and happiness is a delusion.'[1] Of this philosopher it is recorded that Ptolemy forbade his lectures, because many men on hearing them committed suicide. The Stoic, on the contrary, to whom pleasure of all kinds was indifferent, did not condemn life; and, as we have seen, Epictetus went so far as to deny the existence of evil.

Again, though the beliefs and the literature of different ages and societies are usually pervaded by a distinct general tone, there is probably none in which we do not find numerous contradictions. The view of life taken by the Greeks and the Hebrews was almost uniformly cheerful; but Homer, himself the brightest and most genial of poets, tells us that man is the most miserable of all animals that breathe, and he puts the sentiment in the mouth of Zeus, who ought to know. The Old Testament is full of passages to the same

[1] Ritter and Preller, *Hist. Phil. Graecae*, p. 214.

effect: 'Man, that is born of a woman is of few days, and full of trouble.' Swift and Hume emerge out of the flood of eighteenth-century optimism, and in their old age both Voltaire and Darwin cast off the pleasant illusions of their manhood. There are few to whom the world appears at all times a place of torment, and fewer still for whom it remains a paradise after the glowing colours of youth are faded. Ultimately the determination is given, not by rational calculation, but by the condition, at the time, of the nervous system. When that is vigorous, the decision is favourable, when depressed, adverse; and in both cases we are blind to circumstances that contradict the ruling tendency. The views of every individual are liable to violent oscillations. A man who lies awake during the small hours of the morning when vitality is low is apt to be oppressed by a conviction of imminent disaster: a few hours later, the same man refreshed, and strenuous, sees nothing in the future but happiness.

It might perhaps be thought that existence was really pleasant to those who were in a condition to think well of it, and painful to those who were not, and that the actual value corresponded for every man with his own valuation. If that were indeed the case, a decision might be obtained by a mere counting of heads, which, while it had objective validity for the human race as a whole, would leave the individual judgements unaffected. But there are two objections. In the first place, even depression does not always mean unhappiness, but very often a lower level both of painful and pleasurable excitement. The Hindu peasant has perhaps fewer excitements of both kinds than his fellow in other countries, and he is a confirmed pessimist; but he is not unhappy, or even discontented. Again, though the assertion may at first sound paradoxical, there is no surer source of happiness than a firm conviction of the worthlessness of life. This conviction of the vanity of human wishes is the secret alike of the imperturbability of the Stoic and of the sense of superiority which fills the Epicurean when he feels himself lifted above the seething

currents of mundane affairs. It inspires and justifies the noble ideal: 'fragilitatem hominis, securitatem Dei.'

In addition, and external to the fluctuating conditions of the nervous system, there are permanent tendencies in our nature, equally independent of rational calculations, which influence the judgements we pass on the world. The first of these is one of the most ancient and universal of all springs of action—the love of life. That this is the cause, and not the result, of a conviction that life is worth living, is obvious. We find it among animals which do not calculate as well as among those which do. 'The fly in the spider's web makes as desperate struggle against death, and is actuated by the same law of nature, as the strong man in his agony.'[1] The efforts of the hare to escape the hounds are not prompted by a calculation that for her the pleasures of life greatly exceed the pains. Among men it is where, in the judgement of all bystanders, death would be a merciful release from suffering, that the dread of death is often strongest.

'Vita si superest bene est.
Hanc mihi, vel acutâ
Si sedeam cruce, sustine.'

The desire to preserve our life tinges our valuations of it, and we esteem it more highly because we are unwilling to part with it.

There is another tendency which is apt to bias our judgements in the same direction. That is, the exaggerated value at which we rate ourselves, our near relatives, our possessions, and all that is closely connected with us. In all these our normal tendency is to dwell on what is admirable, and overlook what is amiss, and, in doing that, we eliminate from what is to us by far the most important part of our experience nearly all that an impartial observer would find to condemn. That part of our world, at any rate, is not far short of perfection. It is this form of delusion which makes us unwilling to exchange our own personality with that of others. Not only have we a passionate

[1] L. A. K. Strahan, *Suicide and Insanity*, p. 27.

love of life for its own sake, but, however much we may envy special advantages, such as wealth or rank or distinctions of all kinds, we value our own existence, taken as a whole, more highly than that of any of our neighbours. On the other hand, the same sanguine temper often yields to a reaction which is equally unfair in its depreciation. The flattering hopes we formed for ourselves or for our children are disappointed, and our actual circumstances, though they would seem tolerable enough to others, are intolerable to us, because they fall below what we had expected. We count as failure what may really be a fair measure of success, and our injustice to ourselves makes us unjust to the whole world around us.

In these, and perhaps other ways, the emotions distort and deflect the judgements of the many. The few who approach the subject in a serious spirit of inquiry are liable to disturbing influences peculiar to themselves. A desire to reduce all the phenomena they deal with under a single formula is common to religious and to philosophic speculation, and in both is doomed to disappointment. For the religious minded, 'the visible surfaces of heaven and earth refuse to be brought into any intelligible unity at all. Beauty and hideousness, love and cruelty, life and death keep house together in indissoluble partnership. . . . It is in the contradiction between the supposed being of a spirit that encompasses and owns us, and with which we ought to have some communion, and the character of such a spirit as revealed in the world's course, that this particular death-in-life paradox, and this melancholy-breeding puzzle resides!'[1] With the philosopher it is the same. All his attempts to harmonize and simplify his material lead to the discovery of fresh difficulties, and he learns at last that much study is weariness of the flesh. In these matters, as in most others, the few count for more than the many. Nothing is more infectious than emotion, and when it finds a systematic expression, its effect gains both in intensity and diffusion. The melancholy of an unknown individual will slightly

[1] James, *The Will to Believe*, p. 41.

depress his immediate neighbours; cast into the form of a philosophy, and published abroad, it may affect the collective beliefs of a nation.

An unfair advantage is given to optimism by our disposition to avoid unpleasant subjects. The bare suggestion of ill luck is an offence against good manners. Among the Greeks ill omens came from the left, and that hand was therefore spoken of as the 'best' or the 'well-named'. With the Romans, on the contrary, the left was the side from which good omens came: they had no motive for disguise, and knew the left hand by its vernacular designations as *laeva* or *sinistra*. On the joys of life we are always willing to dwell in our thoughts and in our conversation: of its graver ills we seldom dare either to think or to speak. With this may be linked the delusive light which is thrown on their objects by our feelings of attraction and repulsion. All that we strongly desire is far more beautiful and more admirable to us than a cool judgement would allow, and all that we fear or hate more absolutely bad. By themselves, if objects of attraction and repulsion were approximately equal in number and force, the errors would cancel one another, but by excluding one class from our thoughts, and dwelling by preference on the other, we throw nearly the whole weight of the delusion on to the side of optimism.

Having indicated the more important of the disturbing influences against which we must be on our guard, we may next proceed to define more closely what our problem is. Up to this point we have followed precedent in using the terms good and evil, but what actually engages the attention when it deals with the subject is almost invariably the balance of pleasure and pain. 'Pessimists and optimists both start with the postulate that life is a blessing or a curse, according as the average consciousness accompanying it is pleasurable or painful.'[1] Now it is possible that the algedonic equation and the ethical may coincide; but this is not a general conviction, and unless they do, pleasure and good

[1] H. Spencer, *Data*, p. 45.

or pain and evil are not convertible terms. An Englishman of to-day is apt to dwell with pride on the recent progress of his country. If by that he means an advance in the arts which add to the pleasures of existence he will, perhaps, find few to contradict him ; but should he mean an advance in the higher kinds of virtue, it is not equally certain that a German or an American, even if he were a dispassionate observer, would be of the same way of thinking. There is no demonstrated error in the opinion that they are cross-divisions, and that we may find painful virtues as well as pleasant vices. As this is precisely one of the points on which our present inquiry may be expected to throw light, we shall for the present keep the terms separate, and first investigate, so far as it admits of investigation, the question of the balance of pain and pleasure.

Another, and perhaps less obvious, discrimination must be made, if we wish to keep our line of argument quite clear and direct. The balance of pleasure and pain is not necessarily the same thing as the balance between happiness and misery. That a martyr is happy at the stake and a tyrant miserable while in the enjoyment of the most exquisite pleasures, are only extreme illustrations of a distinction which is found in every condition of life. It is, perhaps, a confusion between these two distinct classes of feeling that accounts for the assertion, which is sometimes made, that at no moment in our lives are we quite free from either pain or pleasure. If we identify happiness with peace of mind, the difference between that and the excitements of pleasure, which can never be maintained for long, is easily recognizable.

An ingenious theory which identifies pleasure with the acquisition, and pain with the loss, of force, and concludes from the law of the conservation of energy that over the whole universe (' in the breast of the absolute ') pain and pleasure must be exactly balanced,[1] suggests another limitation to our inquiry. What that is concerned with is the balance of pleasure and pain in the experience of the human

[1] L. Dumont, *La Sensibilité*, pp. 85, 116–17.

race; and when M. Dumont expresses his belief that an unfair accumulation of energy in the human race, at the expense of the rest of creation, brings it to pass that, for mankind, the balance inclines on the side of pleasure, we must label him, from our point of view, a decided optimist.

Again, our calculations will be confined to the facts of experience; that is to say, what happens to us during our life on earth. We are sometimes told that any scheme which compensates for earthly pains by a more perfect existence, or complete release, in a world to come, is, as a system, optimistic. But this overlooks the only consideration which gives the distinction between the opposed beliefs a practical value; that is to say, the manner in which they determine our attitude in respect of the final ends of human action in this world. Thus, a reviewer in the *Hibbert Journal* for October, 1903 (p. 150), writes :—

'Nothing can be more optimistic than the (Catholic) Church's view of life, and of its possibilities and promise. No optimism could be based on a hypothesis surer or more consonant to reason than hers:' that hypothesis being that 'a doctrine of progress which is to be a basis for optimism must comprise at least the possibility of a Good, to be attained by individual souls after death.'

This is a view which it is equally impossible either to pass by unnoticed or to examine, within the limits of an essay, as thoroughly as it deserves. Even if we dismiss the difficulty that rewards for some men usually imply punishments for others, and assume (what no religion has ever allowed) that every individual, whatever his conduct may have been, is rewarded at the last by perfect happiness; the questions still remain, Are the pleasures of this life in excess of the pains? and, Are they, in any case, worth having? And by the answers to these questions will men's actions be largely influenced. It would, perhaps, be presumptuous in a layman to attempt to define what is the teaching of the Church on this point; but no reasonable objection can be taken to a comparison between the doctrines of two other great religions, the Hindu and the

Muhammadan. These agree in promising rewards in a future existence, but they are diametrically opposed in their valuations of this life, and in the nature of the reward they offer in the next. To the Hindu, not only are the pains vastly in excess of the pleasures, but the pleasures themselves are not worth having: the Mohammadan, like Candide's immortal tutor, sees in the present the best of all possible worlds. The Hindu promises, as the highest reward, complete release from both pain and pleasure, and a state of transcendental bliss: the paradise of the Muhammadan is a continuation, with increase in number and intensity, of the pleasures of the present, and an elimination of the pains. Custom has always described the first of these religions as pessimist, and the other as optimist, and if the single fact that both hold out the prospect of happiness in another world is to compel us to give up this classification, we shall have to discover some new terms to distinguish their opposite views as to the value of this life. This distinction, moreover, is of the highest practical importance, and its consequences reach far beyond the conduct of individuals. We shall, therefore, in what follows, leave religious eschatology on one side, and employ the terms optimist and pessimist solely with reference to the facts of experience. When a religion has to call in the pleasures of another world to redress the balance of this, it must be described as pessimist.

The words optimist and pessimist are often used to denote, not a final decision, but a permanent disposition of mind. Men whose judgements are charitable, who always see the bright side of experience, and hope for the best, are called optimists, while the opposite character is called pessimist. This is not the sense in which the words are used here. What we are contrasting are opposed general judgements as to the worth of human life when tested by the algedonic criterion. It is not necessary to our purpose that the asserted preponderance of either pleasure or pain should be great. As in commercial transactions a slight balance of profit, after all expenditure of time, labour, and money has been taken into account, will justify an undertaking; so,

when the algedonic criterion is used, a very slight balance of pleasure or pain will justify a positive or a negative answer to our question; and, according to the answer, the theories fall under one head or the other of the classification.

The first question, then, is the following. Does pain or pleasure predominate in the experience of men during their life on earth? This differs materially from the question so often asked—Is life worth living?—in that it does not assume that pleasure and pain are the sole criteria of worth, or even that they have any worth at all. A further question, closely connected with the above, is this—Have we any evidence from the history of past time that either factor has increased at the expense of the other? Should this be demonstrated, the advocate of either side might be justified (on the purely practical grounds, which serve as the sole basis of our distinctions) in demanding that we should suspend an approval or a condemnation which took only the present into account. If there are good reasons to suppose that the pursuit of earthly ends will procure a decided predominance of pleasurable feelings, even though it be in some remote future, it need not be condemned merely because it has not yet attained its object; nor would a slight balance of pleasure in the present be enough to recommend it, if it procured a life of pain for our descendants.

It might be thought that the definition was now complete, but we still have to define the leading terms. What we mean when we speak of pleasure and pain is not so clear as is commonly supposed. If we had distinct ideas on the subject, we should at least be able to say whether our ordinary daily condition is pleasurable or painful. Most men, if they answered without much reflection, would say, neither, but indifferent; and after reflection they might still be of the same opinion. But we are told on excellent authority that all states of consciousness without exception are either pleasant or painful, and that a state of complete indifference, in which we should not care, on purely rational

grounds, whether it continued or was replaced by complete unconsciousness, was unknown to us. Others have told us that not all the pleasures of empire are preferable to a dreamless sleep, and from this it would seem to follow that our usual conscious state is to some degree painful; but it is a more common belief that our usual state, when we are not actively attentive to our algedonic experience, is slightly pleasurable; and we are sometimes asked to take this into consideration when we strike the balance.

Again, it might be imagined that the most superficial knowledge would enable us to say whether pleasures differed, not only in intensity, but also in kind. That there are different kinds of pleasure would seem to most men obvious. But it is nevertheless true that many, but not all, of those who have made special study of the question, and whose decision has strong claims on our deference, think otherwise. On both these elementary questions—that is, whether algedonic feeling is a permanent or only an occasional feature of consciousness, and whether the kinds of pleasure are many, or one only—there is no general agreement of competent opinion, and, until they are both decided, it can hardly be said that our ideas as to what constitutes pain or pleasure are distinct.

If, despairing of an answer from a direct appeal to our consciousness, we have recourse to other methods, we shall fare no better. Perhaps the most generally received explanation is that pleasure is attached to processes which conduce to the welfare of an organism, and pain to those which are injurious to it. This, if it be intelligible, and in conformity with facts, would, it appears to me, be a perfectly good explanation by final ends. Unfortunately, it is open to serious objections. In the first place, it is an instance of *ignotum per ignotius*. The expression of the unknown in terms of what is better known is a good and practical form of explanation, and, if we knew exactly what was advantageous, we should be able, supposing the explanation to be true, to determine pleasure in terms of advantage; but it can hardly be said that we do. Indeed, we have a far

clearer idea of what is pleasant than of what is ultimately, or even immediately, advantageous, and the explanation, even if true, would add nothing to our knowledge.

There is probably no single instinct or structure which in all circumstances is wholly beneficial or wholly noxious, and before we can pronounce that advantage has a decided predominance in the case of any one of them, we must make an exhaustive comparison of the good and the bad effects that will flow from it under all conditions, including an indefinite number that are unknown to us. An exact answer would demand a quantitative analysis, and that, of course, is wholly out of our power ; but we might disregard the difficulty, if there should happen to be any properties of which the worth is so obviously preponderant as to render an exact calculation superfluous. If anywhere, we might hope to find such properties among the highest ethical virtues ; but even these are not valuable (in the sense in which we are now using the word) when in excess, or in all circumstances, or in the absence of their opposites. A nation, in whose citizens the motives of self-sacrifice and obedience were not counterbalanced by self-assertion and independence, would soon cease to exist as a self-sustaining organism. With simpler structures the case is much clearer. Its trunk is, no doubt, of great use to the elephant. When deprived of it the animal dies of starvation. But the mere fact that it is indispensable is a serious disadvantage, and we have to consider, besides, whether the physiological cost of its maintenance is not extravagant. On the whole it might perhaps be better off if it could manage to do without it. And so with all the organs of every species under the sun. We can never pronounce with any degree of certainty of any single structure or tendency that its biological uses more than counterbalance its biological drawbacks.

Moreover, the same difficulty which prevents us from obtaining an exact valuation of biological advantages prevents us also from making any exact comparison between advantages and pleasures, both terms being equally insusceptible of quantification ; and, even if a general corre-

spondence could be detected between pleasure and advantage, the relation would still be out of reach of exact demonstration.

The same defect puts it out of our power to make any exact or objectively valid comparison between pleasures and pains, or pains and disadvantages, or single pleasures and pains and other pleasures and pains. We do indeed compare all these and act on the results of our comparison; otherwise we could not exist; but we can never prove, either to our own satisfaction or to the satisfaction of others, that our judgements are correct. That is always a matter of faith. Without valid single judgements there can be no valid general laws; and, where every factor in the computation is undetermined, there can be no valid judgements at all. Even so extreme an assertion as 'Mille piaceri non vagliono un tormento' admits neither of proof nor of disproof. Indeed, when we proceed from comparing one pleasure with another to comparing pleasures with pains, our position becomes still more difficult. Not only are we unable to measure either, but we are not by any means certain that they belong to the same series or group of feelings. For all we know they may be quite disparate, and it may be as impossible to reduce them to a common denominator as to state a furlong in terms of a bushel of wheat.

Again, if pleasure is to be regarded as practically conducive to welfare, and not merely as an idle signal, it must have a definite influence on human action. That implies that it is a link in a chain of natural causality. But the principle of conservation of energy requires that all such links must be modes of force, acting in time and space, and, like all the factors in the total sum of cosmic energy, capable of exact measurement. That we are not now in a position to represent pleasure as a force, capable of being stated in terms of other forces, such as light and electricity, is quite certain; that we ever shall be is a gratuitous assumption, unsupported by the past history of thought, and with no other warrant than the dreams of men of science. For the present, at any rate, we are debarred by the above closely allied con-

siderations from accepting the algedonic theory of evolution as a scientific explanation of the functions of pleasure and pain ; we are unable to state their relative values in judgements which have objective validity ; and we are unable to assign them a place in the chains of events which precede action.

There are only two known kinds of explanation, the scientific and the teleological, and, where the facts are not susceptible of scientific treatment, the explanation must always be by reference to some final end. Such in fact is the nature of the theory which we are now considering. The identification of pleasure with biological progress gives it the leading rôle in a scheme which is eventually to realize the perfect and universal happiness of mankind, and it is on this account only that it is recommended. The question at once suggests itself why, if universal happiness is her end, nature should have recourse to so imperfect and uncertain a piece of mechanism as that of pains and pleasures, acting through the medium of human aversions and desires. As Bishop Butler remarks, her end would be gained far more directly and more certainly without it. With properly directed instincts there would be no need of deliberation, and no room for mistaken choice. The difficulty, which appears to me to be a very real one, is of the same class as all those which arise from the contemplation of the imperfections, or what appear to us to be imperfections, in the scheme of nature. One reason for regarding them as imperfections is that we are unable to connect them in a general systematic progress towards some known end or purpose. The objection is general, and it is fatal to all attempts to connect the facts of experience by any known end within the boundaries of experience. It is not, however, fatal to thought generally, if the final end is located beyond those boundaries.

The only test we have of a teleological theory is its comprehension, or correspondence with ascertained facts. In applying this test the first difficulty that suggests itself is the following. Unless the interests of the individual

always and exactly correspond with those of the family, of the nation, and of the species, we are obliged to inquire which of these is the organism to the preservation of which the efforts of nature are directed. If pleasure and advantage always coincide, only one answer is possible. Whatever definition may be given to pleasure, it will not be asserted that it can be felt except by individuals. A collective body can no more be pleased than it can eat and drink. The end of nature must, therefore, be the advantage of the individual. We need not pause to discuss the theories that the pleasure of the individual citizen ought to be the sole business of the State, or that in some remote future individual and collective interests will be reconciled. All that concerns us now is the plain fact that even the simplest form of society implies some degree of conflict between collective and individual interests; that this conflict becomes more severe and more varied with every development both of the individual and the society, and that, if the object of nature had been the advantage of the individual only, we should require the statement of some other principle to account for the introduction of arrangements which are in constantly increasing opposition to it. That is to say, the algedonic theory of evolution fails in point of comprehension.

This is far from being the only or even the most important class of fact which the theory fails to account for. It may often be difficult to determine whether certain actions are advantageous or not, but there are some which no licence of special pleading can exhibit in a favourable light, but which are, nevertheless, unmistakably pleasant.

On the other hand, if not all duties are unpleasant, some certainly are. A single well-established exception would call for an explanation, and there are so many that we are again compelled to recognize the need of some other principle to complete the theory. The existence of unpleasant duties has been met in the same spirit as has declined to admit the existence of evil. When not wholly ignored, it has been denied, or their range has been minimized. We have been told that they are parts of a merely temporal and provisional

arrangement, and not really duties at all, in the strict sense of the word. The existence of harmful pleasures does not offend in the same way against the optimistic bias, and is more readily allowed. For these an explanatory principle has been found in the supposed survival of tendencies, which were useful when they first came into existence, but which, though their satisfaction still causes pleasure, are now unsuited to the environment, and therefore noxious. Unfortunately, this principle is itself in as little accordance with the facts, as far as they can be ascertained, as the theory in aid of which it is invoked. It requires us to make the assumption, among many others equally improbable, that, at some remote period, alcoholic intoxication was of advantage to the individual, or to the species. And it is directly contradicted by the fact that we find the same unwholesome tendencies at the first beginnings of life. 'Not all substances that exert an attraction have a nutritive value for the organisms' (Bacteria and Infusoria), 'or are even harmless. Many lead presently to the destruction of the organisms they attract. For example, Sodium Salicylicate, Strychnine, and' (strange to say) 'Morphia.'[1] In Morphia hunger we have a tendency which was as noxious at the first dawn of life as it is now. However low we may descend, we shall be as far as ever from the discovery of an organism with no impulses but what are wholesome. If we did make the discovery, we should find perfection at the root of the ladder instead of at the top, and evolution would lose all meaning as a purposive process. Finally, it is clear that the worst of the vices to which humanity is liable are of recent development, and not inherited from a remote ancestry.

An attempt to meet this objection, and tone down the teleological features of the original explanation, has been made in the hypothesis that the connexion between pleasure and advantage is not primordial, but derivative, and itself one of the products of evolution. In the beginning the distribution of pleasure and pain over useful and noxious

[1] O. Hertwig, *Die Zelle und die Gewebe*, p. 99.

processes was indiscriminate; but, as pleasure acts as a reinforcement to the process to which it is attached, it follows that those animals in which the noxious processes are endowed with this additional strength disappear, and only those remain in which noxious processes are dissociated from pleasure. Similarly, pain acts as a clog: if, therefore, advantageous processes are associated with pain, they will be enfeebled, and the animal will be crippled in the competition with those in which the same class of processes are strengthened by pleasure. We begin, in fact, with a cross-division with two pairs of opposites, pleasure and pain, advantage and disadvantage; and a tendency to reduce this cross-division to a single division, in which the two first terms of each of the original pairs of opposites will be on one side, and the second terms on the other. The degree to which this reduction has been carried out will serve as an index of the grade of evolution which any particular animal occupies.

All that concerns us at present in this theory is that, true or not, it at any rate does not identify pleasure with advantage, and, instead of affirming, it contradicts the possibility of defining one in terms of the other. What it amounts to is a prophecy that, in some remote future, that identification may be brought about. But what we require is a definition of pleasure and pain as we know them at present, and prophecies, however well inspired, are of no value. Nor does it help us in striking the present balance between pleasure and pain. To discover that, we must find out what stage we have reached between the beginning and the end of the long journey of evolution; and the only way of finding out what stage we have reached is to ascertain the degree in which pleasure predominates over pain. We are, in fact, exactly where we started, and have nothing better to go on than the rough enumeration with whose defects the earlier pages of this note were occupied.

This theory, again, makes no allowance for the principles of excess and inhibition, which are both more highly developed in the human race than in any other grade of life.

Excess is the indulgence of a tendency to an extent which makes it prejudicial to the organism ; and every tendency, however good in itself, is certain to run to excess unless it is restrained by external coercion, by wisdom, or by the sense of duty. But the immediate result of excess is often, indeed usually, not painful, but pleasurable in a very high degree. To urge the final breakdown as the warning would be illogical. The painful results are not the warning, but the thing against which we are, or ought to be, warned. Instead, however, of pain, we get pleasure ; an attraction where we should expect a deterrent. It would follow as a necessary consequence, if pain were really given us as a warning, that we need only attend to the immediate results of our actions ; and habits of foresight, being redundant, would never have been evolved. The inhibitions of conscience present exactly opposite characteristics. If pain is the feeling which attends the repression or obstruction of an activity, they must always and necessarily be painful, and, as a matter of experience, we find that they very commonly are. Nevertheless, they may be said to be always conducive to the welfare, if not of the individual—for that, in a strictly biological sense, it may perhaps be difficult to prove—at any rate of the social organism of which the individual forms a part. For the preservation of that, the moral inhibitions, the feeling on the part of each individual, I cannot do what I would, are indispensable ; but no one will say that such feelings are ordinarily pleasant. I am indeed persuaded that a serious and impartial consideration of the facts must convince any man that, if not only individual but social advantages be taken into account, no fixed connexion can be established between pleasure and utility. He may sometimes be tempted to think that useful actions are more often painful than pleasurable, but he is likely in the end to give up the problem of the quantitative relation between the two as insoluble.

There remains a third source, to which we may apply for some clear criterion by which we may distinguish pain from pleasure, and both from indifference ; that is, the

respective physiological processes which correspond with each of those states. But here, again, we encounter the widest diversity of opinion. One author tells us that pleasure corresponds with processes of anabolism, and pain with processes of katabolism; that we are pleased when the vital functions are raised, and pained when they are depressed. Another, that pleasure and pain depend respectively on the uninterrupted or interrupted course of the vital series which lies between stimulus and action; or, in other words, that the antithesis between pleasure and pain is coincident with the antithesis between free and impeded progress towards an end. A third advises us to look for the secret in the motory sensations, and conjectures that pleasure may be connected in some way with movements of extension, and pain with movements of contraction, combined in each case with associations which intensify the algedonic tone. A fourth recognizes the distinction in the free or impeded return to the normal equilibrium after a neural disturbance.[1] It would be useless to lengthen the list, and it would lead us far from our present purpose to discuss the views already indicated. It is enough that they cannot all be true, and if any one of them is, we have no authoritative tribunal to tell us which. I may perhaps be permitted to avow, with all deference, that no one of them, nor any other that I have seen, appears to me to be wholly satisfactory.

A few words must now be devoted to the second question which was proposed at the beginning of this paper. Have we any evidence from the history of the past, that either factor has increased at the expense of the other? A conclusive answer to this question is probably not to be obtained from direct observation. It would require that we should have the balance correctly stated for two different ages at least—the present, and some period in the past. But

[1] Burke's definition is: 'Beauty acts by relaxing the solids of the whole system . . . a relaxation somewhat below the natural tone seems to me to be the cause of all pleasure.' *On the Sublime and Beautiful*, Part IV, s. xix, quoted in Bernard's translation of Kant's *Kritik of Judgement*, 148, note.

we are still without the first of these, and the second seems to be hopelessly beyond our attainment. There is one fact, however, about which there will be no dispute.

It will always be found, when any considerable period is reviewed, that there has been a distinct absolute increase in both pleasure and pain, between the commencement and the end. Both the pleasures and the pains of the civilized man greatly exceed, in number and in intensity, and, it may be said, in variety, those of the savage; while the difference, if the feelings of the lower animals are compared, is immeasurably greater. The pleasures and pains of the Medusa, even if it be assumed that the two classes have already been differentiated in the dim sentience attached to so primitive a nervous structure, are neither so numerous nor so instense as those of a dog, nor those of a dog as those of a man.

For mankind themselves it is a pleasure to be able to quote Mr. H. Spencer :—

'The variation (in degrees of pain and pleasure) largely depends on the degree of nervous development. This is well shown by the great insensibility of idiots; blows and cuts, and extremes of heat and cold being borne by them with indifference. The relation thus shown in the most marked manner where the development of the central nervous system is abnormally low, is shown in a less marked manner where the development of the central nervous system is normally low; namely, among the inferior races of men. Many travellers have commented on the strange callousness shown by savages who have been mangled in battle or by accident; and surgeons in India, say that wounds and operations are better borne by natives than by Europeans. Further, there comes the converse fact that, among the higher types of men, larger brained and more sensitive to pain than the lower, the most sensitive are those whose nervous developments, as shown by their mental powers, are the highest; part of the evidence being the relative intolerance to disagreeable sensations common among men of genius, and the general irritability characteristic of them.'[1]

The items in the account are innumerable, and little is

[1] *Data of Ethics*, p. 177.

gained, though that is the usual procedure, by putting forward a few only of such as seem to suit the purpose of the argument. At the best, a selection of that kind might serve for illustration, but not for proof. Still, there are some facts which rise above the rest in importance and generality. If a man were asked which were the two qualities which most clearly distinguish him and his kind from other animals, he would probably reply, without much hesitation, his conscience and his intellect, and it is to these he owes both his highest pleasures and his keenest pains. From the first he derives on the one hand the pangs of remorse, 'occultum quatiente animo tortore flagellum'; and on the other, the supreme happiness, surpassing in value all pleasures, which is the reward for pleasures renounced at the call of duty. The pleasures and the pains of the intellect are more various and more difficult to reduce to a broad classification. The attainment, and, still more perhaps, the pursuit of truth, seem to offer nothing but pleasure. 'Let him that is melancholy' (I quote Burton) 'demonstrate a proposition in Euclid, in his five last books, extract a square root, or study Algebra; than which, as Clavius holds, in all human disciplines, nothing can be more excellent or pleasant, so abstruse or recondite, so bewitching, so miraculous, so ravishing, so easy withal, and full of delight.' 'Omnem humanum captum superare videtur.'[1] Even this, however, if it brings with it no positive pain, is only reached by the renunciation of nearly every other pleasure, and it is often conditioned by the nervous irritability which has been remarked on in our quotation from Mr. Spencer. The comparison, in the case of the feelings which spring from our power of remembering the past and imagining the future, is more simple and direct. Only men know the dreams of the lover and the dread of extinction; the luxury of recalling sufferings that have been left behind, or the bitterness to the miserable of the memory of happier days.

The temptation to continue the list of illustrations is strong, but enough has been advanced to show that it would

[1] *Anatomy*, ii. 2, 4.

be very far from the truth to describe the process through which life has reached its present stage of development as an increase only in the number and variety of pleasurable experiences, accompanied by the elimination, or reduction in intensity, of painful states. It must, I think, be admitted that, if the task set before nature is the happiness of men, she has miserably disappointed expectations. When she conferred on them her choicest gifts, she at the same time loaded them with a heavy burden from which other less favoured types are exempt, and she justifies the saying of Dante :—

'Quanto la cosa è più perfetta,
Più senta 'l bene, e così la doglienza.' [1]

This, then, is the sole indisputable fact which we have as yet ascertained. It must be admitted that neither pain nor pleasure is less in our experience to-day than it has been at any previous epoch sufficiently remote to be judged without prejudice. On the contrary, both have very greatly increased. Whether the growth of either has been more vigorous than that of the other ; and whether either exceeds, or at any time has exceeded, the other in quantity, are questions to which no convincing answer can be given. We are hindered by the imperious influence of emotions, which cast their weight sometimes on one side of the scale, and at others on the other, by a complete inability to define what we mean when pleasure and pain are spoken of, and by the want of a standard by which we could measure them, if we knew distinctly what they were. If, then, our criterion is to be the relative proportion of pleasure and pain ; that is to say, the balance which is left over after subtracting the other, we should have no means of deciding whether the life of a man of genius or of a savage, of a savage or an ascidian, is more to be desired or to be feared.

Note. Before proceeding to the next branch of our

[1] *Inf.* vi. 107.

argument, we may pause to consider an ingenious application of the 'law of Hedonic selection', which is found in Mr. McDougall's excellent manual of *Physiological Psychology* (p. 146 sq.). He is in search of a principle which may explain the observed fact that a series of movements which leads to the achievement of a desired result is repeated, and tends to be perpetuated as a habit, whereas other tentative movements, by which the same result is not achieved, are not repeated; and he finds that principle in the association of achievement with pleasure, which he believes stamps in 'the successful process'.

It is obvious that the interest of the law lies, not in its scientific, but in its teleological aspects. The first instance which is given as suggesting it is the following. A cat is imprisoned in a cage with a door which opens and shuts with a catch. Food is placed within sight, and hunger excites the cat to random movements in the direction of escape, until one of those movements, not less random than the rest, has the effect of opening the catch. After a number of repetitions, which are not always the same, the cat performs the successful movement at once, whenever the experiment is tried.

We may ask, What exactly does this amount to? In the first place, there is no conflict of impulses. The cat is not called on to decide between the attractions of the meat on one side, and those of a suitor on the other, or its duty to leave the meat to a litter of starving kittens. All that has happened is that instead of being obliged to wait on chance, it has acquired a habit which enables it to satisfy a single impulse at once. That it should possess habits of this kind, which place the satisfaction of its wants, generally, beyond the dominion of pure chance, is obviously a matter of prime importance in the adaptation of every animal in all stages of evolution. The same habits would be needed even if, by some perverse arrangement, pain instead of pleasure were associated with the satisfaction of an impulse: and, in order to secure their establishment, nature has endowed cats as well as men, but in a lower degree, with memory.

The ethical objection, however, is that the principle is selective of means only, and never of ends. It would facilitate the satisfaction of all impulses impartially, whether they were good or bad, and not of those only which tended towards the realization of any particular ideal or *summum bonum*. It could only facilitate the attainment of such an end if all impulses tended in the same direction, and, in that case too, there would be no selection of ends, but only of means. Moreover, a view of life which denies the conflict of tendencies is too plainly opposed to the facts of experience to deserve attention. What may be conceded (and this, indeed, is of the highest importance) is that hedonic associations may perhaps add greatly to the certainty and ease of conduct of all kinds. But here there is nothing which resembles selection, and the use of that term would be out of place.

It may be added that, in the same way, painful association would hamper conduct of all kinds and depress the general activity of the race.

Do we therefore glorify pleasure at the expense of pain? By no means. What we have hit upon is one of the most comprehensive of all the manifestations of the principle of the evolution of opposites. Activity without restraint would be as mischievous as total inaction, and, like that, would be inconsistent with further advance in evolution.

CHAPTER III

VALUES AND FINAL CAUSES

THE foregoing argument has led to the conclusion that life, taken as a whole, and universally, and without reference to individual lives, or particular periods of history, comprises, at all stages of evolution, equal proportions of good and evil, whatever meaning we may give to those terms; and is not, therefore, in itself, and generally, of any value, whether positive or negative. But, it was pointed out, all are agreed that some lives are more valuable than others, and it follows that such lives must rise above the general level of indifference, and be worth living; whereas others, which fall below that level, are not worth living, and should be declined by every wise man, could he enter on them with a free choice, and with his eyes open. Our argument will have little practical use, unless we can determine what is understood by the term value. Perhaps the most commonly accepted definition is approximation to an ideal, and we may begin with an examination of this concept.

Rückert tells us

> Vor jedem steht ein Bild des, das er werden soll;
> Solang er das nicht ist, ist nicht sein Friede voll.

And if by this it is understood that every man strives to better himself after some pattern or another, the statement may be accepted as generally true. But it is not true that every man strives to improve himself after one and the same pattern. Even in the same age and the same society we find rival ideals contesting the field. The ideal of John Wesley was not the same as that of David Hume. There was, in fact, hardly a single point of resemblance; and between successive ages the discordance is yet more striking. We may quote Mr. Spencer as representative of the period we have barely left behind us:

'Bounding out of bed after an unbroken sleep, singing or whistling as he dresses, coming down with beaming face ready to laugh at the smallest provocation, the healthy man of high powers, conscious of past successes, and by his energy, quickness and resource, made confident of the future, enters on his day's business not with repugnance, but with gladness, and from hour to hour experiencing satisfactions from work effectually done, comes home with a surplus of energy remaining for hours of relaxation.'[1]

Or Sir Leslie Stephen :—

'Nature wants big, strong, eupeptic, shrewd, sensible human beings, and would be grossly inconsistent if she bestowed her highest reward of happiness upon a billious (sic), scrofulous, knock-kneed saint, merely because he had a strong objection to adultery, drunkenness, murder or robbery, or an utter absence of malice, or even highly cultivated sympathies.'[2]

Consider how uncongenial such pictures would be to a man imbued with the traditions of chivalry, or of the mediaeval Church.

Another obstacle to the practical efficiency of any ideal which pretends to universality is the love which every man bears to himself.

'There is no wise or good man that would change persons or conditions entirely with any man in the world. It may be he would have one man's wealth added to himself, or the power of a second, or the learning of a third; but still he would receive those into his own person, because he loves that best, and therefore esteems it best, and therefore overvalues all that which he is, beyond all that which any other man in the world can be.'[3]

The ideal to which Rückert refers is in every case the man's own self, with some features strengthened and others reduced, or perhaps wholly omitted. One which all men should follow must, of necessity, differ too widely from each separate individual, and would find no imitators. *Bos bovi Iuppiter* is a maxim of universal application.

[1] H. Spencer, *Data of Ethics*, p. 190.
[2] Leslie Stephen, *Science of Ethics*, p. 409.
[3] Jeremy Taylor, *Holy Living*, II. vi. 2.

Again, even if an ideal were to be accepted, it would be of no advantage to the race. All the objections which were urged in a previous chapter against artificial breeding apply with at least equal force to the exclusive direction of conduct in accordance with a fixed and permanent standard. The principle of life in all phenomena, internal and external alike, is change; and, as it is not given to us to foresee what lines that change will follow, adherence to an unchanging ideal leads inevitably to destruction.

Finally, in order that it may have practical effect, an ideal must be such that it presents a reasonable prospect of realization. As Spinoza says, 'Quum homo concipiat naturam aliquam humanam sua multo firmiorem, et simul nihil obstare videat quominus talem naturam acquirat, incitatur ad media quaerendum quae ipsum ad talem ducant perfectionem.'[1] Unless there is some prospect of success, the will will not be interested. What then is understood by an ideal is a more or less complete personality, which may be realized by human effort in the future. But the continuity of experience is the only basis we have for building forecasts on, and if that showed us that the ideals of one age had ever been realized, or even approached, in a subsequent stage of evolution, we should have some ground for confidence in our own; and that confidence would vary in degree with the frequency with which previous ideals had been realized. If they had always been realized, it would be so strong as to approach certainty; if never, it would be wholly unreasonable. We might then, indeed, be nearly certain that they never will be realized.

Now it requires no very careful consideration of the past to convince us, not only that no ideal has ever been realized, but, in addition, that it must necessarily have differed widely from what has been the actual result. It was impossible for the ape to foresee his human descendant, and it is equally impossible for us to foresee what line evolution will take in our case. All that can be said with regard to any of the ideals which have been proposed for our accep-

[1] *De intell. emend.*, ii. 13.

tance by overbold speculation is that the chances against their being realized are about the same as against the sun's rising in the west. For this, independently of the argument from reasonable expectation, there are two other valid reasons. In the first place the character of an ideal depends on the relations which subsist at the time between the organism and its environment. Both the organism and its environment are subject to change, and what form that change will take for either we are wholly unable to conjecture. Secondly, and this is a consideration for which we shall have much use later, an ideal is always and necessarily partial, whereas the processes of nature are comprehensive. Expectation is an enthymeme, by which we infer the future from the past. The proper major premise would be that the future resembles the past, but this is so doubtful that we are not justified in formulating it as a general proposition. The conclusion of is small value, and even that only for the near future. Without a reference to the past there is no premise, and, consequently, no reasonable expectation. The law of reasonable expectation is not the same as the law of continuity. The latter is usually employed in arguing from the present to the past on the principle, *ex nihilo nihil.* The former argues from the present to the future, and has no concern with *a priori* principles of any kind.

As, therefore, all ideals are in the nature of forecasts, and no forecasts have any reasonable chances of realization, the concept of approximation to an ideal is no better than a broken reed. It is not to be relied on as a test between good and evil.

A convenient expression for our judgement of an action as good or evil is our ' valuation ' of it—that is, the value at which we rate it. This brings into prominence the fact that, besides the broad distinction between good and evil, there are gradations of both. Of two actions, both of which are good, one may be better than another, or, when both are bad, one may be accepted rather than the other, if both cannot be avoided. The problem with which we are now

engaged can be best approached by an examination of the meaning which we attach to the word ' value '; but before proceeding it is as well to premise that the distinction between good and evil is not, correctly speaking, a difference in degree of value ; it is rather a difference in kind ; a difference, that is to say, between attraction and repulsion, between movement towards and movement away from an action regarded as an object of the will ; of direction and not of pace. Though, therefore, there are degrees of evil and degrees of aversion, and though these probably fall under the same law as degrees of good and of attraction, we have no common word which embraces both the series which depart in opposite directions from the point of indifference. When we speak of a value, we always intend something above zero, and not a minus quantity. The statement, then, of our argument will be much simplified, and no harm will be done, if we employ the word ' value ' in the sense of degree of good only ; it being understood that the omission of degrees of evil is intentional, and that the same considerations apply to them as to relative ' values ' or degrees of good.

The concept of value has its origin in the conflict of interests. If our interests were perfectly harmonious, it would have no meaning ; there would be no relative values ; but, though the origin is the same, two classes of value may be recognized. The first is when any single impulse is taken by itself, and we inquire what degree of strength in that impulse is to be most highly valued. In all there is an optimum of strength, which is not identical with the maximum, and, when that optimum is exceeded, the impulse loses its value and is regarded as bad. In this case the comparison is between that impulse and the whole remaining complex of impulses which are necessary to existence. Any single impulse ceases to be valued, or passes beyond its optimum, when it interferes harmfully with the balance of conflicting interests on which our life depends. This is especially true of those which are most highly valued, and it explains the popular saying ' Corruptio optimi pessimum '. Religion and

self-repression, to take two examples, when pushed beyond a certain degree of relative strength, destroy the equilibrium of interests on which the health of the organism, individual or social, depends, and finally bring about its extinction. The *optimum* is relative, not to the extreme strength of the impulse itself, but to the actual strength of the other impulses with which it may be brought into conflict. The impulse must be strong enough to maintain itself, but not so strong as to suppress opposition.

The second class of values is when two differing impulses are compared as wholes, and without reference to degrees of strength. Impulses are usually grouped as intellectual, religious, ethical, aesthetic, and prudential, and if the word 'moral' is restricted, as for clearness it should be, to the reactions of the conscience on the apprehension of other impulses, there are many more, such as the love of power or of wealth, self-assertion, and self-repression, hunger for applause, or for personal excellence, each and all for their own sakes.

Every one will allow that some of these impulses are regarded as higher or of greater value than others, but it is probable that no two men would arrange them in exactly the same order of merit. Valuation is a branch, and a very important branch, of belief, and, like beliefs generally, depends in the first place on the total constitution or needs of the individual, and, in the second, on the ruling tendencies of the social organism. Some men and some periods will exalt religion, others the conscience, and others the intellect to the first place. How completely subordinate is the part which is played by the intellect in the construction of schemes of value, may be gathered from the wide differences of opinion which prevail among philosophers of equal, or nearly equal, intellectual eminence. If Kant was moved with ever-increasing admiration and awe at the contemplation of the moral law, while Mr. Spencer found his highest ideal in a life of innocent pleasure, it was not because one differed from the other in intellectual capacity. The reason must be sought in their whole character as modified to their sur-

roundings. Indeed, philosophers are likely on this point to differ more widely than common men. Their confidence in themselves renders them less sensitive to the levelling influence of social beliefs, and they fail to recognize that their intellect, which is sometimes joined to quite an ordinary character, has no other function than to reduce to system the material with which that character provides it.

We must next distinguish value from utility. The former compares different impulses or different degrees of strength in the same impulse, with reference to the whole aggregate of remaining impulses, and, as we shall see, the comparison implies an assumption, tacit or avowed, of some general end, which is not the same as the end or the satisfaction of any single impulse. By utility we mean something much more concrete, that is to say, the efficacy of any kind of conduct towards the realization of any proximate end; or the satisfaction of a single impulse. This does not involve, as the concept of value does, any comparison of ends, or go beyond the end or aim of each particular impulse; and that can be nothing else than its own satisfaction. Utility has no independent value of its own, but depends for its valuation on the value of the end it serves. Iago's methods had utility, but not value.

No better quality can be selected for illustrating this distinction than intellectual honesty. The aims of the intellect are, in the first place, systematization by means of the two opposite processes of distinction and generalization, and, secondly, to give us knowledge of what will happen in the future. Anything that conduces to these ends is useful; what thwarts them is hurtful. Now it hardly needs demonstration that for their successful prosecution intellectual honesty is not only useful, but indispensable. And what is meant by intellectual honesty? Nothing but a refusal to allow other impulses, such as the love of gain, or of applause, or the desire to promote any other end which is not purely intellectual, to interfere with the operations of the intellect in ascertaining and systematizing facts. The decisive superiority of the Copernican theory over the

Ptolemaic lies, not in its superior ease in working, but in its greater utility for purposes of system and prophecy. Without it there would have been no prospect of the great advances in astronomical theory which have since been made, or of our greatly increased accuracy in predicting astronomical phenomena. Results of this kind are not to be expected by a thinker who misrepresents his facts, or distorts his theory in the interests of any end which is not purely intellectual. The facts of external nature are, no doubt, conditioned by our channels of communication with the external world, or by a portion of what, in the most general sense of the word, may be called our needs; what intellectual honesty demands is that they should be accepted as so given us, and not coloured or transformed in compliance with that class of our needs which may be distinguished as our personal interests and aspirations.

Of the utility, then, of intellectual honesty, there need be no doubt. It is demonstrable. But the question of its value is not so easily settled. The relative values of means to ends, when compared with other classes of conduct as means to other ends, depend exclusively on the relative values of the ends; and unless we know some universal end, or *summum bonum*, to serve as a standard of comparison, there is no way of demonstrating that one end is better than another. And with reference to a universal end (notwithstanding the fact that there has always been a fair amount of agreement as to values), there neither is, nor ever has been, the slightest approach to agreement. We have, therefore, a far greater certainty with regard to values themselves than with regard to any possible explanation of them. The concept of relative value necessarily implies the concept of a further aim which is common to both the impulses compared; the concept of utility implies nothing but the aim of a single impulse taken by itself. The second is a plain fact, as to which no difference of opinion is possible; as to the first, men are not yet agreed whether it is to be placed in this world or in another.

Another point remains to be noted. The intellectual

impulse itself, either through the decay of other competing impulses, or when it has been unduly favoured by the unknown forces which guide variation, may become harmful rather than beneficial. It is in excess when it overpowers the religious, the moral, or the aesthetic impulses. The same thing cannot be said of intellectual honesty. There can be no excess in the efficiency of any quality, when regarded as the means towards the attainment of the known end of a single impulse, though there always may be excess in the impulse itself, when it is considered as the means for the attainment of the common end of two or more impulses. It is this which accounts for the instinctive aversion which is felt, not only by the average man, but also by a great majority of systematic philosophers, to all claims to explain the cosmos by purely mechanical theory. Such pretensions overlook the rights of other elements in our constitution which are not less essential to our existence than the intellect itself. What is demanded by the common sense of mankind is that the intellect should confine itself to its own province and its legitimate functions. Whether, then, we regard the value of the end to which it contributes, or its utility as a means to the attainment of that end, intellectual honesty takes a position in the very first rank of human qualities. The value is vouched by the unanimous conviction of reasonable beings; the utility is demonstrable.

It must, nevertheless, be conceded that in all these branches of inquiry in which the method is teleological, and which may be classed under the general term of philosophy, it is nearly, if not quite, impossible for any human being to exclude altogether the influence of his own emotions and aspirations and those of the people among whom he lives. This accounts for the changes in the philosophical beliefs of successive ages, and for the reactions of the opinions and the fashions of one generation against those which have guided its predecessor, which are often compared to the swing of a pendulum. The direction, then, taken by thought is given, not by the intellect, but by the whole of the tendencies of society and of the individuals which constitute

it. But, even then, the functions of the intellect, in systematizing the material which is submitted to it, are easily distinguishable in principle; and it should be its aim to be on its guard against fashion and prepossession, and preserve the greatest attainable independence. When it wilfully departs from this aim, and falsifies its facts or its methods, in the hope of establishing a conclusion which may appear on any account to be advantageous, its action will certainly be reprobated as dishonest. If we are required to justify this condemnation, we must appeal to the common ground of all ethical judgements; that is to say, to the same principle which explains why we condemn corrupt perjury.

It may, I think, be added that, if there is any value in those elements of a philosophical theory which are contributed by the non-intellectual tendencies of its age, it is, like those tendencies themselves, temporary and evanescent, whereas the value of the purely intellectual elements survives through many changes of fashion and emotional preference. This may be illustrated by a reference to Darwin's great theory of evolution. In that, the scientific demonstration of a common descent has just claims to enduring value, but the concept of degrees of fitness, which was borrowed from the instinctive optimism of the first half of the nineteenth century, is, I am convinced, destined to fall away from it and be forgotten, now that it has discharged its function of recommending the more valuable part of the theory to the times in which it was published.

The familiar ethical assertion that nothing has any value except as a means to an end is parallel with the scientific assertion that everything that exists must be both cause and effect. Both overlook the necessary implication of a *recessus ad infinitum*. If there is an ultimate final end which is not absolute, then that, not being the means to another end, has no value, and all our efforts converge towards the attainment of a thing of naught. The same is equally true if there is no ultimate final end, and our exertions have no convergence, but are directed towards the attainment of the innumerable conflicting ends of our

several impulses. In that case also the ends would have no value, as they would be ends in themselves, and not means to any further end. All theories of value postulate an absolute value, which is an end in itself. In order that there may be values at all, there must be some end which is valuable for its own sake, and not only as a means. It is true that the ends which are valuable in themselves may be many, and at first it would seem that the ends of human effort are many and unconnected. The ends of religion are not the same as those of the senses or of morality, or of ambition. But there are two considerations which go to correct this view. The first, and perhaps the most cogent, is that some ends are certainly more valuable than others, and, in order that degrees of value may be accounted for, some single standard of value must be postulated. The other is that the same postulate is demanded by the exigencies of the principle of unification. What, then, is this single value or end which lends their value to all human ends? The answer is quite plain and certain. We do not know. All human action, therefore, so far as it has value, is directed towards an unknown end. As a corollary, it may be added that the distinction which we have lately drawn between utility and value amounts to this. Utility is estimated with reference to a known and proximate end, and value with reference to the unknown end of all human conduct which is valuable. A second corollary may be added. If the universal end of nature is identical with the universal human end, that too is unknown.

The assumption of an unknown final end for both man and nature is forced on us independently by other considerations.

The attribution of purpose to nature is a direct result of the impulse to unify experience, an impulse which has certainly proved the main factor in our advance beyond the state of savagery. Unless we connect the single facts of experience under some law, however crude, we cannot have either knowledge or reasonable beliefs. For the objective facts of external nature, where exact measurement is possible, the law of uniform sequence, with its constantly

widening range of application, affords the requisite means of connexion. As soon as any fact has been reduced to a place in a chain of sequences, we feel that the explanation of its existence is sufficient. But even here, though we need not inquire what the purpose is of the object we are dealing with, our thought itself cannot act without a purpose. That purpose is always one and the same, that is, the unification of knowledge, or, in other words, the satisfaction of the impulse itself. Scientific thought cannot proceed without classification, and the purpose of all classification is to reduce single facts to series of facts. Here, however, no further end need be assumed. A scientific explanation, in cases where it can be obtained, is completely satisfactory; we need go no further.

It is possible that this assertion, that the concept of purpose is not required when a scientific explanation is available, may be disputed. We certainly should have no difficulty in finding assertions to the contrary, and it is strictly relevant to our present inquiry to consider what they amount to. For this purpose I would venture to refer to a passage in Dugald Stewart's *Active and Moral Powers of Man* (Book III. iv). In that, he quotes Priestley's remark that 'while we keep in view the great FINAL cause of all the parts and the laws of nature, we have a clue by which to trace the efficient cause': together with the report of a conversation with Dr. Harvey, in which that great man is said to have attributed his discovery of the circulation of the blood to his observation that the valves of the veins were placed in the body with no apparent design; and his conclusion that they were meant to direct the flow of the blood to the heart instead of to the limbs.

Dr. Harvey's remark involves two entirely distinct propositions. The first of these is that the determination of the venous blood to the heart is the invariable result of the valves in the veins—a discovery which brings these organs under the general law of uniform sequence; the second is that the venal circulation is a special instance of the general law that all the processes of our organism are intelligently

designed for our advantage. The first of these statements is a matter of knowledge; the second, a matter of belief; and it is with the second that we are now chiefly concerned. With regard to it, two questions may be asked: first, What is its value as a statement of fact? the second, What is its practical effect in furthering, or impeding, the ends of knowledge.

In answer to the first of these questions it is, for the present, enough to say that it assumes that there is no evil in the world, which is absurd, and plainly opposed to experience. If all that is meant is that good predominates, that is insufficient; for the mere existence of evil, whether it be much or little, contradicts the idea of combined benevolence and omnipotence. Moreover, the assumption that good predominates is one which no man is justified in making. It is not of universal acceptance; many thinkers of the highest eminence have declared against it; and if, which is doubtful, there is a slight balance of philosophical authority in its favour, that is a fact which can easily be explained and discounted; finally, it is contradicted by three out of four of the great religions which preside over the destinies of civilized men; and that, in what is a matter of belief, is perhaps the best kind of evidence. Again, if we confine ourselves to purely biological considerations, and look on the different parts of the organism as factors in the preservation of the whole, it is certainly obvious that, with a very few doubtful exceptions, no one of them can be spared; but when we come to weigh each one separately in the balance, we shall find it impossible to demonstrate that the advantages of that one in particular exceed the disadvantages; that the total benefit is greater than the price which is paid for it. The less complex and less highly differentiated an organism is, the fewer are its dangers. Every new differentiation by which it extends its power of dealing with its environment adds at the same time a fresh opening for attack, and, through the principle of integration, constitutes a new peril, as well as a new safeguard to the whole.

To the second question it would be an easy answer

that the advantages and disadvantages to scientific thought of the argument from design were very evenly balanced; that if, on the one hand, the search for design might, incidentally, lead to the discovery of scientific cause and effect, on the other, it was likely to distort the inquiry by blinding the seeker to consequences which he did not wish to discover. And this, no doubt, is true, but it is not the whole truth. Eagerness to establish the goodness of creation has always proved a powerful stimulus to scientific thought; and optimistic theory, which is the speculative correlative of self-confidence and elation of spirits, has usually been the precursor or the contemporary of scientific progress. But it would be inaccurate to say that search for design has ever led to the discovery of what it went forth to seek; its reward has always been in a wholly distinct category. This also should be added: not only has the wish to prove design stimulated inquiry, but the apparent proof of it has often secured the currency of scientific theories, which otherwise might have been overlooked or rejected. Even then it must be allowed that the weapon cuts both ways, and that the wish to discover design in all things may help to perpetuate scientific error as well as scientific truth.

The conclusion then is, I think, justified that though the elevation of spirits which has its expression in theories of design may act as a powerful stimulant to scientific inquiry, and though the coupling of an apparent proof of design with a scientific theory may give that theory, whether it be false or true, an advantage over rivals which are not favoured in the same way, the scientific proof, considered by itself, remains wholly unaffected by it, and the intellectual satisfaction depends not on that, but on the success of its own processes. When once it has been established by convincing proof that the earth moves round the sun, it would seem idle and impertinent, even to men of no scientific attainments, to exact a further proof that the movement was designed to serve some human purpose, and to declare that without such proof it was unintelligible. In scientific inquiry we have the plainest instance of self-contained

action towards a satisfaction which is an end in itself, as far as human purpose reaches. It is only when we proceed to inquire why the scientific impulse has a relative value compared with the independent impulses of religion and morality that we are driven to the assumption of a single final end. Within its own range, the scientific explanation has no use for the concepts either of ends or of values. From that point of view, one branch of inquiry, or any single fact or group of facts, is as valuable as any other. If men attribute a special degree of importance to any one such fact, it is because they take it out of the range of science, and appraise it with reference to its bearing on one or another of their beliefs. If, for instance, we take a special interest in electrical research, it is not because the results have any superiority as scientific truths, but because they promise to affect other interests which are not scientific, and to promote or to hinder our ambitions, or our happiness, or our moral or social tendencies. It should further be noted that, even in cases where no adequate scientific explanation has as yet been discovered, an explanation by design will not be asked for if the facts are of a kind which is usually susceptible of reduction to law. Men will then be contented to wait, and will exert themselves to obtain the scientific explanation which will, they believe, be the ultimate reward of their efforts. No one asks for purposive explanations of natural changes in the temperature, or in the strength and direction of the winds.

Not only is explanation by purpose superfluous in all cases where the law of uniformity applies, but it is also inadmissible. Purpose implies freedom of choice, whereas uniformity excludes it, and when both explanations are applied to the same event, they are radically contradictory. Thus all personifications of nature, and unfortunately they are very common, involve confusion of thought. They contradict the law of uniform sequence, and they lead, moreover, to the absurd result that in every case of the interaction of two distinct factors each must be regarded as selective of the other. Thus, on one hand, Prof. James

tells us that we select the facts which constitute our knowledge, and, on the other, Darwin demonstrates that our knowledge, as a necessary integral of our whole constitution, is the result of natural selection.

Though, however, explanation by purpose cannot properly be employed for any two events both of which are members of the same objective series, it does not follow that our reasoned knowledge of the objective world is completely independent of it. We are compelled to have recourse to it, if we desire to give an intelligible account of the connexion between the facts of the external world and our needs by which those facts, as they appear to us, are conditioned. The law of uniform sequence fails to explain why human needs are what they are, and why we are constituted as we are, instead of being, for instance, like a dog, with more than half our experience conditioned by our sense of smell —or something still more widely different.

Again, the law of uniform sequence does not explain its own existence, or how it comes that external nature conforms to it. For all we know, any other arrangement was possible, and may come into force at some future time. That we have the power of predicting events in an external series with a fair approach to certainty, whereas we have no such power in the case of a subjective series, is a fact which is only explicable, if it can be explained at all, by purpose.

Though, however, the law itself, and the needs by which both the law, and the facts to which it applies, are conditioned, are only explicable by design, when once the order of the facts has been established, we feel that that order and succession cannot be other than it is, and the idea of purpose ceases to be applicable.

This is, perhaps, what Prof. James means when he says ' a thoroughgoing explanation of the universe in terms of mechanical sequence is compatible with its being interpreted teleologically, for the mechanism itself may be designed '.[1] But should this be admitted, it must be remembered that the mechanical explanation, if it embraced the

[1] *Will to Believe*, p. 76.

whole of the facts of experience, would leave one point only open for a teleological interpretation; that is, Why do facts comply with the law of uniformity? This, being the foundation of the mechanical theory, can never be explained by that theory. On all other points the teleological argument would be barred, because, by postulating freedom of choice, it contradicts the explanation by necessity. The only possible way of conceiving personal freedom is as independence of what is called (though improperly) causal connexion. If all a man's actions are determined by mechanical law, no choice can be imputed, and, consequently, no purpose. No room would be left either for religious or for ethical speculation.

Now we find as a fact that the scientific explanation extends only to external nature. Within the, to us, far more important province of human nature itself, it has never yet been applied, and there is nothing to justify the expectation that it will ever be made applicable. All hopes to that effect may be traced to the unreasoning prejudices of scientific men or a scientific age. Not only have attempts to reduce to scientific law the facts of religion, of morality, or of art, been predoomed to failure, but they seriously impair the efficacy of those essential elements in human nature. The explanation of human action as automatic is barred—in the first place by the methodological difficulty that its phenomena are not susceptible of measurement, and secondly, by the practical difficulty that it is not reconcilable with other interests which are distinct from the scientific interest and equally important. An explanation of any action by natural law is universally accepted as a quittance for responsibility and an exoneration from blame. The will, whether human or divine, becomes a superfluous assumption, and the foundations are cut away from both morality and religion. The consciousness itself, at whose instance we inquire for an explanation, becomes an unmeaning epiphenomenon, which, as it has no influence on the course of events, admits of no explanation, either by purpose, or by natural law.

For the theoretic basis of scientific law, and for all the other facts of experience which are not susceptible of reduction to scientific law, the only possible explanation is by reference to some purpose or design. The only alternative conception of the universe besides this is chaos, and chaos, or the absence of design, is another word for the inexplicable. That this should be so follows directly from the limitations of our reason, or, to use an expression which is more in consonance with the views which we are discussing, from the fact that all our knowledge is limited, and conditioned by our needs. When we wish to explain human action, we must refer it to some intelligent purpose. Action without purpose is insane, and bears the same relation to intelligent human action as chaos does to an orderly universe. This appears to me to be a fatal objection to all assumptions of a blind will as the guiding principle of the cosmos. This theory too is anthropomorphic, but by excluding purpose it excludes all possible explanation, and cuts away its own *raison d'être*. A will without reason in a man would preclude all explanation of his actions; he would be a madman, and his actions unaccountable. Explanation begins with the assumption of reason, and reason, when applied to action, is the same thing as purpose. A conscious will means will combined with intellection, and to this concept the same objection does not apply.

What is meant by 'purpose' in man is a representation in the consciousness which determines action; the purposed result, or final end, of that action being the realization of the idea which is represented. The explanation is complete for each single action taken by itself, the result which is represented being the final cause, while the representation itself is the efficient cause. It is unnecessary to inquire further. To the question 'Why does a man act in such and such a way?' the answer 'Because he believes it will make him happy' gives (if it is true) a complete explanation. To ask why it makes him happy opens a new question, and is irrelevant. The word 'cause' (Ursache) properly means the initiation of a chain of events by the free and purposive action of

our will. This is what distinguishes a purpose from a scientific series. If there is a general end, it is common to each of a number of independent series, and not the concluding stage in one. To regard a purpose as merely a link in a series of indefinite regression annihilates the distinction between the two forms of explanation, and asserts the universal applicability of scientific law.

The concept of purpose may be, and commonly is, employed in connexion with three conceivable general ends or determinants of action—the human, the natural, and the transcendental. Whether there is a universal human end must be decided by an appeal to human consciousness; the right to assume the existence of a universal natural end is dependent on the result of an application to the past of the law of reasonable expectation: if we fail in our efforts to ascertain both these ends, we are driven by the exigencies of our nature to assume a transcendental end. The human and the natural end may be conceived either as conflicting or as harmonious, but it would be absurd to ask the same question with regard to either of them and the transcendental end; and this for two reasons: first, because we are unable to compare the known with the unknown; and, secondly, because the assumption of a transcendental end will not be demanded by the exigencies of our mental constitution if other ends can be discovered within the bounds of experience; and philosophy will not be justified in making it. It has already been pointed out that the same objection applies to the assumption of purpose in external nature. There too it is not needed, and, in addition, it contradicts an explanation which is always accepted as adequate. A single ultimate result may be discoverable, but the intermediate processes will not have been purposive.

We may now proceed to interrogate our inner consciousness in the hope of discovering whether there is any universal end to human action, and, if so, what that is.

Reference has been made to Prof. James's view that the ideal state to which our development is tending is one

from which all friction has been eliminated, and a similar opinion may be found in Mr. Schiller's writings: 'The success of life will depend on the correspondence, however attained, between the organism and its environment': or, 'In perfect adaptation, the organism carries on its life with the minimum of friction.' Again, Mr. Schiller defines 'utility' as 'what contributes to the attainment of any human end, and ultimately to that perfect harmony of our whole life which forms our final aspiration.'

We have here a statement, perhaps sufficiently definite, of both ends, the natural and the human, and they are represented as practically identical. But nowhere in the course of these writings have I been able to discover any serious attempt to establish the assertion that harmony is indeed the real end of either class of actions. The appeal seems to be direct to the human consciousness, which is expected to accept the proposition without inquiry as having the force of an undisputed axiom. To the method itself there is no reason to object. It is true that no other proof is possible in the case of the human end of action, and the proper answer is to state the contradictory, and ask whether that has, or has had, no confirmation in the internal experience of human beings. If it has, it is certain that the statement that the sole or even the highest aspiration of men is perfect harmony, is not an axiom, and requires a careful consideration.

With reference to the whole aggregate of the conflicting impulses, conscious and unconscious, which constitute our personality, it would seem safer to say with Hobbes (*Leviathan*, ch. xi):

'We are to consider that the felicity of this life consisteth not in the repose of a mind satisfied. For there is no such *finis ultimus* or *summum bonum* as is spoken of in the books of the old moral philosophers. Nor can a man any more live whose senses and imagination are at a stand. . . . Felicity is a constant progress of the desire from one object to another, so that, in the first place, I put for a general inclination of all mankind a perpetual restless desire for power after power, that endeth only in death.'

To most men who are thoughtful this answer will, I think, commend itself rather than the other, and, if I may anticipate, it corresponds with the course of progressive evolution. Neither in man nor in what we call nature is any single final end discernible, but only a continual striving after increased power. There is, indeed, a satisfaction of rest and harmony, but that too, when it is examined, turns out to be no definite final end, but merely a disposition towards a process in the reverse direction, that is, towards the loss of power, and ultimate extinction.

A more decisive expression of how men feel on this subject is given by their estimates of value, which we shall shortly proceed to consider. What the final aspiration of humanity is, and, indeed, that there is any single end of conduct, is purely a matter of belief, and does not admit of scientific proof. If all sane persons were agreed that all our efforts converge in the direction of harmony, the propositions that there is a single end of action, and that that end is harmony, would be axioms which it would be absurd to dispute. But it is a plain fact that there is no such an agreement, and that multitudes of men, including many of the highest authority, have felt and asserted the opposite.

If we pass from human ends to the final end of nature, the history of the past (and that history provides the whole of the data for an opinion which we possess) lends no confirmation to the view that harmony is the end towards which all natural processes converge. An almost complete harmony with the environment is the state of those organisms which are the first in order of creation, and which still occupy the lowest rungs on the ladder of evolution. Every new adaptation has been won at the expense of conflict with the environment, and is the point of departure for fresh conflicts. As soon as the adaptation has been firmly established, and the conflict has ceased, the nervous process passes away from the consciousness, and the action becomes automatic. If by harmony final and perfect adaptation is meant, the end of our aspiration will be an automaton, devoid of consciousness. That this is not the end of nature,

so far as it is disclosed by her action in the past, needs no demonstration.

'The highest animal is not one whose nervous system is more completely organized for reaction upon a limited environment, and in whom consciousness no longer occurs, but the one whose nervous system affords the greatest possibilities of new adaptations, of new relations among nerve-paths, and so of the most complex and intense consciousness.'[1]

By the word 'highest' the writer embraces both kinds of aim, that is to say the aim which is conformable to human values, and the actual result of natural process. The actual result of natural process is increased complexity of structure and increased intensity of consciousness; and it is to those qualities that the human mind attaches the highest value. The word 'intensity' is rightly chosen, for it cannot be shown that the result of evolution (or natural process) has been that any larger proportion of the whole aggregate of our impulses has emerged into consciousness. The increase in the number which remain submerged may be, and probably is, equally great.

An essential preliminary in any inquiry which has for its subject the teleology of natural processes is to take stock of all the relevant factors, as far as they can be ascertained, at two different epochs, which are sufficiently remote to eliminate the disturbing effects of transient fluctuations. We are apt to compare our own time with the middle ages, and, by doing so, to obtain a very different result from what would have been given us had we compared the tenth century with the best period of the Roman Empire, or with Athens under Pericles. Our self-love extends to the period in which we live, and both exaggerates its merits and masks its faults. The dislike with which contemporary innovations are received raises a presumption that we should claim as decided a superiority over the future, could it be revealed to us, as we do over the past. For these and for many other reasons the evidence is never

[1] W. McDougall, *Mind*, July, 1898, p. 376.

fairly appraised, and the conclusion is governed by what we like, rather than by what we may legitimately expect.

It has been shown in the preceding chapters that the consideration of evolution as a whole leads to a conclusion which steers a middle course between the extremes of optimism and pessimism, namely, that while all the factors in experience, conscious or unconscious, have greatly increased, it cannot be shown that any of them have increased at the expense of any of the others. Thus, pleasurable experience has, no doubt, enormously increased, but not at the expense of painful experience, which has likewise increased, and probably in about the same proportion. The same may be said of knowledge, and ignorance, and still more obviously of moral good and evil. This view corresponds with the result which is derived from a consideration of the facts of biology: that is to say that the process of evolution has not been an increase of adaptation only, but a simultaneous increase both of adaptation and misadaptation, our dangers increasing *pari passu* with our immunities.

The process, then, is not along parallel lines, but one of divergence. Evolution along parallel lines would mean that though the characters of the specific adaptations and misadaptations varied, the sum total of each remained the same. There would be change, but no quantitative divergence. Such a process would not come under the usual conception of evolution, but it is quite conceivable, and may, perhaps, be actually observed. The green caterpillar probably stands on exactly the same level with regard to a green surface as the brown caterpillar does with regard to a brown surface. This might be described as stationary evolution. In what we may call forward evolution, where both adaptations and misadaptations increase, the result is divergence. Both the totals are further removed from zero, and are, therefore, further apart than they would be at a lower level. There is a greater difference between extreme happiness and extreme misery than there is between pains and pleasures, which are barely perceptible. The

discord is much more pronounced. There is, moreover, a third form of evolution, besides the stationary and forward processes of change. That is degeneration. When an organism degenerates, it loses in complexity; and, at the same time, both the number of its adaptations and its feelings, whether they be of pleasure or of pain, lose in variety and in intensity. Such a process is along convergent lines: it is in the direction of harmony, and, if persisted in, would probably, sooner or later, attain to the harmony of complete indifference.

It is not necessary for our argument to show that the increase of opposites has been exactly or nearly equal, though that seems the most probable conclusion. Unless one of the pair has displayed a clear tendency to decrease, there is no reason to expect that it will ever be overpowered by the other. The most determined partisan, whichever colours he may wear, will not venture to assert that there has been an actual decrease, either of pains, or of pleasures, or of dangers, or of immunities, if man is compared with the lower classes of organisms. On the contrary, it must be admitted by an optimist that the pains, and by a pessimist that the pleasures, of the higher organisms are incalculably greater than those of the earlier forms of life, from which the former are presumably descended; and that, in the intermediate process, the increase on both sides of the account has been fairly continuous.

Pleasure and pain are here instanced because they are the factors which have engaged the most attention; but the same law may be observed in the case of all, or nearly all, contrasted pairs of opposites, the most comprehensive formula for the expression of the law being that both adaptation and misadaptation have increased, and that there is nothing to show that the increase has been greater on one side than on the other.

These considerations, for which I have already given what appears to me to be a sufficient justification, are in direct contradiction to the opinion that the end of the processes of nature is either harmony or unmixed happiness.

What history makes us acquainted with is a continuous process with no intelligible end—but either the protraction of divergent lines to infinity, or progression along parallel lines, or convergence towards the point at which the process started.

While we keep in mind the inconclusive character of all such forecasts, we may, nevertheless, attempt to estimate the chances of each of these three processes in the future. First, it seems reasonably certain that there will be change. The whole facts of a remote future are not likely to be the same as those of to-day; and, inasmuch as we are unacquainted with any instances of absolute stability in races which are superior to the first beginnings of life, even if there, this expectation is as nearly certain as any can be. The prospects of stationary evolution need not detain us. The whole of our interests as men are centred on the question as to whether we are to make further progress in the scale of evolution, or recede from the position we have already gained; and on this, to us, all-important point, we have no safe ground for prediction. Science has taken no census of cases of specific degeneration, but it is certain that the process is exceedingly common, and it is possible that it becomes more common as the organism becomes more complex. The forces on each side appear to be about evenly balanced. Whatever, then, our hopes may be, we are unable to expect with confidence the triumph of either process. But from an ethical point of view, the main interest lies, not in what events may take place in the future, but, rather, in the attitude which is taken by our feelings towards each of those processes in the present. A clear indication that our sympathies are with forward evolution is that the opposite process is hardly ever even attended to when evolution as a whole is under discussion.

Within the limits of a short essay it is impossible to discuss all the other final ends which have been suggested; but a few words may be devoted to one of them. We are sometimes told that the final end of all action is self-preservation, in concurrence with preservation of the species. To this there

are several patent objections. In the first place, it falls short of being a final explanation. It immediately suggests the question, Why should the species be preserved? If it is perfect now, the end of nature has already been achieved; if it is preserved in order that it may be perfected, then perfection, and not preservation, is the end of nature, and our problem remains unsolved; we have still to discover what is perfection. It is not to be attained by the elimination of all that we regard as undesirable. Few men, and those not the best, would prefer an existence free from care, from discord, and from all forms of unhappiness, where all aspirations for something better were dead, to the present state of conflict, and occasional hard-won triumph. Moreover, the operations with which nature makes us acquainted are destructive rather than preservative, and the higher the race is in the scale of creation, the shorter, as a rule, has been its appearance on the stage of life.

We must at this point return to the concept of values, and inquire whether it is possible to detect some principle by which their relative estimation may be accounted for. The first fact that forces itself on our attention is that they are not the principles which usually govern human conduct. Our beliefs in this connexion cannot be defined as what we are ready to take action on. That we value one line of conduct and adopt another, is one of the oldest and most obvious topics of ethical observation. So far is it from being the case that we pursue what we value highest, that a man is esteemed a hero if he merely attempts to conform his life to those values, and more than a hero if he succeeds. Ordinary conduct is guided by principles which are universally admitted to be of little value, or none, or less than none. To assert that worth is wholly relative to the temporary interests of the conceiver, contradicts the plainest facts of our experience, and is an exact inversion of the truth.

The first step in a critique of value will be to distinguish between the petty values which govern the details of daily life—the values of the tea-table and the railway journey—

and the higher values which determine the degree of esteem in which a man is held by his fellows. Of the first, the interest does not extend beyond the agent himself. No man gains the admiration of society by a successful pursuit of pleasure, nor is his name on that account handed down by history.

The higher, or what may be called objective values, and especially those of self-repression and humility, are often rated more highly by onlookers than by the agent himself. They are not confined to any one department of our nature. Thus they are not always identical with moral values; of many of them the conscience takes no cognizance. Great wealth, great power, intellectual and artistic genius, are held by all men in high esteem; their powers are respected and envied; but to say that we are all bound in duty to have the genius of Shakespeare would be as absurd as to deny its title to respect. Moral achievement is perhaps rated above all others, but it is only one kind among many. What, then, determines values? or rather, what determines their order of precedence in the general estimation of mankind?

The principle which first suggests itself as the main determinant in all the higher objective values is greatness; and it becomes necessary to inquire what is meant by this term. We may commence with a quotation from Kant's *Critique of Judgement* (Dr. Bernard's translation, p. 108):—

> 'It is remarkable that though we have no interest whatever in a subject, i.e. its existence is indifferent to us, yet its mere size, even if it is considered as formless, may bring a satisfaction with it that is universally communicable.'

It is common to all men to admire everything which is great in its kind. The feeling is inspired by external nature, and is quite distinct from aesthetic appreciation. Travellers who see no beauty in mountain scenery have rarely failed to be impressed by its grandeur or sublimity. In ourselves we admire great physical strength and skill, however they may be employed, and do not admire weakness, or want of skill; great swiftness of foot, and not slowness. The feelings thus excited by our physical qualities are excited in a much

greater degree by our moral and mental qualities, and they are then described in terms borrowed from the external world. We admire a gigantic intellect, and swiftness of apprehension or judgement. Magnanimous, broad, elevated are terms of praise ; narrow-minded, pusillanimous, base, of depreciation. A feeling of the same kind is set up by the sight of machinery ; the skill and strength of a steam-engine inspire us with wonder and delight. The pleasure of proceeding with great speed is due principally to the same instinct, which has stimulated men in all ages to seek for means of accelerated motion—the ultimate aim being increased power and efficiency in the human being itself.

There is something even in atrocious crimes which, notwithstanding the shock to our moral sense, excites in us a feeling which is akin to respect. Herostratus was not wholly disappointed in his bid for immortality. But greatness must be joined to active power or efficiency (it is difficult to find a word which is exactly appropriate) in order to gain a full measure of esteem. The ascetics of Egypt, by their unheard-of austerities, commanded a respect which was little short of worship, but it was short-lived, owing to the poverty of the results ; and the same thing is still true in the case of the ascetics of the East. If extreme asceticism is productive, and not divorced from the practical business of life, it does not fail to retain and enhance the esteem which is acquired by its mere greatness.

There are few things which raise so general a respect as colossal wealth, or a renown so enduring and so widespread as that of a great conqueror. If the only thing commanded by wealth were pleasure, it would not be valued as highly as it is. Probably its only clear and indisputable advantage lies in the respect which we are now attempting to account for ; and that this is due to the enormous accession of power to affect both the present and the future, which is incident to the possession of great wealth, can, I think, hardly be doubted. In poverty, on the other hand, there is nothing that can justify a reasonable contempt ; it has been recom-

mended as the most perfect state, and as such has been chosen by many; yet we are told that, whatever its disadvantages may be, the worst of them all is that it makes men ridiculous. The reason for this is that it makes men impotent for good or for evil. It is not despised, but even honoured for its own sake, when, as in the case of St. Francis of Assisi, to take one example out of many, it is a stepping-stone to a widely diffused influence. Not only poverty, but humility, obedience, chastity, and the whole band of what Hume calls the 'Monkish Virtues' are derided when they are infructuous, and honoured in proportion to the greatness of the effect which they produce on history.

The same lesson is taught by the glory which comes from great conquests. War not only brings misery and death to both sides, and certainly contributes nothing to the general wealth or the happiness of humanity, but it often impoverishes the conquerors themselves. Nevertheless, it brings immortality to the victorious leader, and a height of rejoicing to his people which far exceeds any that could be produced by the greatest accession of material wealth. This can only be accounted for by the wide range of the effects and their bearing on the evolution of the whole race, and the conquering people in particular. Conquest has been the engine by means of which most of the great advances in civilization have been effected, and successful war brings out and confirms all the highest qualities of the people who wage it. Even the Caudine Forks may sometimes do the same, and nations as well as individuals may profit by adversity.

The consideration of success in war leads by an easy transition to love of country and love of freedom, two feelings which are closely connected with it. These, except perhaps in times of decadence, are universally rated as the highest of civic virtues, and, at the same time, furnish the strongest of all incentives to action in the mind of the individual citizen. They easily prevail over the passion for material wealth, and even over the love of life itself. A nation which preferred ease to independence would forfeit the respect of its neighbours. We need not go far for

examples. It is probable that the Afghans would gain greatly in wealth by their acceptance of British rule; but, though they are among the most covetous of peoples, and though the British yoke is notoriously easy, they would indignantly reject the bargain. Men love freedom, because it secures them the faculty of spontaneous development, which they lose directly they are subjected to the will of a stranger; and to the same reason patriotism owes its rank among the highest virtues.

Much more to the same effect might be collected from an examination of other of the higher values, but it will be sufficient for our present purpose if we call to mind the extreme repulsion with which men regard degeneration generally, as a descent to a lower position, either in the scale of creation or in any of those series to which a common agreement has assigned ascending values. No man with his eyes open would accept the sty of Circe, even though all the delights of her island were added with it. No penalty is more deterrent than the loss of a grade in the public service, or descent to a lower station in society, and no sacrifice is thought too great if it brings promotion in either. Honours, which are only a special form of promotion, are a more potent instrument than the most liberal offer of material reward for securing to the country a self-sacrificing devotion to its interests; and an additional incitement is that they connote something greater than, and beyond, the ordinary achievements of the rank and file. Even these are not the highest values. Those are only attained by the man who exhibits the same devotion and self-sacrifice, without the prospect of any reward, material or honorific. If we found that retrogressive evolution, or a descent in the scale of development, brought with it an increase of happiness—and this is not by any means impossible—we should still reject it; or if, perchance, we yielded to the bribe, we should earn the contempt of our fellows.

The foregoing considerations enable us to compare human estimates of value with the facts of forward evolution. The characteristic of that process is a continuous increase in all

directions—increase in size and strength and dominion over external nature, coupled with increased liability to disease and destruction by external enemies ; higher virtues, and lower depths of wickedness ; a vastly increased volume both of problems which have been solved and of problems which await solution ; increased simplicity of knowledge, and increased complexity ; wider generalizations and a more minute specialization ; increased power of individual action, and increased strictness of subordination to the common aims of society. These, and many similar processes, for the list is far from complete, are reflected in the human mind by the inborn admiration for all that is great on which we have just been dwelling.

Besides the processes of life and expansion, nature also makes us acquainted with destruction and decay, and, as has already been stated, there are good reasons for the belief that these conflicting forces are pretty evenly balanced, the margin in favour of progress being slight and precarious. Tendencies corresponding to the adverse processes of nature are to be found in the human mind, side by side with the tendencies to progress. Of these, some, such as crime, and most of the offences against the conscience, are destructive ; others, like the longing of the Israelites for the fleshpots of Egypt, are merely degenerative. These latter do not immediately threaten existence ; on the whole, perhaps, their tendency is to preserve it, by withdrawing it from the dangers of an advanced position ; but they preserve it in a lower grade of evolution, for with the fleshpots comes loss of freedom. The attitude of the human mind towards the first of these modes of action is very easy to detect. From the processes which lead to death and destruction it recoils with a fear, or disgust, or horror, which it may be conjectured, bears some rough proportion to the magnitude of the dangers which they threaten.

The sentiments with which we regard those tendencies which set in the direction of stagnation or retrogression are of a much more varied and complicated character. The love and pursuit of pleasure ; the prudence which has

for its end a comfortable home and a good position in society; the ordinary commercial virtues which are exercised for the same or similar purposes; cleanliness, and a reasonable regard for health; in fact, all those tendencies which make for a secure and pleasant existence, free from the risks and the shocks and the discords of a life of strenuous ambition, are either admired or despised, according to the temper of the time or of the individual judge; but, whether adverse or favourable, the feeling is rarely strong, like the feeling excited both by crimes and by acts of heroism. It oscillates about the point of indifference, being sometimes a little above it, and at others a little below. At its best, it never rises to the level of enthusiasm. At its worst, it recalls the sentiments expressed by Virgil at the sight of the neutral angels, 'Non ragionam di lor, ma guarda e passa.'

We are now, at last, in a position to formulate a definite opinion as to the relation of human aims to natural process, and to the transcendental government of the universe. We have found, in the first place, that a single ultimate end is postulated by our judgements of relative value; and secondly, that, as the only principle of explanation for all facts that do not admit of scientific treatment, it is one of the vital necessities of thought, holding in this respect exactly the same position as the law of uniformity, but with a much wider range of operation. When, however, we turn to the facts of experience (and those are the only data we have at our disposal) for information as to the precise nature of the final end which we are obliged to assume, we discover a vast number of facts, amounting indeed to about half our experience, which contradict any idea we can form of human purpose. We are unable to give up the assumption of a final end, and we are ultimately obliged to accept the conclusion that that end is not to be found within experience; in other words, that it is transcendental.

When we leave the consideration of the world as a system of contemporary facts and regard it under the aspect of evolution, we are led by another path to the same conclu-

sion. Not only are the facts which are irreducible to purpose there, but they have been continuously on the increase, and the canon of reasonable expectation compels us to anticipate that, if growth, and not decay, is to be the order of the future, their growth will be continued. Moreover, the growth is not of the anomalous element only, but in all directions, and in this general expansion the various principles, as distinguished by reason, are contrary and conflicting.

Not only, therefore, do we find that the existing world, when thought of as a single complex of facts, is so filled with irreducible anomalies as to disable us from regarding it as the realization of a single known purpose; but when we represent it as a process, and postpone the realization of the purpose to an indefinite future, the difficulty, instead of being diminished, is much enhanced. The only conceivable process by which the existing world could be reduced to purpose is the elimination of anomalies ; and, if we found anything resembling this process in the past, we might reasonably expect that it would be continued in the future. But this we do not find. That the increase in all the anomalous elements in our universe of experience has been enormous is a fact too patent to require proof ; that it has been at least as great as the increase of the purposive elements is a proposition which it would not be easy to disprove. A growth in all directions, in which no individual element can be shown to be favoured beyond the others, is a process indeed, but not a process towards an end ; it has no assignable purpose.

Inasmuch as we are obliged to conceive the cosmic final end as transcendental, it would be waste of time to institute a comparison between that and human aspirations. Human purposes are the ends which men put before themselves as reasons for action, and such ends must necessarily be drawn from the world of experience. The transcendental purpose, which the necessities of our existence compel us to assume as the final cause of all things, cannot be identified with any human purpose.

When, on the other hand, we turn to the processes of external nature, we find a correspondence which is greater than is usually suspected. Nature and the mind of man agree in this, that neither of them presents any single aim to which all other aims are subordinated, but, instead of that, a number of conflicting aims. Of the active principles, in nature and in the human character alike, both the adverse and the benign have the same or nearly the same rates of increase. Human judgements, as represented in the accepted scales of value, closely correspond with what we might attribute to progressive evolution, if that could be conceived as a person reflecting on his own actions. The predominant features in that progression, and anything which bears a resemblance to them, are the things which arouse our warmest feelings of approval ; all that contradicts that, our most intense repulsion. Between these two extremes lies a wide field, with varying degrees of appreciation and depreciation, which embraces all those ordinary acts which have by themselves no very distinct or important influence in either direction, but which never excite what are agreed to be the most exalted types of ethical emotion, such as awe, veneration, enthusiasm, or worship.

The following passage, which is quoted by Mr. A. E. Taylor (p. 227 of his *Problems of Conduct*), sums up with epigrammatic vigour a view which is much in fashion:—

'The end of Nature is function, i.e. life. The end of the creature is feeling. From the standpoint of Nature feeling is a means to function ; from the standpoint of the organism, function is a means to feeling. Pleasure and pain come into existence in order that a certain class of beings may live, but these beings, having been given existence, now live in order to enjoy. As Nature cares nothing for their enjoyments, and is indifferent to their sufferings, so they, in turn, care nothing for her great scheme of evolution, and would not make the smallest personal sacrifice to further it.'

It is worth our while to examine each of these statements in the light of the conclusions which have just been recorded. In the first place, life is not the only end of Nature. The destruction of life is equally her end, if by 'end' we mean,

as we must mean, all the results of her operations. The death of the individual and the extinction of the species are phenomena as common as their life or their preservation. Again, feeling is not the only end of the creature. The instinctive actions of animals are not purposive, and even if pleasure results or pain is avoided (and as often as not this is not the case) the resultant feeling is no part in the animal's design. In a large class of instinctive actions which are concerned with the preservation of offspring it is impossible that the result could be foreseen. Among men, it is probable that feeling may be one of the determinants in a large class of action, in another large class it certainly does not enter at all, and it is precisely to the second class that men attach the highest values. That pleasure and pain come into existence in order that a certain kind of beings may exist has as much truth as that legs and arms came into existence for the same purpose; that is to say, it is true only if the final end be regarded either as immanent or as transcendental. If it is regarded as natural, it is not proven, for we have not ascertained what the final end of Nature is. Finally, as we owe all our enjoyment to Nature, and as one of the features of evolution is the continuous growth of those enjoyments both in number and in intensity, it seems ungrateful to accuse Nature of caring nothing for them; while to say that man cares nothing for the great scheme of evolution, and would not make the smallest personal sacrifice to further it, is a libel on humanity. All the most deep-seated, the strongest and the most general of our emotions of approval have for their object those processes in our own nature which most resemble the processes of external evolution, and which are best calculated to further its course. The ideals of humanity are determined by their similarity to, and consonance with, the same processes. Whenever personal interests are sacrificed, it is in that cause, and in no other. Such sacrifices are common, and when they are of unusual magnitude we rate them as of the highest value to which humanity can attain.

CHAPTER IV

VALUATIONS OF PLEASURE AND PAIN

Up to this point our attention has been engaged by the problem of values in its most general aspect; that is to say, with reference to a final end that is universal, and embraces all the various and conflicting ends of human purpose. We may now proceed to consider what are the values assigned by the general opinion of mankind to the special principles of pleasure and pain, when regarded as determinants of action.

We have found, it will be remembered, that the end to which values are relative is not empirical, but transcendental; and that, as it is beyond the range of empirical knowledge, we are unable to employ it as a standard for measuring the relative values of different kinds of impulse or of conduct. There are, in fact, only two data for ascertaining values. Of these, the first is distance from zero, or, in more intelligible words, lateness of appearance in an evolution in which the only recognizable universal principle is a gradual concentration of force. But this, by itself, is not sufficient, inasmuch as evil tendencies, or minus values, increase *pari passu* with tendencies to good. To lateness of appearance must, therefore, be added consonance with the aims of forward evolution. Lately evolved evils, on the contrary, are the gathering forces of degeneration. History leaves us little doubt as to which forces have favoured development in the past, and which have been their opponents, and it is reasonable to infer that the same forces will continue to act in the same directions; but the safest guide, and the most easy to consult, is to be found in the general opinions of mankind. That men do approve of conduct which is in the direction of, and tends to promote, further evolution, and that they abhor all conduct

that tends towards degeneration and destruction, are facts which may be directly observed, and they argue an instinctive sympathy with the former. This instinct is the source of all our valuations. It sits as an independent judge on all our actions, whatever their quality may be, and is not biased by the likes and dislikes on which it pronounces judgement, and which mislead as often as they guide aright. In morality, the scale of relative values is given for each individual by his own conscience; for each society, by the generalizations from the individual judgements of its members which are accepted for its guidance by the community; and for mankind at large, by such generalizations as can be obtained from a review of the moral judgements of all races, at all times, and in all parts of the world. Such generalizations are the data for a philosophy of morals.

Similar data do not exist in the case of prudential or algedonic motives, and in that department no objective scale of values can be constructed on the basis of popular agreement. The pleasures of one man are not those of another, nor the pleasures of a man those of a woman, nor those of a Chinese or a Spaniard those of an Englishman. Even with the same individual the values vary from moment to moment in the same day, and, still more, with the different periods of life. They are often influenced by considerations which are obviously and admittedly delusive, and it is a matter of philosophic doubt whether they are ever the true determinants of action. The only class in regard to which there is any approach to unanimity are those which arise from a gratification of the senses, and of the primitive animal instincts; and those, however powerful their influence on conduct may be, are ranked, if not as evils, at any rate as the lowest in the scale of positive values. This infinite variety, which is far greater than any that is to be found in the valuation of moral motives, deprives the objective valuations of pleasures and pains of all general philosophic validity. Such valuations, moreover, have no binding force. There is no prin-

ciple in human nature which compels or justifies their forcible imposition on individuals who do not accept them as valid for themselves ; and the attempt, though it is often made, offends against both prudence and morality ; it is both inexpedient and unjust ; every man must be happy in his own way, or not at all.

But, it will be objected, though no objective scale of algedonic values may be obtainable, it is manifestly untrue that prudence has no value. Even Kant admits that it is not only what a man does without reference to the enjoyment of himself and others that gives a value to his existence in the world. Are we to conclude that all pleasures are of equal value ? The answer must surely be in the negative. What, then, in the absence of any objective standard determines our valuation ? The explanation is, I think, quite clear, and, with reference to a recent philosophic difficulty, of some importance. It shows that there is, after all, no need for the assumption of any other test of value except the ethical, and that pleasures, when regarded by themselves, and isolated from their concomitants, have only trivial differences in this respect.

What Kant had in mind were, no doubt, our judgements of value on acts of benevolence, and we must look at these a little more closely, in the hope of discerning exactly what it is we value in them. It will be found that they are valued in proportion to the ethical elements which enter into the total amalgam of motives, and that the amount of resultant or anticipated happiness has no appreciable influence on our judgements ; that is to say, that a man's action is valued (as far as pleasure enters into the calculation at all) in proportion to the pleasure he foregoes, and not in proportion to the pleasure he creates. A despot confers an immense benefit on his subjects by widening and embellishing the streets of his capital ; but his aim is to strengthen his dynasty, and he will not be esteemed so highly as the poor widow who contributes her farthing for the wants of those who are poorer than herself. A millionaire who distributes in charity money for which he has no use himself

gains very little credit, however great the addition to the happiness of others. With this clue to guide us, we may be sure that profuse hospitality is admired, not for the pleasure gained by the guests, but for the magnificence of the host. The sight of bare benevolence, without the accompaniment of self-devotion or self-sacrifice, or of some other ethical principle, moves us very slightly. Benevolence is certainly the most highly valued of all classes of action which have pleasure for an end, but it is thus preferred because the resultant gain is to others, and not to oneself; and that is a purely ethical consideration. The amount of the resultant happiness is not taken into account. Indeed, it has often been doubted, and with some justice, whether the ideal of the greatest happiness of the greatest number would not have the best chance of realization if every one attended to his own business. If it be admitted that bare benevolence is the highest of the motives which have pleasure for their conscious end, it must also be admitted that the whole class of which it stands at the head is inferior to that other class of motives which, when they are added to it, lend to its satisfactions nearly the whole of their value. Even self-regarding prudence, or the direct pursuit of happiness for oneself, is often admired, though not so often or so strongly as benevolence; but, in this case, our admiration is paid, not to the actual success in procuring happiness, but rather to the qualities by which that success was obtained—such as self-restraint and clearness of prevision, qualities which are admired on their own account, because they distinguish a man from a beast, which the love of pleasure does not. Men who are enriched by a windfall are not, on that account, admired at all. If prudence has a lower value than benevolence, it is not because it produces less pleasure, but because the element of self-sacrifice is wanting. It need hardly be added that there is no self-sacrifice in self-restraint, if the object is to realize the greatest possible amount of personal happiness. Again, it is commonly asserted that the esteem in which men of genius are held is due to the pleasure which their

works have imparted to multitudes of their fellow creatures. With some great conquerors, for instance, the claim is obviously absurd. It is not equally absurd in the case of great artists and men of letters, but even with them it dwindles to comparatively small proportions under a close examination. The multitudes, while they can appreciate great actions, derive but little satisfaction from great art, and, if the amount of enjoyment conferred by a fugue of Bach be compared, in respect to the numbers affected, with the enjoyment conferred by a successful music hall melody, the former would be hopelessly left behind. What is esteemed in great music is, first, the genius of the composer for its own sake; secondly, the elevating effect it has on the minds of its hearers; and, only in the third place, the pleasure it gives them; and the same thing is true of all great art. But the total effect of an increased elevation of character is an equal increase of pleasure and pain, and not pleasure only. If we take for our illustration great philosophers like Aristotle and Kant, whose writings are not recommended by literary charm, the mere pleasure which they have conferred on succeeding ages is quite insufficient to account for the honour that is paid them. Still less is the honour paid to the happiness they acquire for themselves. As often as not, the man of genius is of all men the most unhappy.

The difficulty which these considerations help us to clear up is Mr. Mill's observation that some kinds of pleasures are more desirable than others, although they may have no superiority or even a manifest inferiority in point of quantity. His explanation is that in some pleasures there is a superiority of quality which is so great as to more than compensate for any deficiency in quantity. As there is no better means of enforcing views that are correct than by the criticism of the views which are opposed to them, I propose to examine Mr. Mill's argument in the light of the conclusions which have been reached in this essay. It is, to the best of my comprehension, as follows. (The word pleasure includes throughout avoidance of pain.)

There is no conceivable end of action but pleasure; pleasure is the sole end of action, and any other end is a 'physical and metaphysical' impossibility. But we find that some actions with an apparently lower coefficient of pleasure are preferred to other actions with a higher coefficient. This seems to contradict our premise, and we must have overlooked some element in the pleasures. The element which determines the preference can be nothing but a difference in quality. The higher pleasures, therefore, and it is those which are distinguished by an apparent deficiency in amount, must differ from the lower in being superior in quality. If a man fails to see this, it can only be because he is not acquainted with both.

The first criticism I have to offer is that the discovery of the motives which determine conduct lies (as Mr. Mill points out) in the province of psychology, or the study of the human soul, and not of ethics. The subject-matter of ethics are the judgements of approval and condemnation which are passed on motives or conduct. It is true that, without a knowledge of motives, it would be impossible to understand or classify the judgements that are passed on them, but for that knowledge ethics must be dependent on another branch of inquiry. If the study of human nature did show us that there is only one motive or end for all conduct, it would not be easy to find a teleological explanation of the fact that some motives and conduct are approved of, and others condemned; but it does not, and it is a fact that those judgements do presuppose a variety of motives. Again, whether, as a matter of fact, pleasures do differ in kind as well as in quantity is another question for psychology; and the prevalent opinion in that branch of inquiry is that they do not. Psychology, therefore, gives many kinds of motive, and only one kind of pleasure; what Mr. Mill demands is a single motive and many kinds of pleasure. The correct view appears to be that motives are hardly ever simple; that all voluntary actions are the satisfactions of conscious impulses, and that they are all, therefore, attended by some degree of pleasure. Actions

are both good and bad, and its universality itself disqualifies pleasure as a criterion of goodness and badness; but the admiration felt for any line of conduct (and this is the true criterion) stands in an inverse and not in a direct ratio to the predominance of pleasure in the complex of antecedent motives.

Another assumption which Mr. Mill admits to be required by his hypothesis is that happiness is attainable. In order to prove this, it must be shown that it actually has been attained in the past. The pursuit of happiness is no new thing; it is not suggested that human nature has changed in this respect; if, then, there has been in the past a gradual alteration in the balance of pleasurable and painful experiences, to the advantage of the first, or disadvantage of the other, we should have some justification for the belief that human effort had been successful already, and may be successful in the future. If no such change, or what a Utilitarian would call 'improvement', is observable in the past, the presumption as to the future is on the other side. Mr. Mill does not attempt to deal with this question. He asserts, indeed, with perhaps unnecessary acerbity, that no man deserves a hearing who doubts that, 'if human affairs continue to improve,' the great positive evils of the present will be reduced within narrow limits; thus assuming incidentally the improvement which it was his business to demonstrate. As there is a very large and respectable mass of opinion opposed to it, this assumption ought not to have been made, and it is of no philosophical value whatever. An inquiry into this point has been made in the present essay, and reasons have been given for the opinion that no such process can be observed in the past, and that what men call improvement is independent of any change in the relative proportions of pain and pleasure.

What Mr. Mill overlooks in the general course of human affairs he asserts very strongly of the individual. The 'being of higher faculties' is distinguished not only by a higher capacity for happiness, but also by a higher capacity for pain. If his pleasures are more numerous,

more intense, and more easily excited (for it is a mistake to suppose that it takes more to make him happy), so also are his pains. But, as his pains resemble his pleasures in all other respects, there is a very strong presumption that if one differs in quality, so also does the other, and that the more attractive quality of the pleasures is neutralized by the more objectionable quality of the pains. Both his pleasures and his pains are then appreciably higher in all respects, quality included, and there is not the slightest ground for supposing that if they were compared, and one subtracted from the other, any greater balance either of pleasure or of pain would be left over than there would be if the same operation were performed with the pleasures and pains of the inferior ; or that, in the case either of the superior or of the inferior, there would be a net balance of either feeling, even if it were possible to take qualities into account.

Another difficulty is to obtain a competent judgement on the relative merits of the pleasures of the superior individual when compared with those of the inferior. The inferior may object that the 'being of superior faculties' is not a good judge of what he is pleased to call the lower kinds of pleasure, and in this there appears to be a good deal of justice. A philosopher has no more distinct an idea of the feelings of a savage than the savage has of his, and there are some very keen enjoyments, such as the delight in butchery, which he is altogether unable to appreciate. The comparison of one's feelings with those of another is unconvincing. Bill Sikes would not exchange his own capacities for enjoyment with those of a man of genius. Each man must judge of his own pleasures, and endeavour to ascertain, by an examination of his own feelings, which are the stronger, and why he prefers one line of conduct to another. I believe that a man who did this would be unable to escape the conclusion that the feeling tone which attends the satisfaction of the lower is incomparably stronger than that which attends the satisfaction of the higher impulses. This he might explain by the reflection that no kind of

pleasure has a distinct strength of its own, and that distinctions of strength depend in all cases on degrees of nervous susceptibility. Thus, a definite increase of susceptibility (disturbing causes being left out of account) will add a definite corresponding increase of pleasure to all satisfactions, from the highest to the lowest, and the total amount of each kind of pleasure will be constituted by the pleasure, if any, attached to the same satisfactions in the lower organism, plus the definite increase brought about by the increase of susceptibility. It would follow that, in the case of new satisfactions, which were unknown to the lower organisms, and therefore could not for them have been attended by pleasure, the whole of the attendant pleasure for the higher organism will be the amount due to the increased susceptibility. Direct evidence that something of this kind does occur may be gathered from an observation of the same impulses and their algedonic accompaniments at different stages of evolution. The loves of the savage are powerful but not romantic. The worship of the beloved object, and the exaltation of spirit which finds its expression in poetry and other forms of art, are later accretions to the primitive feeling, and they are more highly prized than that part of the total feeling which has been inherited from more lowly ancestors. If there is any distinction of quality, it is, surely, as manifest here as in the satisfactions of the highest impulses. But, if the distinction of quality (and it is possible, though unproved, that there may be one) runs throughout the whole scale of his feelings, and is common to the highest and the lowest impulses alike, it cannot be regarded as an ally to one if it conflicts with the other.

The assertion that men only prefer lower pleasures because they are unacquainted with the higher begs the question. All that direct experience teaches us is that men will often, perhaps usually, choose the lower line of conduct in preference to the higher: that this is because they have formed an erroneous estimate of the pleasure coefficient is an inference from the premise that pleasure is

the only determinant of choice. But the whole question between the Utilitarian and his opponent is whether there is not some other determinant besides pleasure. The bare assertion that no other is conceivable is no argument, in however loud and confident a voice it may be made. The fact remains that others have been conceived, such as obedience to conscience, or to God, or to an earthly superior, even if the balance of pleasure should be manifestly on the other side. Proof cannot be dispensed with, and, if there is no proof, there is no valid premise. The preference of the lower to the higher conduct may be due to the presence or the absence of some other determinant, which is not pleasure, and we are under no necessity of assuming that the pleasures themselves differ in any but the recognized points of intensity and duration.

If the inferior being pursued lower aims merely because he was ignorant of the more attractive quality of the pleasure which is attached to the higher aims, and if his idea of pleasure were his sole criterion of value, it would follow that he could not possibly admire, or attach a high value to, actions which are inspired by a more elevated morality than his own. Heroism, in his eyes, would be a quixotic folly—the sacrifice of substance for a shadow. Indeed, if they depended for their reputation on the suffrages of their equals or their superiors, history would show us no heroes at all. The number of genuine connoisseurs in the higher pleasures would always be too limited to make way against the vast aggregate of ignorance, indifference, and positive contempt. But, although they do not appreciate the higher hedonic qualities, or even suspect their existence, the undistinguished masses are far from feeling contempt or even indifference for those qualities which raise men to a higher level than their own. Excellence of all kinds, whether it be of morality or of dignity, excites their respect, and its supreme manifestations their worship. The worship of saints is the tribute they have paid to one, and of the Roman emperors to the other, of these two

forms of excellence; and these illustrations are far from standing alone. If the higher qualities miss recognition anywhere, it is in the writings of hedonist philosophers who, in trying to detect the pleasures, are blinded to the real greatness of the nobler types of character. Mr. Mill is not himself open to this reproach. His statement of the problem is pervaded by an elevated moral sentiment which would not be unworthy of Kant; but of the great majority, and, among them, some of the most eminent, it is literally true. Their spirit, when it has filtered down to a lower level, sets up a process of corruption, which explains and justifies the dislike and apprehension which hedonism and utilitarianism have always aroused in all classes of a healthy society. The same instinct which compels men to respect greatness teaches them to recognize and avoid the doctrines of degeneration.

To this it may be added that the man who is acquainted with both will be the most ready to deny that his higher conduct has been determined by considerations of pleasure in any form. When he has faced ruin rather than dishonour, he will regard it as an insult to be told that his choice had been determined by the prospect of the resultant pleasure; whereas a man with a less highly developed sense of honour who has only tried one of the supposed pleasures, will, in the absence of evidence to the contrary, be ready to believe that it was so determined.

We have, then, the following grounds for suspecting the hypothesis of differences of quality in pleasures, when it is used to explain the fact that the choice of conduct is not always determined by the prospect of the greatest apparent quantity. In the first place, it is not countenanced by psychology, and that is the branch of thought to which such problems properly belong. Secondly, even if distinctions of quality do exist, they fail to explain the difficulty. As the superior quality must be derived from the nervous temperament of the agent, and not from the actions themselves, it will be common to all his feelings, pleasure and pain alike, and as the pain and the pleasure

will cancel one another, there is no reason to suppose that his life as a whole will be preferable, on this account, to a life in which the superior quality is absent on both sides of the equation. For the same reason, the superior quality will be common to the pleasures derived from all his impulses, the higher and the lower alike, and it is therefore impossible that it should give one an advantage over another. Finally, though the superior quality of the higher pleasures is certainly unknown to, and unsuspected by, the multitude, it is equally certain that the superior value of the higher lines of conduct has their warmest appreciation, and that appreciation must be due to some other cause than a distinction of quality of which they are, and always must remain, in total ignorance.

If, then, the hypothesis of qualities, even if it is true, fails to reconcile the seemingly contradictory propositions that the prospect of pleasure is the sole determinant of conduct, and that in large classes of conduct the determinant is not the greater amount of pleasure ; and if there is no other imaginable reconciliation (as indeed there is not), it follows that the propositions are, in fact, contradictory, and that one or the other must be given up. Before making our choice for rejection, it will be as well to consider what those classes of conduct are in which the determination is not by the greater amount of pleasure, and in respect to which the difficulty arises. On this point there is no real difference of opinion. Pride, love of liberty, love of power, love of excitement, and, more generally, a sense of dignity, are the motives enumerated by Mr. Mill, and to these may be added emulation, or the desire to excel our fellows and to 'break the record', and, still more distinctly, obedience to the commands of the conscience or of religion. Now all these (for I think love of excitement may be included) are the distinctive properties of a progressive evolution, and at once the causes and the symptoms of that advance of power which has been noticed in a previous part of this essay as what is meant by improvement when a higher organism is compared with a lower. A complete statement,

then, of the case before us gives a large class of motives which agree among themselves in the following particulars: first, that they are the latest products of evolution, and, secondly, that they operate independently of a calculation of the amount of resultant pleasure, while they differ in both respects from all other classes of motives. It seems only reasonable to suppose that the explanation of the second of these special features may be found in the first, that is to say, in the circumstance that they are the most lately developed; and that no other explanation is wanted. In other words, that the sense of dignity is itself the determinant, and not the prospect of pleasure, and that the prospect of pleasure is therefore not the universal determinant.

All conduct may, I think, be accounted for by one or the other of these two determinants; that is to say, either by the prospect of pleasure or by one of that large class of motives which depend for their force on our regard for our place in the scale of evolution. But it is not often that the latter motive can be completely isolated. The satisfaction of nearly all impulses is attended by some degree of pleasure, and, were it not for the fact that conduct which has inferior is often preferred to conduct which has superior hedonic attractions, it would, perhaps, be difficult to prove to the satisfaction of a man who was not already convinced by introspection of the existence of other than hedonic determinants that such determinants did in fact exist. There is very little conduct which is entirely devoid of pleasure in the achievement, and it is open to the hedonist to assert, however palpable the absurdity may be, that it was that slight element which determined the choice. Such assertion would, however, be defeated on his own assumptions by the demonstration of superior hedonic attractions in the conduct which is rejected. There is, moreover, some conduct for which hedonic attractions are wholly wanting. When the realization is postponed to beyond the grave, and the wished for result is one which the actor can never hope to see, it is out of the question

that the prospect of pleasure could have influenced the choice in the slightest degree. But the prospect of posthumous reputation enters very often as a part determinant of conduct, and is not unseldom the sole determinant. The principle which emerges is the following : it is true that the prospect of pleasure enters into the motives for nearly all kinds of conduct ; nevertheless, the choice between one line of conduct and another is not always determined by a comparison of the concomitant pleasures ; nor is the estimate of the relative values of one line of conduct and another, when it is made by a disinterested onlooker, ever so determined.

It is difficult to insist too often and too strongly that the prevalence of a motive, or its superior force when measured by the extent of its influence on conduct, is no test of its value, and that men do not regard as the highest those motives by which they are most commonly guided ; that, on the contrary, the frequency of a motive and its value are in an inverse ratio. ' Ordinary ' is a term of disparagement. ' Omnia praeclara tam difficilia quam rara ' is the leading principle of ethical valuation. Now ' higher ' and ' lower ', when applied to motives, are terms of valuation, and they are employed, even by hedonists, to distinguish those motives which are the peculiar privilege of man from those which he shares with animals. No further explanation is called for, and the introduction of pleasure as a criterion of value is otiose. But hedonists overlook the distinction between influence and value, and it is not equally plain that the higher motives exercise a more powerful influence on conduct than the lower. It is not easy to say in which way its recognition might have modified their views. When it is recognized, the only possible conclusion appears to be that, while conduct is determined sometimes by one class of motive and sometimes by the other, its value is always dependent on the proportion which is borne by the higher to the lower in the total amalgam of motives.

These abstract distinctions are not difficult to draw on

paper; but in practice they are not always easily recognizable. It is seldom easy to say at once with regard to any particular line of conduct whether the motive which recommends it is predominantly ethical or prudential. It is a characteristic of prudential dilemmas that the arguments for and against either choice are usually very evenly balanced. The conclusion is a mere matter of opinion, one man being in favour of, and another against, any course that may be suggested. Hence it comes that there are not many actions for which prudential reasons of some kind may not be assigned. This holds good even in immediate results. The more distant the prospect, the less certain are the conclusions of prudence, and, when the happiness of others besides ourselves is added, the equation becomes practically insoluble. In all questions concerning distant results—in all, therefore, in which we are most in want of guidance—prudence will advance equally strong reasons on either side. Again, pleasure and pain occupy so large a place in the consciousness of mankind, that other determinants of action, though they may be really stronger in effect, are apt to be lost sight of when both are concurrent. It follows that a much more conspicuous position than they deserve is accorded in unreflecting belief to prudential as compared with ethical motives. It is not recognized to what an extent we are dominated by aims for which we can give no true reason, except that they are good.

Enough has been said on the subject of the relative values of pleasure, and what have been classed as the ethical impulses, when regarded as motives to action. It only remains to compare the values of the main branches of ethical motives, that is to say, the moral, and what have been distinguished as those of ambition and eminence. When religion influences choice of conduct, it must be, either through the conscience, or by holding out prospects of pleasure and pain; and it is not therefore necessary to deal with it separately in this context. Our task is narrowed to a comparison of the relative values of the conscience and the desire of eminence. Before proceeding to this,

we may remark that ambition, like prudence, may be altruistic, that it is frequently devoted to the interests of others, and that, when it is, it is almost always confused with mere benevolence or the desire to give others pleasure. The conscious ambition of many of the great lawgivers and statesmen who have earned the reverence of succeeding ages has been to raise the people for whom they worked either by giving them freedom or by perfecting their laws and their institutions, without reference to considerations of happiness and unhappiness; and such men, I think, will rank as greater, and be rewarded by a larger share of gratitude, than those whose ambition has been to make their country rich and contented, without regard to higher considerations. In combining the highest personal aims with the highest form of altruism they earn a double title of respect.

Motives of morality and motives of ambition, though the final end of both is advance in evolution, do not always recommend the same line of conduct. Supreme achievement, even in art and letters, is seldom reached except at the expense of social and domestic duties, and, in practical life, such as that of the soldier and the statesman, the sacrifice is likely to be much more serious. The characters of the saint and the ruler, though their combination is not unknown, are in principle contradictory, but one is as necessary as the other to the commonwealth. The explanation is given at once when it is recognized that evolution advances towards its end by the opposition of contrary principles—the opposites here being self-effacement and self-assertion. All morality consists either in the absorption of the self in love for others, or in the inhibitions on the free action of individuals, which are demanded in order that men may live together in societies; and religion sanctifies the same principles by connecting them with the worship of a Supreme Being. Even asceticism, though its end is often selfish, chooses for its means the subjugation of the self, and earns no lasting respect unless it promotes, either by example or by active service, the amelioration of others. But the

principles of morality would be insufficient by themselves, unless they were counterbalanced by the strenuous activities of self-assertion ; and it is essential to the healthy development of a community that neither self-effacement nor self-assertion should attain a strength that would be inconsistent with the even development of both. Their growths must be parallel. For individual characters that type is highest which is at the same time the best and the greatest ; but such men are necessarily uncommon, and an exceptional advance along one line will, at any rate in part, atone for backwardness along the other.

The two principles may be compared, either with regard to their values as estimated by the general judgement of mankind, or with regard to their influence as determinants of conduct. They are equally essential to the highest interests of humanity, and it might be expected that in the first respect they would be about equal. As a matter of fact they are so nearly equal that an attempt to ascertain by a reference to public opinion which stands highest is not likely to establish any decisive superiority of one or the other. In one age the man of genius, in another the saint will be most highly honoured, but in the long run their positions will be about equal.

If, instead of inquiring into their relative values, we regard them in the light of determinants of action, we find that their relative influence varies like their relative value, in different periods of history. The majority will be influenced in one age by motives of self-effacement, and in another by those of self-assertion ; and the danger of the undue predominance of one or the other is rarely absent. Independently of the difference of direction, the motives of self-assertion are distinguished from those of self-effacement by the nature of the subordinate principles which encourage or justify each of them. The prospect of pleasure, though it does not determine, for they are adopted without calculation, is rarely absent from the aspirations of the ambitious. This prospect is seldom or never an accompaniment to motives of morality. The commands of the conscience are

reinforced, so far as any reinforcement is required or recognized, not by prospects of pleasure, but by penalties for disobedience. The associations are almost exclusively painful. Obedience implies the inhibition of our strongest impulses ; disobedience brings with it the agonies of remorse. If we had no sense of duty, we could pursue our pleasures without hindrance, and halve our cares and our anxieties. But notwithstanding all these drawbacks, if they are indeed drawbacks, the conscience does not fall behind its rival, either in its influence over conduct, or in the value at which it is estimated.

If pleasure is not to be identified with good, neither is its opposite to be identified with evil. It is true that in contemporary philosophy, pain is usually regarded as the principal if not the sole form of evil, and it is possible that most men, if an offhand answer to the question were required of them, would at first be of this opinion. But it is, I believe, certain that, if time were allowed for reflection, and if their crude beliefs were submitted to a Socratic cross-examination, their assent would be withdrawn. They would readily admit that though they preferred pleasure to pain, and though on this basis it would be possible to construct a low scheme of values, nevertheless, this preference of pleasure was not what they admired or respected either in themselves or in others, and that it was not the sole or even the principal determinant in any scheme of moral or ethical values ; that, on the contrary, no action can be really great or heroic, or deserving of our respect and admiration, unless it carries with it an appreciable amount of suffering. Pain is an integral in the total concept of duty, that is to say, of the universal moral motive, and no actions, however right they may be, are commonly regarded as duties unless they are at the same time, to some appreciable extent, painful. When we admire an instinctive virtue, which is free from all sense of conflict, our feeling is not moral but ethical, and is akin to the admiration which we feel for great art or great literature. Pain is, what pleasure is not, an essential element

in all conduct to which we attach a high moral value. That this should be so is explained by the fact that the main function of duty is to hold in check the animal instincts, that is to say, those to whose satisfaction the most vivid pleasure is attached.

Again, no education can be effective for good unless it contains a large element of pain. Suffering is learning, and is as essential to the preparation for great actions as it is to their execution. A child who is spared is spoiled. In mature life the character is strengthened and purified by pain and by pity, or sympathy with the pain of others. No real greatness can be attained, either in morality or in other forms of excellence, except as the fruit of a strict discipline. If pain were indeed an evil, a man's own conscience, and that of his friends, would not deny him, in his last days, release from irremediable sufferings, but would enjoin it as a duty both to himself and to society; and at any time in his life a painful disease would make him the object, not of pity, but of moral disapprobation. In no case does the voluntary submission to evil command admiration, and the greater the evil, the less chance is there of its being admired; the voluntary submission to pain in its lower intensities gains for a man the praise of being patient, in its higher, the glory of martyrdom. The greatness of nations is cradled in hardship, and decays through prosperity.

It is clearly unreasonable to identify with evil a feeling which is an essential element not only in all deeds which command our moral approval, but also to the production of that kind of character which enables men to perform them.

If the universe is to be regarded as a system of purposes converging on a single, though unknown, final end, and moving toward that end by a constant process of the evolution of opposites, it is reasonable to ask, What are the functions of factors in that process which hold so prominent a place in our regards as pain and pleasure do? To this inquiry our ignorance of what the final end may be is no

impediment. The process itself and its factors are within the bounds of experience, and form a proper subject of philosophical inquiry. Our real difficulty is to determine exactly what we mean by pleasure. For our present purpose we may disregard the question of what that is, and explain it as the result or the concomitant of the satisfaction of a need, meaning by ' need ' any vital process, from eating and drinking to the solution of quaternions. From this point of view it may be regarded as a premium on activity of all kinds. But it occurs in the higher forms of life only. We are unable to attribute pleasure to the winds and the waves, and if we do so to the lower forms of life it is mainly in obedience to supposed philosophical necessities, and not because we observe in them, or can directly infer, the existence of anything which nearly resembles the feelings of humanity. For its full manifestation it requires a highly developed consciousness, and its intensity varies with that development. It forms, therefore, a stimulant to activity, that is to say, to the output of energy, which is peculiar to living organisms, and which increases in power with the rise in the scale of evolution. That this is the true function of pleasure there is, I think, little reason to doubt. It operates as a premium on, and does actually stimulate, the output of energy in individual organisms, especially in the higher grades of evolution, and thereby promotes the accumulation of power. But, as it impartially stimulates action of all kinds, good and bad alike, it is unfit to serve as an ethical criterion between conflicting lines of conduct. It is never an end in itself, and it is valuable only in so far as it promotes the process of forward evolution.

The action of pain is repressive, and its function (or practical effect regarded as a purpose) is to control the output of energy, and preserve it from excess or irregularity. It discharges within the organism the same kind of office as is performed by natural selection, when that cuts off excessive variation from an established type. It is as necessary an element in the process of evolution as pleasure is ; where one is, the other must be found also, and the

health and persistence of the organism require that both should grow at equal rates. A deficiency of pain, with reference to the contemporaneous development of pleasure, would occasion an excessive and irregular output of energy; an excess would bring about an undue depression, and either would interfere with the necessary adjustment between the organism and its surroundings. It must be remembered that its operation, like that of pleasure, is impartial, and that the constraint and regulation are exercised on all impulses, the good and the evil alike.

NOTE. Cf. Arist. *Eth. Nic.* x. 5 (trans. R. Williams, p. 304): 'Each act is intensified by its appropriate pleasure. It is universally true that those who take pleasure in the performance of their peculiar function improve their aptitude for and their skill in its performance.'

CHAPTER V

CONSCIENCE AND MORALITY

The distinctively ethical values of human conduct fall into two classes, of which one includes the ends of ambition, and the other the moral values, or virtue and vice. The ultimate basis of all moral valuations is supplied by the conscience, and in the following pages an attempt will be made to describe in bare outline the more important of the phenomena of that department of the mind, and to trace from them the genesis of objective rules of morality. The reason why these two classes are bracketed as ethical, to the exclusion of aesthetic and religious values, is that they both imply self-determination; one in the direction of self-assertion, the other, of self-negation. The recognition of conscience as a distinctive function of the human mind is comparatively recent, and dates from that period of Greek thought when philosophy began to take the place of religion with the more highly educated classes. Before then it was commonly confused with prudence, or with the sense of beauty or with religion itself, and even now it is seldom clearly discriminated from each one of these. One school of thinkers still identifies moral goodness with prudence, another with aesthetic excellence, and a third with the commands of revealed religion, where the affinity is perhaps closer than in either of the former cases. The emergence into clear consciousness of any distinguishable vital process is slow and tentative, but it may, at the same time, be taken as an indication of its increased importance from the point of view of evolution.

The simplest manifestations of conscience are feelings of attraction and repulsion in regard to some act or course of action, when it is presented to the mind of the individual as his own, or as one that may become his own.

The central fact of the moral consciousness is not 'the control of some feeling or feelings by some other feeling or feelings',[1] but the control by the conscience of all those feelings which call it into play.

It is distinguishable from other impulses by the nature of the stimulus on which it is dependent. It requires the presentation of some event which is itself the outcome of another impulsive series. Thus, for example, fear may be set up by an external stimulus of any kind, whereas the conscience is excited by the actions to which fear gives rise in ourselves. Conscience is concerned with our running away, not with the threats of death or wounds that make us fly. Attempts have been made to discover the criterion which distinguishes virtue from vice in some single impulse which is invariably good in its resultant action, and without which no action is good. As all our moral sentiments, without exception, are derived ultimately from the instinctive reactions of the conscience, this attempt could only be successful if we found that those reactions, in normal people, were always determined in the same direction and degree by the acts which proceed from some single original impulse, that is to say, if fear, or love, or sympathy, or any other single impulse, always produced acts which attracted, and was opposed to acts which repelled. The impulse which has most frequently been selected for this office is sympathy. This, it has been alleged, is the radical principle from which all our moral sentiments are derived. It is not, however, found as a matter of experience, that the instinctive reactions of the conscience are always attractive when the act by which they are excited has been prompted by sympathy, and repellent when the act has been opposed to it, and that all other acts which are neither prompted by nor opposed to sympathy are indifferent. In the first place, there are many acts, such as yawning, which may be prompted by sympathy, but which are no more virtuous then than when that motive is absent. If we take those

[1] H. Spencer, *Data of Ethics*, p. 113.

cases to which the term is more commonly, but not perhaps more properly applied, that is, when the joy or the grief or the desires of another, manifested in his actions, excite similar feelings in the mind of an observer, it is not by any means an invariable experience that we approve of those sentiments in ourselves, or of the acts to which they prompt us. Unless we approve of the feelings with which we sympathize, our conscience will tell us that our sympathy is misplaced, and ought to be suppressed. A very ready sympathy is not always regarded as a virtue. It is easy to be too prone to abandon oneself to its influence. There are few more demoralizing influences than sympathy with pain. It is through this that mothers spoil their children, and old women their lapdogs. Rather than inflict a pain which reacts on themselves they will acquiesce in the moral ruin of their dependents. A man who takes a true interest in the welfare of others will before all things keep his sympathy under strict control. The states of mind with which we ought not to sympathize are many, and this implies some other principle of duty. There is no single tendency (certainly not love) which will bear a reference to the test of experience, and it follows that the unifying principle, if there is one, which connects the various reactions of the conscience, must be sought elsewhere than in the motives by which those reactions are originated.

When we judge that anything is beautiful, it is because it satisfies our aesthetic sense. To say that it gives us satisfaction because we judge it to be beautiful would be to reverse the natural order of events. The same thing holds good of the judgements of the conscience. We judge that an action is bad because it repels; it does not repel us because we judge it to be bad. With human beings judgements are practically a universal element in the operations of the conscience, and it is on them, as will be seen, that our moral principles are founded. The feelings of attraction and repulsion and the judgements to which they give rise in the consciousness, are the sole material out of which moral systems have been or can be constructed. It is the

presence of a conscious judgement that distinguishes moral from merely instinctive conduct.

If by reflection we mean the notice which the mind takes of its own operations, the conscience is wholly unreflective. Its reaction is, indeed, not always immediate, and the act which is its stimulus may occupy the mind for some time before it takes effect and the conscience is aroused, but even then there is nothing in the nature of introspection. Far more frequently we are aware of it directly on the presentation of the idea of something we have done or may do. Often it bursts in arbitrarily, and with irresistible force, on some other line of thought, which, were it in our power, we should prefer to continue—in this respect resembling the action of the memory, when it brings before us subjects that are unexpected, and perhaps unwelcome. Its commands appeal to us with an exceptional warmth and peremptoriness, and are often invested with an authority which brooks neither disobedience nor discussion. They may, indeed, be disobeyed. A man may close his ears and harden his heart, and substitute for them the promptings of prudence or, in the rare cases where they conflict, the dictates of religion ; or the barriers they set up may be swept away by a sudden overwhelming flood of passion. But whether they should be obeyed or not is a question which is never decided by rational calculation. Every single act of obedience strengthens their authority, and every act of disobedience, whether it be deliberate or the result of passion, tends to weaken it, till at last the appeal is either wholly silenced or degraded to a feeble ineffectual protest.

It is this peremptory and unaccountable character of its manifestations, still more perhaps than its general practical agreement with the precepts of religion, that explains why the conscience has often been called the voice of God. Practically, the distinction between the dictates of the conscience and the commands of a revealed religion is both clear and important. The first are entirely personal and subjective in their origin. They come from within, and involve the assumption that the individual himself is the causal

agency to which the action stands in the relation of effect. They vary in their contents from man to man, and from age to age. Their only rewards and penalties are satisfaction and remorse, both of them as purely subjective as the commands themselves. In all these respects they differ from the commands of a revealed religion. Those proceed from an external source, and are purely objective. They are not immediately given to the consciousness, but imply a reference to a supernatural revelation. They are the same for all men and for all time, so long as the religion itself endures. Their rewards and punishments proceed from an external Power, and are varied at His discretion. The causal principle throughout is the Creator. It is He who enacts the law and enforces it. The law of religion must be spread abroad by missionaries, and declared day by day from the pulpit; the voice of conscience requires neither apostle nor priest. It is true that the conscience may, and usually does, coincide with religion, and, as a general principle, it may make the observance of the divine law one of its leading interests. Under those conditions the infractions of the divine law will be visited by the accumulated penalties of the conscience and religion; but the two principles can, even then, be easily distinguished, and their coincidence is far from being necessary or universal. As an example of the peremptory character of the moral commands and their attribution to the voice of God, the noble saying of Milton may be quoted:—

'The choice lay before me between the dereliction of a supreme duty and the loss of eyesight; in such a case I could not listen to the physician, not if Esculapius himself had spoken from his sanctuary. I could not but obey that inward monitor, I knew not what, that spoke to me from Heaven.'

We have seen that the conscience is dependent for its manifestation on the idea of an act resulting from some other impulse which is distinct from it, and the view has sometimes been expressed that its effect is invariably inhibitive. This appears to be the meaning of Dante's lines:—

'Onde pognam che di necessitate
Surga ogni amor che dentro a voi s' accende,
Di riternerlo è in voi la potestate'.[1]

The usual opinion undoubtedly is that duties are painful; but the unpleasantness need not always arise from inhibition. The obligation may be to reprove a friend, to write an unwelcome letter, to pronounce a sentence of death, and the pain in those cases is directly derived from sympathy intensified by the knowledge that it is our own action through which the pain is inflicted on another. Nor are duties always unpleasant. Duty and moral action are coextensive, and the most determined opponent of Hedonism would stop short of the assertion that all moral acts are painful. The reciprocal domestic duties of wife and husband, and between parents and children, are the source of an intense gratification, which is quite independent of the rewards of a satisfied conscience. The inhibitive action of the conscience is usually called forth by primitive classes of impulse, such as gluttony, drunkenness, lust, envy, hatred, and revenge; its positive action is exerted in support of the social impulses, truthfulness, patriotism, and the desire to help those who are in need. Ease and sloth it condemns; toil and endurance of hardship are encouraged by its approval. Still more generally, it is opposed to those tendencies which oppose forward evolution, and is in accordance with those which promote it. That there has been a tendency to dwell exclusively on the painful and inhibitory aspects of conscience may be due to the fact that they suggest the need of an explanation, which is not called for when the conscience is in harmony with the primary impulse.

The sense of attraction or repulsion, which is the fundamental fact of conscience, continues, and sometimes arises for the first time, after the action has been performed or neglected, and is then accompanied by a feeling tone of peculiar intensity. If the action has been in accordance with the primary dictate, the feeling is one of satisfaction or happiness, to which no special term has as yet been

[1] *Purg.* 18. 70.

appropriated; if not, it takes the form of remorse. A considerable school of philosophers to whom the recognition of a conscience is unwelcome identify remorse with fear of punishment. It is true that the same conduct which is followed by remorse will often render a man liable to punishment under other laws. With a person who is at once conscientious and devout, the stings of remorse and the dread of the wrath of Heaven will often subsist side by side, and may easily fail to be distinguished. The same kind of conduct may also render him obnoxious to the penalties of the criminal law, and of the unwritten laws of society, and the complex feeling which is thus produced is often mistaken for the simple emotion of fear. The confusion would, however, be dispelled by introspection. The difference between the feeling tones of self-accusation and of fear is unmistakable, and they result in different courses of action. One prompts to reparation, the other to flight. Remorse may be so strong as to overcome the sense of fear and induce the offender to appease the reproaches of his conscience by delivering himself up to justice. So far indeed is the fear of consequences from being identical with or the parent of remorse that it would be more correct to regard remorse as the parent of the fear of consequences, as indeed it often is. The impulse which has been endorsed by the conscience acquires a double strength, and its defeat is productive of extreme depression, which discolours our views of the whole future, near or distant; a thousand imaginary disasters are anticipated, and we are oppressed by a fear of punishment which in our healthier moments we should know to be groundless.

Again, remorse may visit with its utmost severity the minds of men who, by their position and their beliefs, are exempt from the fear of consequences. No more appalling lesson is given us by history than the last days of the aged tyrant who wrote 'Di me deaeque magis perdant quam me perire cotidie sentio'. The furies who pursued Orestes were the punishment itself, and not the dread of it. Those whom other penalties fail to reach are especially exposed

to this one, and they are not to be envied. Juvenal does not exaggerate when he tells us that remorse is worse than all the torments that can be devised by any judge, whether human or divine. Moreover, remorse will often make itself felt when a man has offended through inadvertence, and there is no fear of punishment or even of blame. And the reverse may often be true. There is often a very lively fear of detection and punishment when there is no remorse, and even clear self-satisfaction—as when a man has harboured a political offender with whom he sympathizes. Finally, the fear of detection will survive in cases where remorse has been extinguished by persistent ill doing.

It is an important feature in the anatomy of the conscience that our remorse is nearly, if not quite, as great when our offence has been involuntary as when it has been deliberately planned. When we discover, after the event, that we have been the unintentional cause of harm or injustice, no considerations that we shall not be held responsible will stifle the pain. They will appear to us irrelevant. And our feelings are clearly distinguishable from the sympathetic pain we might experience were the wrong inflicted by another. The memory of the act torments us, even when there was necessarily an entire absence of intention. We feel that our worth or dignity has been impaired. When, on the other hand, our intentions are evil, but are brought to nought before they come to action, if we feel remorse at all, it is cancelled by our satisfaction at having escaped the commission of the offence. Thus the view is confirmed that originally it is deeds and not intentions that give the occasion to the reaction.

Another characteristic of the conscience is that it only commands such conduct as may be represented to it as possible. A man is not obliged to perform every action which his conscience tells him is good, for the obvious reason that it may be, and often is, impossible. No man can at the same time attend to a sick wife in England and to famine relief in India. He must make his choice, and the action which his conscience tells him he ought to prefer

becomes his duty, and is by that term distinguished from actions which are merely good. There may, therefore, be a conflict between two good impulses, but there can never be a conflict of duties. A man may wish that he could follow both of two conflicting impulses, but it will remain a mere velleity ; his will will not be engaged. In such a case there is often long hesitation, but the decision, so long as it remains purely moral, will never be based on a calculation of resultant advantages ; the appeal will be to the conscience itself. The conception of a command as categoric, and independent of results, does not involve the conclusion that when once a principle has been recognized as good it must never be abandoned. Principles which are recognized as morally good must often be sacrificed when opposed by other principles which are recognized as morally better ; that is to say, when the command, though equally categoric, is of superior cogency. The commands to tell the truth and to serve one's country are equally categoric and independent of results, but they may easily conflict, and, when that happens, one or the other must be disregarded. If the choice is to tell an untruth, it is because the resultant offence to the conscience is not so great as what would be occasioned by the sacrifice of one's country. When the weaker of two alternative commands is sacrificed, the conscience is not offended at all ; on the contrary, it condemns the refusal to break its own law when thereby the interests of the country are imperilled.

The next question to be considered is this : How are the degrees of our approbation and reprobation determined ? On what principle do we give the preference to one line of conduct over another when both are good ? Leaving aside questions of teleology, the answer must be that in each individual the strength of the condemnation or approval will be proportionate to the strength of the instinctive reaction ; of which, indeed, it is merely a translation ; and this, again, will be determined by his inherited character, as modified by his education. When alternative courses are presented to him, both by themselves good, his

judgement as to which is the best, and therefore his duty, will depend solely on the strength of the attraction which is exercised on him by the idea of it.

Our aim hitherto has been to confine our description, as nearly as possible, to the manifestations of the individual conscience, avoiding all reference to the objectivated moral law of which they are the basis. But a complete separation is not possible. The reaction of the moral beliefs of the community on the consciences of its individual members is so powerful and so continuous that neither can be made intelligible by itself, and independently of all reference to the other. This is especially the case when we proceed to deal with the differences of certainty which, as well as differences of strength, are to be found in the moral judgements of the individual. One explanation of the existence of such differences appears to be, that whereas some motives are nearly of universal validity, and are rarely, if ever, in moral opposition to others, there are others, which, though if they stood by themselves they would at once be recognized as virtuous, are opposed by other contradictory motives of practically equal worth. There is no hesitation in our judgements on murder, treachery, and ingratitude, but, if an unreflecting man were asked whether independence of character or obedience were the greatest virtue, it is probable that an immediate answer would not be forthcoming. With regard to one and the same act the two motives are conflicting, and mutually exclusive. If a man receives a command, he cannot at the same time obey it and assert his independence. Where we find opposition of motives we usually, if not invariably, find opposition of character. The natural bias of some men is towards independent, in others towards concerted action, and if the education is in each case in harmony with the bias, the one will rank self-assertion, the other obedience, as the higher virtue. It follows that there is not the same consensus of opinion about these as there is about other motives. Any wide induction *per capita* would be obliged to admit the existence of a large

number of contrary instances, and an individual, when confronted by the alternative, receives no help from a united public opinion. The effect of these conditions extends to degrees of strength. Religious thinkers rank obedience among the two or three supreme virtues ; others may accord it a moderate or partial value ; philosophers of the individualist school hardly allude to it, though Hume recognizes it in political, and Herbert Spencer in domestic relations, and in no others.

In this connexion I may be allowed to instance another virtue which is of peculiar interest, in that it served the greatest of all moral philosophers as an illustration of the universality of the ethical commands. I mean, truthfulness. A lie—that is, the statement of an untruth with the intent to deceive—is regarded with very various degrees of reprobation in different countries, and by different people in the same country ; and, even where the prohibition is most strict, the admitted exceptions are numerous. It is the common opinion, whether right or not, that a man may lie when the interests of his country clearly demand it: to save an innocent man from murderers ; in answer to mischievous and impertinent inquiries ; or to mitigate the shock of sudden calamity : and this list of exceptions is probably not complete. Lovers' lies, though hardly legitimate, are venial. The saying, ' Promises like piecrusts are meant to be broken,' though intended as a jest, would not be current at all, were the reprobation as strong and as certain as in the case of more serious offences. When truthfulness is opposed to other moral commands, the individual conscience will often appeal in vain to the accepted morality of the community for clear instructions as to whether it is to be preferred as a duty.

In this case, though, like all other moral impulses, truthfulness finds itself in occasional conflict with other moral impulses, there is no directly opposite virtue, as in the examples of obedience and self-assertion. The fact that it is more highly esteemed in some countries than in others can hardly be due to direct adaptation. A lie is not more

mischievous in a cold country, where it is abhorred, than in a hot country, where it is tolerated.

The true explanation appears to be that the conscientious regard for truth is correlated to the whole character in the same way as each part of the physical organism is correlated to the rest. It is one feature in what we are accustomed to denote as the manly character, and will be found in alliance with independence, pride, and contempt of peril, and even of the good opinion of others: a man may tell the truth simply because he does not think it worth while to conciliate the goodwill of his neighbour. If slavery makes men untruthful, it is merely because it takes away half their manliness. A climate that depresses the vigour of mind and body will have the same effect. However highly we may rank the virtue, its absence from the less vigorous type of character may be compensated by other virtues peculiar to that type, and does not necessarily imply inferiority of the character as a whole. It would shock our moral convictions to assert that the character of women generally, is of an inferior type to that of men; but their reaction to an untruth is usually far less marked.

We may distinguish the moral love of truth from the prudential regard for it. The honour of thieves is due to fear of consequences, and not rooted in their conscience. In this respect one nation differs little from another, and if there is a difference, it is derived from differing degrees of foresight.

The conscious propulsion towards the performance of a duty, and, generally, the hunger and thirst after righteousness, are easily distinguished from what is known as desire. What we desire, in the narrower sense of the word, is not any particular action, but the feeling which we expect to accompany it. The common opinion is that what we desire is pleasure, and that the idea of pleasure is always in the mind when it desires. Pleasure of some kind is the end of desire. But the end of a moral disposition is the conformity of the action with the commands of the conscience, or a temper that will securely establish that conformity; and nothing

further. It is true that the conscience has its special sanctions, and that the sanctions of religion apply to most, and those of the law to many of the actions to which the moral sanctions are attached, but none of these need be present to the mind when it is set on the attainment of virtue; and all are commonly absent. The desire of virtue for its own sake may be so strong as to exclude all consideration of consequences, and if it is genuine, it always has strength of its own, even when other motives are present. It might be thought sufficient for our purpose to distinguish the desire for virtue as being determined exclusively by the ideas of its own peculiar sanctions. But this would be untrue to experience. If it were not so frequently contradicted, it would seem superfluous to repeat that virtue is its own reward, and is sought for its own sake, and not with reference to any consequence in this world or the next. If our conduct were determined by a consideration of the resultant happiness, there could be no degrees of moral value, as we are certainly unable to say whether obedience to one moral law or another will produce the greater degree of happiness.

These considerations may be extended to that kind of conduct of which the object is not ourselves but our neighbour. We may benefit our neighbour in two ways, that is to say, by increasing the sum of his pleasures or by making him more virtuous. In the first case, we facilitate such conduct in him as has pleasure or the saving of pain for its result; in the second, our final end is his conduct itself, and not any further state arising out of it. Similarly, we may harm him either by reducing the sum of his pleasures and increasing his pains, or by making him less moral. If the loss is moral, he is degraded, but his algedonic balance may remain unaffected. We are not at present concerned with values, but we are tempted to remark that moral injury has in all times been regarded as more serious than the loss of pleasures. The infliction of pain is justified as a means to moral improvement; but no increase in the scale of pleasure, however great, will compensate for the least deterioration

of moral character. The same distinction holds good here as when the conduct is self-regarding. In one case the action itself is the final end ; in the other a mental state such as pleasure which accompanies or follows the action.

Neither the conscience itself nor its modes of reaction are exclusively the products of the individual's education or of his environment. The rudiments or predispositions at least are inherited. It is true that the experience through which a man passes will materially modify the development of his moral constitution, but it can establish nothing of which the germ was not already present at birth. If we can imagine two individuals of exactly the same inherited moral character (and by this I mean that the conscience of each will react in the same direction, and with equal strength at the idea of the same actions) and expose them to entirely different trainings, bringing one up in an Indian village, and another in Mayfair, the finished products would differ so greatly that we should find it hard to believe that both were derived from exactly similar stocks. But if the process were reversed, and two men of different natural characters were submitted to exactly the same training, in the same surroundings, the result would not be exact similarity in the finished products. The conscience resembles the human brain, and indeed all the later products of evolution, in being extremely variable, and no two men are born exactly alike. Within the same society, and under almost identical conditions of training, we find the widest diversities of character. The strongest reactions of which their conscience is capable will be excited in some men by fraud and treachery, in others by cruelty and injustice, in others by sexual delinquencies. Many will be found who are quite indifferent to whole classes of immoral acts, who, for example, instead of being repelled, are amused by successful trickery and lies. Still greater is the diversity in the readiness and strength of its manifestations. With some men it is disturbed on every trifling occasion, and hardly ever sleeps ; with others, though strong when it is once aroused, it is unready and does not, perhaps, make itself

felt till too late; in many it is feeble and slow, and restricted in range. The men with the liveliest conscience are not always the most moral, and those are to be envied in whom it attains the proper mean between defect and excess. The formed character of every individual is the product of his inherited character and the influences to which it has been exposed, and the amount contributed by each factor will vary with the strength of his inherited character and the degree of constraint imposed on him by his surroundings. A Jesuit seminary will contribute a much larger proportion than an English public school, but even that will produce no moral characteristic of which some rudiment or predisposition did not exist at birth. A human child who has been brought up with a litter of wolves will still be human. The influence of education on the conscience is comparable with its influence on the intellect. No man can be either a philosopher or an engineer without the appropriate education; but it is not by that that his fitness to be either is determined. No general formula has been ascertained for determining the proportions contributed respectively by heredity and education, and, when general views are expressed on the subject, they are merely opinions.

The date of its first appearance affords no safe indication as to whether a reaction is inherited or acquired. The reactions to stimuli depend altogether on the character of the mechanism which receives them, and what will elicit no response at an earlier period of life will at once set up a reaction as soon as the appropriate organ has been sufficiently developed. The special emotions of adolescence are as purely hereditary as the instinct to seek a mother's breast. Again, there are differences in the degree of readiness in purely inherited instincts. Some reactions will be excited on the first application of a stimulus; others will require it to be many times repeated. But both are equally hereditary in the sense that had they not occurred in the ancestors they would not have occurred in the offspring; and equally dependent on experience in the sense that no

reaction can be set up at all unless the proper stimulus is first applied.

The differences of moral character which are noticeable between individuals become still more numerous and more definite when races or nations are compared. The moral reactions of the Jew and the Greek, the Scotchman and the Red Indian, the German and the Spaniard, or any other races we may choose to mention, present even more numerous points of contrast than their physical conformation. They differ both in the stimuli by which they are set up and in their strength and direction. The sight of cruelty, which repels one race, attracts another; each contradicts the others in its code of honour, its attitude in questions concerning the sexual relations, its estimate of the value of truthfulness, and in innumerable other particulars. This point has been so well dealt with in one of Hume's best known essays that it would be waste of time to elaborate it further, but it may be added that the differences in the moral constitutions of different races, great though they are, appear comparatively insignificant when the differences in moral character between the two sexes throughout the world come to be considered.

There is, however, another side to the picture, and one that is less obvious. Notwithstanding differences which it would be hard to exaggerate, there appears to be a certain universality in all the higher ethical judgements; and this, it seems to me, is a point on which they differ from the aesthetic judgements. Though it is true that the higher types of beauty ought to have universal validity, the truth is merely speculative; it is not practical, and will not bear the test of experience. We may take an illustration from music. With a large class of hearers, even though they may be adequately endowed with the mechanical apparatus for appreciating differences of pitch and tone, the higher kinds of music elicit no response, however often they may be repeated and however strongly and intelligently they may be recommended. A faculty of appreciation is there; good music is easily discriminated from bad, but it is the

bad music which is preferred. This is not the case with the ethical judgements. The higher types of conduct have only to be presented in order to win approbation from any audience, however little elevated its ordinary moral tone may be. Minds to which their idea had before been wholly foreign will yield respect to the higher virtues of all ages. A man engrossed in the pursuit of money may entirely overlook the higher duties of self-sacrifice; it will never occur to him that they exist, but, when they are suggested to him from without, he will not be able to refuse his approval, however little he may allow them to influence his conduct. Contrast before any assembly of average men in any country the pictures of a life guided by their own utilitarian ideas with the life and death of a hero, and the vote in favour of the hero will be unanimous, though it is not likely that many would select for their portion the crown of thorns.

'Improbable though it may at first sight seem, the exhibition of virtue has more power over the human mind, and supplies a far stronger spring for effecting the legality of actions, and produces more powerful resolutions to prefer the law, from pure respect for it, to every other consideration, than all the deceptive allurements of pleasure, or of all that may be reckoned as happiness, or even than all threatenings of pain and misfortune.'[1]

Before proceeding to consider the transition from the workings of the subjective conscience to the establishment of those general rules of conduct which furnish the proper material for ethical speculation, we may devote a few pages to the examination of the principal distinctive terms of ethics, that is to say, moral good and evil, moral obligation and duty. Moral good, it is clear, is a kind of value, and the subject of values generally has already been dealt with at some length. But we may now return to it with special reference to the values of morality.

Mr. Spencer, in the second chapter of his *Data of Ethics*, asserts that things are called good or bad according as they are well or ill adapted to secure prescribed ends, and for no

[1] Kant, *Methodology of the Practical Reason*, 85, trans. Abbott, 299.

other reason. That this definition is imperfect may be gathered from his own illustrations. 'A good jump,' he says, 'is a jump which, remoter ends ignored, achieves the immediate purpose of a jump; and a stroke at billiards is called good when the movements are skilfully adjusted to the requirements.' What, however, is called good in both these cases is the skill itself, irrespective of any end. A jump of six feet may perfectly achieve the purpose of landing you on the other side of a brook, and may, by putting that between you and a mad bull, preserve you from discomfort, or worse, but, as it calls for no special skill, we do not call it either good or bad in itself; a jump of twenty feet is a good jump, even if it sprains your ankle, because it requires exceptional skill. Similarly, at billiards, an easy cannon will hardly be called a good stroke, except when the performer is a novice, and then only because it shows more skill than was expected. The same principle may be illustrated from sport. A sportsman goes forth to procure game for his dinner. His purpose is fully achieved when he shoots a doe sitting, but very imperfectly when he shoots a snipe on the wing at a long range. Nevertheless, the first shot will not be called good, and the second will. In all these cases the end is a quality in the action itself, and nothing ulterior or extrinsic. If it be suggested that the end in these cases is love of applause, it would still remain to be explained why such actions are applauded. Even if we admit, in the teeth of experience, that the love of applause is the sole motive, the applause does not constitute the goodness, but is merely a token of appreciation. Neither do such actions produce excellence. Their excellence is in themselves. They are not, however, moral, in any ordinary sense of the word. Success in sport does not constitute moral goodness, or even guarantee it. Their criterion is conformity with an external standard of achievement.

The criterion of moral goodness is conformity with the commands of conscience, and it is this which differentiates it from other forms of value. In other respects the two

classes are alike. The performance of duty is valued on its own account, and not for any ulterior consequence, and in the case of both the determining principle is the self. In the second point they both agree, and in the first they both differ from conduct which has pleasure as an ulterior end which is not the same thing as the action itself.

An important difference between the goodness of actions regarded as ends in themselves and the goodness of means as directed towards an end is the following. The first is a subjective feeling, and does not admit of discussion. For the valuation of an end we have no criterion but our sense of its value. This is true of pleasure itself. It is useless to discuss whether pleasure ought to be valued, or is really good; but whether men actually do value it, and, if so, how highly and exactly in what way, when it is compared with other ends of action, are open questions, and the same questions may be asked with respect to any other end of action. On the other hand, the value of means for the attainment of a prescribed result is a fruitful and legitimate subject of debate. If a man values life, or the power to act, generally, as a means for procuring pleasures, every other man he meets will be ready to dispute his opinion; if for its own sake, there is no room for argument. There is a further sense in which the goodness of an action which is an end in itself may be regarded as goodness of means; that is to say, when its value is explained by reference to some general transcendental end. But even then it still retains the character of an empirical or proximate end.

A special distinction of moral goodness is found in the feelings which accompany the reactions of the conscience. We are aware of a strong obligation to perform such actions as attract the conscience, and to refrain from such actions as repel it. Obligation is not the same feeling as desire, and is, indeed, frequently opposed to it. Again, no such feeling as remorse follows the failure to attain a hoped for pleasure. It would be a waste of time to stop to dis-

tinguish remorse from disappointment. There are other kinds of good, such as aesthetic good, which it is unnecessary to treat of here ; but there is one which the prominent part it has played in ethical theory entitles to special mention —that is, the approximation to an imaginary pattern, or ideal. A tailor will call a coat good which closely follows an ideal cut, though it may be ugly, uncomfortable, and of inferior stuff. Behaviour is called good, or in good form, when it conforms with an artificial social standard, which has no moral quality whatever.

Obligation exists when there are circumstances which interfere with freedom of choice. These circumstances may be either external or internal. A galley-slave is obliged to pull his oar ; a man who is very hungry is obliged to eat ; or if very tired, to sleep. Moral obligation is distinct from other forms in being created by the internal commands of the conscience. Obligations have varying degrees of strength. The obligation of a schoolboy to stay within bounds varies with the vigilance with which the rule is enforced ; and the same is true of the obligations of the conscience ; they vary in strength with the moral character of the individual. The stronger a man's conscience is the more regular will be the conformity of his actions with its commands, and in the strongest it will prevail against all other motives. Luther's well-known ' Ich kann nicht anders ', when every other motive was in opposition, illustrates the utmost strength of moral obligation. The circumstances which impose a moral obligation give rise, at the same time, to a special feeling. When a man is aware of this in regard to any action, he says that he ought to do or to omit it. He will also admit that he ought to do a thing which is approved by the general moral consciousness of his neighbours, though his own conscience, from some natural infirmity, may be silent. In this case, again, the obligation will be moral.

The connotations of the terms ' ought ' and ' obligation ' are not coextensive. We are obliged to do many things of which we do not say that we ought to do them, and others

of which we say that we ought not to do them. It would be a misuse of language to say that a hungry man ought to eat, and our passions often oblige us to do those things we ought not to have done. In other directions, the extension of the term 'ought' is the wider. We say that a man ought to enter his horse for a certain race, though he is not obliged to do it. In other words, the term is applied to prudential as well as to moral conduct, whereas the term obligation is not.

What concerns us now is the distinction between the meaning of the term, according as it is applied to moral or to prudential conduct. In the first case it is absolute; we ought to obey our conscience because we ought. We neither know nor can discover any further reason; and if one is proposed, it is merely a speculative explanation, and not a motive having a causal influence on our conduct. No doubt a hypothetical form may sometimes be imparted to an ethical proposition, but this is always deceptive, and obscures its real meaning. It might, for example, have been said to the three hundred Spartans, If you wish to save Greece, you must hold the pass. But their obligation was independent of the safety of their country, and this was not the reason they gave themselves. They held the pass because they were ordered to do so (*τοῖς κείνων ῥήμασι πειθόμενοι*), and the only true explanation is that they obeyed orders because they were bound by their conscience to obey them, whether Greece was thereby saved or lost. On the other hand, the prudential ought is always conditional; if a man ought to enter his horse for a race, there is some other reason why he should, besides the mere entry for the race, and that is only a means to some further result. He ought to enter the horse because it is likely to win.

Another distinction must be mentioned: the term 'obligation', as we have said, means constraint; the term 'ought', on the contrary, contains an implication of freedom. Nevertheless, in their ethical sense, they always apply to the same conduct. Neither term can apply to actions which we are debarred from doing by constraint from

without. The constraint of moral obligation is imposed from within, and may be of varying degrees of force. If it is absolute and irresistible, as in the case of Martin Luther, the freedom, if any, to impose it, must be of another kind than that which is commonly meant when we speak of freedom of choice after deliberation. It must reside in some agency which is not among the facts which are present in our mind. If, however, as is usually the case, the constraint is not absolute, but rather in the nature of influence, we may speak of freedom of choice in the ordinary acceptance of the words. Whether the freedom is really different in the two cases, that is, when there is a choice and when there is none, is a question which we need not stop to discuss.

The preceding sections may be summed up as follows. When we predicate moral goodness or badness of any action, we mean that the instinctive reaction of our conscience, when the idea of that action is presented to it, is one of attraction or of repulsion. Considerations of any further end, such as algedonic efficiency, or the approximation to any ideal standard or end, may indeed be put forward as *ex post facto* explanations, but are certainly absent from the mental process at the time. The reactions of the conscience are distinguished from all other reactions of attraction and repulsion by being accompanied by a peculiar feeling of obligation, which, when translated into judgements, becomes, I ought to do this, or I ought not; and in being followed by a peculiar feeling of happiness when the obligation is discharged, or of remorse when it is neglected. A ' duty ' is that conduct in respect of which a moral obligation exists. Of the two classes of judgements which are based on the conscience, the first, that is, ' this is good or bad,' is the foundation of objective morality; the second, that is, ' I ought or ought not to do this,' is and remains purely subjective. It may, indeed, be coerced by contradictory judgements of objective morality, but its truth and its cogency for the individual are even then unaffected. This, however, is a point which must be

elucidated when we have described what we mean by objective morality.

Objections may be raised to the statement that an ethical end can never be a means to another, ulterior, end, and it is true that when two or more ethical motives concur in recommending the same action, their relations may be stated in the form of an inference, the less important duty being represented as the end and the more important as the means. For example, one of the Spartans might have argued, I obey orders because I wish to save my country, and I wish to save my country because I shall thereby save my wife and children. The appearance of inference thus given is illusive. If he obeyed orders merely in order to save his country, and regarded the latter duty as more important than the former (in which case, as we have seen, it would really be the more important), that would be his sole ethical motive, and he would be under a moral obligation to inquire whether obedience to the specific command he had received would be more likely to attain that end than any other course of action. Then, even if he did decide to obey, his action would be no longer in compliance with the motive of obedience, but with the motive of patriotism. And he would contradict his assertion that his motive was obedience to orders. The same is true of the next apparent inference: the ethical motive, if one were represented as a means to the other, would be either love of country or love of wife and children, but not both; and if the proposition were that I save my country in order to save my children, the former would cease to be ethical at all, or in any sense his real end. He would be compelled to consider the question whether he could do better for his family by deserting to the great king, and giving him valuable information as to the Greek general's plans.

If, then, of two ethical motives, one is stated as a means to the other, the former, that is to say the one that is regarded as a means, is extinguished altogether or must be taken as a mere result, which does not really affect the conduct from which it flows. But, it may be observed, neither

of above propositions admits of being inverted. It would be absurd to say I wish to save my country in order to be obedient, or to save my wife and children in order to save my country; and if we must choose one of the motives as the real one (for they cannot both be that) it must be the first; for it cannot without absurdity be regarded as a result, nor, if it is extinguished, can it operate as a means. There is, of course, nothing in this argument which prevents all three motives from acting concurrently. One may be uppermost in the mind at one time, and another at another, and all three may mutually strengthen and confirm each other in supporting the same course of action. All that is shown is that an ethical end can never be regarded as a means, even to another ethical end. It then loses its distinctive character; it no longer proceeds from the direct commands of the conscience, but becomes a matter of discussion and inference.

It might, perhaps, be inquired, How, then, are we to classify a man's intermediate conduct, when an action which, when regarded by itself, is ethical, is employed as a means to another ethical end? It would excite the same admiration, and be equally free from the taint of self-regarding motives as if it had proceeded from its appropriate ethical motive; if, for instance, a man obeyed, not because he was obedient, but because he was intellectually convinced that by obeying he would best serve the interests of his country. The answer is not difficult. Whatever the end may be, it gives its own character to all the actions which serve as a means to it. If a man obeys in order to gain wealth or renown, his action is no longer ethical, but prudential or ambitious; if he is prudent in choosing times and occasions in advancing an ethical end, his conduct, though in appearance prudential, is lifted into the higher category by the end to which it is subservient.

We may now resume our account of the course by which the reactions of the conscience to single acts develop into general rules of objective morality. The special functions

of consciousness begin when the mind, reflecting on its own movements, takes notice of those reactions. Its first step is to classify the acts by which they are excited. It recognizes that certain classes of action exercise an attractive and others a repellent influence ; that murder and cruelty repel, while kindness and self-denial attract. Instead of the primitive judgements, this act is bad and that act good, we arrive at the general judgements, murder is bad and kindness is good. For a second step, it discovers that certain impulses or certain intentions usually produce certain classes of act, and the feeling excited by the act itself comes to be transferred to the intention. We then talk of bad or good intentions, or, more generally still, of good or bad wills, or characters, or men.

Observation in the individuals with whom we are brought into practical relations, of similar processes and similar classifications of acts or intentions, leads to the construction of a more or less definite and comprehensive code of moral law, which, with some looseness of expression, has been termed the common or tribal conscience, or the common sense. This, not being reduced to writing, has no existence as an independent entity. It is merely an acquired segment of the consciousness of each individual, which corresponds in all the individuals who share it much more closely than their inherited consciences do. Instead of affecting action immediately, it involves observation of the behaviour of others. It may affect the conduct of the individual in different ways. Either he may remark that, whatever his own conscience may tell him, the great majority of his neighbours approve or disapprove of this or that course of action, and that, if he wishes to retain their good opinion, his own action must conform. In that case the command itself will be strictly ethical, but the compliance will be prudential. Or the operation may be unconscious; his inherited character may be moulded insensibly by the opinions he is in the habit of hearing. Or, finally, a maxim may command his assent at once, as soon as he is made aware of it. In both these cases his conduct remains purely ethical.

We have here, rather than in heredity, the cause which produces different types of character within the same community, and an explanation of the fact that there is one moral code for the East End of London, and another for the West End; one for the lawyer, and another for the thief.

The common code will not agree exactly with the facts of any individual conscience. Its relation to them will be like that which is borne by the generalizations of psychology to the particular experiences on which they are based. Except in the case of men of an exceptionally elevated character its standard will be materially higher than that of each individual if left to himself. Ignorance of the exact feelings of others makes it a matter of prudence to profess a standard which we think is high enough to satisfy them; and each man is naturally desirous to give as favourable a representation of his own character as he thinks is likely to be accepted. It follows that the collective standard, though not the highest, is considerably above the average level, and its tendency is to raise the moral tone of the community generally, and of the majority of the individuals within it.

So far as he is known to us at all, the character of an individual is the sum of his intentions, and, when we judge his intentions, we judge the individual himself. This introduces us to a new class of feelings and judgements, distinct from the instinctive feelings which are excited in us by the idea of an action or of motives as preparatory to actions—those, namely, of praise and blame. They proceed from a distinct source, and, in alliance with the ideas of goodness and badness which we owe to the conscience, culminate in the ideas of moral responsibility, and moral merit or demerit. Not all responsibility is moral, nor all merit and demerit. There is often merit in a picture, and a man may be made responsible for acts which he is under no moral obligation to perform, as when the responsibility has been forced on him by external compulsion, or when the action has no ethical implications.

The primitive feeling which lies at the root of our judgements of merit is, perhaps, gratitude, though that is not quite certain ; about the feeling of wrong, which gives rise to judgements of demerit, there is less room for doubt. It is almost certainly derived from revenge. Both these feelings are outside and independent of the operations of the conscience. Gratitude is not the same thing as attraction, nor revenge as repulsion, though the sentiments are commonly united. We may be grateful to a man when his act is not in itself admirable, if his intentions towards us are benevolent ; or we may refuse to blame, as in the case of vivisection, when we abhor the act, but the intention is respectable. Whatever our judgement may be, it is founded on an association of instincts. Throughout the process there is nothing in the nature of inference, and, if challenged, we should find ourselves unable to give intelligible reasons for our imputations.

The transfer of our moral judgements from actions to their motives has this principal advantage, that it adds greatly to their certainty, and, consequently, to their efficiency as the guardians of public and private morality. The same act may be produced by many different motives, and, until we know which was the true motive, we have no means of deciding, in any single instance, whether praise is appropriate or blame. A man who has received a benefit may return it, either because it galls him to remain under an obligation, or because he is grateful to his benefactor : impatience of obligation is not a virtue ; gratitude is, but the action itself is identically the same. Again, he may kill another man either in self-defence or in defence of his country, or with his consent, to save him from the prolongation of a painful illness, or, finally, because he dislikes him, or covets his possessions. If we know the motive, we can predict the act with some degree of certainty ; envy, hatred, malice, and uncharitableness rarely bear fruits that are desirable, but a knowledge of the act will seldom enable us to infer the motive. It is true that there is no absolute certainty in either case. Ill results often proceed from

virtuous motives, and benevolence, in particular, has much to answer for, but the superior value of a knowledge of motives is so great that the principle, 'actus non facit reum nisi mens sit rea,' has been generally accepted. The emperor, 'che sotto buon' intenzion fe' mal frutto'[1] was not excluded from his throne in Paradise. There are some exceptions : breaches of the seventh commandment, suicide, atheism, treason against the state, if condemned at all, are condemned unconditionally as acts, but there are not many in this class. On the other hand, killing is not murder without a bad motive, nor an untrue statement a lie without the intention to deceive, nor the ruin of a trusting friend treachery unless there is the intent to injure ; and the list is endless. In systematic treatises on ethics this is sometimes overlooked ; but some confusion is always introduced if moral judgements are classified by the acts to which they refer, and not by the motives. We are told, for instance, by a leading authority on ethics, that it is not clear that gratitude and humility are virtues, because it is difficult to distinguish the acts in which they result. With these two, surely, the virtue lies altogether in the mental disposition.

The prophylactic efficiency of the moral judgements is greatly enhanced in another way by their diversion from the act to the intention. When we condemn motives that produce evil actions, we take up the position which is best adapted to prevent the occurrence of those actions. We check evil at its source ; and prevention is better than punishment both for society and for the individual himself. The same motive, moreover, in the same individual, may be the cause of many actions of the same kind, and by restraining that we may prevent an unknown number of occasions for punishment, and an unknown amount of mischief to the community.

Finally, the collective morality excels the individual conscience in having fewer gaps. The imperfections of the individual conscience in this respect have already been

[1] Dante, *Paradiso*, xx. 56.

noticed. If we look round on the circle of our acquaintances, we shall find some in whom it is entirely dead with regard to some classes of acts, which, in the majority of mankind, create a lively reaction, and only a few (among whom it would be rash to include ourselves) in whom, on some points at least, it is not so dull as to be indifferent to obvious duties unless its attention is expressly attracted to them. A code of conduct, based on the moral reactions of any single person, would have no claim to completeness, or to authority over all the individual members of a community.

The chief distinctions between subjective or individual and objective or social morality are, briefly, these. The first is dependent on the conscience of each individual; the exciting causes are the ideas of acts committed by the individual himself; the sanctions, remorse or peace of mind, and moral progress or deterioration. The second depends on general principles accepted by the community at large; its exciting causes are usually motives and not acts, and its reference is to our neighbours rather than to ourselves; its sanctions are praise and blame, and all the consequences that flow from social esteem or disgrace. It is fuller, and usually rather more elevated, and it admits of being codified and reduced to a system, which the other does not. The idea of responsibility has its origin in the development of the social conscience, and it rarely, if ever, and then by a transfer from the later product, finds a place in the judgements which an individual passes on his own actions. That it could not have been helped is only a meagre consolation for an action which we deplore, when it has been committed by ourselves. In the judgements of the social conscience it forms an indispensable element.

We may now consider what is meant by the primacy of the conscience, and with what restrictions and conditions the phrase may be accepted as expressing a truth. Primacy implies competition, and the competitors with the individual conscience for the guidance of action may be either motives of an entirely distinct origin, or the objective principles

of morality which are recognized as binding by the community of which the individual is a member.

The competing motives of a different origin fall under two headings: the prudential, which are distinguished by having an algedonic purpose, and another class, which have been distinguished in the previous sections of this note as motives of ambition or eminence.

For the conflict of moral and prudential motives, we may take the choice of Regulus, when, in returning to Carthage, he sacrificed his life for his honour. The tribunal of all subsequent ages and all peoples, and there is no other test, has endorsed this choice with its unanimous and unhesitating approval. Or let us compare two lines from the poets of the same nation, and say which of the two is to be preferred as a guide to conduct :—

'Omne tulit punctum qui miscuit utile dulci';

or

'Summum crede nefas animam praeferre pudori.'

The question resolves itself into one of values, and it is enough for the present to repeat that, in a competition with prudence, the primacy of the conscience has been ratified by the universal judgement of mankind—'Semper, ubique, et ab omnibus'—and that against that judgement there is no appeal.

Conflicts between the individual conscience and public morality are more frequent than is, perhaps, generally suspected. A government official or a soldier may be commanded by his superior to perform an act of which his conscience disapproves; public morality bids him obey; his private conscience to rebel; and it is quite possible that the well-informed opinion of the majority of his neighbours may refuse to admit that the dictates of his conscience are right. Again, a law may command an act which an individual, or a considerable number of individuals, may deem to be immoral; or their country may be engaged in a war which they believe to be unjust, and they may be called upon to pay taxes or contribute their personal services in its support; a man with a highly developed regard for

truth may refuse to pronounce the conventional lies which are required by social usage. In these, and all other similar cases, the primacy of the conscience is, for the individual himself, absolute. The only alternative is between that and prudence, and the claims of prudence have already been disposed of.

This statement, may, perhaps, appear to be too bald and unconditional. It may be objected: surely a man should pay some attention to the general moral feelings of the society he lives in; he ought not to be indifferent to the opinions of his fellows. The explanation will be found in the terms 'should' and 'ought'. All moral obligation is personal, and exerted by the individual's own conscience. The moral feelings of others may impose compulsion, but can never create a sense of moral obligation. What is really meant by these objections is, that the individual conscience is imperfect when it does not share the impulses of public opinion. When men act in concert in any kind of society or state, the ordinary commands of the individual conscience are supplemented by an additional moral interest, to wit, the maintenance of that society or state. In the case of objective morality this assumes a paramount importance; it may often be right for an individual to accept his own extinction; for the state it can never be right. As the public conscience is nothing but a segment of the separate conscience of each individual, the same principle should find a place in each individual conscience, and when, for example, the dictate not to lie comes into conflict with the dictate to observe certain social conventions, and in all other similar cases of conflict, the dispute is not between an external and an internal impulse, but between two internal impulses. It must be treated as an ordinary case of conflict of moral goods. When, however, after ripe deliberation, and a careful exclusion of all personal motives, such as pride and perversity, the individual conscience still demands that another course should be followed, the claims of the collective conscience, however plain and urgent, have no validity. Duty and the sense of obligation can

never be imposed by any external authority. There is only one authority for every man—his inner guide.

Its relations to religious morality are perhaps the most important of all aspects of the conscience. Nearly all of what has been said of its relations to the collective conscience applies here too with equal force. The conflict, when there is one, is still always between morality and prudence. Obedience to the commands of religion may be based on one of two grounds—either faith in the religion as a moral authority or fear of consequences. When Abraham was bidden to slay his son, his reason for complying may have been, either respect for the authority, and a certainty that whatever it commanded must be right; or a dread of punishment in the case of refusal. In the first case the compliance would be moral, in the second prudential. It is true that both motives may be present at the same time, and then the conduct would be predominantly moral or prudential according as either respect or fear was the strongest factor.

The parallel between collective and religious morality holds good in another respect. Both arise when strictly ethical notions are grafted on principles of a separate and independent origin. As the collective conscience has its origin in the needs of society, so religious morality is developed when the apprehension of existences, which are beyond the range of our senses, and not subject to our control, presses into its service the reactions of the individual conscience, and utilizes them as the engine through which the supernatural beings may be moved either to anger or to approbation. They become the necessary link through which the divine government, when that conception arises, is exercised, and the determinant and measure of its rewards and punishments.

Religious usually differs from social morality in being embodied in a written code, with a system of rewards and punishments, and a special agency to interpret and administer it, and to this difference it owes, as far as we are competent to distinguish them, both its chief excellence and its chief dangers. Being embodied in a code which professedly

admits of no variations, it must necessarily be of the greatest generality and elevation, in order that it may maintain its authority through many ages of change ; and in this way it is always far superior to the unwritten codes of social morality ; though they, as we have seen, are on a higher level than the average individual conscience of their own environment. Its institutions and its precepts bear to distant times the imprint of the sublime character of its founder.

On the other hand, the agency which is indispensable for the maintenance of a religious system, besides being liable to the ordinary corruptions of human nature, is continually and necessarily influenced by the special interests of its position ; and those are often opposed to the material and the ethical interests of the community at large. Even when they are legitimate, they will tend to suppress the healthy movement of thought, and when they are allied to moral corruption, they give rise to a class of conflict of which the case of Savonarola affords a conspicuous example. A man may be called on to decide whether he will comply with the commands of his religion conveyed to him by its accredited head, or the commands of his own conscience.

Yet another point of difference may be noted. Every religion contains a more or less complete cosmology, embracing, in addition to its ethical system, a theory of the government of the universe, its origin, its past history, and its ultimate destiny. These two sides, the ethical and the cosmological, must harmonize one with the other, and the ethics of religion will have in view a definite cosmical end ; a concept with which the conscience has no acquaintance and no concern. Thus, the hierarchy of moral qualities will be rearranged in compliance with the needs of the system as a whole. To take one illustration : the Civitas Dei will assign a higher rank to the virtue of obedience to ecclesiastical superiors than may usually be allowed to it. But what more than anything else regulates the appreciation of the various moral qualities are the views which relate to the final end of existence, and the value of

human interests in this world. A religion which rejects as worthless all worldly aims, and makes freedom from their influence the supreme end of conduct, will arrange its moral qualities in an order which differs materially from that which is given them by the instinctive reactions of the conscience; and the difference will, perhaps, be even greater with a religion which makes worldly pleasures its highest good. The compassion which a Dante may exhibit for some of the objects of divine justice will not be greater than his repugnance to the rewards of a Muhammadan paradise.

The same considerations hold good of all attempts to deduce practical rules of conduct from metaphysical or scientific premises. No *a priori* system, whether it be of religion or of philosophy, can be constructed, which will not contradict, in some particulars at least, the current morality of its time. When, as some modern philosophers do, it substitutes rules of prudence for rules of conscience, it cuts away the whole growth of morality at its roots.

One of the commonest cases of conflict is when a man, at the commencement of his intellectual activity, debates whether he should give free rein to his speculations or submit them to the control of his religion. If, with Pascal, he regards it as a wager, in which the stakes are a short life of doubtful happiness on one side, and an eternity of beatitude on the other, the question is purely prudential. No moral considerations of any kind are engaged on either side. Indeed, it is hardly too much to say that had the question been as he stated it it would never have arisen. That it should have been asked is due to the action of the conscience, which commands a man to make a free use of his faculties. Against this moral good will be arrayed another—the command of the conscience to respect the assurance of religion. We then have a special case of the commonest of all moral conflicts—that between obedience and self-assertion. There will be no moral conflict when the internal command to employ our faculties is pitted against the fear of consequences. Hope and fear create

no duties, and when the moral motive is not opposed by another moral motive it is coincident with duty. The most far-reaching change that can come over the spirit of a religion is the conversion of its motives from those of fear to those of affection. Motives of fear are prudential, and actions are then enjoined or forbidden, not on their own account, but as means to rewards and punishments. They furnish no moral ground for coercion, though that may seem to be justified by considerations of utility. When obedience is based on affection, no ulterior ends are present, but, if the religion explicitly commanded its own violent imposition on others, persecution would no doubt become a moral duty. This, however, is impossible, as it would involve a logical contradiction. A religion would cease to be a religion of affection if it were adopted on compulsion.

There are thus many occasions when religious precepts will dispute the primacy with the dictates of the conscience. The solution has already been indicated. When the precepts of a religion have been adopted by affection and respect into the circle of a man's moral notions, the supremacy of the conscience is not challenged ; the conflict, if there is one, is between two ethical motives, such as is of common occurrence when other motives, besides those peculiar to religion, are concerned. When the authority of religion appeals to hope or fear, the conflict is between morality and prudence. Whether the motive be religious or social the same conclusion holds good. If the principle of decision is to be the superior goodness of the action, the strongest ethical motive must always prevail. The individual conscience is always paramount in all cases where a man desires to act virtuously. In other words, duty and the sense of obligation arise from the dictates of man's conscience, and from no other source ; and when two conflicting motives, either of which by itself would create a duty, coexist, the obligation is created by the stronger of the two.

As the individual conscience is paramount for the individual, so is the collective conscience paramount for the community or the state. In its ordinary dealings with

its own citizens the state pays no consideration to the individual conscience, or to the collective conscience of any small subordinate group. The duty of a state to enforce education, to call out its citizens for war, or to levy taxes from them, whatever their private morality may say, is never disputed. There are, it is true, exceptions, as when a law contains a conscience clause; but they are few. The scruples for which allowance is made are usually of a religious rather than a strictly ethical character, and the deference paid by the collective to the individual conscience is often, as in the case of the Vaccination Act, of doubtful advantage even to those who avail themselves of it. This indifference to private views of morality is fully justified. No state could long subsist which did not exercise some control over the vagaries of the individual conscience, or which showed an exclusive or unfair deference to the separate collective conscience of any group of its citizens, whether they lived in Whitechapel or in Mayfair. Neither the individual nor society can yield, or even compromise with, the sanction of its conscientious or moral principles; and the strongest, that is to say the community, must prevail.

The right of the community to coerce the individual conscience is so liable to abuse and, when misunderstood, so dangerous, that it requires to be very strictly defined. Briefly, there can be no right of this kind, unless it is also a duty. Disapproval of the conduct or opinions of others does not constitute a right to interfere, unless it is plainly recognized that the community ought to interfere, and that abstention is a neglect of duty. No mere antipathy, however strong, deserves to be listened to. And it will be incumbent on the community, before it acknowledges the exercise of this right to be its duty, to satisfy itself that its action is not really dictated by motives of expedience, or even of religion. To interfere with a man in the discharge of what he may regard as his duty is not held to be justified by any considerations of expedience, however wide their range may be, but only by a conflicting duty.

It will be admitted that the community is bound to inhibit the outward expression of any individual tendency, however conscientious it may be, which plainly threatens to lower the general level of morality. The distinction between conduct which concerns a man's self and conduct which concerns his neighbours is unmeaning. All actions, including speech, must necessarily affect others besides the agent. Even if a man were to isolate himself in an uninhabited desert, he would still affect the population statistics of his country, and set an example which others might follow. The duty, then, of the community to interfere extends to every act that offends its moral sense and plainly threatens to lower the general level of morality, even if that act be the outcome of sincere moral conviction; opinions that have no effect on conduct do not exist, or if they did, would be undetected. It is not in every community that a belief in God, or in a future state, are commonly received as doctrines of morality, but in countries where they are, the state will surely feel itself bound to resist any serious attempt to impugn them.

Again, it will generally be allowed that, in the morality of communities, one of the highest, if not the highest moral principle is the safety of the state, but it is, at the same time, on many accounts, one of the most difficult of application. What constitutes safety will always be a matter of opinion, and it may be felt that when a state sacrifices its remaining ethical principles to its safety, it only exchanges a heroic for an ignominious form of extinction.

Another reason which demands the exercise of extreme caution in applying coercively the principle of *salus populi* is that in very many cases it is extremely difficult to ascertain how far the principle is pure. It is usually impossible, even for the best-informed judgement, to distinguish between a nation's material and its moral interests—its wealth and its safety. It is true that they often coincide, and the same conduct may promote both; but this only increases the danger of self-deception in the many cases where wealth is not synonymous with health. To coerce the individual

conscience on prudential motives, that is to say, in order to add riches either to the state generally or to any particular class of its citizens, is conduct which no morality will approve of, and which is itself a serious offence against the public safety.

Closely connected with the right of the state to coerce the individual conscience is its duty to provide for the administration of civil and retributory justice among its citizens. Here too the moral principle of the safety of the community comes into play; no state could long survive the refusal of its government to undertake these functions; but the leading part both in creating and in defining the duty is taken by other distinct ethical principles. The first of these is justice, in its two main aspects, equal distribution and the *ius suum cuique tribuendi*. What is called the sacredness of property imposes the duty of civil justice. The protection of acknowledged rights of ownership against the cupidity of a powerful neighbour, and the settlement of bona fide differences when each of the conflicting claims is coloured by personal interest, are demanded both for the security and peaceful progress of the state, and by that moral feeling of the public which is offended by unjust aggression; and can be provided only by the concerted action of the community, wielding a power which is superior to that of any private citizen.

The duty of a state to repress crime involves, besides the protection of life and property, the other principle of justice, that is equal distribution, which becomes retribution when allied with the principle of revenge. When a man is injured, the morality of all nations is offended if he fails to obtain vengeance on his injurer. In many countries, indeed, the duty of *vendetta* is imposed on private persons; to acquiesce in an injury is not allowed; and even in our own the man who submits to injury or insult without active resentment is not respected. This principle has no necessary relation to justice. It springs from an independent source, the instinct to return a blow, which is found in the lowest organisms; and it is because its

manifestations often offend deeply against the principle of equality that it requires to be directed and kept within limits by public justice. The acts by which revenge is gratified are commonly of a kind, and may be accompanied by an excess of cruelty, which, by themselves, and before the motives are ascertained, arouse the liveliest moral repulsion. When the whole circumstances are known, the moral feeling undergoes a change, and it then approves of a penalty which is not out of all proportion to the provocation. The joint product of the two impulses revenge and equality is retaliation, or a just revenge, and all retribution which exceeds or falls below this standard is morally offensive. In this way it is required of criminal justice that the punishment should be as nearly as possible equal to the offence; that is to say, that the moral repulsion excited by the offence should as nearly as possible be counterbalanced by the moral repulsion that would be excited by the penalty, if that stood alone and were not an act of retribution. The principle of justice converts the unrestrained and insatiable passion for revenge into the semblance of a civil proceeding, in which the injury is a debt, and the punishment repayment. Where the state provides a machinery for the punishment of crime it is partly from considerations of self-preservation, and partly because the public conscience demands that private revenge should be kept under control without being frustrated. Both these, and each separately, constitute a moral obligation which the state is not at liberty to disregard.

In recent theories another purely ethical principle has been put forward, namely, that punishment is justified as a means to the moral improvement of the criminal. This appears to confuse two questions—the right to punish and the form the punishment should take. That, after a man has forfeited his liberty, it is the duty of the state to provide that a further deterioration of his moral character should not be one of the incidents of his punishment, is a principle which will be endorsed by every one. Not even the rack nor the bed of Procrustes would excite as certainly the reprobation

of every healthy conscience as punishment by moral degradation. Neglect of any reasonable opportunities of improvement will similarly be blamed. But the duty to improve is not general; it cannot form a common ground of justification for all punishments; it clearly cannot justify the severest of all, the forfeiture of life. On the other hand, it is too general; if the prospect of moral improvement justifies the forfeiture of liberty, there are very few of us whom the state is not bound to keep in a reformatory. The idea is probably derived from the punishment of children, which, no doubt, has no other justification. But it is forgotten that these are still in *statu pupillari*. The principle applies to those who have already forfeited their liberty, and to those who have not yet acquired it, but to no others.

Neither is the forfeiture of life or liberty justified solely as a deterrent to others, or to the same man, in case he may be inclined to repeat his offence. In order to defend the infliction of punishment, it is not necessary that the offence should be published; it may even be expedient that it should not. The penalty of the iron mask offends no moral principle. Nor can the more severe forms of punishment, such as death or penal servitude for life, serve as a deterrent to the criminal himself. Here, again, the propriety of varying the punishment after it has been earned, so as to make it deterrent, may be rightly taken into consideration. When a man has already forfeited his liberty, the conversion of his imprisonment, or any part of it, for flogging will excite no moral disapprobation, unless it is shown that it results in the moral deterioration of the criminal or of the onlookers.

Deprivation of liberty, with or without painful or degrading concomitants, and still more of course, deprivation of life, are in themselves so great an offence to moral feeling that they can never be justified by an appeal to mere utility; no increase, however great and widely spread, to the happiness of his neighbours would reconcile a healthy conscience to the treatment as a criminal of a man who

had not offended against the moral consciousness of the community. It would be recognized at once as an outrage to justice. That this is a fact will, I think, be admitted, and it illustrates vividly the superiority of ethical over algedonic values. Men will not tolerate the infliction of a moral wrong by the state, except in requital for another moral wrong ; no sum of happiness, however great, will serve as a set-off against it. By neglecting these considerations a government will destroy the respect on which it must ultimately rely for its permanence.

It would be interesting to trace the operations of ethical motives in such matters as the delegation of the powers of the state to special tribunals, the selection and definition of punishable acts, and the apportionment of penalties to degrees of guilt, but it is not essential to the purpose we have in mind. We should find throughout, as we have found for the general basis of criminal justice, that the action of the state is to be defended on moral grounds, and enforced on it as its duty, and that prudential motives, and a regard for the happiness or the riches or even the intellectual interests of its citizens have only a very subordinate importance. A single illustration may be permitted. The system of trial by jury has been defended on the ground that it is a means to the mental education of jurymen ; that it strengthens their active faculties, exercises their judgement, and gives them a familiar knowledge of the business of the courts. Not all these advantages would weigh for a moment against any loss of efficiency in the administration of the law. They would be more than counterbalanced by a single unjust condemnation of an innocent man, which another system would have avoided. The only valid defence of the jury system is that, notwithstanding some defects, its decisions on the whole are more just than those of the trained lawyers who sit on the bench would be. All other advantages are really irrelevant, though they may be recognized with satisfaction.

To sum up : the coercion of the individual conscience by public morality is justified when it is felt that to refrain

would be a moral wrong, and not otherwise; the same principle holds good of all coercion of its citizens by the state, whatever form it may take. When a society is asked whether it ought to abandon to their own guidance those who are manifestly unfit for it; whether Sunday amusements should be prohibited, or prostitution, or gambling, or the traffic in liquor; whether the aged poor should be supported, or famine relieved; whether or no breaches of the marriage contract should be made a criminal offence, and in a hundred other social problems, there is no arbiter but the public conscience. Every other consideration may be opposed: as, in the case of a famine in an overcrowded country, the most advantageous and the most merciful solution may seem to be to leave remedial nature to her course; but all such considerations, however strong, are brushed away like cobwebs by the public conscience. When its directions are plain they must be obeyed, or the decision will be wrong. It is true, no doubt, that prudential motives will sometimes intervene, but as soon as their true nature is recognized it is felt that the justification is inadequate. The deliberate abandonment of a hero to certain death may be defended as sound policy, but it is not right.

This, to the best of my judgement, is a true statement of fact. I do not presume to suggest what ought to be, any more than I would venture to reconstruct man's physical organism on a pattern of my own. But it seems safe to say that the guidance of the public conscience, though it may occasionally be mistaken, is less liable to error than any other that can be proposed. To substitute the advice of the best accredited philosopher, or the prudential interests, supposed or real, of the whole community or of the ruling classes, would be to court certain disaster.

CHAPTER VI

OBEDIENCE

WHAT is here proposed is, first to define what we mean by obedience, when regarded as a spring of action; then to distinguish it from other springs of action with which it has been sometimes wrongly identified; to give a short account of its relations with some other springs of action by which it is likely either to be furthered or to be counteracted; and, finally, to inquire into its relations with the moral consciousness; that is to say, when it is considered good, and when not. The choice of subject has been in part determined by the reflection that this, though one of the most general and practically important of the moral impulses, and rightly insisted on as such by religious writers of all ages, receives only scanty recognition in philosophy, and is almost entirely overlooked in the individualist hedonism which has given the tone to English thought since the Reformation.[1] It affords as good an illustration as can be found of the conflict of ethical ideals in the same age and country.

At starting, a possible source of confusion must be guarded against. In common use the word obedience denotes, not the spring of action, but the action itself. When a man says 'You owe me obedience', he means that there is some kind of obligation which should make you act in accordance with his command, either habitually, or on some particular occasion. But this is not by any means the same thing as to say that you ought to have an obedient temper generally. To obey is not necessarily to be disposed to obey. A man with a naturally disobedient

[1] 'The secular life of our twentieth century opens with this virtue, held in no high esteem.'—Professor James, *Varieties of Religious Experience*, p. 310.

temper may yet comply, perhaps habitually, with the commands of a master who has a special hold on him. Caliban habitually complied with the commands of Prospero. The subject of the present inquiry is the temper which prompts obedient action, and only incidentally the action itself.

Taking the act itself, without any regard to the motive, its general distinguishing characteristic is compliance. But compliance, as will be seen, has a much wider connotation than obedience. The special mark which distinguishes obedience from mere compliance is, that it follows on a distinct command, or expression of an external will.

Moreover, common usage would discriminate between the obedience of the man on the treadmill and the obedience of the Spartan at Thermopylae to the commands of Hellas, and would say that the former was an improper or at any rate forced application of the word. For true obedience there is required not only an external command, but an ability in the man to whom it is addressed to disobey it, or at least to refuse to enter into the conditions which make it obligatory. It is not merely compliance, it is voluntary compliance to an external command. The compliance of the galley-slave with the lash is no more obedience than the compliance of a starving man with the demands of hunger.

Again, not only must compulsion be absent, but there must be no other motive of sufficient strength to ensure the same resultant action, even if the external command were not given. In so far as an act is in compliance with other motives, besides the external command itself, it ceases to be an act of obedience. When a covetous man is commanded to accept a valuable legacy, the command is superfluous: the whole process from the initial stimulus to the final action would be exactly the same without it. Or, if the mere avarice is not sufficient, without the command, to produce the resultant action, it is a case of mixed motives. The action is due partly to avarice and partly to obedience.

The classification of springs of action by the actions which they usually produce is a practice that is responsible for a good deal of confusion, and it is worth while to exemplify this by a short examination of some of the motives which are commonly assigned to the class of actions which are brought under the general head of obedience. Of these there are only four that need detain us, namely, imitation, fear, indolence, and a reasonable calculation of the consequent advantages. We will consider each of these separately, first noting that they all agree, both in occasionally producing compliance either with the will or with the actions of others, and also in being wholly independent of the true temper of obedience.

A distinguished contemporary writer exemplifies the meaning of 'obedience in general' by asking the following questions :—

'Why do we all forgo the gratification of many of our personal desires, desires in themselves harmless, merely because they are not shared by others? Why do we go on echoing opinions whose soundness we more than doubt? Why do we pursue pleasures which give us no amusement, but rather weariness? Why do we adhere to a party, political or ecclesiastical, of whose conduct we often disapprove? Why, in fact, is so large a part of our daily conduct determined, not by our own natural preference, but by compliance with the opinion of others, or submission to the social conditions around us?'[1]

The answer must be that in a large number of instances the compliance is due to the principle of imitation, which plays so important a part in the moulding of our actions. We act in the way described because we see others acting in the same way, and for no other reason. But this compliance may easily be distinguished from obedience. When a flock of sheep, to take a popular illustration, follow a bell-wether through a gap, running when he runs, and leaping when he leaps, they are guided by imitation and not by obedience. No command is given, and the process is quite independent of the will of the bell-wether. He may be assumed to be

[1] Professor Bryce, *Studies in History and Jurisprudence*, ii. 6.

wholly indifferent as to whether it is carried out, or even to prefer that he should not be followed and imitated, but this would not in any way affect the action of the flock. Similarly, when leaders of fashion are imitated by people who are not of their class, it is certainly not at their command, and not always to their unmixed gratification. In the same way, when a man, notwithstanding occasional misgivings, votes, dresses, dances, eats, and drinks in some particular way because he sees his neighbours do the same, he is not merely on that account to be called obedient, though he may be called compliant.

In another large number of cases the answer to Mr. Bryce's questions will be that the compliance is prompted by prudence. Men are commonly careful of their reputations, and are soon taught that society is not tender to the reputations of people who are independent or eccentric. Or they are ambitious, or desire wealth ; and eccentricity would be likely to be in their way. In other words, a reasonable calculation from experience convinces them that it would be to their advantage to comply. Prudence in these cases may act by itself, or it may reinforce other impulses, such as the tendency to imitate, or the tendency to obey; but it is not the same thing, and it may readily be discriminated. By prudence we mean the gift of intellectual foresight, acting in combination with the impulse to seek pleasure and avoid pain. If obedience were merely a special case subsumed under this combination, we might reasonably expect that, in its actual exhibition, the degree in which it was found in any particular race would vary directly with the combined qualities. That is to say, that the most obedient races would be those in which the intellectual faculties and the sensitiveness to pleasure and pain were most highly developed. But this is not the lesson which is taught by history. The Romans and the Spartans may be selected as races which were conspicuous for their obedience to the will of their parents, the laws of their country, and the commands of their generals; but it will hardly be said that they were distinguished above their

contemporaries the Athenians either in intellect or in algedonic sensibility. It is true that the races instanced are credited with a high degree of prudence, but here again we encounter the confusion, under the single term of prudence, of qualities which are really distinct. What was admired as prudence was not so much intellectual foresight as temperance and self-restraint, and the qualities, though conducing to the same result, are in fact widely different (ἐγκράτεια is not the same thing as σωφροσύνη, though they are often identified). Similarly with individuals : it is not the man with the richest intellectual endowments who is likely to be the most obedient ; indeed, that kind of eminence, though not incompatible with obedience, or with any other ethical virtue, is more frequently found in opposition than in alliance with it. It is clearly not the same thing. Prudence is the last quality to be looked for in the hero who leads a forlorn hope. The crew that submitted its captain's orders to an intelligent scrutiny before acting on them would not furnish a model of discipline.

It is, of course, conceivable that the practice of obedience might have been deliberately selected by any community, such, for instance, as a state, or the crew of a vessel, as better designed to secure its ends than the choice of action by each individual on each emergency as it presents itself ; and that the habit, though hardened, in the case of long-established communities, into an instinctive principle of action, by the practice of centuries, had its origin in prudence. But no instance of the kind is known to history, the hypothesis is unlikely to the verge of impossibility, and, as will be seen, a simpler explanation, and one which is not open to serious objections, is attainable. However this may be, having once given the preference to obedience, prudential motives will have decreed their own abdication. When, and so far as, a man follows a line of conduct because he believes it to be advantageous, he no longer follows it because it is commanded. We may still require prudence in the man who commands, but it can be nothing but a disqualification in the man who obeys. When we speak of intelligent

obedience, we mean an obedience that is qualified by other, and, it may be, conflicting motives. In so far as it is intelligent, it is not obedience.

The two remaining springs of action, which, as motives to compliance, are most commonly identified with obedience, are fear and indolence. These need not detain us long. It is clear that each of these may act sometimes as an aid and at others as a hindrance. On the one hand, fear of punishment may confirm the obedience of a man who is already disposed to obey; on the other, fear of danger may powerfully deter a man from holding a post which has been assigned to him by his captain. Similarly, indolence, when the exertion of debate is too grievous to be endured, may keep motives for disobedience out of sight; but it is equally likely, as in the case of the man who promised his father to go to the vineyard, to reinforce them, whenever to comply involves exertion. Now the temper of obedience always enforces compliance, and it cannot be identical with qualities which are as likely as not to oppose it. The same may be said of affection and sympathy. Either of these may be engaged either in favour of the man with whose wishes compliance is demanded, or against him.

The conclusion we arrive at is that, in true obedience, the command is itself the stimulating motive, and the tendency to obey is a distinct and separate tendency or impulse, differing from all other impulses. A man is of an obedient disposition when he is so constituted as to react readily to a command.

There are few, if any, of the dispositions of human nature which are entirely peculiar to humanity, or owe their first origin to the social needs and institutions of our race. Justice, which is commonly regarded as the type of 'artificial' impulses, is derived, in one of its forms, from the jealousy which demands equal distribution, in another, from the instinct of resentment, and in a third from the sense of property—all of them sentiments which are clearly observable in many of the lower animals. In the same way, the

origin of obedience is not to be found in the needs created by the state of war, which has been regarded as a universal characteristic of savage life.[1] The savages of Central Australia, among whom combination for warlike enterprizes is hardly known, still recognize chiefs or headsmen for other purposes, and submit to their judgements in a degree proportionate to their strength of character or of intellect; and in this submission we discover the rudimentary principle from which obedience is derived. It is not fear, or indolence, or affection, or any form of self-love, but the instinctive submission of the weaker will to the stronger, which is common to every race in which the will of one individual is weaker or stronger than that of another. The direction which this instinct takes, the forms which it assumes, and its relative importance and strength when compared with other impulses, are no doubt influenced by the peculiar social requirements of the human race in general, and of each of the groups into which that race is broken up. But the mere fact that the instinct of obedience is preserved, developed, directed, and kept within bounds by the individual and social requirements of mankind, does not distinguish the duty to obey as 'factitious' or 'artificial'.

An ethical appreciation of this form of impulse may start with an inquiry as to the other forms of impulse to which it most frequently stands in relation either of conflict or of harmony. Most prominent among the first are the three degrees of self-assertion; pride, vanity, and perversity.

What distinguishes pride from the other two is its disregard for the opinion of others. A proud man is essentially solitary. He will not care to institute a comparison between himself and others, especially in matters for which there may be room for a difference of opinion. Rank, good birth, and power which is above dispute are more likely to lend themselves in support of pride than any other kind

[1] 'Gradually, as, *by habitual war*, chieftainship is established.'—H. Spencer, *Data*, p. 115.

of pre-eminence. This form of instinctive egotism, which regards the self only, and forgets or disregards rather than despises others, though not perhaps incompatible with obedience, is, at least, unfavourable to it.

Still more unfavourable to obedience is vanity. In common usage this term is variously applied, but what is meant by it here is self-assertion, when it has become acutely conscious, and seeks to justify itself to others. Whereas the proud man shrinks from competition, the vain man welcomes it, and is on the alert for every opportunity of convincing others of what he believes to be his own excellencies. Great talents, good looks, or a good voice are qualities which must be publicly displayed before they can be recognized, and which may often be challenged by others. They are the favourite stock-in-trade of vanity. The vain man will allow his thoughts to dwell continually on the character and qualifications of others, with the view of disparaging them ; in this respect, again, differing from the proud man, who does not care to think at all of others, and has no wish to disparage them. Modesty is the ethical opposite to vanity, as humility is to pride. The disposition to depreciate others to the advantage of ourselves is particularly unfavourable to obedience, as it naturally suggests the question; on what grounds should another be obeyed. A vain nation may be brave, but it is not likely to be well disciplined.

The extreme of irrational self-assertion is perversity, a temper which, though closely allied to pride and vanity, is clearly distinguishable. In almost all men there is a natural tendency, independent of and usually opposed to prudence, to contradict the opinions and traverse the desires of their neighbours ; not, though that may often be alleged, because those opinions and wishes are unreasonable, but merely because they are expressed by others. Of all the impulses that go to make up human character, this is perhaps the most distinctly antisocial, and it is kept in restraint both by the rules of social intercourse and by the dislike which it arouses in others. A man who gives a free rein

to perversity is shunned by his neighbours. No other temper is more incompatible with obedience.

If we turn from the natural foes to the natural allies of obedience, the first that will occur to us is humility, the antithesis to pride. As pride is one of the forms of self-assertion, so humility is another word for self-forgetfulness. A humble-minded man may have rank and power and wealth, and all the incidents which commonly contribute to the support of pride, but, as he forgets himself, he will at the same time forget them. It is true that he will not forget his own faults and shortcomings, but they justify his self-effacement, and will be remembered on that account only. They are in harmony with his general temper, and the recollection of them gives him that kind of satisfaction which is derived from the occupation of the mind by congruent impulses. Of all the elements of character, humility is one of the most essentially social in its aims, and it is clearly one of the principal aids to obedience. No man is less likely to set up his own will against the commands of another than he who is humble and self-forgetful.

Another quality which is so intimately connected with obedience as sometimes to be mistaken for it is imitation. In imitative people the mere suggestion of an idea is followed by the appropriate action. No one is free from the tendency to react from mere ideas, independently of any peripheral stimulus, but it is much stronger in some animals and in some races of man than in others. It is an eminently social quality, and at the same time a powerful auxiliary to obedience. The will of a man who reacts easily to the idea of any object which may be excited in his mind will always run in the same direction as the will of the man who, by his command, not only claims his obedience, but simultaneously excites in his mind the idea of the object which he himself is aiming at.

The most powerful of all the allies to obedience is the annihilation of all personal aims, which is sometimes known as detachment. Some degree of detachment is demanded for every act of obedience, in the temporary sacrifice of the

individual will; in its most perfect form, all earthly interests, the solicitations of power, fame, wealth, and pleasure, the family affections, and even the dictates of the moral consciousness, are disregarded; and, though this is not always necessary, the end of action is placed in a life beyond the grave. This temper is rarely to be found except as the product of a difficult special training, or of self-imposed asceticism. When attained in any considerable degree it adds an evident force and dignity to the character, and purifies and elevates the standard of living. The unworldliness of the early Christians implied the sacrifice of all secular motives, and produced a freedom and grandeur of character hitherto unknown. It is the best antidote to that pusillanimity which, as Hobbes remarks, by magnifying irrelevant trifles causes men to lose ground before little hindrances. It reaches the highest pitch of effectiveness when allied with obedience to the commands of some recognized external authority. Its force is then indefinitely multiplied by the combination of the detached will of one individual with those of others in the pursuit of the same prescribed aim. The alliance of detachment with obedience is what explains the influence, altogether disproportionate to their number, exercised in history by small communities like the adherents of the Old Man of the Mountain, and other well-known religious orders. The effective value of the individual is never so high as when his will, strengthened and purified by self-abnegation, is completely subordinated to the will of another. What at first appears to be complete extinction of individuality adds incalculably to the force exercised by each individual unit, though it may have no ascertainable effect on his life when stated merely in values of pain and pleasure.

Enough has perhaps been said for our present purpose about the relations of obedience in general to other elements of the human character. Another most important point remains to be dealt with—that is, the subdivision of obedience into distinct channels or branches. In its later and more highly developed forms it is no longer a general

habit of compliance with the will of every man who may choose to impose his commands ; such a temper would be called slavish rather than obedient. For proper or rational obedience there must exist a definite relation between two men which gives to the one the right to command, and requires the other to comply. This relation may be either social, or political, or religious. The relations of parents to children, of masters to servants, of teachers to their pupils, constitute a social condition ; of soldiers to their captains, or of citizens generally to their laws and the legal commands of their government, a political ; of laymen to their priests, of the lower ranks of the hierarchy to the higher, and of all to the divine ordinances as embalmed in their traditions, or revealed in their sacred books, a religious condition, under which compliance becomes a rational obedience. Obedience, under any one of these conditions, becomes either a social, or a political, or a religious obligation, but it is not, on that account merely, an ethical obligation or duty ; it only becomes a duty, as distinct from a mere obligation, when compliance under one or another of these conditions is approved by the conscience. When a legitimate ruler commands a subject to commit an injustice, or when compliance with ecclesiastical authority involves the support of an institution which has become notoriously and scandalously immoral, the political or the religious obligation no doubt remains, but it is opposed to the moral obligation, and not a duty.

Like all other impulses, but more obviously than most, obedience may be carried to excess, and it then ceases to be virtuous. The idea of excess is derived from the conflict of impulses, each of which when regarded by itself may be a subject of general approbation, but may cease to be good when opposed to others. Gratitude, truthfulness, benevolence, have been instanced as virtues which it is impossible to carry to excess; that is to say, which are good under all conceivable circumstances. But this opinion is mistaken. The gratitude which assists a benefactor when he betrays his country, the truthfulness which overwhelms

a friend by the unnecessary or inopportune disclosure of disaster; the benevolence that will not submit to the restraints of moral wisdom, are none of them approved by the general moral consciousness of humanity, and, as that approval constitutes virtue, are not virtuous. Similarly obedience, when it attains a strength which gives it the upper hand over all other impulses, and in all circumstances, must frequently cease to be a virtue.

These considerations may be applied, first to the conflicts which may arise between the three different branches of obedience, and next to the conflicts of obedience generally with the other impulses.

Before we can discuss this question, as far as it relates to the rival claims on our obedience made by the three distinct forms of constituted authority, we must first make up our minds as to what we are to regard as the final end which justifies the claim of obedience to take rank as a virtue. Although it is beyond the capacity of human reason to discover the absolute final end of action, or even to ascertain whether there is one, that being a question of faith rather than of reason, no ethical discussion can be carried on, unless one is assumed. For our present purpose, however, we may be contented with an empirical or proximate end, and assume that the final end which makes obedience to constituted authority a virtue is the continued existence of the nation of which the man from whom the obedience is claimed is a member. If a nation in which social, political, and religious obedience were unknown remained as strong, as well able to cope with its neighbours, and with other less obvious perils in its environment, such as plague, pestilence, and famine, it is not easy to discover on what grounds obedience came to be accounted as a virtue at all; and the same consideration holds good for each of its distinct forms separately. Each of the three institutions, the household, the secular government, and the Church, depends for its power entirely on the degree of obedience which it can exact from its members, and, without their obedience, would cease, for all practical purposes, to exist.

When we inquire what are the relative claims on our obedience of any two of them when brought into conflict, we must, in order to obtain an accurately quantified solution, first exactly determine the value of each, with reference to their common final end, that is to say, the continued existence of the nation. This, however, is impossible. Neither the tendencies themselves, nor their values in the present, admit of exact measurement, and it is out of our power to predict the conditions under which they will be called on to act in the future. All we can do is to deduce from our knowledge of the past what appears to be the most probable opinion for the immediate future; while we are conscious that, as the future never exactly reproduces the past, and as, though variations may with confidence be expected, their nature and direction can never be foreseen, our opinion will never have more than a rough and general probability.

Such reasonable probability will justify the assumption that all three forms of authority are indispensable; that neither the household, nor the civil government, nor religion, can be done away with without depressing the community below that minimum of adaptation which is necessary for its continued existence. Further than this it seems rash to proceed. Our ground fails us when we attempt to determine the relative strength at which each form of authority should be maintained. In some ages there may be a disposition to make light of the claims of religion; but when we reflect that the continued preservation from an exceptionally remote antiquity of races like the Jews and the Hindus is due mainly to a minute and unquestioning obedience to the precepts of their religions, we should hesitate to agree. All we can say with some approach to certainty is, that the equilibrium between the different classes of obedience should be so far maintained that no one of them should acquire the power to extinguish either of its rivals. The doctrine of passive obedience to the civil government, when used, as it was by Hobbes, as an engine of aggression against the Church, and the attitude of the Church towards the Empire in the middle ages,

are examples which show that the danger is not by any means imaginary.

It has already been seen, when its affinities came under review, that the principle of obedience ranks with the public or social, and is opposed to the private or self-regarding elements of our active nature. It is indeed pre-eminent among the qualities which serve the purposes of concerted action, where the claims of the individual are lost sight of in the interests of the community ; and it is this which determines its general relations with the other impulses. Its ethical valuation will vary with the success with which the community and the individual respectively assert their claims on the attention, and we can thus account for the fact that in the same period of history it has been considered as one of the chief of virtues by the religious or military classes, while it almost entirely escaped the notice of the individualist philosophers. If we consider it impartially, with reference to the same final end as served as a standard for the comparison of the various kinds of obedience among themselves, we shall probably come to a similar conclusion ; that is to say, that in the persistent conflict between the social and the individualist impulses, it would not be conducive to the safety of a community that either should gain a decisive victory. In its relations with the environment, every community requires two opposite qualities—first the power of both passive and aggressive antagonism, and secondly the faculty of concession, when successful resistance is no longer possible. The stability of its manners and institutions must not be so great as to destroy their adaptability.

It is clear that the self-abnegation of which obedience is one of the forms is the moral force which, more than anything else, guarantees the strength of a community in its resistance to its surroundings. By concentrating the wills of the citizens on the same ends it greatly enhances the effective value of each, and of the whole body in its transactions with its neighbours ; at the same time, by the suppression of individual ambitions, it acts as a safeguard

against internal disruption. A state among whose citizens the temper of obedience has been sufficiently developed is nearly certain to outlast a more brilliant but less highly disciplined neighbour. These advantages would, however, be dearly bought by the undue depression of individual initiative. Adaptation, which is of at least equal importance with resistance, is dependent on the opportune appearance of new ideas, and on the readiness of the masses to accept them ; and when habits of instinctive obedience have made themselves masters in all departments of life, social, political, or religious, the community loses the power either to produce or to import new ideas. Intellectual variation, if it appears at all, is crushed by the prevailing education. There is no reward for originality, and it is discouraged ; it brings the leaders themselves into conflict with the stationary multitudes, and they must either submit to tradition or cease to lead. A community in this condition might last long, especially if protected by strong natural frontiers, but its fate is certain, and eventually it will provide hewers of wood and drawers of water for some neighbouring state in which individuality has kept on more even terms with obedience.

There is, therefore, no ground for prophesying that obedience will either lose or gain ground in the healthily constituted state of the future, or that its value, when compared with that of individuality, will be either greater or less than it is at present. It is likely that the social and the individualist instincts and tendencies will grow equally in strength, and that, side by side with organizations exercising more power over their members than any we know, and spreading into fields from which they are at present excluded, we may find a widely extended sphere for individual initiative.

CHAPTER VII

MEASUREMENTS

THE following notes were suggested by an interesting essay, under the title 'Can there be a sum of pleasures?' which was contributed by Mr. Hastings Rashdall to No. 31 of the new series of *Mind* (July, 1899). Their relevance consists in the light they throw on the methods of ethical inquiry, and especially on a claim which has been put forward on its behalf to a place among the exact sciences.

In order to decide whether pleasures and pains can be measured, it is necessary to determine with some exactness what is meant by measurement. The first step in the inquiry will be to distinguish between two processes which are not infrequently confused, though, as will appear later on, the distinction is of general importance, and marks the boundary-line between philosophy and science. The first of these processes is comparison, the second measurement.

Comparison takes place when two objects are presented either simultaneously, or in close succession, in our consciousness. When we compare them, we either discriminate or do not discriminate them. If we discriminate them, we say that they are unlike; if not, that they are like. When we say that they are unlike, we mean that one is greater than another in point of size, or longer in point of duration, or more in point of intensity, or disparate in point of quality. In all these judgements of discrimination, measurement, in the strict sense of the word, does not enter. They are involuntary, and occur to our consciousness directly on the presentation of the two objects, or, if they do not, we find them there directly when we fix our attention on the objects presented.

Measurements differ from comparisons in that they involve a conscious calculation, the basis of which is rhythm. By

rhythm we mean a series of equal beats or intervals. The length of each beat is immaterial within certain limits, which will vary with the nervous susceptibility of the individual. They must not be so short as to fuse into a continuum ; that is to say, they must be distinctly apprehended as separate ; and they must not be of more than a certain length. If they exceed that, the immediate sense of equality will be lost, and they will themselves require measurement ; they will cease to be rhythmical. Within these limits it is immaterial whether intervals are seconds or pulse-beats, or the breaking of waves on a beach, inches or centimeters, or the marks made on the sands by a retreating tide. All concomitant sensations are equally devoid of importance : it is immaterial whether we measure with a tape or an iron rod. Rhythm is number in a concrete form ; that is to say, combined with sensation. Any kind of sensation will serve as its vehicle ; it may be heard, or seen, or felt. An essential requirement in rhythm, in order that it can be used for measurement, is that the beats should be equal subdivisions of some objective standard that is equal for all men—such as the length of a day at the equinox, or of a bar of metal under certain conditions of temperature or pressure. Series of equal arithmetical units of universal validity, such as can be used in measurement, are given us in time and space only.

Measurements are of two kinds, direct and indirect. They are direct when both the object measured and the rhythm which measures it are in the same category ; as when we measure a mile by inches, or an hour by seconds. They are indirect when a correspondence has been established between two series in different categories, and one is taken to measure the other. The measurement of time by a clock may be either direct or indirect. When a minute is ascertained by counting the seconds, it is direct ; when the same duration is measured by the space which the hands have covered, it is indirect. It is hardly correct to say that ' we measure time by space ; but to measure space, on the other hand, we employ time. The length of the

road over which we have travelled we estimate by the time the journey has taken. Space gives us our only means of measuring time, and time our best means of measuring space.'[1] Both temporal duration and spatial quantity may be measured in their own terms. Even if the dial of a clock were removed, we should still be able to measure time by the ticking, though in this case the indirect measurement is no doubt by far the more convenient. Similarly we may measure a mile by a chain, and here the direct measurement is both more convenient and more reliable. When we estimate the length of a road by the time the journey has taken, our estimate, to be of any value as a measurement, requires, first, that we should ascertain the exact velocity at which we are travelling, and, secondly, that the same velocity should be maintained throughout, without either slacking or acceleration ; and we are unable to measure the velocity in either case without measuring both the time and the distance. If we measured space by time only, the distance covered by a tortoise and an express train in an hour would be the same. We ascertain by the clock and the milestones that the express has covered fifty miles in an hour, or by a tape that the tortoise has progressed twenty yards, and we can then use either the distance to measure the time, or the time to measure the distance, on other occasions ; but only if we are quite sure that the same velocity has been maintained. Similarly with indirect measurements by a clock ; it is necessary to measure the dial, and make certain that each fraction of space corresponds with a certain number of seconds. What gives the indirect measurement in this case its superior convenience is that the velocity is determined by very accurate machinery. The dial of a clock might be dispensed with if a man were deputed to count the beats and proclaim the time at stated intervals, as the Muezzin proclaims for the Faithful the hour of prayer, but the arrangement would not be equally convenient. Judgements like those referred to in the above quotation are not really

[1] Wundt, *Human and Animal Psychology*, English transl., p. 19.

measurements, but, in part at least, discriminations by comparison. Either the space element in the velocity, or the time, or both, are guessed and not measured.

In calculations of time and space, indirect measurements are not indispensable, though they are commonly of the highest convenience. In the case of other series, such, for example, as those of sound, colour, or heat, which are not obviously either temporal or spatial, they are the only instrument we have for exact comparison. There are apparent exceptions. It might be thought that the musical scale, which admits of divisions into thirds, fifths, octaves, &c., and subdivisions into simple fractions of tones, was as truly an instrument for the measurement of pitch, though it has no rhythmical basis, as the yard, with its division into inches, is an instrument for the measurement of space. This, however, is not the case. The intervals on the musical scale are not subdivisions of any objective standard, like those of true measurement, but are based on the subjective feeling for tone, which is not present in all men alike. Again, they do not, like pure number, admit of infinite subdivision. A half or a quarter of a tone may be appreciated, but a hundredth part of a tone is a difference which leaves no impression on the consciousness. If two notes differed by as little as the hundredth part of a tone we should say they were the same. And it is not necessary to descend to such minute differences as this. The ordinary intervals on the musical scale hold good only for those whose sense is sufficiently acute to distinguish them. If a man with an imperfect musical ear were to assert that C and D were identical, there would be no means of convincing him of the contrary. The musical scale is merely an example of discrimination by comparison, which with many people has attained a high degree of fineness. It is not measurement. Differences in pitch have always been discriminated, but they were never measured before the discovery of their correspondence with a numerical scale of vibrations. Whether these vibrations are regarded as external or internal, in the air or in the nerves, is im-

material; their value consists in this; that they give us an exact arithmetical series which is valid for every one who can count. With their assistance it for the first time becomes possible to establish the corresponding series of musical tones on a basis which is independent of individual peculiarities.

The same considerations apply to scales of colour. There are many individuals whose colour sense is so keen as to enable them to arrange a graduated series of colours with a close approach to accuracy, but the gift is far from being universal, and colours can only be measured by a reference to rhythm in time or space. Intensity in colour is measured by a spatial series; what distinguishes a deep from a weak shade of the same colour is the amplitude of the waves. When the vibrations increase in rapidity, but remain the same in amplitude, the colour itself changes through the scale from red to violet, and the measurement is by time.

The main advantages which measurements have over mere comparisons are two. In the first place they detect minute differences which would otherwise be overlooked; secondly, where they are obtainable they are conclusive on all questions of objective fact. To take a simple illustration from measurements in space. Few men, if shown two rooms, one measuring 22 feet square and another 24 feet by 20, would be able to say with confidence whether they differed in area, and, if so, which was the larger. Measurement at once demonstrates that the area of the first exceeds that of the other by four square feet; and this is a decision which leaves no opening for doubt or appeal. Even when the unlikeness is much greater, the function of measurement is usually the detection of small errors of discrimination. A man judges that of two steeples one is twice as high as the other, and finds by measurement that one is 150 feet high and the other 320.

Estimates of temporal duration vary much more widely than estimates of space from the objective measurements, and the differences between individual judgements are sometimes very great. We will take the length of a sermon

as our illustration. When we say that a sermon is long or short, what we do is to compare it mentally with what we are accustomed to regard as the normal length of a sermon; we judge that its duration appreciably exceeds or falls below a period of (say) twenty minutes. That is to say we compare two unmeasured periods—our recollection of twenty minutes, and the duration of the sermon we have just listened to. Neither can have any approach to real accuracy, and the second is liable to extreme variations in different individuals, or even the same individual at different times. To one man, if it expresses views in which he is not interested, it may appear unendurably long; his friend sitting by him may have been interested, and he will say that it was short. Either judgement will have been true or valid for the man who gives it, but the discrimination will have been of weariness, and not really of time, and neither will be of any validity for a bystander, or, let us say, for the preacher. Though the judgement is no doubt one of duration, what we have calculated by is not the time, but the mental experience we have passed through in the interval. To a man who is momentarily expecting bad news, ten minutes will seem as long as half a century; to another, who is listening to fine music or noble oratory, hours will pass like minutes. If the mind is perfectly at rest there is no sense of time. Defects in point of exactitude are obvious. No one would pretend to decide, without looking at his watch, that the sermon he had just listened to had lasted so many minutes and so many seconds. In order to remedy these two defects, that is to say, to supply both universal validity and exactness, recourse must be had to measurement; that is to say, the number of rhythmical beats, or of subdivisions of space, that have passed between the beginning of the sermon and the end, must be counted.

But, however great the differences of estimate may be, they do not justify a denial of temporal quality to the subjective state. As long as consciousness subsists, it will be attended by some idea of a lapse of time, and when it is

neither excited nor depressed beyond its ordinary level, its estimates may closely approximate the measured time. If twenty men in ordinary health were completely isolated from one another and from the external world, like the translators of the Septuagint, or the candidates at a Chinese examination, and were asked at the end of (say) eighteen minutes, to record the exact time that had elapsed, a very large proportion of their answers would be right within a few minutes, though they would have had nothing but their subjective states as a basis for the estimate.

We may now proceed to apply these considerations to the question of the quantification of pleasures and pains; and we can hardly make a better beginning than with Mr. Rashdall's example of the bank clerk who was unable to decide between an addition of £50 a year to his salary and a reduction of his day's work by half an hour. It is clear that we are here dealing with a discriminative judgement of equality, and that there is no measurement. It is also clear that if measurement were possible, the judgement of equality would disappear, and with it the hesitation between the rival advantages. It is most unlikely that the mathematical equivalent of each would be exactly the same, and the clerk, supposing the measurement to be complete, and to cover all the subjective conditions without exception, would necessarily choose the pleasure which was represented by the highest figure, however small the difference might be. But what would really happen is this. Having no measurement to guide him, he would be unable to maintain the same judgement for any length of time. At one moment he will prefer the cash, at another the leisure, but the recollection of his previous contradictory preference will make him hesitate, until impatience, or the fear of losing both, forces a decision; and he will then select the one that is uppermost at the moment. Our experience of human nature will lead us to expect that, as soon as his decision has become irrevocable, he will repent it. When in health and high spirits, he will think he was right, but when depressed that he was wrong. A friend

disputes the wisdom of his choice, and there is no way of deciding the argument. Marking would not help him, as the number of marks to be assigned would be determined by no external standard, and would vary with every change of mood, and every individual. If, however, we had a tape or a clock or a thermometer, or some other instrument to perform for gradations of pleasure what those instruments do for space, time, and heat, hesitation, repentance, and dispute, would all alike be impossible. Even in the barely conceivable case of the exact numerical equivalence of two conflicting pleasures, the demonstration of complete indifference would justify the choice of either. The dilemma of the bank clerk seems to me to be typical of all cases in which we wish to ascertain the relative mathematical values of different pleasures. There is discrimination, no doubt, though it is not nearly so fine and so certain as in the case of simple ideas, such as those of musical pitch or colour, but there is no measurement.

For purposes of mere discrimination, pleasures may be graduated in two series, that is to say, either by their intensity or by their duration, and it is necessary to consider each series separately with reference to its ethical values.

It is possible that the feeling of intensity in pleasure may be analogous to the feeling of extensity which supplies the foundation of our ideas in space; but pleasures themselves are never in space, they can never be exactly located or described in terms of spatial dimensions. We cannot say whether the pleasure of listening to good music is 'in the heart or in the head', and we are quite unable to estimate it by yards or gallons. Direct spatial measurements are therefore out of the question. But we have seen that other intensities, such as the depth of blue in the sky, can be measured indirectly if a rhythm in time or space can be discovered which varies exactly with the variations of intensity. Such a rhythm for the measurement of intensities of pleasure and pain may conceivably be discovered in the organic processes of the body. But this discovery has not yet been made, and it is safe to say that, in the present

state of our knowledge, the intensities of pleasures are not measurable either directly or indirectly.

Even if the advance of science were to provide us with the means of recording a physiological rhythm which would serve as a standard for the indirect measurement of intensities of pleasure, it is not probable that, from the point of view of the moralist, we should be much better off than we are without one. What we require is a measure of the value at which we estimate pleasures, and it is easy to see that their value does not always, or even usually, depend on their intensity. If their intensity, as seems probable, varies with the degree of the nervous excitement that goes with them, and we assume that this would serve as the standard of measurement, the animal pleasures of sense would register a higher figure than those which are more distinctively human, and the pleasures of sense generally a higher figure than the pleasures of the intellect. We should obtain a measured scale of intensities which would directly contradict our comparative scale of values. The scale of values is regulated by some principle which is quite independent of intensity of feeling, and until we know what that is it would be useless to discuss the question whether it admits of measurement. Of intensities, all that can be said is that, if they are an element in value, and so much seems probable, it is one of subordinate importance. It has been asserted by high authority that all differences between pleasures are quantitative only, and that there are no distinctions of kind. This opinion is strongly opposed to our common sense, and even if it be true, it postulates a concept of pleasure which is purely abstract, and only ideally separable from other incidents, which are its invariable concomitants, and which are the real determinants of our preferences. This, it need hardly be said, amounts to a complete abandonment of the hedonistic position.

Another, and perhaps even more fatal objection, is this: there is no common scale of pleasures which holds good, even for purposes of comparison, for all human beings. The nature of each man's pleasures depends on the nature

of the impulses which make up his character. Nor is the character of each individual the same at all periods of his life; the pleasures of youth are not the same as those of manhood, or those, as the pleasures of old age. The boy prefers a pantomime, the old man a tragedy, and there are others who are not greatly interested in any form of dramatic representation. A measured scale of the comparative intensities of conflicting pleasures would hold good only for the individual whose feelings were the immediate objects of measurement; with no others would similar measurements yield exactly the same results, and in a large number of cases the divergencies would be enormous. A general scale of intensities compiled from the measurements of a number of individuals, would necessarily differ from the personal scale of each individual among them; and, if his object were the realization of his own greatest happiness, would mislead him. The same scale, practically applied in the pursuit of the greatest happiness of the greatest number, would exterminate the pleasures of the few, and fill their place with the pleasures of the many.

The main purpose, it may be presumed, of an exact calculus of intensities would be to furnish a safe basis, such as could not be impugned except by the detection of errors in the calculation, for a choice between two conflicting lines of conduct, each of which commended itself to the understanding. It would not be required when the conflict was between impulses of distinctly different ethical values. In those we should certainly trust our unaided subjective judgements, however decisive the figures might be against them. The certainty that truth is to be preferred to perjury is stronger than any that can be produced by mathematical demonstration. When, however, as is often the case, the competition is so close that the unaided judgement gives no certain award, measurement would no doubt be of use, were it not invalidated by the considerations that, even if we admitted pleasure to be the criterion, we should still have to supplement the intensities with other elements

of value; and secondly, that unless we knew (which would be impossible) the character of each individual to be affected by our conduct, the calculation would still be inexact. The second difficulty would be a fatal obstacle to the construction of any general scale of pleasures valid for humanity generally. A numerical valuation, for example, of the pleasure derived from bullfights, which was based on an average of the figures for Spain and the United States, would be glaringly inapplicable to both countries. Each people would still continue to guide their conduct by their subjective estimates of value, and if, rejecting these, they preferred the results of the mathematical calculation, they would be wrong; that is to say, they would both fail to attain the greatest possible amount of pleasure. The calculation would, no doubt, advance a claim to scientific authority, and, if this were admitted, to the detriment of common sense, the tendency would be to reduce the estimates of both nations to a common level. If, for the purposes of the argument, bullfighting be regarded as one of the less elevated forms of enjoyment, the level of pleasure would be raised in Spain and lowered in the United States.

The proposition that pleasures may be summed by duration, that is, by temporal measurement, is less obviously open to question. We attribute duration to pleasurable states, and when we correct our estimate by measuring the time between the commencement and the end, the operation is as distinctly one of measurement as when we measure the depth of a colour or the temperature of our bath. No reference to objective circumstances is necessary, though it may be convenient. It does not affect the essential nature of the operation if, instead of taking the beginning and the end of the pleasurable state in itself, we substitute the time for which we have occupied our chair, or the time between the first note and the last of the symphony we have been listening to. Those may be useful adjuncts, but they are no more indispensable than the starter's pistol is to the time measurement of a footrace. In fact,

neither they nor the pistol are to be relied on as giving, with scientific accuracy, the limits of the time.

The duration, then, of pleasurable states differs from their intensity in the circumstance that it does admit of being measured. But the advantage is only apparent. In the first place, our knowledge of the exact temporal limits gives us no more information about the nature of the mental state contained between them than the area of a sheet of paper does of its colour or its weight. Nor does the clock tell us more about the worth of a pleasure, unless it is supplemented by exact figures for the values and intensities, than it does of the velocity of a train, apart from measurements of the distance traversed. In the computation of pleasures the most essential factors are always estimates, and a total result in which any one of the factors is that is itself nothing better. An allied difficulty is that it is impossible to ascertain whether the same degree of pleasurable feeling has been maintained without fluctuation from the beginning to the end of the period.

A still more fatal weakness in the time measurements of pleasures is their wholly incalculable divergence from our subjective estimates of the same periods. This general liability to difference between the estimates and the measurements of temporal duration has already been noticed; it is never so great as when the interval has been filled in with pleasure or pain in any degree of more than usual intensity. 'If we go for a walk, and ask ourselves at any moment how long we have been walking, we can say immediately, without any explicit process of calculation, that we have been about an hour, or about half an hour.'[1] Even in this case, where our mental history has been about normal, both as to intensity of feeling and rate of change, 'the limits of error are very wide.' The error may be incalculably greater when what we have passed through is an extremity of pain or pleasure. The highest degrees of both of which we are susceptible fade into unconsciousness, and are destitute of any sense of duration. Ecstasy,

[1] G. F. Stout, *Manual*, 387.

or deliverance from the world of time or space, has been adopted in common speech to denote an extreme intensity of joy; it is this fact that accounts for the beautiful tale of the monk and the bird of Paradise, and for the hope of thousands who see in the beatific vision, when eternity will be as a single moment, their highest and most perfect conception of bliss. At the moment when the pleasurable state becomes less intense and less pure the consciousness revives, and with it the rudiments of a sense of duration; but hours will still pass as minutes, and it is only when the conscious feeling of pleasure is at its lowest level that the sense of duration begins to make any approach to the measurements of objective time.

Pains, though they agree with pleasures in starting from and ending in unconsciousness, in their progress between the lowest and the highest grades of intensity, differ in this, that their tendency is to protract, and not to abridge, our subjective estimates. The more severe the pain, the longer will be the period given by our sense of duration for the same measured interval. This is equally true whether the pain be of the mind or the body, remorse or ennui, or the tortures of the sick-bed. All add lead to the feet of time.

When we consider their duration in the light of a guide for our selection between different pleasures or different pains, or, as would be a more usual case, between aggregates in which both pleasures and pains were represented, we encounter problems of considerable difficulty. Mr. Rashdall doubts whether timeless pleasures have ever been the objects of desire; but the joys of eternity are certainly timeless, and, if those be ruled out of court, we have seen that the pleasures of this life that are highest in value most nearly approach them in timelessness. Neither subjective duration nor time appears to be a necessary element in our valuation. When, however, our choice is between the subjective sense of duration and objective time, there can be no doubt as to which we shall be determined by. What we value is the duration as it appears

to us, and not the time as measured by the clock. When a man has been released from the rack after torments of seemingly endless duration, it is no consolation to tell him that they had not lasted quite ten minutes. It does not affect my enjoyment of a fine speech to learn that it was three times as long as I had thought it. Time measurements are as useless for the purposes of hedonic calculus as measurements of intensity would be were those obtainable.

There is one more point which remains to be cleared up. Professor Mackenzie urges that a 'sum of pleasures is no more a pleasure than a sum of men is a man'. For pleasures, 'like men, cannot be added to one another.' In one sense this is true. The combination of two pleasures which occur simultaneously in the same state of consciousness cannot even be compared, in the same sense as the aggregate of two unmeasured quantities may be compared, with either of the factors separately. The result is a state of feeling which is entirely different from the feeling produced by either when it occurs separately. It may be more or less pleasurable than either, or not pleasurable at all. Good music or a good speech will produce intense pleasure, but, when the two occur at the same time, the feeling, instead of being pleasurable, is one of extreme discomfort. The intensity of a combination of pleasures has no fixed ratio to the intensity of either apart from the other. When, however, the two pleasures occur separately at different times, there is nothing to prevent our comparing the aggregate of the two with either separately. It is quite true that three men do not make a giant, but when they are acting in concert they are more likely to impose their will on others than each man by himself. An army is more powerful than a single individual. In the same way the prospect of a multitude of pleasures, though each be of low intensity, may have a stronger influence on conduct than that of a few of a much higher grade of persuasiveness. A man may reasonably prefer the music of a moderately good amateur all the year round to a single first-class

performance of the *Messiah*. Similarly, when we say that we would sooner hear a good sermon on Sunday, and a good symphony on the day following, than either without the other, we are pronouncing a perfectly sound and intelligible judgement. If, however, we say that we prefer both at the same time, we are talking nonsense; there would then be no aggregate of pleasures, but a single disagreeable feeling. There is nothing in the summation of pleasures that remotely resembles the addition of one bucket of water to another in the same tank; but there is what may be compared in some respects, but not all, with the addition of a second bucket of water to soil which has already received one. The difference in the second case is, that the cumulative effect may be measured, while with pleasures, though equally real, it can only be estimated, and not measured.

The question of the summation of pleasures is usually discussed with reference to the concept of an empirical *summum bonum* as the end of action. Professor Green argues: 'To say that ultimate good is a greatest possible sum of pleasures, strictly taken, is to say that it is an end which for ever recedes; which is not only unattainable but, from the nature of the case, can never be more nearly approached; and such an end clearly cannot serve the purpose of a criterion, by enabling us to distinguish actions which bring men nearer to it from those that do not. Without such reference,' (i.e. to a *summum bonum*), 'is there any meaning in approval or disapproval at all?'[1] Surely there is. All appreciations, whether ethical or other, start from a minimum, and not from a maximum. Like number, they all proceed in a series which may be produced to infinity. This is equally true whether our appreciation has a mathematical counterpart or not. Three is more than two when compared with one, but not when compared with infinity; a mile is longer than a furlong when compared with an inch, but not when compared with the distances of infinite space. The mere fact that we are unable to subtract degrees of pleasure from a hypothetical

[1] Quoted by Mr. Rashdall, p. 359.

maximum in no way impairs our power of approving or disapproving of actions which fall within the jurisdiction of the moral sense. We could always compare the result with the lowest unit of pleasure, were units of pleasure obtainable.

We have seen that, in order to measure pleasures, we require units, not only of intensity and duration, but also of some other quality or qualities, the nature of which is still unknown; that the only units we have at our disposal are those of objective time; and that those are useless for the purposes of ethical theory. Whether this constitutes a fatal objection to theories which make pleasure, in some form or another, the end of action is a question which cannot be decided except after a comprehensive survey of the application and functions of measurement generally; and upon this we now propose to enter. All we are entitled to say, as yet, is that we have no means of measuring pleasures, and that they cannot, therefore, be arranged in a scale having universal objective validity.

Up to this point we have been engaged by the question, Can pleasures be measured? and we have decided that they cannot. The further question: Is this disability fatal to the claims of hedonistic theories of morality? involves a much more extended survey of the relations of measurement to knowledge generally. The first result of such a survey will be to show us that the line of cleavage which divides things that are measurable from things that are not, coincides with the line which divides the external world from ourselves. Temporal duration, dimensions, distances, heat, hardness, weight, sound, colour, taste, and scent—qualities which we attribute to objects in the external world—are either measurable already, or, if, as in the case of taste and scent, a method of measurement has not yet been discovered, there is every reason to suppose that it is discoverable. On the other side, we have pain and pleasure, emotions, sensations, thought, and will, qualities which we attribute to our personal selves; and these we neither

can measure nor have any reasonable hope of being able to. Any discussion of our right to believe in, or assume, either an external world or a personal self would be entirely beside the point; all that is required for the purposes of this essay is that, rightly or wrongly, we do actually make the above attributions. It is true that before we can know anything about subjective phenomena we must regard them as objects, and that, when regarded in that light, they cease to correspond with the actual personal experiences of the individual; but, none the less, they retain their distinctions against objects of thought which are attributed to the external world; and that distinction is not merely one of attribution; there is, beyond that, the important practical distinction of being or not being susceptible of measurement. Or if, as I am inclined to think, it should be conceded that the temporal duration of mental states admits of objective measurement, the results, for reasons already given, are of no value, either in theory or in practice.

There is one group of ideas which escapes a classification based on popular attribution. The parts and organic processes of the body, and especially the nervous system, are sometimes identified with, and at others opposed to, the self. In common opinion the body is usually regarded as a partner with the soul in the individual personality, and destined, in some form or other, to share its immortality. When the body is hot, we say that we are hot, and the attribution, whether right or wrong, is distinctly subjective. Contemporary psychology describes the self as a highly complex manifold, made up of the body and its parts, of thoughts, and of feelings, and tells us that the boundaries of the self are the surface of the body.[1] By some the connotation has been so widely extended as to include our children and our clothes, and all our intimate belongings.[2] On the other hand, the distinction between the body and the soul is universally recognized in popular opinion, and only the latter is regarded as the true self. One is mortal, the other

[1] Avenarius in Münsterberg, *Grundzüge*, 23.

[2] James Horwicz, quoted by W. James, *Psych.* i. 326.

immortal; one burdens and impedes the other; they are not only distinct, but enemies. The Stoic classed the body with possessions, honours, offices; and distinguished it from the understanding and the will, the desires and the aversions, as being something independent of ourselves.[1]

It would be beside our purpose to inquire which of these views is correct. That there should have been any question to decide is due to the fact that the bodily states hold a peculiar position as mediators between the external world and the thinking and feeling subject. They are the necessary channel through which the whole of our knowledge of external nature must flow, and may be regarded as subjective in relation to our knowledge, and objective in relation to the thing known. 'The body is directly identified with the self only as far as it is the instrument of sense perception. But one part of the body may be perceived by another part; the eye may look at the hand; in this case the hand as seen belongs *pro tanto* to the not-self; the eye, as instrument of perception, to the self.'[2] What concerns us here is, first, that all our knowledge of the parts of the body is derived from them when they are dealt with as objects. Of the eye, for instance, merely as an instrument of perception, we know nothing, until it has been perceived in others, or in a looking-glass, or manipulated by ourselves. And, secondly, that, as objects, they resemble the objects of thought which we attribute to external nature in the points in which those differ from the objectified attributes of self. That is to say, they are patent to the observation of outsiders; they may be examined under a microscope; they have definite spatial and temporal relations; and, when any difference of opinion arises as to their exact nature, it can be settled by experiment and measurement. When, therefore, in this essay, we distinguish between subject and object, they will be included under the latter term.

In coming to this decision it is nevertheless necessary to remember that, not only in the whole body of living

[1] Epictetus, *Manual*, I. 1.
[2] Stout, *Manual*, 321.

creatures, but in each one of the innumerable cells by which it is constituted, there is found a factor which is absent from all the other objects of external nature ; that is, life. In primitive thought life has usually been identified with the soul, or principle of personality, and it is still quite uncertain whether it ought to be reckoned among objective phenomena, or as something independent.

Our next step in tracing the general relations between measurement and knowledge leads us to a consideration of what is known as the law of causation, in those of its aspects in which it is affected by the distinction we have drawn between these objects of thought which are, and those which are not measurable ; or, what is the same thing, between ideas which we attribute to the external world and those which we attribute to ourselves.

That the belief that fire burns is instinctive, and not acquired by repeated experience, is now generally admitted. It is as perfect at first, and upon one instance, as after ever so long a course of experience. Indeed, if it were otherwise, the belief would have been of very small value in the struggle for existence. All but a very few of the pupils would have been killed or maimed in the process of learning the lesson. Its origin may be conjectured with perhaps as great an approach to certainty as that of any of the primitive tendencies of the mind. The same belief may be inferred from the actions of animals in all grades of evolution. A puppy has been beaten ; the next time it is threatened, the idea of the previous beating is recalled, and is associated with the pain which accompanied it. It begins to whine, or tries to escape, in anticipation of a punishment which perhaps is never inflicted ; and its actions are determined by an unconscious belief in the law of uniform sequence. When a moth returns many times to the candle, the most probable explanation is, either that it altogether forgets its previous acquaintance with the flame, or that its faculty of association is too feeble to connect in memory the damage it suffered with the flame which occasioned it, and its actions are without the guidance which a sense of the law would

give them. Human actions would resemble those of moths, if men required experience many times repeated before they arrived at the general belief that fire burns. Fortunately for them, they can both recollect a single experience, and associate with its idea the ideas of the concomitant sensations and feelings. This primitive belief, or feeling, when it becomes fully conscious, is found on analysis to be resolvable into two essentially distinct propositions — one, that when on a future occasion fire is touched, a burn will ensue ; the other, that it is the fire that causes the burn. The first is in the nature of a prediction ; the second, of an explanation. The first is, as we shall see, the law for all objective ; the second for all subjective series.

No doubt, the frequent repetition of the same sequence tends to strengthen our belief that it is invariable ; that is the result of summation of stimuli. But the more common and by far the more important function of experience is not to confirm, but to contradict. It is experience that shows us that our crude belief that like follows like is as often wrong as right, and compels us to examine the ground on which we affirm its applicability to any single instance. A man opens an egg, and finds it pleasant to scent and taste ; he then opens another, and expects it to have the same properties, but is disappointed. His belief receives a shock; but chance shows him that some eggs float, whereas others sink; and this discovery, if used as the clue to experiment, leads to the further discovery that all eggs that float, if not equally well-flavoured, are at any rate eatable. He thus finds that his mistake lay, not in his general belief that like follows like, but in the supposition that all eggs are alike. Further experience, supplemented by the artificial experience which we call experiment, enables him at last to frame a general definition of likeness. In order that the result he expects may follow from a given fact, all the conditions of that fact, except its position in time and space, must be the same as those of the instance on which his expectation is based. Moreover, in order to state his law, he must define the result with similar exactness. It is not until he

has done this that he has a right to say that on any subsequent occasion, when the same fact recurs, the same result will ensue. This is the most valuable of the modifications which are contributed by experience to the instinctive belief. With its assistance we are enabled to distinguish causal propositions which are true, and weed out those which are false. It compels us to suspend our judgement in all cases where the likeness, or exact similarity, has not been demonstrated for both terms; when it has been, a single instance, as in the case of chemistry, is sufficient for a complete induction. Here we find the explanation of Mill's difficulty. A single perfect instance is always sufficient for an induction. If we want more, it is only because the individual instances are imperfectly defined, and we have to eliminate differences. Inductions from the enumeration and comparison of instances are nothing but imperfect and temporary expedients in cases where our knowledge of the subject-matter is not yet so exact as to enable us to define our terms with sufficient accuracy. They are especially useful in biology, where the little understood principle of life contributes an irrational element to all our calculations. Now the only means we have of making this demonstration is by measurement. Exact similarity is predicable only of ideas that are measurable, that is to say, of ideas attributed to the external world. When we say that two things are exactly alike, what we mean is that, in respect to the characters compared, both correspond to the same number of rhythmical beats. We have no other idea of exactness. Mathematical exactness is attained only when the beats or intervals are treated as pure abstractions, that is to say, as neither in space nor in time. When, in the case of concrete objects, we say that the likeness is not exact, we mean that if the intervals were reduced, and the rhythm quickened, the numerical coincidence would disappear, and one object be represented by a higher number than the other. And this process of reduction cannot be carried beyond the point when the rhythm would merge into a continuum, and cease to be an implement of measure-

ment. But subjective states are not measurable; exact similarity is not, therefore, demonstrable with regard to any two of them, and it is impossible to bring them under the law of uniform sequence. Moreover, as, in order to the establishment of any proposition under that law, both terms must be defined, they cannot be predicated either as cause or effect in any proposition of which the other term is an event in the external world; or, rather, if so predicated, we cannot conclude that the sequence is invariable, any more than we can conclude from the observation that even a large number of eggs are good that all eggs are good. It should be added that the measurements of objective states are as exact as our practical demands require them to be. They enable us to predict the future with a fair degree of certainty; and this is all that we ask of them.

Impossibility has been defined as 'that, the truth of which would conflict with a complete induction, that is, with the most conclusive evidence we possess of universal truth.'[1] But this seems to overlook the fact, which is elsewhere fully recognized by the author, that even the best established inductions are in a sense hypothetical; that is to say, they hold good only in the absence of causes which may have hitherto escaped our notice, or which (such as an unknown comet) have not yet entered the field of our experience. When the possible existence of unknown disturbing causes is recognized, it will be seen that there is no known induction which may not be contradicted without any interference with the general law that like follows like. The introduction of fresh matter alters the terms of a proposition but does not affect the validity of the law by which it is tested. In order that that law may be contradicted, it would be necessary to show that from a single perfectly defined antecedent, or from two which were exactly alike, one effect has followed at one time or in one place, and another differing effect at another. We should then, and only then, find a real contradiction to the law of uniformity, and this, if compliance with that law is the sole

[1] J. S. Mill, *Logic*, III, xxv. 3 (note).

condition of truth, is an impossibility. Even if the experience were repeated a million times over, and vouched for by unimpeachable testimony, we should still be obliged to reject it as either a fraud or an illusion.

There is thus no mystery in the observation that a single sequence in which both the antecedent and the consequent have been perfectly defined is all that is required for the establishment of a derivative law under the general law of uniformity. The function of the rules of induction is the discovery of sequences of this kind, that is in which both the factors are exactly defined, and this function can never be performed in such a way as to exclude all chance of error, without the assistance of mathematical analysis.

It is true that to speak of the elimination of all chances of error is an exaggeration. In external, as well as in internal nature, no two facts are exactly alike, and the law of uniformity itself is only true as an abstract formula. But it serves our purposes, and is the only guide we have for the prediction of future events. The certainty of our predictions is so vastly superior in respect to that kind of facts which admit of mathematical analysis, that we are as much justified in erecting them into a separate class, and distinguishing them from other facts which do not admit of mathematical analysis, as we are in distinguishing plants from animals, notwithstanding our inability to lay down an exact line of demarcation. To the second class, that is to say to all the facts of our subjective nature, this test of possibility is manifestly inapplicable, and, if we require one, we must seek it elsewhere.

The second of the two propositions that have been evolved from the belief that fire burns is, that the fire causes the burn. Into the voluminous discussions of which this proposition has been the centre it is not necessary to descend. We will only state shortly our own conclusions. An excellent account of its origin is given by Cardinal Newman in the following passage:—

'The assent that we give to the proposition, as a first principle, that nothing happens without a cause, is derived

in the first instance from what we know of ourselves, and we argue analogically from what is within us to what is external to us. One of the first experiences of an infant is that of his willing and doing; and, as time goes on, one of the first temptations of the boy to bring home to himself the fact of his arbitrary power, though it may be at the price of waywardness, mischievousness, and disobedience, and when his parents, as antagonists of this wilfulness, begin to restrain him, and to bring his mind and conduct into shape, then he has a second series of experiences of cause and effect, and that upon a principle or rule. Thus, the notion of causation is one of the first lessons he learns from experience, that experience limiting it to agents possessed of intelligence and will. It is the notion of power, combined with a purpose and an end. Physical phenomena, as such, are without sense; and experience tells us nothing about physical phenomena as causes. Accordingly, whenever the world is young, the movements and changes of physical nature have been and are spontaneously ascribed by its inhabitants to the presence and will of hidden agents who haunt every part of it, the woods, the mountains, and the streams, the air, and the stars, for good or for evil.'[1]

In this belief, resting, as Cardinal Newman says, on an inference by analogy, we find the fruitful germ of all early mythologies. When Patroclus was to die, it was the sun-god that loosened the clasps of his armour. At first it is the regular processes of nature that are personified; only at a later stage are supernatural agencies detached from the events they were identified with, and endowed with the power of altering their course. The earlier stage is characteristic of the *Iliad*, the later of the *Odyssey*.

In other words, the notion of force, or causality, is produced in the mind by the effort to resist constraint or overcome an obstacle, and is the invariable accompaniment or antecedent of every voluntary act. Actions that are produced automatically, and in the absence of resistance, are not accompanied by the feeling of power, or force, or causation. The attribution of causal energy to events in the natural world is a survival of the old propensity to personify them, in its

[1] *Grammar of Assent*, p. 63.

earliest stage, and before the age of miracles has set in.[1] When we speak of physical causes, we ascribe to the processes of nature a human will, a thing which, though it invariably precedes conscious action, is not known or discoverable outside of its sphere. It is in obedience to this propensity that when a natural philosopher requires a general term to cover different modes of motion or rates of acceleration he has recourse to the words force, or energy, or 'laws' of nature.

The distinction between events that can be measured and those which cannot is clearly suggested in the German words Thatsache and Ursache. All the events in the external world are mere facts, of equal value as links in a chain which stretches backwards and forwards into infinity. No one of them can be called a primary fact, but each is an effect if interpreted with reference to its antecedent, and a cause with reference to the event that follows. In the subjective world, on the contrary, every subjective event, if regarded with reference to the event that follows it, is a primary fact, an Ursache, or cause. Our curiosity does not tempt us to go back, nor could we if we wished; merely because we have no means of obtaining exact definitions. Every cause, in the scientific sense of the word, is also a result, and the concept of a first cause is essentially anthropomorphic and teleological. It must, therefore, be justified by a purpose. But it is useless for the purposes of religion, as a cause which has retired finally from active business cannot serve as an object of worship. Ethics, as a branch of inquiry, begins with the assumption that the individual man is the cause of his own actions. It regards man as an Ursache, and never as a Thatsache. Directly we look backward, and attempt to bring the individual as an agent into the line of invariable sequence, we contradict the first assumption of our inquiry. If we succeeded, we should extinguish ethics, and substitute in

[1] 'On dit, par exemple, du nitrate d'argent qu'il est sensible à l'action de la lumière, et de la lumière qu'elle est sensible pour le nitrate d'argent.'—Dumont, *Sensibilité*, p. 23.

its place a branch of natural science. But success is impossible, at any rate with our present implements of thought. These considerations are, I think, fatal to the special claim which is sometimes set up for hedonism, that it may be distinguished as a scientific system from other theories of ethics. At the same time they are equally fatal to similar claims on the part of any other system. No theory of human conduct is, or can be made, a science, because the subject-matter resists the application of scientific method. A refutation of hedonism must rest on other grounds than the demonstration that pleasures do not admit of measurement. That is a feature which pleasure has in common with all other ethical standards.

If we left the matter here, we should have stated only a half-truth, and that half which, in a stage of thought like the present, when an exaggerated value is attached to scientific demonstration, is, if not the least important, at any rate the least necessary to insist upon. It is incumbent on us to consider how this want of exactness, which is common to all subjective inquiries, affects their value, whether practical or speculative; that is to say, the value of their effects, and the certainty with which they impress us.

Certainty, to begin with the second question, differs not only in degree but in quality. It is, I think, a material oversight to regard knowledge and belief as merely different degrees of the same feeling. Religion, when it distinguishes between faith and conviction, does not assert a mere difference of degree, and still less that articles of faith are less cogent than articles of conviction. It points to a distinction which runs through the whole realm of thought, which is often independent of intensity, and which a careful examination of our use of the terms will show us to be intimately connected with the distinction between objective and subjective series. That our common use always coincides with this division cannot be asserted, nor could invariable consistency be expected in so abstract a matter, but the distinction is usually observed. We do not speak of our belief that the angles of a triangle are equal to two right angles; that

is a matter of mathematical demonstration, and our mental attitude is knowledge. The same may be said of Galileo's conviction of the truth of the Copernican theory. All knowledge is, indeed, based on beliefs, and on beliefs which vary in strength as they are brought nearer to knowledge by the continued application of the method of agreement only. The belief in the efficacy of a drug is greatly strengthened by repeated experience of its good effects, but it remains an empirical belief until converted into knowledge by scientific demonstration.

When we turn our attention to subjective beliefs, we find neither the same progress in certainty nor the same culmination. Whether experience has any effect in strengthening them is a question which we need not consider, but it is plain that they can never become knowledge, for the reason that scientific demonstration, which is the condition of knowledge, is unattainable. This, however, does not prevent our holding them with the same degree of certainty as if they were scientifically proved. Moreover, all knowledge is ultimately based on belief, that is to say, on the evidence of our senses. Seeing is believing: we believe in the existence of a tree, but we have no knowledge of it. Again, by far the greater part of our knowledge is dependent on belief in another way. Most of us, if we know that the earth goes round the sun, know it only because we believe that the authority from which we learn that it has been scientifically demonstrated is at the same time truthful and competent. As Hobbes says, 'He that takes up conclusions on the trust of authors, and doth not fetch them from the first items in every reckoning, does not know anything, but only believeth.'[1] The relative degrees of certainty with which knowledge or belief appeal to us is a point which is determined partly by the original constitution of the individual mind, and still more, perhaps, by its training. Women are more strongly impressed by beliefs than men, and men with a highly developed moral or religious sense than others who are not similarly endowed; but there are

[1] *Leviathan. Of Man*, III. 35 (Molesworth's edition).

few who will not admit that the belief that corrupt perjury ought to be condemned is at least as certain as any article of knowledge; or would give it up in favour of a scientific demonstration, were one possible, that the guilty person is no more a just object of blame than the wind or the clouds.

The effects of training and imitation are most strikingly and unmistakably shown in the great waves of thought which pass over human societies. If one age is essentially scientific and another essentially religious, it is not because the individual minds are differently constituted, but because men have been accustomed, either by purposive training, or by observation of their fellows, in the first to attach the higher value to knowledge, and in the second to beliefs.

The practical or teleological distinction which divides articles of knowledge from articles of belief is that the former enable us, within their own sphere, that is, within the limits of the external world, to predict the future; whereas the others do not. Should it be objected to this assertion that it is too sweeping, and that we actually do predict events in the subjective world, such as the intentions and actions of ourselves or of our friends, it is at any rate safe to say that, while objective predictions are of the highest degree of certainty, and hold good for a remote future, the others are never more than probable, and not even that beyond very short periods of time. The reason is that in objective problems, where science is sufficiently advanced, we can always give an exact account of, at any rate, a considerable number of factors, and often of as many as we require for the purposes of prediction; whereas in subjective problems we can never give an exact account of any single factor; we have nothing but personal estimates. 'Those precise definitions which ensure to every word the same exact signification in the mind of every one who hears it pronounced'[1] are wholly wanting, and without them we can formulate no law which has objective validity.

For our present purpose events may be arranged in the following classes. In the first are those in which our pre-

[1] T. Brown, *Philosophy of the Mind*, i. 93.

dictions are absolute, as well as certain and exact, such as the movements of stars and comets, eclipses, and facts like those of astronomy, which are beyond the reach of experiment. In the second may be placed the weather and other events which are both objective and beyond the reach of experiment, but of which, as our knowledge of the factors is not exact, we can make no certain predictions. A third class is constituted by events in regard to which the predictions, though certain and exact, are hypothetical; that is to say, depend on some condition which is not certain. This class, again, may be subdivided according as the condition is objective or subjective. We may say that if at any time the atmosphere has attained a certain heat, the thermometer will mark so many degrees; or we may say that if a man puts a match to gunpowder it will explode. In the first, the condition belongs to the unexplored branch of objective science; in the second, it is a subjective element. If our knowledge were sufficiently advanced, we should be able to predict for an indefinitely remote future the exact moment when the thermometer would mark the given number of degrees; but no advance in psychology, on its present lines, would enable us to predict the explosion. Many of the predictions of chemistry and other experimental sciences are hypothetical, in the sense that they are never realized except by the intervention of some unaccountable element in the cause; a sense which, it need scarcely be pointed out, is quite distinct from that in which the word is applied to laws, like those of astronomy, which will always be realized, unless some element, hitherto unaccounted, should supervene.

Finally, there remains the large class of events of the most urgent interest to ourselves, in which the factors are either wholly subjective or alternately objective and subjective. To these belong religion, ethics, art, history, law, and politics, and, in short, the whole philosophy of human nature.

The history of science has been the record of the gradual reduction of objective events to series under the law of uniform sequence, and the consequent enlargement of our

fields of prediction, whether absolute or hypothetical. In the course of this history, innumerable events which were at one time regarded as causal agencies have been removed from that class, and transferred to the invariable series in which the links are not properly distinguished as either causes or effects. The stars and the winds, famine, disease, and pestilence, to take only a few instances, had all been worshipped as independent powers, and propitiated by ceremonies and sacrifices which would be unmeaning if addressed to beings devoid of personal volition. Some of these have already been brought under scientific law, and for all there is the strongest presumption that, being events in the external world, they will sooner or later submit to a similar reduction.

Nothing of the kind can be said of the history of subjective thought. Even now no single event can be predicted, with the same degree of certainty, in the life either of the race or of the individual. The impediment lies, not, as is often supposed, in the greater complexity of the material, but in the impossibility of reducing it to exact measurement, an impediment which would be equally insurmountable were the material simple instead of being complicated. Nor is it for want of endeavour. The natural sciences themselves have not engaged an attention more strenuous and sustained, from the highest intellects in all ages, than has the science of human conduct; and, though our beliefs on that subject have gained greatly both in depth and in precision, it is no nearer reduction to a scientific form than it was before the birth of Socrates. No single general law like those of mechanics or chemistry, has been raised above the level of discussion, and the last attempt, to establish one on the basis of utility, is certainly not an exception. So striking has been the want of success that it seems improbable that the power of prediction should ever have been claimed in the case of subjective phenomena, unless the distinction between the two classes had been overlooked, and the achievements of natural science been carried to the credit of a common account.

The same inability to predict the future runs through all branches of subjective inquiry, and extends to all periods, near or remote. Whether it is the race, or the nation, or the individual; the effects of legislation or variations in taste; we are equally unable to trace with any approach to scientific accuracy what will be the facts at any future moment, near or remote. 'We need feel no surprise that, in their efforts to cure specific evils, legislators have continually caused collateral evils they never looked for. No Carlyle's wisest man, or any body of such, could avoid causing them. . . . On all sides are well-meant measures producing unforeseen mischiefs—a licensing law that promotes the adulteration of beer, a ticket-of-leave system that encourages men to commit crime, a police regulation that forces street huxters into the workhouse. And then, in addition to the obvious and proximate evils, come the remote and less distinguishable ones, which, could we estimate their accumulated result, we should probably find even more serious.'[1] The acutest intellect of his time warned the nation, a century and a half ago, that national bankruptcy, either voluntary or enforced by conquest from abroad, was the certain consequence of public debt, and that the event, which was not even then very remote, might be foreseen by reason almost as clearly as anything that lay within the womb of time. 'In order to deliver such prophecies as these, no more is necessary than merely to be in one's senses, and free from the influence of popular madness and delusion.'[2]

Forecasts of the ultimate end of humanity are free from the wholesome restraint of a test by events, but discredit one another by their bewildering contradictions. One assures us that it is the complete subordination of the individual to the state; another that the state will continue to exist only in so far as it serves the interests of the individual; another tells us that the end towards which history necessarily moves is the consciousness the human spirit has of

[1] H. Spencer, *Westminster Review*, July, 1853 (Over Legislation).
[2] Hume, On Public Credit, *Essays*, I. 374. (Green & Grose.)

its freedom, and, with this consciousness, the reality of freedom itself; another promises us a Church which will subject all speculative minds to a coercive discipline and forbid the examination of the principles universally accepted as the basis of thought and action. Each of these is supported by the highest authority, and there are many more. Proof and disproof are equally impossible, and the appeal is really not to our reason, but to our prepossessions. *Redeunt Saturnia regna.* The time is not far distant when we shall beat our swords into ploughshares, and repose in the sunshine of universal peace.

It is in our asserted power to predict the actions of individuals that the advocates of the universality of the law of uniform sequence find their favourite argument; and nowhere, perhaps, is the weakness of their claim more conspicuous. No doubt we find a great uniformity among the actions of men in all nations and ages; the same motives, such as power, wealth, or pleasure, usually, but far from always, are followed by similar results; and a study of the temper and actions of the French and English would make a man better qualified to understand the sentiments, inclinations, and course of life of the Greeks and Romans [1]; but it is equally plain that the correspondence is rough and inaccurate, and that expectations which are built on no firmer foundation are liable to frequent disappointment. Our intellect, as an instrument of prediction, has gained next to nothing from the advance of science, and is little, if at all, better now than it was at the dawn of history. New problems emerge as fast as the old ones are solved. A savage or an infant is a better judge of character than a closet philosopher. We are still in what corresponds to the prescientific stage, and predict the actions of a man with at the best, no stronger assurance than we predict a frost in January. A man of known bravery may show fear, and a timid man courage. However well we may be acquainted with a man's character, what his behaviour will be under certain conditions can only be foretold with some

[1] Hume, *Essays*, II. 68.

degree of probability. Any near approach to mathematical certainty is not to be hoped for.

It may be objected that in statistics, at any rate, we find a safe basis for prophecy; we may be confident that the same numbers of crimes, of births, deaths, and marriages which have been ascertained for past years will be repeated with substantial accuracy in the near future. The mere statement of the claim carries with it the answer. The predictions are never exact, nor do they apply to distant ages. Moreover, they have a further limitation. They are applicable to large aggregate numbers only; for smaller numbers, and, still more clearly, for individuals, they are of no value whatever.

It may be thought superfluous to spend so much pains in insisting on distinctions which are so obvious and so incontestable. The frequency with which they are overlooked is a sufficient excuse. The most influential of English thinkers in the nineteenth century regards it as a popular error to hold that 'speculations on society and government, as resting on merely probable evidence, must be inferior in certainty and scientific accuracy to the conclusions of what are called the exact sciences, and less to be relied on in practice.'[1] A still greater thinker assures us that 'if, as some believe, this world consists of a finite number of atoms moving in obedience to the laws of mechanics, it is certain that a finite intellect might reach a height whence it could grasp all that must happen at any specified moment, and predict it with mathematical accuracy. It could, moreover, construct a body that would repeat the actions of a man.' And the realization of this aim in some remote future still remains the favourite dream of natural philosophers. We are tempted to transpose the terms in a sentence of Bacon's, and exclaim: 'Quantum agmen idolorum philosophiae immisit humanarum actionum ad similitudinem naturalium operationum reductio!'[2] The confident belief in a future when the

[1] J. S. Mill, *Logic*.

[2] De augmentis, I. v. cap. iv,

kingdom of science will be universal would be inexplicable were it not fostered by two among the strongest interests of the human mind, one theoretical, the other practical, and to this circumstance may be traced the hold that it has on thinkers and laymen alike. To the first it is recommended by the passion for unifying all knowledge under one general principle ; to both alike by the craving to pierce the veil of the future. It is accepted because it is welcome. The mind is prepared to observe all evidence that is in its favour, and overlook all that tells against it. In another age the case may be different. When religion is the centre of interest, the direction of the mind is reversed, and it will then be attracted chiefly by events that are opposed to scientific expectations.

This is all that occurs to me to say on the claims of ethics to be regarded as a science. Theories of conduct agree with all subjective, and differ from all objective speculations in this characteristic, that they do not admit of measurements. They are, therefore, inexact, and this want of exactness precludes the application of the law of uniform sequence. It follows from this that all their legitimate problems are in the present. The future is a closed book to them, and must so remain until some intellectual revolution brings subjective facts under the same laws of method as the facts of external nature. Of this achievement there is no present prospect, and any presumption that may be based on the past history of thought is altogether opposed to it. The term science has been appropriated to the knowledge of nature. When we talk of a science primer, or a scientific man, we do not usually mean a treatise on ethics, or a divine, or a political philosopher; and to extend its connotation beyond these limits is to overlook the most important and general distinction that can be drawn between one branch of knowledge and another. It is sure to lead in the future, as it has led in the past, to a large and deplorable accumulation of error and confusion. Nevertheless, in denying to subjective knowledge the title of exact science, we affirm nothing to its disparagement. Its beliefs are

often as strong, and its investigations at least as necessary to our welfare, as those of the natural philosophers, and it would be unmeaning to call even its uncertainties (which are many) a defect.

These are the main conclusions, but, before dismissing the argument, I may perhaps be allowed to add one or two corollaries. The first of these is that, in the absence of exact measurements of subjective states, it is impossible to demonstrate any exact correspondence between them and events in the external world. No theory of psycho-physical parallelism is susceptible of proof. It requires quantification in both series, and this is only obtainable in one.

The same consideration forbids us to expect that the method of residues will help us to obtain evidence for or against the reality of a self-determining activity of the soul. Attention is an essentially subjective process, and its direction means the completeness with which the mind is diverted from other objects, and concentrated on the object to be attended to. Stated in this way, the problem is strictly quantitative. But we have no mental quantities; and no degree of accuracy in the definition of the physiological factors (even if it be granted that they are the real determinants) will ascertain the exact share in the direction which is contributed by each. Without this knowledge, we must always remain uncertain as to whether there is a residue or not.

The bearings of these conclusions on theories of agnosticism and naturalism are obvious, and do not require to be further insisted on; but it may be submitted that the pretensions of science to universal dominion are better met by an indication of the limits within which its methods are applicable than by a general attack on the validity of its first principles. A successful defence to all attacks of that kind may, I think, be found in a reference to the triumphs which have already been won by the use of the impugned principles, and by the admission that they have no claim to be regarded as anything more permanent than working

hypotheses. In no branch of knowledge will the first principles resist a logical examination. As Schopenhauer says: 'The foundation on which all our knowledge and science rest is the inexplicable. To this all explanations lead, be the intermediate stages few or many; as in ocean soundings, the lead must always touch the bottom at last in deep seas and shallows alike.'

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