

THE LAW OF THE THREE STAGES.

Comte's Law of the Three Stages has often been affirmed, often denied or contemptuously ignored. It has very seldom been critically examined. Yet it should repay examination. Those who would pass it by as an exploded hypothesis forget that the general notions on which it rests have passed into ordinary thought and common language. The theological stage of a conception, the metaphysical way of looking at things, the positive method of science and of practice are familiar expressions which mean something for us, and it is well that we should know what they mean with more exactitude. On the other hand it is hardly reasonable to suppose that a hypothesis advanced 80 years ago in the infancy of anthropology, and before all the modern development of science and philosophy, should stand to-day precisely where it stood then. Acceptance of such a miracle would in fact be more suited to the theological than to the positive stage. I propose here to treat the theory itself in the Positive spirit, examining its various parts so far as space allows in relation to the facts of anthropology and the actual development of thought.

The outline of the theory is so well-known that a very brief recapitulation of Comte's original statement* will suffice here. Comte tells us at the outset of the Positive Philosophy that he believes himself to have discovered a great fundamental law to which the human intelligence is subjected by an invariable necessity. It may be established both by rational proofs furnished by the knowledge of our organisation, and by historical verification. It is that each of our principal conceptions, each branch of our knowledge, passes successively through three different states—the theological or that of fiction (*fictif*), the metaphysical or abstract, the scientific or positive. In the first stage the mind aims at the discovery of the intimate nature of beings, the primary and final causes of all the effects that strike it, and represents phenomena as produced by the direct and continuous action of supernatural agents greater or less in number, whose arbitrary intervention explains all apparent anomalies. In the metaphysical

*I do not here attempt to deal either with the genesis of the theory (on which see Barth, *Phil. der Geschichte als Sociologie*, p. 20—57) nor with subsequent statements by Comte himself.

stage the supernatural agents are replaced by abstract forces, real entities, personified abstractions inherent in things. To explain anything is now to assign it to the corresponding entity. This stage is transitional and leads up to the third or positive stage in which the mind recognising the impossibility of attaining absolute ideas renounces the investigation of the origin and destiny of the universe and the knowledge of the intimate causes of phenomena, for the discovery of their actual laws, that is, their invariable relations of similitude and succession. Its method in this stage is the combination of reasoning and observation, and the explanation which it now aims at is simply the connection which science establishes between particular phenomena and general laws. The theological stage begins with many deities and rises to the conception of one, to whom all things are due. Similarly the metaphysical stage rises from many different entities to the single supreme entity of Nature, and the positive stage approaches, though it may not attain, the conception of a single all embracing law. The action of a sleeping draught to take the familiar example, is referred by the theological mind to the god of sleep, by the metaphysical to a soporific virtue inherent in the drug, and by the positive is considered as a sequence of events in which a regular order has been observed.

In the first two stages there is an attempt to get at the inner working of the thing, at the real cause and how it operates. But in the first stage the method is frankly that of the imagination and the thing is supposed to be, or to be worked by, a being like ourselves. In the second stage the imaginary characters of this being are refined away and it is reduced to nothing more than a barren duplication of the facts observed. The soporific virtue which seems to explain everything is in reality nothing more or less than a solemn re-statement of the very fact to be explained—that sleep follows the administration of the drug. In the third stage these attempts at ultimate explanation are frankly abandoned. We give up the effort to know what there is in the drug which causes sleep. We aim at the precise description of the circumstances under which sleep follows on the administration of the drug,—the exact quantity and quality of the dose for example. It is assumed that if these circumstances are accurately known the sequence which has been observed in certain cases may be expected in others. That is to say, the observed relation is generalised and becomes a law. Lastly the law is explained when it is brought under a more general law and this means in the last resort that it is compared with other sequences which are found to be generally similar.

I do not think that anyone can follow this account without feeling that it at least expresses certain aspects of the movement of thought. How far it is adequate or accurate is another matter and on these questions without attempting to be exhaustive I propose to offer a few notes.

1. *The Theological Stage.*

In Comte's view the lowest form of religion, speaking generally, is Fetichism which, as he uses the term, corresponds to what is now called Animism; above this is Polytheism, whose spirits no longer dwell in individual objects but are anthropomorphic deities controlling large groups of objects or classes of phenomena; while the single god of Monotheism may be regarded in the crudest form of this religion as a further generalisation or unification of the polytheistic deities. This account would not be accepted by all anthropologists, but neither would it, as a rough summary, lack supporters. We may perhaps get a stage nearer to agreement if we make the character of spiritual beings the basis of our classification and trace an ascent from the dim, half-material, imperfectly personified "spirit" to the distinctly-imaged anthropomorphic god, and from this again to the supreme Deity whose "personality" is held to be something more than the personality of man. In any case two further modifications of importance must be introduced into Comte's account if we are to square it with the results of Comparative Religion. In the first place the study of Brahminism and Buddhism indicates a different line of advance from Polytheism. In the former Polytheism merges into a mystic Pantheism wherein there is certainly an appreciation of the unity of all that is, but the form of unity is widely different from that of the creative controlling Providence. In the latter the whole theistic element tends to fall into the background. The gods remain, but they are of subordinate importance and interest is concentrated on purity of life and the laws real or supposed that regulate the life of sentient beings. There is indeed in early Buddhism more than a touch of the positive spirit in the turning from ultimate problems to the finding of perfection and bliss in a mode of life to which men may attain here on earth, and in the sense of universal fellowship as the medium wherein that life is to be led.

Without dwelling further on this line of development, which was perhaps a sidetrack in human evolution, let us turn to the second point of criticism. Recent anthropology has shown that the

theory of spirits is not the only mode by which primitive man accounts for his experiences, nor is it the only theoretical basis of his cults, his observances, or his rules of conduct. Magic plays as large a part in primitive life as Animism. Which of the two is the more primitive there is not sufficient evidence to determine. Both are found intermingled and blended among the rudest peoples and both gradually assume a subordinate place in higher modes of thought. We must regard magic as at least coeval with Animism, and what is interesting to the unprejudiced student of the three stages is that the mode of thought which is thus equated to the lowest form of the theological stage recalls many features of the metaphysical stage. For the powers of magic, like the abstractions of "metaphysics," are often entities, sometimes half-material, sometimes quasi-spiritual, often very much like spirits, if the expression be allowed, with the spiritual taken out of them. A disease, for example, can be extracted from a man in the form of a stone, an evil influence can be brushed off him, an impurity can be transferred to a scapegoat and driven into the wilderness, a toothache can be nailed into a tree. Often the boundary between the magical conception and the spiritual is so thin that they seem to pass into one another. The Erinyes in Homer is an actual influence which may be set in motion by the appropriate person under appropriate conditions. But is it at bottom a spirit on whom the avenger calls, or is it an automatically working agency which the avenger controls? It is not so easy to say. Different passages give us different views, and sometimes in a single passage we find both views contending for the mastery.

There is no evidence in such cases to show that the magical entity is necessarily an attenuated spirit, or that the spirit is necessarily a developed and more clearly personified entity. The very fact that the one mode of conception passes so easily into the other militates against any sharp demarcation which would set the one before the other as a more primitive mode of thought. The evidence of primitive magic tends, in fact, to show that what is characteristic of rude thought is not a peculiar and quite inexplicable tendency to personify, but rather precisely that crude blending of distinct categories and that loose application of unsifted generalisations which distinguish all rudimentary processes of thinking, whether among ourselves or other people. The magical quality that you can, as it were, pick out of one thing and transfer to another is imperfectly distinguished from the material object. The very idea of transferring sins and misfortunes may be regarded

as a crude generalisation from qualities like heat and cold, which do admit of such transference.¹ The indwelling spirit of Animism is similarly in part a crude inference, in part a blending of ideas that belong to distinct categories. As an inference it extends to the behaviour of material things, a conception which we all hold to be true in relation to our fellow men, and, in a measure, of the lower animals.² This is a readily intelligible fancy the basis of which is merely a natural, but an insufficiently founded inference, which further experience converts. But the "spirit" which primitive fancy constructs is not very "spiritual" in our sense of the term. On the contrary, it is for many purposes treated as being itself of the nature of a thinner, more attenuated vapourous material—it can be beaten off, wiped away, tied fast with string, or corked up in a bottle. It is at once too solid for our notion of spirit, and in another sense too fluid and changeable for our notion of a material thing. It is a blend of incompatible ideas.

I conclude that the primitive stage of thought which Comte characterises as *théologique ou fictif* is to be described generically by the second epithet rather than the first. It is pre-eminently the stage of uncontrolled fiction. General ideas are the distinctive product of human intelligence, and their function is to correlate experience and direct action. But in the early stages of their development they grow up by processes which are unconscious in the sense of lacking method and self-criticism. Their meaning, their validity, their function are no subjects for enquiry. Hence the elements which are fused into one conception are brought together as the chance current of cerebral energy, the accidents of experience, the play of emotions may happen to direct, and the result when formed is so indistinctly held as to admit the fusion of what may be to us the most glaring incongruities. Not only is there no test of truth, but the bare conception of truth itself is wavering and dim, for sheer make-believe plays a large part, and the fictions of magic and Animism, if they give little guidance in

1. Sympathetic and imitative magic, though differing from the class of concepts discussed here, are equally dependent upon a confusion of categories. (See *Morals in Evolution*, ii., pp. 15-23.)

2. At bottom the interpretation of the behaviour of others as determined by thought and feeling must rest on our consciousness of our own thoughts and feelings. This I take to be the core around which our idea of personality grows. But it grows not by conscious inferences but by numberless interactions in which the behaviour of others and the emotions they call forth are as important as anything that we are aware of in ourselves.

action, may yield some fruit in the shape of mental comfort and assurance. In a word, the complex psychological forces, social and individual, which shape ideas are not themselves guided by principles. Such is the lowest form of the stage of fiction or imagination. It has a somewhat higher form, but this I pass over for the present. I will also defer what I have to say about the metaphysical stage, as it will be convenient first to consider the positive method.

Three points may be distinguished in Comte's account of the positive stage in his first lecture. Two are negative. Thought (1) renounces the enquiry into the origin and destiny of the universe; (2) renounces the enquiry into the intimate causes of phenomena; but (3) confines itself to studying the relations of succession and resemblance between phenomena.

All these characteristics have their *primâ facie* justification in the elements of meaning which the term positive suggests. Positive is an epithet which may be given to what is certain as opposed to what is doubtful, to what is observed as opposed to what is inferred, and so in a more general and somewhat looser sense to what is fact as opposed to what is theory. Now, if experience is the name for the totality of observed facts our positive knowledge will be knowledge founded on and concerning experience. But when we speak of thus confining knowledge to experience we may mean one of two things. We may mean that we know nothing beyond the actual range of our observation, and this at first sight is what the strict use of the term would suggest. A moment's consideration, however, shows us that such a limitation, far from establishing science, would destroy it. It would indeed land us in an extreme form of scepticism. My experience, taken in this more rigid sense, is what I now see and feel together with what I have seen and felt. If I draw any inference, use any conception that binds elements of experience together in general relations, or even rely on your testimony to your experience, I am going beyond that which I know from my own observation. The same remark holds for you and for everybody. Clearly this is not the experience which is intended. What is thought of is rather experience in a second and wider sense. There is a world or range of experience and positive knowledge is based on that portion which has actually fallen within the observation of men—actual experience we may call it,—but refers to further portions, indeed to the whole field of possible experience wherein its predictions are from time to time verified or corrected. What has been found becomes a premiss from which,

properly treated, we may derive a knowledge of what will be found. We must, as Comte himself states at the outset, combine reasoning with observation, we must recognise certain connections, or at least certain general relations between the parts of experience which will enable us to use the observed as the basis for dealing with what is not observed as yet. At this point we come to the first and simplest definition of positive method, that given in the preface to the Course, where it is said to have for its object the "co-ordination of observed facts." This, if I may duplicate the epithet, is a positive definition of the positive method to which we may provisionally adhere, remarking only that it already imports into the method something beyond actual observation whereby the co-ordination is to be carried on.

The definition is amplified in the first lecture itself by the statement already quoted that the positive method deals with the "effective laws" of phenomena "that is their invariable relations of succession and resemblance." But the point of this further definition lies mainly in the negations which it involves. The positive method is distinguished from its two predecessors by its abandonment of the search for the ultimate origin and purpose of things and for the intimate causes of phenomena. The implication here is plain. The "facts" with which we deal are "phenomena." Behind them lies the Forbidden City of the real world, wherein reside alike the intimate causes of all that happens and its ultimate origin and purpose. The older stages were filled with endless conjectures about this real world—fruitlessly. Our task is more modest. We seek to know what concerns us as men, secure in our faith in universal and unchanging law, but we obtain this knowledge by concentrating on what is practicable and recognising that the fundamental problems are forever insoluble.

This conception of the limitation of all genuine knowledge strongly coloured the whole of Comte's philosophy. It influenced his definition of philosophy itself as the synthesis of the sciences. It determined the direction of his scientific interests and his valuation of progress. In particular it led to the erection of a "subjective synthesis" in place of an objective synthesis as the ideal of effort. Experience was to be organised with a view, not to the discovery of the secrets of the universe, but rather to the furtherance of human welfare. In a word, the philosophy, ethics, religious and historical judgments of Comte are all in one relation or another influenced by this conception. But, it will be observed, the definition of the positive method itself rests upon certain

conclusions of what is in ordinary, if not in Comtean, usage metaphysics. The distinction between phenomena and reality is a metaphysical distinction: the denial that we can know the intimate causes of phenomena a metaphysical denial: the abandonment of speculation as to the ultimate origin or purpose of things the result of a metaphysical scepticism. It represents the joint effect of Hume and Kant on the mind of the writer. Suppose now that we drop all this metaphysics and start afresh with the notion of the positive method given above and the implications shown to be involved. Suppose we keep to the conception of method, and let the method itself work out the results for us. What then is our position? Our data are found, as we have admitted, in experience. But whether this experience is an experience of phenomena only, and indeed whether there is any valid and general distinction between phenomena and a reality beyond them does not yet appear. If it is to appear at all it must be as a result of the application of our method, that is, as an inference from experience itself as scientifically treated. The restriction to phenomena, which in Comte is made a basis of sound method, is not in fact a first principle on which method depends, but if true a result to which sound method brings us, and if false one which it disproves. If then we are to characterise the positive stage by its method as a method we must not begin by attributing to it a certain theory of the limitation of our knowledge. Until the method has been carried through we cannot tell whether the ultimate problems are insoluble or the intimate processes of things hidden from us.

The argument contemplates an application of the positive method to the problems of metaphysics itself.¹ If such an application is possible, it follows that the distinction between the "metaphysical" and "positive" stages of thought, if such distinction there be, must turn on a difference, not in subject matter, but in method. Can such a distinction be pointed out as marking a real advance in the history of thought? Any answer to the question must be tentative, but following up the hints contained in Comte's classification, and keeping to the simple leading conceptions of positive method as a clue, I think we can find an intermediate stage corresponding in many of its features to the metaphysical stage of Comte, distinguished from the stages of fiction as being systematic

1. I must not be taken as meaning that metaphysics is wholly positive in content. Under one aspect, as a valuation of thought, it may be regarded as normative. I am dealing here only with such aspects of philosophy as are necessary for my immediate purpose.

and logical, and from the positive in its attitude to experience and to truth.

According to the assumptions of the positive method the business of thought is to correlate or systematise experience. But this systematisation involves a good deal of reconstruction, for the empirical world often impresses us as being incoherent and disorderly, and to overcome these incoherencies and find an order upon which we can rely we are forced within the plane of common sense itself, and without any deep philosophical designs to allow a difference between appearance and reality. Reality for this purpose may be thought of, not as a world beyond experience, but as the world of experience reduced to order and harmony. But the conceptions formed in this process of reduction, though educed from experience, will not be mere reproductions of what is observed like so many photographs. They will rather be reconstructions in which the data, as originally presented to our minds, are analysed and combined in various ways. The further this process goes the more the conception ceases to be something which we can recognise without difficulty as a datum of common observation. In this respect there is a vast difference between one concept and another. "Chair" or "table" is as much a concept as constitutionalism or liberty; all four alike, according to our assumptions, are drawn ultimately from our experience, and, what is more important, have validity and meaning by reference to our experience, and are ultimately to be defined and tested by being equated to a mass of experience, greater or less, complex or simple. But, whereas a chair can be tested by sitting upon it, the meaning and value of such a concept as constitutionalism may require the histories of several nations for several generations to determine. In a sense then it will be seen that the "higher" conceptions, to distinguish them provisionally by that convenient epithet, are relatively remote from direct, immediate and easy observation. They spring from experiences and relate to experiences, but the relation is so indirect as to be easily left out of sight.

Now as soon as the relation disappears the concepts tend to form a world of their own. They may be held to constitute the true reality, of which experience is the imperfect copy, or the confused presentation.¹ More generally they are treated not indeed as independently real, but as independently valid. One or

1. Conversely but by a fundamentally similar method of thinking they may be excluded from the order of existence and yet retain their truth and value.

more conceptions are taken as self-evident. Reasoning consists in deducing further conceptions from these without applying the test of experience and conceivability, that is, our power of forming a conception which will interpret a connection, is freely used as a test of truth. The conceptual order is not regarded as one that has for its function and justification the illuminating of the world of experience, but rather as one to which the world of experience must conform on pain of being pronounced unreal. To apply a recognised concept to an experience is to explain it though the concept may contain nothing to show what are the observable conditions under which the given experience is found. Throughout the value if not the very reality of the concept resides in the concept itself. Such appear to be the points of method which Comte had in mind as distinguishing the "metaphysical" stage. All of them are reversed in the positive way of thinking. The positive concept must be equated to experience. Its value lies in the inter-relation of distinct parts of the empirical order which it effects. As an explanation it has no import except in so far as it at least specifies the conditions under which an experience will occur. The empirical order cannot be deduced from conceptions except in so far as they themselves are valid generalisations derived ultimately from the empirical order. What is conceivable depends upon what has been experienced and the reaction thereto of the human mind in accordance with the idiosyncrasies of its constitution and the special conditions under which it has developed. No conception has absolute validity independently of all reference to experience, and the reality attributed to conceptions either means their mere existence within the mind, or the real character of the empirically given order to which they relate.

Something like this I apprehend to be the general nature of the contrast between the positive method and that which Comte calls metaphysical. Its essence seems to be in the point that to the "metaphysical" mind the concept has a certain value, validity or reality in itself, to the positive it has this value only as relating to an order of reality given in experience.¹

Two or three examples may illustrate the contrast. Comte's first specimen of a typically positive conception is the law of gravitation. This example is the more interesting because the same law is taken by Hegel as typical of the law which becomes

1. If it be objected that reality is a wider conception than experience whether actual or possible, it may be replied that the basis and meaning of any conception of such reality are on the positive theory found in experience alone.

void in becoming general.¹ The very charge of nullity which positive method makes against the metaphysicians is urged by the great metaphysician against the chosen type of the positive method. Now Comte is well aware of the limits of the conception. To say that the law of gravitation explains the facts of gravitation he holds to be a fallacy. The law does not explain the facts. It is the accurate statement of the totality of the facts regarded as consisting in certain invariable relations. Partial truths may indeed be said to be explained in so far as they are referred to their places in the totality, for this reference to a place in a systematic totality is for the positive method the only explanation. The widest generalisation is not an empty universal standing above the facts. It expresses the hierarchy of relations, from the most general to the most specific which the facts themselves under thorough investigation reveal.

In ethics and ethico-political theory, natural rights and all conceptions based on Nature are—not unjustly in view of their history—taken by Comte as metaphysical. It will be well to follow up this instance because it will lead to some limitations of the positive method which ought not to be overlooked. The term "natural" is clearly enough an expression, in the first instance, for some sort of experience; what is common, what conforms to a type, what is permanent or recurrent, what is deep-rooted and real—all such notions, and perhaps others, go to compound it. It also tends to carry with it, which is important, a suggestion of approval and desirability except to those for whom the natural is the vile, to whom it carries the opposite suggestion. Now this notion so variously compounded becomes metaphysical in our sense when it is set up as a principle of which the application is perfectly clear without need of criticism, as if it required no proof and were subject to no test from our actual experience. Contrast it in these respects with the Utilitarian formula which, rightly or wrongly, is put forward as an expression of our actual moral consciousness, and avowedly stands or falls by the correctness of the analysis. It is easy to recognise what is meant by the metaphysical character of the one and the positive character of the other.

But it may be said neither the doctrine of natural rights nor the Utilitarian formula state facts, but rather in the last analysis issue commands. They profess to say not what we think or do, but what we ought to think or do. They are judgments of value, not

1. *Phaenomenologie des Geistes*, pp. 114, 115.

positive but normative. This is true and important. First principles of ethics and logic are normative. They seek to declare what is reasonable and lay down the rules which are to justify thought or action. In this sense moral philosophy is never wholly positive; yet, in so far as it acquires scientific character, it involves methods of genuinely positive character, for example, the analysis and comparison of moral judgments, and its first principle stands the test of experience, viz., in the practical consistency with which it is capable of being applied and the working harmony which it can give to personal and social life. What more a normative discipline involves is too large a question for incidental discussion. But it may be remarked that not the least condition of "positivity" in moral enquiries is the very fact that the positive and normative are distinguished, and not fused as they are in the conception of the "natural."

The rise of the positive spirit involves something more than a change of method. In so far as the mind moves between conception and conception rather than between conception and experience, not only its way of reasoning but its attitude to truth is hardly yet that of science. They might rather be called dialectical. Truth at this stage consists in a clearly expressed and internally consistent conceptual order. Hence any revision of an important conception will be looked at from the point of view of the whole system, and if suspected of a heresy which will disturb the reigning ideas it will be in danger of excommunication. I do not mean that all dialecticians are uncandid, but rather that before the truly scientific stage is reached, while all opinions are in the flux of controversy or in the state of unreal hardness which comes from a premature crystallisation, a solution suggested for any given problem is apt to be judged by its convenience for the whole system which the critic has in his mind rather than on its own merits. Provisional truth is scarcely admitted as a possibility. In these respects the positive method reverses the procedure. The first question it asks about each concept is whether it is an adequate formulation of some experience. If so it should have some value, and it remains to fit it in with other conceptions. Even if two conceptions are contradictory it does not follow that either can be summarily dismissed. It may be that both contain some deposit of truth, and the problem is to reconcile them, or to find out where lies the exaggeration, distortion, or one-sidedness that is probably responsible for the conflict. Thus the positive method constantly sends back the inadequate conception to the facts, the dialectical seeks to kill it, and to do so

will go a long way about to discover means of proving some contradictory consequences that can be deduced from it. Thus it is easy to see how dialectics degenerate into verbal controversy wherein the subtle extensions or contractions of a disputant's meaning beyond the original intention, the production of clever verbal combinations leading to new and unthought of deductions and all the other means of trapping the unwary become the principal instruments for exposing error and establishing truth. The rise of a study to positive rank is seen in the decay of the controversial interest, the diminished importance of definitions, the readiness to amend verbal slips and overcome differences of expression by a return to the real intention of words, the inclination to suspend judgment on doubtful points, the breaking up of problems and even whole sciences into specialities and the disinterested study of each special question for its own sake. Detachment of attitude, the piecemeal advance, the recognised necessity for correction are among the characteristics which seem to distinguish the scientific from the dialectical attitude, and, taken as a whole, they suggest not merely a change of method but of the attitude towards truth.¹ There is no ultimate reason in the nature of things why the study of metaphysics should not become a science in this sense. It is at bottom a question of bringing to the study of fundamental questions the same qualities of detachment and intellectual self-restraint that are universally demanded in the historian or the laboratory worker.

The positive method is sometimes confounded with one which may be called the materialistic or mechanical. This method avoids the mystical and even obscurantist tendency of some forms of metaphysics by seeking to keep very close to experience and by insisting on very clear-cut and well-defined conceptions. But in so doing it is liable to certain special errors, and in particular does not, as I shall show, escape one of the most serious fallacies of

1. In the sciences the dialectical method lingers longest in connection with the use of hypothesis. Hypothesis as a provisional arrangement of empirical data in a conceptual order, is indeed an absolute necessity for the advance of science. But the hypotheses which cause controversy are usually of another kind. They suggest some force, cause, or principle of connection which is to be proved not by being exhibited as a generalised statement of the observable relations of facts but by being used as the premises of a deduction wherein conclusions can be drawn with which the facts agree. A type of the first kind of hypothesis is the Newtonian law of gravitation, and when Newton said that he did not invent hypotheses he meant hypotheses of the second kind—of the kind which loom large in popular science and give rise to more dialectical acuteness than detached reasoning in the controversies which they excite.

dialectic itself. In the first place, the natural tendency of a reaction from conceptual vagueness is to find validity only in the concepts which are most easily verifiable in experience—which in general will be those in which there is the least of that "work of the mind" which was described above. This is the source of the tendency of empiricists towards materialism. Similarly in the very demand for definiteness there lurks a danger. Experience is continuous, concrete, individual. Thought is discrete. From a mass of experience certain concepts are, as it were, precipitated. Taken one after another, they express the truth bit by bit. The first mistake of the mechanical mind is to seize one of these bits of truth which impresses itself as luminous and illuminating and set it up for the whole. This mistake is soon countered by a rival error which does the same with another fragment. But there is no improvement, for even when it is seen that both fragments have to be allowed for, the mechanical mind is not aware that they are fragments, but treats each concept quite in the dialectical spirit as an independent quasi-entity, and thinks that they may be combined and separated and re-combined all without internal modification, quite on the mechanical model. Now there are departments, I presume, in which this method is valid. Quantities may be added up and subtracted, forces may be compounded or divided without any regard to the possibility that in adding or compounding we are altering the nature of the quantity of the force so treated. In fact, so far as reality can be taken to bits and put together piece by piece, the mechanical system works. But as soon as it gets to pieces, the very nature of which is affected by other pieces, the method falls into fallacies. Distinguishable elements are taken as operating separately when in reality they determine and modify each other. The fallacy appears equally in the materialistic explanations which seek to resolve the higher categories into the lower, and in the ordinary "metaphysical" correctives thereof. For example, organic processes are resolved into A, B, C, separate mechanical processes. When the inadequacy of the explanation is felt a controlling force D—some vital force or other—is invented and added to them. But this is merely a new force acting upon the rest, just like another bit of mechanism, only with less precise conditions of operation. The true corrective, if corrective is here required, to the mechanical view is the conception of the organism as a totality wherein all elements and all life processes modify one

another and lose that independence which, as genuinely mechanical processes, would be attributed to them.¹

Thus, following Comte's clue, though not always adhering to his results, we may, if I am right, distinguish two forms of that transitional stage to which he gave the name of metaphysical. In the one the test of experience is unduly neglected. In the other it is applied with a certain narrowness and hardness of view which defeats its own ends. The one corresponds to what Comte called metaphysics, the other is closely allied to what he called materialism. The common point in both is that behind them, if not explicitly stated in them, lies the way of taking the concept as a self-contained, self-supported entity. Openly avowed in some metaphysical systems, this principle haunts as we have seen very various applications of the dialectic method as used by thinkers who in principle would certainly repudiate it. Mechanical empiricism thinks that it has finally laid the ghost, but in reality it too often invokes it from the realm below.

In this account it will be seen nothing is said or implied as to the results of the positive method or the scope of its application. There is in particular nothing to show that it is debarred from dealing with ultimate questions, or is concerned with a subjective synthesis. Its limitations, if any, are to be discovered by the working of the method not by the principles involved in it. To the student of development it is readily intelligible that what has appeared first as a myth and afterwards as a metaphysical theory should yet later be expressible as a positive truth. What is at one time a command of God may at another be recognised as a condition of a healthy and happy life. The positive method is often unexpectedly re-constructive.²

1. It is by an analogous correction that the most careful social thinkers seek to restate, if not to solve, the controversies engendered by a mechanical conception of the state and the individual.

2. It has been urged above that the restriction of positive method to phenomena involved a metaphysical theory. Similarly it may be added that the restriction to relations of similitude and succession involves a mechanical theory. These relations do not supply an adequate general formula for those which we find in experience. They represent no doubt an attempt to analyse the common categories of substance and attribute, structure and function, etc., into their ultimate elements. But they have all the failings of the forced, mechanical, definition. The truer conception of the positive method as applied to the foundations of science and the theory of knowledge is that it seeks to reconstruct on its own lines the familiar categories which have grown up half unconsciously in the progress of thought, by asking of each without prejudice what form of experience it expresses. So far as metaphysicians follow this method they are and always have been positive thinkers.

If the above account is correct—and at no point is it more than tentative—considerable modifications have to be introduced into Comte's fundamental law. The first stage is not purely theological, but involves imaginary entities more nearly resembling those which he called metaphysical. For us it is the stage of imagination or fiction. The second stage can hardly retain the name metaphysical as we are not prepared to debar metaphysical questions from the field of positive science. Looking at its method, we may perhaps call it the stage of dialectic, and we find its characteristic weaknesses underlying the two otherwise opposed methods of metaphysical idealism on the one side, and mechanical materialism on the other. For the third stage we keep the name of positive and adhere to Comte's primary definition of its object as a co-ordination of experience, but without allowing as an axiom the contrast between phenomena and reality, or the resolution of all the structure of experience into relations of similitude and succession. Taking the process as a whole, I would divide it fundamentally into two parts, each admitting of sub-divisions. The first of these sees the evolution of the definite universal, the second its critical reconstruction. Ideas arise in us as unconsciously as any other function, and we combine or disunite them in accordance with the play of fancy and feeling, and everything, however irrelevant, that creates a tension acting this way or that within the mind. This is the first or imaginative stage. The highest products of this stage are the living concrete images of the plastic fancy. By critical definition, limitation, and generalisation the image becomes a concept, and the systematic analysis and co-ordination of concepts yields the stage of thought which we have called dialectical, a stage which has its value as well as its fallacies. Beyond it lies the development of science which is in essentials a return from the concept to experience, a criticism of the thought which has grown up unconsciously in the light of the conditions of its growth. Men begin the search for truth, one might say, with fancy; after that they argue, and at length they try to find out.

The positive method does not come into being fully equipped at a definite date. On the contrary, as Comte himself contended, it has always been in use from the days of primitive man to our own. Similarly in the sphere of philosophy the positive method is no new invention. Nor is it yet a complete and perfect organon. From the days of the earliest thinkers the method of testing conceptions by experience has been applied side by side with the methods of dialectics. All we have to say here is that in proportion as the

treatment of a subject becomes scientific its method ceases to be dialectical and becomes positive.¹

What would be the consequences to sociology if this reconstruction is admitted? Comte's law is the foundation of an entire scheme of social development. As society passed from the theological to the positive stage so militarism decayed and industrialism grew. The order of government changed. Sociocracy was substituted for theocracy. The thoughts of men became concentrated on the improvement of human life. The higher social development of humanity became the foundation of true religion and the supreme purpose which gives meaning to effort and supplies a motive for morality. The more restricted sense here given to the law of development can hardly of itself justify such large deductions. But two things may be said. In the first place, Comte's conception of intellectual development as a social process is implied throughout. There is no suggestion anywhere of the rise in humanity of a new faculty to which improved method is due. On the contrary, the employment of observation and legitimate inference therefrom is manifestly attributable to the lowest known savage, if not to the higher animal intelligence. The use of a higher method preponderates over that of others, as in the process of tradition and interaction conceptions are developed and experience widens and becomes more organised.

In the second place, the effort to give positive meaning to moral and social ideals must tend to bring them nearer to the actual working of human experience, and this prepares us for the view which is but an extension of Comte's, and which I believe the actual working out of the positive method to justify, that the supreme purposes of religion and morals are to be found in the living process of evolution. It is not indeed possible to understand fully the emergence of the positive method itself except by reference to the stages through which this growth has passed hitherto. Nor can sociological, ethical and philosophical principles be properly criticised until they are seen to be products of a development, nor can ideals for the future be framed to regulate our

1. The rise of the positive method so considered has its place in a more general law of mental evolution. The lower stages of this evolution, in which the animal world remains, do not employ general conceptions. The rise of these conceptions and their advance in definiteness and comprehension constitutes the first great stage of human advance. So far the growth of thought is still spontaneous and uncritical. The second stage, regarded from the point of view of method, is that of the self criticism of thought, and of this the positive method (of reducing all conceptions to the experience which they express) is the basis.

present conduct unless regard is had to the conditions under which progress is possible. That we are creatures of a development which has been unconscious and stand at the point at which it begins to understand itself and so to become self-directing is the central conception of Comte's sociology which the criticism of method only serves to confirm and extend.

L. T. HOBHOUSE.