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**LOGICAL CONDITIONS OF A SCIENTIFIC TREAT-
MENT OF MORALITY**



LOGICAL CONDITIONS OF A SCIENTIFIC TREATMENT OF MORALITY

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§1. THE USE OF THE TERM "SCIENTIFIC"

THE familiar notion that science is a body of systematized knowledge will serve to introduce consideration of the term "scientific" as it is employed in this article. The phrase "body of systematized knowledge" may be taken in different senses. It may designate a property which resides inherently in arranged facts, apart from the ways in which the facts have been settled upon to be facts, and apart from the way in which their arrangement has been secured. Or, it may mean the intellectual activities of observing, describing, comparing, inferring, experimenting, and testing, which are necessary in obtaining facts and in putting them into coherent form. The term should include both of these meanings. But since the static property of arrangement is dependent upon antecedent dynamic processes, it is necessary to make explicit such dependence. We need to throw the emphasis in using the term "scientific" first upon methods, and then upon results through reference to methods. As used in this article, "scientific" means regular methods of controlling the formation of judgments regarding some subject-matter.

The transition from an ordinary to a scientific attitude of mind coincides with ceasing to take certain things for granted and assuming a critical or inquiring and testing attitude. This transformation means that some belief and its accompanying statement are no longer taken as self-sufficing and complete in themselves, but are regarded as conclusions. To regard a statement as a conclusion, means (1) that its basis and ground lie outside of itself. This reference beyond itself sets us upon the search for prior assertions which are needed in order to make this one, *i. e.*, upon inquiry. (2) Such prior statements are considered with reference to their bearings or import in the determination of some further statement, *i. e.*, a consequent. The meaning or significance of a given statement lies, logically, in other statements to which we are committed in making the one in question. Thus we are set upon reasoning, the development of the assertions to which a particular assertion or view commits and entitles us. Our attitude becomes scientific in the degree in which we look in both directions with respect to every judgment passed; first, checking or testing its validity by reference to possibility of making other and more certain judgments with which this one is bound up; secondly, fixing its meaning (or significance) by reference to its use in making other statements. The determination of *validity* by reference to possibility of making other judgments upon which the one in question depends, and the determination of *meaning* by reference to the necessity of making other statements to which the one in question entitles us, are the two marks of scientific procedure.

So far as we engage in this procedure, we look at our respective acts of judging not as independent and detached, but as an interrelated system, within which every assertion entitles us to other assertions (which must be carefully deduced since they constitute its meaning) and to which we are entitled only through other assertions (so that they must be carefully searched for). "Scientific" as used in this article thus means the possibility of establishing an order of judgments such that each one when made is of use in determining other judgments, thereby securing control of their formation.

Such a conception of "scientific," throwing the emphasis upon the inherent logic of an inquiry rather than upon the particular form which the results of the inquiry assume, may serve to obviate some of the objections which at once suggest themselves when there is mention of a science of conduct. Unless this conception is emphasized, the term "science" is likely to suggest those bodies of knowledge which are most familiar to us in physical matters; and thus to give the impression that what is sought is reduction of matters of conduct to similarly physical or even quasi-mathematical form. It is, however, analogy with the method of inquiry, not with the final product, which is intended. Yet, while this explanation may preclude certain objections, it is far, in the present state of discussion, from removing all objections and thus securing a free and open field. The point of view expressly disclaims any effort to reduce the statement of matters of conduct to forms comparable with those of physical science. But it also expressly proclaims an identity of logical procedure in the two cases. This assertion will meet with sharp and flat denial. Hence, before developing the logic of moral science, it is necessary to discuss the objections which affirm such an inherent disparity between moral judgments and physical judgments that there is no ground in the control of the judging activity in one case for inferring the possibility of like control in the other.

§ 2. THE POSSIBILITY OF LOGICAL CONTROL OF MORAL JUDGMENTS

In considering this possibility, we are met, as just indicated, by an assertion that there is something in the very nature of conduct which prevents the use of logical methods in the way they are employed in already recognized spheres of scientific inquiry. The objection implies that moral judgment is of such character that nothing can be systematically extracted from any one which is of use in facilitating and guaranteeing the formation of others. It denies, from the logical side, the continuity of moral experience. If there were such continuity, any one judgment could be dealt with in such a way as to make of it a conscious tool for forming other judgments. The ground of denial of continuity in moral experience rests upon the belief that the basis and justifying principle of the ethical judgment is found in transcendental conceptions, viz., considerations that do not flow from the course of experience as that is judged in terms of itself, but which have a significance independent of the course of experience as such.

The assertion of such logical disparity assumes a variety of forms, all coming back to pretty much the same presupposition. One way of putting the matter is that ethical judgments are immediate and intuitive. If this be true, an ethical judgment cannot be considered a conclusion; and hence there can be no question of putting it into orderly intellectual (or logical) relations with other like judgments. A merely immediate judgment is, by the nature of the case, incapable of either intellectual rectification or of intellectual application. This view finds expression in popular consciousness in the notion that scientific judgments depend upon reason, while moral valuations proceed from a separate faculty, conscience, having its own criteria and methods not amenable to intellectual supervision.

Another way of affirming radical disparity is that scientific judgments depend upon the principle of causation, which of necessity carries with it the dependence of one phenomenon upon another, and thus the possibility of stating every fact in connection with the statement of some other fact; while moral judgments involve the principle of final cause, of end and ideal. Hence to endeavor to control the construction and affirmation of any content of moral judgment by reference to antecedent propositions is to destroy its peculiar moral quality. Or, as it is popularly expressed, ethical judgment is ethical just because it is not scientific; because it deals with norms, values, ideals, not with given facts; with what ought to be, estimated through pure spiritual aspiration, not with what *is*, decided after investigation.

Pretty much the same point of view is expressed when it is said that scientific judgments, as such, state facts in terms of sequences in time and of co-existences in space. Wherever we are dealing with relations of this sort, it is apparent that a knowledge of one term or member serves as a guide and check in the assertion of the existence and character of the other term or member. But moral judgments, it is said, deal with actions which are still to be performed. Consequently in this case characteristic meaning is found only in the qualities which exist *after* and by means of the judgment. For this reason, moral judgment is thought essentially to transcend anything found in past experience; and so, once more, to try to control a moral judgment through the medium of other judgments is to eliminate its distinctive ethical quality. This notion finds its popular equivalent in the conviction that moral judgments relate to realities where freedom is implicated in such a way that no intellectual control is possible. The judgment is considered to be based, not upon objective facts, but upon arbitrary choice or volition expressed in a certain sort of approval or disapproval.

I have no intention of discussing these points in their full bearing. I shall reduce them to a single logical formulation, and then discuss the latter in its most general significance. The justification of the single statement as a formulation of the objections just set forth (and of other like ones) will not be attempted, for further discussion does not turn upon that point. When generalized, the various statements of the logical gulf between the moral judgment and the scientific reduces itself to an assertion of two antinomies: one, the separation between the universal and the

individual; the other, between the intellectual and the practical. And these two antinomies finally reduce themselves to one: Scientific statements refer to *generic conditions* and relations, which are therefore capable of complete and objective statement; ethical judgments refer to an *individual act* which by its very nature transcends objective statement. The ground of separation is that scientific judgment is universal, hence only hypothetical, and hence incapable of relating to acts, while moral judgment is categorical, and thus individualized, and hence refers to acts. The scientific judgment states that where some condition or set of conditions is found, there also is found a specified other condition or set of conditions. The moral judgment states that a certain end has categorical value, and is thus to be realized without any reference whatsoever to antecedent conditions or facts. The scientific judgment states a connection of conditions; the moral judgment states the unconditioned claim of an idea to be made real.

This formulation of the logic of the problem under consideration fixes attention upon the two points which are in need of discussion. First: Is it true that scientific judgment deals with contents which have, in and of themselves, a universal nature—that its whole significance is exhausted in setting forth a certain connection of conditions? Secondly: Is it true that the attempt to regulate, by means of an intellectual technique, moral judgments—which, of course, are thoroughly individualized—destroys or in any way lessens distinctively ethical value?

In discussing the two questions just propounded, I shall endeavor to show: First, that scientific judgments have all the logical characteristics of ethical judgments; since they refer (1) to individual cases, and (2) to acts, I shall endeavor to show that the scientific judgment, the formulation of a connection of condition, has its origin, and is developed and employed for the specific and sole purpose of freeing and reinforcing acts of judgment that apply to unique and individual cases. In other words, I shall try to show that there is no question of eliminating the distinctive quality of ethical judgments by assimilating them to a different logical type, found in so-called scientific judgments; precisely because the logical type found in recognized scientific judgments is one which already takes due account of individualization and activity. I shall, then, secondly, endeavor to show that individualized ethical judgments require for their control generic propositions, which state a connection of relevant conditions in universal (or objective) form; and that it is possible to direct inquiry so as to arrive at such universals. And finally, I shall briefly set forth the three typical lines along which the construction of such generic scientific propositions must proceed, if there is to be a scientific treatment of ethics.

§3. NATURE OF SCIENTIFIC JUDGMENTS

The proposition that scientific judgments are hypothetical because they are universal is almost commonplace in recent logical theory. There is no doubt that there is a sense in which this proposition states an unquestioned truth. The aim of science is law. A law is adequate in the degree in which it takes the form, if not of an equation,

at least of formulation of constancy, of relationship, or order. It is clear that any law, whether stated as formulation of order or as an equation, conveys, in and of itself, not an individualized reality, but a certain connection of conditions. Up to this point there is no dispute. When, however, it is argued that this direct and obvious concern of science with generic statements exhausts the logical significance of scientific method, certain fundamental presuppositions and certain fundamental bearings are ignored; and the logical question at issue is begged. The real question is not whether science aims at statements which take the form of universals, or formulæ of connection of conditions, but how it comes to do so, and what it does with the universal statements after they have been secured.

In other words, we have, first, to ask for the logical import of generic judgments. Accordingly, not questioning the importance of general formulæ as the objective content of the sciences, this section will endeavor to show that such importance lies in the development of "sciences" or bodies of generic formulæ as instrumentalities and methods of controlling individualized judgments.

1. The boast and pride of modern science is its distinctly empirical and experimental character. The term "empirical" refers to origin and development of scientific statements out of concrete experiences; the term "experimental" refers to the testing and checking of the so-called laws and universals by reference to their application in further concrete experience. If this notion of science be correct, it shows, without further argument, that generic propositions occupy a purely intermediate position. They are neither initial nor final. They are the bridges by which we pass over from one particular experience to another; they are individual experiences put into such shape as to be available in regulating other experiences. Otherwise scientific laws would be only intellectual abstractions tested on the basis of their own reciprocal consistencies; and the trait which is supposed to demarcate science from mediæval speculation would at once fade away.

Moreover, if the generic character of propositions of physical and biological sciences were ultimate, such propositions would be entirely useless from a practical point of view; they would be quite incapable of practical application because they would be isolated from intellectual continuity with the particular cases to which application is sought. No amount of purely deductive manipulation of abstractions brings a resulting conclusion any nearer a concrete fact than were the original premises. Deduction introduces in regular sequence new ideas, and thus complicates the universal content. But to suppose that by complicating the content of a universal we get nearer the individual of experience is the fallacy at once of mediæval realism and of the ontological argument for the existence of God. No range of synthesis of universal propositions in chemistry, physics, and biology would (if such propositions were logically self-sufficing) assist us in building a bridge or in locating the source of an epidemic of typhoid fever. If, however, universal propositions and their deductive synthesis are to be interpreted in the sense of the manufacturing and employing of intellectual tools

for the express purpose of facilitating our individual experiences, the outcome is quite other.

The empirical origin, the experimental test, and the practical use of the statements of science are enough of themselves to indicate the impossibility of holding to any fixed logical division of judgments into universal as scientific, and individual as practical. It suggests that what we term science is just the forging and arranging of instrumentalities for dealing with individual cases of experience — cases which, if individual, are just as unique and irreplaceable as are those of moral life. We might even say that the very fact which leads us upon a superficial view into believing in the logical separation of the generic judgment from the individual, viz., the existence of a large and self-contained body of universal propositions, is proof that as to some individual experiences we have already worked out methods of regulating our reflective transactions with them, while for another phase of experience this work remains to be done; *i. e.*, is the problem of current ethical science.

The consideration of the technique by which the desired end of control is accomplished does not belong here. It suffices to note that the hypothetic judgment is a most potent instrumentality. If we inhibit the tendency to say, "This, *A*, is *B*," and can (1) find ground for saying, "Wherever there is *mn* there is *B*," and can (2) show that wherever there is *op* there is *mn*, and (3) have a technique for discovering the presence of *op* in *A*, we shall have warrant for identifying This, *A*, as *B*, even if all the outward and customary traits are lacking, and even if This, *A*, presents certain traits which, without the mediation of a generic proposition, would have inevitably led us to identify it as *C*. Identification, in other words, is secure only when it can be made through (1) breaking up the analyzed This of naïve judgment into determinate traits. (2) breaking up the predicate into a similar combination of elements, and (3) establishing uniform connection between some of the elements in the subject and some in the predicate. All judgments of everyday life, and indeed all judgments in such sciences as geology, geography, history, zoölogy, and botany (all sciences that have to do with historic narration or with description of space coexistences), come back ultimately to questions of identification. Even judgments in physics and chemistry, in their ultimate and concrete form, are concerned with individual cases. Of all the sciences, mathematics alone¹ is concerned with pure general propositions — hence the indispensable significance of mathematics as a *tool* for all judgments of technology and of the other sciences. It also is true in all the arts, whether commercial, professional, or artistic, that judgments reduce themselves to matters of correct identification. Observation, diagnosis, interpretation, and expert skill all display themselves in transactions with individual cases as such.

2. Thus far we have seen that the importance of generic statements in science is no ground for assuming a disparity in their logic from that of a scientific treatment

¹ If it were necessary for the purpose of this argument, it could of course be shown that reference to individual cases is involved in all mathematics. Within mathematical

science, symbols (and diagrams are symbols) are individual objects of just the same logical nature as are metals and acids in chemistry and as are rocks and fossils in geology.

of conduct. Indeed, since we have found that generic propositions originate, develop, and find their test in control of individual cases, the presumption is of similarity rather than of dissimilarity. Can we extend the parallelism farther? Does it apply equally well to the other characteristic trait of ethical judgment, viz., its reference to an act?

Just as modern logic has seized upon the hypothetical and universal character of scientific statements, relegating their bearing upon individual judgments into the background (but in truth so relegating them only because that bearing is always taken for granted), so modern logic has emphasized the aspect of content in judgment at the expense of the act of judging. I shall now try to show, however, that this emphasis also occurs because reference to act is so thoroughly taken for granted that it is possible to ignore it—that is, fail to give it explicit statement. I shall try to show that every judgment must be regarded as an act; that, indeed, the individual character of judgment proper, which has just been brought out, means, in final analysis, that the judgment is a unique act for which there is no substitute. □

Our fundamental point is the control of the content or meaning which is asserted in any given judgment. How can such control be obtained? So far we have spoken as if the content of one judgment might be elaborated simply by reference to the content of another—particularly as if the content of an individual judgment, a judgment of identification, might be secured by reference to the content of a universal or hypothetical proposition. In truth, there is no such thing as control of one content by mere reference to another content as such. To recognize this impossibility is to recognize that the control of the formation of the judgment is always through the medium of an act by which the respective contents of both the individual judgment and of the universal proposition are selected and brought into relationship to each other. There is no road open from any generic formula to an individual judgment. The road leads through the habits and mental attitudes of the one concerned in judging. The universal gets logical force, as well as psychological reality, only in the acts by which it is invented and constructed as a tool and then is employed for the purpose for which it was intended.

I shall accordingly try to show that activity shows itself at every critical point in the formation of judgment: (a) that it shows itself in the genesis of the generic or universal employed; (b) that it shows itself in the selection of the particular subject-matter which is judged; and (c) that it shows itself in the way in which the validity of the hypothesis is tested and verified, and the significance of the particular subject-matter determined.

a) So far we have assumed the possibility of building up and selecting for use some generic principle which controls the identification reached in an individual case. We cannot, that is to say, regulate judgments of the type, "This is typhoid," or, "That is Bela's comet," unless we have certain generic concepts, which are defined as connection of particular conditions, and unless we know when and how to select from the stock of such concepts at our disposal the particular one required. The entire science considered as a body of formulæ having coherent relations to one

another is just a system of possible predicates—that is, of possible standpoints or methods to be employed in qualifying some particular experience whose nature or meaning is not clear to us. It furnishes us with a set of tools from which choice has to be made. The choice, of course, depends upon the needs of the particular facts which have to be discriminated and identified in the given case—just as the carpenter decides, on the basis of what he is going to do, whether he will take a hammer, a saw, or a plane from his tool-chest. One might as well suppose that the existence of possible candidates for office, plus the mathematically possible combinations and permutations of them, constitutes an election of one of them to office, as to suppose that a specific judgment follows from even an ideally exhaustive system of general principles. The logical process includes, as an organic part of itself, the selection and reference of that particular one of the system which is relevant to the particular case. This individualized selection and adaptation is an integral portion of the logic of the situation. And such selection and adjustment is clearly in the nature of an act.

Nor must we fail to make clear that we are concerned, not with selecting and adapting a ready-made universal, but with the *origin* of the universal absolutely for the sake of just such adaptation. If individual cases in experience never gave us any difficulty in identification, if they never set any problem, universals would simply not exist, to say nothing of being used. The universal is precisely such a statement of experience as will facilitate and guarantee the valuation of individualized experiences. It has no existence, as it has no check of validity, outside of such a function. In some case where science has already made considerable headway, we may, without error, speak as if universals were already at hand, and as if the only question were which one of them to pick out and employ. But such a way of speaking must not blind us to the fact that it was only because of the need of some more objective way of determining a given case that a universal ever originated and took on form and character. Did not the universal develop as medium of conciliation in just the same sort of situation of conflict as that in which it finds its use, such use would be absolutely arbitrary, and consequently without logical limit. The activity which selects and employs is logical, not extra-logical, just because the tool selected and employed has been invented and developed precisely for the sake of just such future selection and use.²

b) The individualized act (or choice) in judgments of identification shows itself not only in selection from a body of possibilities of the specific predicate required, but in the determination of the "This," or subject, as well. Students of logic are

²The point of view which is here presented is, of course, distinctly pragmatic. I am not quite sure, however, of the implications of certain forms of pragmatism. They sometimes seem to imply that a rational or logical statement is all right up to a certain point, but has fixed external limits, so that at critical points recourse must be had to considerations which are distinctly of an irrational or extra-logical order, and this recourse is identified with choice and "activity." The practical and the logical are thus opposed to each other. It is just the opposite which I am endeavoring to sustain, viz., that the logical is an

inherent or organic expression of the practical, and hence is fulfilling its own logical basis and aim when it functions practically. I have no desire to show that what we term "science" is arbitrarily limited by *outside* ethical considerations; and that consequently science cannot intrude itself into the ethical sphere; but precisely the contrary, viz., that just because science is a mode of controlling our active relations with the world of experienced things, ethical experience is supremely in need of such regulation. And by "practical" I mean only regulated change in experienced values.

familiar with the distinction between the fact of particularity and the qualifications or distinguishing traits of a particular—a distinction which has been variously termed one between the “That” and the “What,” or between “This” and “Thisness.”³ Thisness refers to a quality which, however sensuous it be (such as hot, red, loud), may yet in its own meaning belong equally well to a large number of particulars. It is something a presentation *has*, rather than what it just *is*. Such a variety of applications is involved in the very notion of quality. It makes all qualities capable of consideration as degrees. It is responsible for the ease with which names of qualities transform themselves into abstract terms, blue into blueness, loud into loudness, hot into heat, etc.

The particularity, or better, singularity, of the judgment is constituted by the immediate demonstrative reference of the “This.”⁴ This demonstrative character means a preferential selection; it is a matter of action. Or, from the psychological side, the sensory quality becomes specific only in motor response. Red, blue, hot, etc., as immediate experiences, always involve motor adjustments which determine them. Change the kind of motor adjustment and the quality of the experience changes; diminish it and the quality relapses more and more into indefinite vagueness. The selection of any particular “This” as the immediate subject of judgment is not arbitrary, however, but is dependent upon the end involved in the interest which is uppermost. Theoretically, any object within the range of perception, or any quality or any element of any one object, may function as the “This,” or the subject-matter to be determined in judgment. Purely objectively, there is no reason for choosing any one of the infinite possibilities rather than another. But the aim in view (which, of course, finds its expression in the predicate of the judgment) gives a basis for deciding what object or what element of any object is logically fit. The implication of selective activity is thus an organic part of the logical operation, and not an arbitrary practical addition clapped on after the logical activity as such is complete. The very same interest which leads to the building up and selection of the universal leads to the constructive selection of the immediate data or material with reference to which the universal is to be employed.⁵

c) The experimental character of all scientific identification is a commonplace. It is so commonplace that we are apt to overlook its tremendous import—the unconditional necessity of overt activity to the integrity of the logical process as such. As we have just seen, an act is involved in the determination of both the predicate, or the interpreting meaning, and of the “This,” or fact to be identified. Were not both of

³This distinction in recent logic has been brought out with great force and clearness by BRADLEY, *Principles of Logic* (London, 1883), pp. 63-7.

⁴It is hardly necessary to point out that the article “the” is a weakened demonstrative, and that the pronouns, including “it,” all have demonstrative reference.

⁵Hence in accepting Bradley’s distinction between “This” and “Thisness” we cannot accept the peculiar interpretation which he gives it. According to his way of

looking at it, no strictly logical connection is possible between “This” and “Thisness.” “Thisness” alone has logical significance; the “This” is determined by considerations entirely beyond intellectual control; indeed, it marks the fact that a reality lying outside of the act of judging has broken in upon, or forced itself into, a region of logical ideas or meanings, this peculiar and coercive irruption being an essential attendant of the *finite* extremely limited character of our experience.

these acts correlatives in a larger scheme of change of value in experience, they would both be arbitrary; and their ultimate appropriateness or adaptation to each other would be a sheer miracle. If one arbitrary act of choice reached forth to lay hold of some predicate from out the whole system of possible qualifications, while another act of choice, entirely independent in origin, reached out to seize a given area from the whole possible region of sense-perceptions, it would be the sheerest accident if the two selections thus made should fit into each other, should play into each other's hands.

But if one and the same end or interest operates in regulating both selections, the case stands quite otherwise. In such case, the experimental activity of verification is the carrying on of precisely the same purpose which found expression in the choice of subject and predicate respectively. It is in no sense a third process, but is the entire activity which we have already considered in two partial but typical aspects. The choice of meaning or predicate is always made with reference to the individual case to be interpreted; and the constitution of the particular objective case is always colored throughout by the point of view or idea with reference to which it is to be utilized. This reciprocal reference is the check or test continuously employed; and any particular more obvious experimental activity of verification means simply that conditions are such that the checking process is rendered overt.

I have now endeavored to show that if we take scientific judgment in its only ultimate form, viz., that which identifies or discriminates an individualized portion of experience, judgment appears as an act of judging; the act showing itself both in the selection and determination of the subject and the predicate, and in the determination of their values with reference or in respect to each other, and hence in deciding as to truth and validity.

Since in the discussion I have used a terminology which is hardly self-explanatory, and have introduced a variety of statements which to many will appear, in the present state or condition of logical discussion, to need rather than to afford support, I may point out that the force of the argument resides in matters capable of complete empirical confirmation. The truth or falsity of the conclusion reached depends upon these two notions:

First, every judgment is in its concrete reality an act of attention, and, like all attention, involves the functioning of an interest or end and the deploying of habits and impulsive tendencies (which ultimately involve motor adjustments) in the service of that interest. Hence it involves selection as regards both the object of attention and the standpoint and mode of "apperceiving" or interpreting. Change the interest or end, and the selected material (the subject of the judgment) changes, and the point of view from which it is regarded (and consequently the kind of predication) changes also.

Second, the abstract generalizing propositions of science have developed out of the needs of such individualized judgments or acts of attention; they have assumed their present form—that is, developed their characteristic structures or contents—as instrumentalities for enabling an individual judgment to do its work most effectively;

Habit, IMPULSE

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that is to say, to accomplish most surely and economically the end for which it is undertaken. Consequently the value or validity of such concepts is constantly checked through a use which, by its success and failure, passes upon the competency of general principles, etc., to serve the regulative function for which they are instituted.⁶

So far as the scientific judgment is identified as an act, all a priori reason disappears for drawing a line between the logic of the material of the recognized sciences and that of conduct. We are thus free to proceed, if we can find any positive basis. The recognition that the activity of judging does not exist in general, but is of such a nature as to require reference to an initial point of departure and to a terminal fulfilment, supplies exactly this positive ground. The act of judging is not merely an active experience at large, but one which requires specific motivation. There must be some stimulus which moves to performing this particular sort of act rather than some other. Why engage in that particular kind of activity that we call judging? Conceivably some other activity might be going on—the sawing of wood, the painting of a picture, the cornering of the wheat market, the administering of reproof. There must be something outside the most complete and correct collection of intellectual propositions which induces to engage in the occupation of judging rather than in some other active pursuit. Science furnishes conditions which are to be used in the most effective execution of the judging activity, *if* one means to judge at all. But it presupposes the *If*. No theoretical system can settle that the individual shall at a given moment judge rather than do something else. Only the whole scheme of conduct as focusing in the interests of an individual can afford that determining stimulus.

Not only must a practical motive be found for the use of the organized scientific system, but a similar motive must be found for its correct and adequate use. The logical value of any intellectual proposition, its distinctively logical significance as distinct from existence as mere *ens rationis*, depends upon practical, and ultimately upon moral, considerations. The interest must be of a kind not only to move the individual to judge, but to induce him to judge critically, bringing into use all necessary precautions and all available resources which may insure the maximum probability of truth in the conclusion. The system of science (employing the term "science" to mean an organized intellectual content) is absolutely dependent for logical worth upon a moral interest: the sincere aim to judge truly. Remove such an interest, and the scientific system becomes a purely aesthetic object, which may awaken emotional response in virtue of its internal harmony and symmetry, but which has no logical import. If we suppose, once more, that it is a case of identification of typhoid fever, it is the professional, social, and scientific interests of the physician which lead him to take the trouble and pains to get all the data that bear upon the

⁶ It might check the prevalent tendency to draw sharp lines between philosophy as merely normative and the sciences as merely descriptive to realize that all generic scientific propositions, all statements of laws, all equations and formulæ, are strictly normative in character, having as their sole excuse for being, and their sole test of

worth, their capacity to regulate descriptions of individual cases. And the view that they are shorthand registers, or abstract descriptions, confirms instead of refuting this view. Why make a shorthand and unreal statement if it does not operate instrumentally in first-hand dealings with reality?

forming of judgment, and to consider with sufficient deliberateness as to bring to bear the necessary instrumentalities of interpretation. The intellectual contents get a logical function only through a specific motive which is outside of them barely as contents, but which is absolutely bound up with them in logical function.

If the use made of scientific resources, of technique of observation and experiment, of systems of classification, etc., in directing the act of judging (and thereby fixing the content of the judgment) depends upon the interest and disposition of the judge, we have only to make such dependence explicit, and the so-called scientific judgment appears definitely as a moral judgment. If the physician is careless and arbitrary because of overanxiety to get his work done, or if he lets his pecuniary needs influence his manner of judgment, we may say that he has failed both logically and morally. Scientifically he has not employed the methods at command for directing his act of judging so as to give it maximum correctness. But the ground for such logical failure lies in his own motive or disposition. The generic propositions or universals of science can take effect, in a word, only through the medium of the habits and impulsive tendencies of the one who judges. They have no *modus operandi* of their own.⁷

The possibility of a distinctively moral quality attaching to an intellectual activity is due to the fact that there is no particular point at which one habit begins and others leave off. If a given habit could become entirely isolated and detached, we might have an act of judging dependent upon a purely intellectual technique, upon a habit of using specialized skill in dealing with certain matters, irrespective of any ethical qualifications. But the principle of the continuum is absolute. Not only through habit does a given psychological attitude expand into a particular case, but every habit in its own operation may directly or indirectly call up any other habit. The term "character" denotes this complex continuum of interactions in its office of influencing final judgment.

§4. THE LOGICAL CHARACTER OF ETHICAL JUDGMENT

We now recur to our original proposition: Scientific treatment of any subject means command of an apparatus which may be used to control the formation of judgments in all matters appertaining to that subject. We have done away with the *a priori* objection that the subject-matter to which recognized scientific judgments apply is so unlike that with which moral judgments are concerned that there is no common denominator. We are now free to revert to the original question: What are the differentiating logical conditions of a scientific treatment of conduct? Every sort of judgment has its own end to reach; and the instrumentalities (the categories and

⁷So far as I know, Mr. CHARLES S. PIERCE was the first to call attention to this principle, and to insist upon its fundamental logical import (see *Monist*, Vol. II, pp. 534-6, 549-56). Mr. Pierce states it as the principle of continuity: A past idea can operate only so far as it is psychically continuous with that upon which it operates. A general idea is simply a living and expanding feeling, and habit is a

statement of the specific mode of operation of a given psychological continuum. I have reached the above conclusion along such diverse lines that, without in any way minimizing the priority of Mr. Pierce's statement, or its more generalized logical character, I feel that my own statement has something of the value of an independent confirmation.

Habit can not be isolated! Habit & character!

methods used) must vary as the end varies. If in general we conceive the logical nature of scientific technique, of formulæ, universals, etc., to reside in their adaptation to guaranteeing the act of judging in accomplishing a purpose, we are thereby committed to the further proposition that the logical apparatus needed varies as the ends to be reached are diverse. If, then, there is anything typically distinctive in the end which the act of ethical judging has to subserve, there must be equally distinctive features in the logic of its scientific treatment.

(The question thus recurs to the characteristic differential features of the ethical judgment as such.) These features readily present themselves if we return to those cases of scientific identification in which ethical considerations become explicit. There are cases, we saw, in which the nature of the identification—and its consequent truth or falsity—is *consciously* dependent upon the attitude or disposition of the judge. The term “consciously” differentiates a peculiar type of judgment. In all cases of individual judgment there is an act; and in all cases the act is an expression of motive, and thus of habit, and finally of the whole body of habit or character. But in many cases this implication of character remains a presupposition. It is not necessary to take notice of it. It is part of the practical conditions of making a judgment; but is no part of the logical conditions, and hence is not called upon to enter into a content—a conscious objectification in the judgment. To regard it as a practical instead of a logical condition means that while it is necessary to *any* judgment, the one act of judgment in question requires it no more than any other. It affects all *alike*; and this very impartiality of reference is equivalent to no reference at all as regards the truth or falsity of the particular judgment. Judging in such cases is controlled by reference to conditions of another quality than those of character; its presented data are judged in terms of objects of the same order or quality as themselves. Not only is there no conscious inclusion of motive and disposition within the content judged, but there is express holding off, inhibition, of all elements proceeding from the judge. From the standpoint of judgments of this type, such elements are regarded as logically merely subjective, and hence as disturbing factors with respect to the attainment of truth. It is no paradox to say that the activity of the agent in the act of judging expresses itself in effort to prevent its activity from having any influence upon the material judged. Accordingly through such judgments “external” objects are determined, the activity of the judge being kept absolutely neutral or indifferent as to its reference. The same idea is expressed by saying that the operation of motive and character may be presupposed, and hence left out of account, when they are so uniform in their exercise that they make no difference with respect to the *particular* object or content judged.

But whenever the implication of character, the operation of habit and motive, is recognized as a factor affecting the quality of the specific object judged, the logical aim makes it necessary to take notice of this fact by making the relationship an explicit element of content in the subject-matter undergoing judgment. When character is

not an indifferent or neutral factor, when it qualitatively colors the meaning of the situation which the judger presents to himself, a characteristic feature is introduced into the very object judged; one which is not a mere refinement, homogeneous in kind with facts already given, but one which transforms their significance, because introducing into the very content judged the standard of valuation. In other words, character as a practical condition becomes *logical* when its influence is preferential in effect—when instead of being a uniform and impartial condition of any judgment it is, if left to itself (or unstated), a determinant of *this* content-value of judgment rather than that. Put from the other side, in the “intellectual” judgment, it makes no *difference* to character *what* object is judged, so be it the one judged is judged accurately; while in the moral judgment the nub of the matter is the difference which the determination of the content as this or that effects in character as a necessary condition of judging *qua* judging.

The conscious reference to disposition makes the object an active object, viz., a process defined by certain limits—given facts on one side and the same facts as transformed by agency of a given type on the other. The object judged is active, not “external,” because it requires an act of judging, not merely as antecedent, but as a necessary element in its own structure. In judgments of the distinctively intellectual type, the assumption is that such activity as is necessary to effect certain combinations and distinctions will keep itself outside the material judged, retiring as soon as it has done its work in bringing together the elements that belong together and removing those that have no business. But in the ethical judgment the assumption is in the contrary sense; viz., that the situation is made what it is through the attitude which finds expression in the very act of judging. From the strictly logical standpoint (without reference, that is, to overtly moral considerations) the ethical judgment thus has a distinctive aim of its own: it is engaged with judging a subject-matter, a definitive element in whose determination is the attitude or disposition which leads to the act of judging.

It follows immediately that the aim of the ethical judgment may be stated as follows: Its purpose is to construct the act of judgment as itself a complex-objective content. It goes back of the judging act as that is employed in distinctively intellectual processes, and makes its quality and nature (as distinct from its form—a question for psychology) an object of consideration. Just because character or disposition is involved in the material passed in review and organized in judgment, character is determined by the judgment. This is a fact of tremendous ethical significance; but here its import is not ethical, but logical. It shows that we are dealing, from the strictly logical point of view, with a characteristic type of judgment—that in which the conditions of judging activity are themselves to be objectively determined. The judger is engaged in judging himself; and thereby in so far is fixing the conditions of all further judgments of any type whatsoever. Put in more psychological terms, we may say the judgment realizes, through conscious deliberation and choice, a certain motive hitherto more or less vague and impulsive; or it expresses a habit in such a way as not merely to strengthen it practically, but as to bring to consciousness both

its emotional worth and its significance in terms of certain kinds of consequences. But from the logical standpoint we say that the judge is consciously engaged in constructing as an object (and thereby giving objective form and reality to) the controlling condition of every exercise of judgment.

§5. THE CATEGORIES OF A SCIENCE OF ETHICS

The ethical judgment is one which effects an absolutely reciprocal determination of the situation judged, and of the character or disposition which is expressed in the act of judging. Any particular moral judgment must necessarily reflect within itself all the characteristics which are essential to moral judgment *überhaupt*. No matter how striking or how unique the material of any particular ethical experience, it is at least an ethical experience; and as such its consideration or interpretation must conform to the conditions involved in the very act of judging. A judgment which institutes the reciprocal determination just described has its own characteristic structure or organization. The work that it has to do gives it certain limiting or defining elements and properties. These constitute the ultimate Terms or Categories of all ethical science. Moreover, since these terms are reflected in every moral experience that is in course of judgment, they do not remain formal or barren, but are instruments of analysis of any concrete situation that is subjected to scientific scrutiny.

situation character →

The distinctively intellectual judgment, that of construing one object in terms of other similar objects, has necessarily its own inherent structure which supplies the ultimate categories of all physical science. Units of space, time, mass, energy, etc., define to us the limiting conditions under which judgments of this type do their work. Now, a type of judgment which determines a situation in terms of character, which is concerned with constructing what may be termed indifferently an active situation or a consciously active agency, has a like logical title to the standpoints and methods; the tools, which are necessary to its task. Ethical discussion is full of such terms: the natural and the spiritual, the sensuous and the ideal, the standard and the right, obligation and duty, freedom and responsibility, are samples. The discussion and use of these terms suffer, however, from a fundamental difficulty. The terms are generally taken as somehow given ready-made and hence as independent and isolated things. Then theory concerns itself, first, with debating as to whether the categories have validity or not; and, secondly, as to what their specific significance is. The discussion is arbitrary precisely because the categories are not taken as limiting terms; as constituent elements in a logical operation which, having its own task to perform, must have the means or tools necessary for its successful accomplishing. Consequently the primary condition of a scientific treatment of ethics is that the fundamental terms, the intellectual standpoints and instrumentalities, used, be discussed with reference to the position they occupy and the part they play in a judgment of a peculiar type, viz., one which brings about the reciprocal objective determination of an active situation and a psychical disposition.

When the categories receive the fate which is meted out to them in current discussion, when they are taken up in accidental because isolated ways, there is no method of controlling formation of judgment regarding them. Consequently other judgments which depend upon their use are in an increasing measure uncontrolled. The very tools which are necessary in order that more specific judgments may work economically and effectively are only vaguely known as to their own structure and modes of operation. Naturally they are bungled in employ^{ment}. Because categories are discussed as if they had some ready-made independent meaning, each of its own, there is no check upon the meaning which is assigned to any one of them, and no recognized standard for judging the validity of any. Only reference to a situation within which the categories emerge and function can furnish the basis for estimation of their value and import. Otherwise the definition of ultimate ethical terms is left to argumentation based upon opinion, an opinion which snatches at some of the more obvious features of the situation (and thereby may always possess some measure of truth), and which, failing to grasp the situation as a whole, fails to grasp the exact significance of its characteristic terms. Discussion, for instance, about what constitutes the ethical standard—whether conduciveness to happiness, or approximation to perfection of being—must be relatively futile, until there is some method of determining by reference to the logical necessity of the case what *anything* must be and mean in order to be a standard at all. We lack a definition of standard in terms of the essential conditions of the ethical judgment and situation. Such a definition of standard would not indeed give us an off-hand view of the make-up of moral value such as might be utilized for forming moral precepts, but it will set before us certain conditions which any candidate for the office of moral standard must be capable of fulfilling; and will thereby serve as an instrument in criticising the various claimants for the position of standard, whether these offer themselves in generic theory or in the affairs of concrete conduct. Similarly, theorists have been attempting to tell what the ideal of man is, what is *summum bonum*, what is man's duty, what are his responsibilities, to prove that he is possessed or not possessed of freedom, without any regulated way of defining the content of the terms "ideal," "good," "duty," etc. If these terms have any verifiable proper meaning of their own, it is as limiting traits of that type of judgment which institutes the reciprocal identification of psychical attitude in judging and subject-matter judged. An analysis of the make-up of judgment of this type must reveal all the distinctions which have claim to the title of fundamental ethical categories. Whatever element of meaning reveals itself as a constituent part of such a judgment has all the claim to validity which moral experience itself possesses; a term which is not exhibited within such an analysis has no title to validity. The differential meaning of any one of the terms is dependent upon the particular part it plays in the development and termination of judgments of this sort.

§ 6. PSYCHOLOGICAL ANALYSIS AS A CONDITION OF CONTROLLING ETHICAL JUDGMENTS

If it be true that a moral judgment is one in which the content finally affirmed is affected at every point by the disposition of the judge (since he interprets the situation that confronts him in terms of his own attitude), it follows at once that one portion of the generic theory necessary for adequate control of individual moral judgments will consist in an objective analysis of disposition as affecting action through the medium of judgment. Everyone knows, as simple matter of fact, that a large part of existing treatises on morals are filled with discussions concerning desirable and undesirable traits of character—virtues and vices; with conscience as a function of character; with discussions of intention, motive, choice, as expressions of, and as ways of forming, character. Moreover, a concrete discussion of freedom, responsibility, etc., is carried on as a problem of the relationship of character to the media of action. The reciprocal determination, already set forth, of character and the content judged shows that such discussions are not mere practical desiderata, nor yet a mere clearing up of incidental points, but integral portions of any adequate ethical theory.

If character or disposition reflects itself at every point in the constitution of the content finally set forth in judgment, it is clear that control of such judgment depends upon ability to state, in universalized form, the related elements constituting character an objective fact.⁸ Our particular judgments regarding physical things are controlled only in so far as we have, independent of and prior to any particular emergency in experience, a knowledge of certain conditions to be observed in judging every physical object as physical. It is through reference to such laws, or statements of connected conditions, that we get the impartiality or objectivity which enables us to judge in a particular crisis unswerved by purely immediate considerations. We get away from the coercive immediacy of the experience, and into a position to look at it clearly and thoroughly. Since character is a fact entering into any moral judgment passed, ability of control depends upon our power to state character in terms of generic relation of conditions, which conditions are detachable from the pressure of circumstance in the particular case. Psychological analysis is the instrument by which character is transformed from its absorption in the values of immediate experience into an objective, scientific, fact. It is indeed, a statement of experience in terms of its modes of control of its own evolving.

Even popular consciousness is aware of many ways in which psychical dispositions modify judgment in a moral sense; and is accustomed to take advantage of its knowledge to regulate moral judgments. A score of proverbs could be collected expressing ways in which psychological attitudes affect moral valuation. The ideas in

⁸Of course, the terms "object" and "objective" are used in a logical sense, not as equivalent to "physical," which denotes simply one form which the logical object may take. DR. STUART'S article on "Valuation as a Logical Process" in *Studies in Logical Theory* (The Uni-

versity of Chicago Press, 1903) may be referred to for a discussion of the study of the logical significance of the term "object" and its bearing upon the objectivity of economic and ethical judgments.

such statements as the following are commonplaces to the plain man: Habit, wont, and use dull the power of observation; passion blinds and confuses the power of reflection; self-interest makes the judge alert to certain aspects of the situation judged; impulse hurries the mind on uncritically to a conclusion; ends, ideals, arouse, when contemplated, emotions that tend to fill consciousness, and which, as they swell, first restrict and then eliminate power of judgment. Such statements, which might be indefinitely increased, are not only popularly known, but are commonly used in formation of a kind of hygiene of moral action.

Psychology proper differs from the aggregate of such statements through setting forth *how* various dispositions operate in bringing about the effects attributed to them. Just what are the various distinguishable psychological attitudes and tendencies? How do they hang together? How does one call forth or preclude another? We need an inventory of the different characteristic dispositions; and an account of how each is connected, both in the way of stimulation and inhibition, with every other. Psychological analysis answers this need. While it can answer this need only through development of scientific constructs which present themselves in experience only as results of the psychological examination, yet it is true that the typical attitudes and dispositions are familiar as functions of every-day experience. It is equally true that even the most atomic psychology employs generalized statements about the ways in which certain "states of consciousness" or elements (the constructs referred to) regularly introduce certain other "states." The theory of association is, indeed, just a generalization concerning an objective sequence of elements which reflects to the psychologist the sequence of attitudes or dispositions which are found in the immediate course of experience. In particular the sensationalists not only admit but claim that the association of other states of consciousness with states of pleasure and pain have uniform tendencies which may be reduced to universal propositions; and which may be employed to formulate principles exhibited in all conduct. If such is the case with psychological atomism, every step toward recognition of a more organized, or inherently complex, mental structure multiplies the number and range of possible propositions relating to connection of conditions among psychic states—statements which, if true at all, have exactly the same logical validity that is possessed by any "physical law." And in so far as these "states" are symbols of the attitudes and habits which operate in our immediate experience, every such proposition is at once translatable into one regarding the way in which character is constituted—just the type of generic statement required by a scientific ethics.

Psychology of course does not aim at reinstating the immediate experience of the individual; nor does it aim at describing that experience in its immediate values, whether æsthetic, social, or ethical. It reduces the immediate experience to a series of dispositions, attitudes, or states which are taken as either conditions or signatures of life-experience. It is not the full experience-of-seeing-a-tree it is concerned with, but the experience reduced by abstraction to an attitude or state of perception; it is not the concrete getting angry, with all its personal and social implications, but anger

as one species of a generic psychic disposition known as emotion. It is not concerned with a concrete judgment as such—to say nothing of moral judgment. But psychological analysis finds in experience the typical attitudes it deals with, and only abstracts them so that they may be objectively stated.

Every statement of moral theory which purports to relate to our moral consciousness sets forth relations whose truth must ultimately be tested through psychological analysis—just as every judgment regarding a specific physical phenomenon must finally satisfy certain generic conditions of physical reality set forth in physical analysis.

Psychological analysis does not, for example, set before us an end or ideal actually experienced, whether moral or otherwise. It does not purport to tell us *what* the end or ideal is. But psychological analysis shows us just what forming and entertaining an end means. Psychological analysis abstracts from the concrete make-up of an end, as that is found as matter of direct experience, and because of (not in spite of) that abstraction sets before us having-an-end in terms of its conditions and its effects, that is, in terms of taking other characteristic attitudes which are present in other experiences.

Hence purely psychologic propositions are indispensable to any concrete moral theory. The logical analysis of the process of moral judgment, setting forth its inherent organization or structure with reference to the peculiar logical function it has to accomplish, furnishes the categories or limiting terms of ethical science, and supplies their formal meaning, their definition. But the logical category, say, of end or ideal becomes concrete only as some individual has actually experience of and with ends—and this involves the act or attitude of forming and entertaining them. So the category of standard becomes more than a possible intellectual tool only as some individual actually engages in an experience concerned with right and wrong, and which, when viewed objectively, is regarded as a judgment. The entertaining of ends, the adjudging of values—such acts are character-phenomena. Considered in abstraction from their immediate matter in experience, viz., just as acts, states, or dispositions, they are character-phenomena as these present themselves to psychological analysis. Even to consider any experience, or any phase of an experience, an ideal is to reflect upon that experience; it is to abstract and to classify. It involves passing judgment *upon* an experience; something beyond the concrete experiencing. It is, as far as it goes, psychological analysis—that is, it is a process of exactly the same order and implying just the same distinctions and terms as are found in psychological science. But the latter, in making abstraction and classification conscious processes, enables us to control them, instead of merely indulging in them.

Hence it is futile to insist that psychology cannot “give” the moral ideal, and that consequently there must be recourse to transcendental considerations—to metaphysics. Metaphysics, in the sense of a logical analysis of that type of judgment which determines the agent and the content of judgment in complete reciprocity to each other, may

“give” the ideal—that is, it may show how the form or category of ideal is a constitutive element in this type of judgment, and hence has whatever of validity attaches to this mode of judging. But such a logical analysis is far from transcendental metaphysics; and in any case we thus obtain only the category of ideal as a standpoint or terminus of a *possible* moral judgment. There is no question here of ideal as immediately experienced. Only living, not metaphysics any more than psychology, can “give” an ideal in this sense. But when ethical theory makes statements regarding the importance of ideals for character and conduct, when it lays stress upon the significance of this, rather than that, kind of ideal, it is engaged in setting forth universal relations of conditions; and there is absolutely no way of testing the validity of such statements with respect to their claim of generality or objectivity save by an analysis of psychic dispositions which shows what is meant by having-an-ideal in terms of its antecedents and consequences. If any general statement whatsoever can be made about ideals, it is because the psychic attitude corresponding to conceiving an ideal can be abstracted, and placed in a certain connection with attitudes which represent abstracts of other experiences. To have an ideal, to form and entertain one, must be a fact, or else ideals are absolute non-existence and non-sense. To discuss what it is to have an ideal is to engage in psychological analysis. If the having-an-ideal can be stated in terms of sequence with other similar attitudes, then we have a psychological generic statement (or law) which can be employed as a tool of analysis in reflecting upon concrete moral experiences, just as the “law” of falling bodies is of use in controlling our judgment of pile-drivers, the trajectory of shells, etc. The possibility of *generalized propositions* regarding any character-phenomenon stands and falls with the possibility of psychological analysis revealing regular association or co-ordination of certain tendencies, habits, or dispositions with one another. Hence the continued reiteration that psychology as a natural science deals only with facts, while ethics is concerned with values, norms, ideals which ought to be whether they exist or no, is either aside from the point, or else proves the impossibility of making any general statements, metaphysical as well as practical and scientific, about such matters.

§7. SOCIOLOGICAL ANALYSIS AS A CONDITION OF CONTROLLING ETHICAL JUDGMENTS

We revert once more to our fundamental consideration: the reciprocal determination in moral judgment of the act of judging and the content judged. As we have just seen, adequate control of an act as determining a content involves the possibility of making character an object of scientific analysis—of stating it as a system of related conditions or an object complete in itself—a universal. We have now to recognize the converse, viz., that we can control the judgment of the act, hence of character as expressed in act, only as we have a method of analyzing the *content* in itself—that is, in abstraction from its bearings upon action.

The ethical problem needs to be approached from the point of view of the act as modifying the content, and of the content as modifying the act; so that, on one hand, we require, prior to a particular moral crisis, a statement in universal terms of the mechanism of the attitudes and dispositions which determine judgment about action; while, on the other hand, we need a similar prior analysis and classification of the situations which call forth such judgment. Which portion of the scientific apparatus we bring most prominently into play in any given case depends upon the circumstances of that case as influencing the probable source of error. If the situation or scene of action (by which we mean the conditions which provoke or stimulate the act of moral judging) is fairly familiar, we may assume that the source of error in judgment lies in the disposition which is back of the experience—that if we can only secure the right motive on the part of the judger, the judgment itself will be correct. In other cases circumstances are reversed. We can fairly presuppose or take for granted a right attitude on the part of the judger; the problematic factor has to do with the interpretation of the situation. In this case what is needed for right judgment is a satisfactory knowledge of the “facts of the case.” Given that, the existing motive will take care of the rest. It is this latter aspect of the matter that we now have to discuss.

The only way in which the agent can judge himself as an agent, and thereby control his act—that is, conceive of himself as the one who is to do a certain thing—is by finding out the situation which puts upon him the necessity of judging it in order that he may decide upon a certain course of action. As soon as a conclusion is reached as to the nature of the scene of action, a conclusion is also reached as to what the agent is to do, and this decides in turn what sort of an agent he is to be. The merely intellectual judgment may be marked off as one in which a content or object is fixed in terms of some other object or content, homogeneous in worth, and where accordingly it is a necessary part of the procedure to suppress participation in judging of traits which proceed from, or refer to, the disposition of the judger. But judgments which are ethical (not merely intellectual) make no such abstraction. They expressly and positively include the participation of the judger in the content judged, and of the object judged in the determination of the judger. In other words, the object judged or situation constructed in moral judgment is not an external object, cold, remote, and indifferent, but is most uniquely, intimately, and completely the agent's own object, or is the agent as object.

Such being the case, what is required in order to form such a judgment of the scene or conditions of action as will facilitate the most adequate possible construing of the agent? I reply: A social science which will analyze a content as a combination of elements in the same way that psychological analysis determines an act as a set of attitudes. It is assumed that the situation which calls forth distinctively moral judgment is a social situation, which accordingly can be adequately described only through methods of sociological analysis. I am aware that (even admitting the neces-

sity of some sort of scientific interpretation of the scene of action) it is something of a jump to say that such science must be sociological in character. The logical gap could be covered only by carrying the discussion of the categories of moral judgment to the point where their social value would explicitly show itself. Such analysis is apart from my present purpose. Here I need only recur to the proposition of the reciprocal determination, in the ethical judgment, of the judger and the content judged, and suggest that this idea requires in its logical development the conclusion that, since the judger is personal, the content judged must ultimately be personal too — so that the moral judgment really institutes a relationship between persons, relationship between persons being what we mean by "social."

But in any case, some way of getting an objective statement of the situation, a statement in terms of connection of conditions, is necessary. Certain descriptive sciences are necessary and in many cases no one would deny that elements of associated life enter into the facts to be described. But even if it be admitted that the scene is social, this characterization does not exhaust the description. Any scene of action which is social is *also* cosmic or physical. It is also biological. Hence the absolute impossibility of ruling out the physical and biological sciences from bearing upon ethical science. If ethical theory require, as one of its necessary conditions, ability to describe in terms of itself the situation which demands moral judgment, any proposition, whether of mechanics, chemistry, geography, physiology, or history, which facilitates and guarantees the adequacy and truth of the description, becomes in virtue of that fact an important auxiliary of ethical science.

In other words, the postulate of moral science is the continuity of scientific judgment. This proposition is denied by both the materialistic and transcendental schools of metaphysics. The transcendental school draws such a fixed line between the region of moral and of cosmic values that by no possibility can propositions which refer to the latter become auxiliary or instrumental with respect to the former. The fact that advance of physical and biological science so profoundly modifies moral problems, and hence moral judgments, and hence once more moral values, may serve as an argument against transcendental ethics — since, according to the latter, such obvious facts would be impossibilities. Materialism denies equally the principle of continuity of judgment. It confuses continuity of method, the possibility of using a general statement regarding one object as a tool in the determination of some other, with immediate identity of subject-matter. Instead of recognizing the *continuity* of ethical with other forms of experience, it wipes out ethical experience by assimilating it not simply with reference to logical method, but in its own ontological structure, to another form of objects defined in judgment — that is, the physical form. If it is once recognized that all scientific judgments, physical as well as ethical, are ultimately concerned with getting experience stated in objective (that is, universal) terms for the sake of the direction of further experience, there will, on the one hand, be no hesitation in using any sort of statement that can be of use in the formation of other judg-

ments, whatever be their topic or reference; and, on the other hand, there will be no thought of trying to explain away the *distinctive* traits of any type of experience. Since conscious life is continuous, the possibility of using any one mode of experience to assist in the formation of any other is the ultimate postulate of all science — non-ethical and ethical alike. And this possibility of use, of application, of instrumental service, makes it possible and necessary to employ materialistic science in the construction of ethical theory, and also protects in this application ethical values from deterioration and dissolution.

In conclusion, it may avoid misapprehension if I say that the considerations set forth in this paper do not involve any pedantic assumption regarding the necessity of using science, or logical control, in any particular instance of moral experience. The larger part, infinitely the larger part, of our concrete contact with physical nature takes place without conscious reference to the methods, or even the results, of physical science. Yet no one questions the fundamental importance of physical science. This importance discovers itself in two ways:

1 First, when we come to peculiarly difficult problems (whether of interpretation or of inventive construction), physical science puts us in possession of tools of conscious analysis and of synthesis. It enables us to economize our time and effort, and to proceed with the maximum probability of success to solution of the problem which confronts us. This use is conscious and deliberate. It involves the critical application of the technique and already established conclusions of science to cases of such complexity and perplexity that they would remain unsolved and undealt with, were it not for scientific resources.

2 In the second place, physical science has a wide sphere of application which involves no conscious reference whatsoever. Previous scientific methods and investigations have taken effect in our own mental habits and in the material dealt with. Our unconscious ways of apprehending, of interpreting, of deliberating, are saturated with products of prior conscious critical science. We thus get the benefit, in our intellectual commerce with particular situations, of scientific operations which we have forgotten, and even of those which we individually have never performed. Science has become incarnate in our immediate attitude toward the world about us, and is embodied in that world itself. Every time that we solve a difficulty by sending a telegram, crossing a bridge, lighting the gas, boarding a railroad train, consulting a thermometer, we are controlling the formation of a judgment by use of so much precipitated and condensed science. Science has pre-formed, in many of its features, the situation with reference to which we have to judge; and it is this objective delimitation and structural reinforcement which, answering at every point to the conformation of habit, most assists intelligence in the details of its behavior.

There is every reason to suppose that the analogy holds with reference to a science of conduct. Such a science can be built up only through reference to cases which at the outset need conscious critical direction in judgment. We need to know what the

social situation is in which we find ourselves required to act, so that we may know what it is right to do. We need to know what is the effect of some psychical disposition upon our way of looking at life and thereby upon our conduct. Through clearing up the social situation, through making objective to ourselves our own motives and their consequences, we build up generic propositions: statements of experience as a connection of conditions, that is, in the form of objects. Such statements are used and applied in dealing with further problems. Gradually their use becomes more and more habitual. The "theory" becomes a part of our psychical apparatus. The social situation takes on a certain form or organization. It is pre-classified as of a certain sort, as of a certain genus and even species of this sort; the only question which remains is discrimination of the particular variety. Again, we get into the habit of taking into account certain sources of error in our own disposition as these affect our judgments of behavior, and thereby bring them sufficiently under control so that the need of conscious reference to their intellectual formulation diminishes. As physical science has brought about an organization of the physical world along with an organization of practical habits of dealing with that world, so ethical science will effect an organization of the social world and a corresponding organization of the psychical habits through which the individual relates himself to it. With this clearing up of the field and organs of moral action, conscious recourse to theory will, as in physical cases, limit itself to problems of unusual perplexity and to constructions of a large degree of novelty.

SUMMARY

1. By "scientific" is meant methods of control of formation of judgments.
2. Such control is obtained only by ability to abstract certain elements in the experience judged, and to state them as connections of conditions, *i. e.*, as "objects," or universals.
3. Such statements constitute the bulk of the recognized sciences. They are generic propositions, or laws, put, as a rule, in the hypothetic form if *M*, then *N*. But such generic propositions are the instruments of science, not science itself. Science has its life in judgments of identification, and it is for their sake that generic propositions (or universals, or laws) are constructed and tested or verified.
4. Such judgments of concrete identification are individualized, and are also acts. The presence of action as a logical element appears indirectly in (*a*) the selection of the subject, (*b*) the determination of the predicate, and (*c*) most directly in the copula—the entire process of the reciprocal forming and testing of tentative subjects and predicates.
5. Judgments are "intellectual" in logical type so far as this reference to activity may be presupposed, and thereby not require to be consciously set forth or exposed. This happens whenever the action involved is impartial in its influence upon the quality of the content judged. Judgments are "moral" in logical type so far as the presence of activity in affecting the content of judgment is seen consciously to affect

itself—or whenever the reciprocal determination of activity and content becomes itself an object of judgment whose determination is a prerequisite for further successful judgments.

6. Control of moral judgment requires ability to constitute the reciprocal determination of activity and content into an object. This has three phases: First, a statement of the limiting forms of that type of judgment which is concerned with construing an activity and a content in terms of each other. The limiting terms of such a type of judgment constitute the characteristic features, or categories, of the object of ethical science, just as the limiting terms of the judgment which construes one object in terms of another object constitute the categories of physical science. A discussion of moral judgment from this point of view may be termed "The Logic of Conduct." Second, an abstraction of the activity, which views it as a system of attitudes or dispositions involved in having experiences, and states it (since a system) as an object constituted by definite connections of diverse attitudes with the attitude of judging—viz., the science of psychology. Third, a similar abstraction of the "content," which views it as a system of social elements which form the scene or situation in which action is to occur, and with reference to which, therefore, the actor is to be formed—viz., sociological science.

7. The whole discussion implies that the determination of objects as objects, even when involving no conscious reference whatever to conduct, is, after all, for the sake of the development of further experience. This further development is change; transformation of existing experience, and thus is active. So far as this development is intentionally directed through the construction of objects as objects, there is not only active experience, but regulated activity, i. e., conduct, behavior, practice. Therefore, all determination of objects as objects (including the sciences which construct physical objects) has reference to change of experience, or experience as activity; and, when this reference passes from abstraction to application (from negative to positive), has reference to conscious control of the nature of the change (*i. e.*, conscious change), and thereby gets ethical significance. This principle may be termed the postulate of continuity of experience. This principle on the one hand protects the integrity of the moral judgment, revealing its supremacy and the corresponding instrumental or auxiliary character of the intellectual judgment (whether physical, psychological, or social); and, upon the other, protects the moral judgment from isolation (*i. e.*, from transcendentalism), bringing it into working relations of reciprocal assistance with all judgments about the subject-matter of experience, even those of the most markedly mechanical and physiological sort.

conduct = behavior = practice

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