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manded by the method and conclusions of natural science? What possibilities of controlled transformation of the content of present belief and practice in human institutions and associations are indicated by the control of natural energies which natural science has effected? These questions are as genuine and imperative as the traditional problem is artificial and futile.

10. The Construction of Good

We saw at the outset of our discussion that insecurity generates the quest for certainty. Consequences issue from every experience, and they are the source of our interest in what is present. Absence of arts of regulation diverted the search for security into irrelevant modes of practice, into rite and cult; thought was devoted to discovery of omens rather than of signs of what is to occur. Gradually there was differentiation of two realms, one higher, consisting of the powers which determine human destiny in all important affairs. With this religion was concerned. The other consisted of the prosaic matters in which man relied upon his own skill and his matter-of-fact insight. Philosophy inherited the idea of this division. Meanwhile in Greece many of the arts had attained a state of development which raised them above a merely routine state; there were intimations of measure, order and regularity in materials dealt with which give intimations of underlying rationality. Because of the growth of mathematics, there arose also the ideal of a purely rational knowledge, intrinsically solid and worthy and the means by which the intimations of rationality within changing phenomena could be comprehended within science. For the intellectual class the stay and consolation, the warrant of certainty, provided by religion was henceforth found in intellectual demonstration of the reality of the objects of an ideal realm.

With the expansion of Christianity, ethico-religious traits came to dominate the purely rational ones. The ultimate authoritative standards for regulation of the dispositions and purposes of the human will were fused with those which satisfied the demands for necessary and universal truth. The authority of ultimate Being was, moreover, represented on earth by the Church; that which in its nature transcended intellect was made known by a revelation of which the Church was the interpreter and guard-
ian. The system endured for centuries. While it endured, it provided an integration of belief and conduct for the western world. Unity of thought and practice extended down to every detail of the management of life; efficacy of its operation did not depend upon thought. It was guaranteed by the most powerful and authoritative of all social institutions.

Its seemingly solid foundation was, however, undermined by the conclusions of modern science. They effected, both in themselves and even more in the new interests and activities they generated, a breach between what man is concerned with here and now and the faith concerning ultimate reality which, in determining his ultimate and eternal destiny, had previously given regulation to his present life. The problem of restoring integration and cooperation between man's beliefs about the world in which he lives and his beliefs about the values and purposes that should direct his conduct is the deepest problem of modern life. It is the problem of any philosophy that is not isolated from that life.

The attention which has been given to the fact that in its experimental procedure science has surrendered the separation between knowing and doing has its source in the fact that there is now provided within a limited, specialized and technical field the possibility and earnest, as far as theory is concerned, of effecting the needed integration in the wider field of collective human experience. Philosophy is called upon to be the theory of the practice, through ideas sufficiently definite to be operative in experimental endeavor, by which the integration may be made secure in actual experience. Its central problem is the relation that exists between the beliefs about the nature of things due to natural science and beliefs about values—using that word to designate whatever is taken to have rightful authority in the direction of conduct. A philosophy which should take up this problem is struck first of all by the fact that beliefs about values are pretty much in the position in which beliefs about nature were before the scientific revolution. There is either a basic distrust of the capacity of experience to develop its own regulative standards, and an appeal to what philosophers call eternal values, in order to ensure regulation of belief and action; or there is acceptance of enjoyments actually experienced irrespective of the method or operation by which they are brought into existence. Complete bifurcation between rationalistic method and an empiricist method has its final and most deeply human significance in the ways in which good and bad are thought of and acted for and upon.

As far as technical philosophy reflects this situation, there is division of theories of values into two kinds. On the one hand, goods and evils, in every region of life, as they are concretely experienced, are regarded as characteristic of an inferior order of Being—intrinsically inferior. Just because they are things of human experience, their worth must be estimated by reference to standards and ideals derived from ultimate reality. Their defects and perversion are attributed to the same fact; they are to be corrected and controlled through adoption of methods of conduct derived from loyalty to the requirements of Supreme Being. This philosophic formulation gets actuality and force from the fact that it is a rendering of the beliefs of men in general as far as they have come under the influence of institutional religion. Just as rational conceptions were once superimposed upon observed and temporal phenomena, so eternal values are superimposed upon experienced goods. In one case as in the other, the alternative is supposed to be confusion and lawlessness. Philosophers suppose these eternal values are known by reason; the mass of persons that they are divinely revealed.

Nevertheless, with the expansion of secular interests, temporal values have enormously multiplied; they absorb more and more attention and energy. The sense of transcendent values has become enfeebled; instead of permeating all things in life, it is more and more restricted to special times and acts. The authority of the church to declare and impose divine will and purpose has narrowed. Whatever men say and profess, their tendency in the presence of actual evils is to resort to natural and empirical means to remedy them. But in formal belief, the old doctrine of the inherently disturbed and unworthy character of the goods and standards of ordinary experience persists. This divergence between what men do and what they nominally profess is closely connected with the confusions and conflicts of modern thought.

It is not meant to assert that no attempts have been made to replace the older theory regarding the authority of immutable and transcendent values by conceptions more congruous with the practices of daily life. The contrary is the case. The utilitarian theory, to take one instance, has had great power. The idealistic
school is the only one in contemporary philosophies, with the exception of one form of neo-realism, that makes much of the notion of a reality which is all one with ultimate moral and religious values. But this school is also the one most concerned with the conservations of "spiritual" life. Equally significant is the fact that empirical theories retain the notion that thought and judgment are concerned with values that are experienced independently of them. For these theories, emotional satisfactions occupy the same place that sensations hold in traditional empiricism. Values are constituted by liking and enjoyment; to be enjoyed and to be a value are two names for one and the same fact. Since science has extruded values from its objects, these empirical theories do everything possible to emphasize their purely subjective character of value. A psychological theory of desire and liking is supposed to cover the whole ground of the theory of values; in it, immediate feeling is the counterpart of immediate sensation.

I shall not object to this empirical theory as far as it connects the theory of values with concrete experiences of desire and satisfaction. The idea that there is such a connection is the only way known to me by which the pallid remoteness of the rationalistic theory, and the only too glaring presence of the institutional theory of transcendental values can be escaped. The objection is that the theory in question holds down value to objects antecedently enjoyed, apart from reference to the method by which they come into existence; it takes enjoyments which are casual because unregulated by intelligent operations to be values in and of themselves. Operational thinking needs to be applied to the judgment of values just as it has now finally been applied in conceptions of physical objects. Experimental empiricism in the field of ideas of good and bad is demanded to meet the conditions of the present situation.

The scientific revolution came about when material of direct and uncontrolled experience was taken as problematic; as supplying material to be transformed by reflective operations into known objects. The contrast between experienced and known objects was found to be a temporal one; namely, one between empirical subject-matters which were had or "given" prior to the acts of experimental variation and redisposition and those which succeeded these acts and issued from them. The notion of an act whether of sense or thought which supplied a valid measure of thought in immediate knowledge was discredited. Consequences of operations became the important thing. The suggestion almost imperatively follows that escape from the defects of transcendental absolutism is not to be had by setting up as values enjoyments that happen anyhow, but in defining value by enjoyments which are the consequences of intelligent action. Without the intervention of thought, enjoyments are not values but problematic goods, becoming values when they re-issue in a changed form from intelligent behavior. The fundamental trouble with the current empirical theory of values is that it merely formulates and justifies the socially prevailing habit of regarding enjoyments as they are actually experienced as values in and of themselves. It completely side-steps the question of regulation of these enjoyments. This issue involves nothing less than the problem of the directed reconstruction of economic, political and religious institutions.

There was seemingly a paradox involved in the notion that if we turned our backs upon the immediately perceived qualities of things, we should be enabled to form valid conceptions of objects, and that these conceptions could be used to bring about a more secure and more significant experience of them. But the method terminated in disclosing the connections or interactions upon which perceived objects, viewed as events, depend. Formal analogy suggests that we regard our direct and original experience of things liked and enjoyed as only possibilities of values to be achieved; that enjoyment becomes a value when we discover the relations upon which its presence depends. Such a causal and operational definition gives only a conception of a value, not a value itself. But the utilization of the conception in action results in an object having secure and significant value.

The formal statement may have given concrete content by pointing to the difference between the enjoyed and the enjoyable, the desired and the desirable, the satisfying and the satisfactory. To say that something is enjoyed is to make a statement about a fact, something already in existence; it is not to judge the value of that fact. There is no difference between such a proposition and one which says that something is sweet or sour, red or black. It is just correct or incorrect and that is the end of the matter. But to call an object a value is to assert that it satisfies or fulfills certain conditions. Function and status in meeting conditions is
of bringing a fact into existence; or, if it is already there, of sustaining it in existence. The latter is a genuine practical judgment, and marks the only type of judgment that has to do with the direction of action. Whether or no we reserve the term "value" for the latter, (as seems to me proper) is a minor matter; that the distinction be acknowledged as the key to understanding the relation of values to the direction of conduct is the important thing.

This element of direction by an idea of value applies to science as well as anywhere else. For in every scientific undertaking, there is passed a constant succession of estimates; such as "it is worth treating these facts as data or evidence; it is advisable to try this experiment; to make that observation; to entertain such and such a hypothesis; to perform this calculation," etc.

The word "taste" has perhaps got too completely associated with arbitrary liking to express the nature of judgments of value. But if the word be used in the sense of an appreciation at once cultivated and active, one may say that the formation of taste is the chief matter wherever values enter in, whether intellectual, esthetic or moral. Relatively immediate judgments, which we call tact or to which we give the name of intuition, do not precede reflective inquiry, but are the funded products of much thoughtful experience. Expertness of taste is at once the result and the reward of constant exercise of thinking. Instead of there being no disputing about tastes, they are the one thing worth disputing about, if by "dispute" is signified discussion involving reflective inquiry. Taste, if we use the word in its best sense, is the outcome of experience brought cumulatively to bear on the intelligent appreciation of the real worth of likenings and enjoyments. There is nothing in which a person so completely reveals himself as in the things which he judges enjoyable and desirable. Such judgments are the sole alternative to the domination of belief by impulse, chance, blind habit and self-interest. The formation of a cultivated and effectively operative good judgment or taste with respect to what is esthetically admirable, intellectually acceptable and morally approvable is the supreme task set to human beings by the incidents of experience.

Propositions about what is or has been liked are of instrumental value in reaching judgments of value, in as far as the conditions and consequences of the thing liked are thought about. In
themselves they make no claims; they put forth no demand upon subsequent attitudes and acts; they profess no authority to direct. If one likes a thing he likes it; that is a point about which there can be no dispute—although it is not so easy to state just what is liked as is frequently assumed. A judgment about what is to be desired and enjoyed is, on the other hand, a claim on future action; it possesses de jure and not merely de facto quality. It is a matter of frequent experience that likings and enjoyments are of all kinds, and that many are such as reflective judgments condemn. By way of self-justification and "rationalization," an enjoyment creates a tendency to assert that the thing enjoyed is a value. This assertion of validity adds authority to the fact. It is a decision that the object has a right to exist and hence a claim upon action to further its existence.

The analogy between the status of the theory of values and the theory of ideas about natural objects before the rise of experimental inquiry may be carried further. The sensationalistic theory of the origin and test of thought evoked, by way of reaction, the transcendental theory of a priori ideas. For it failed utterly to account for objective connection, order and regularity in objects observed. Similarly, any doctrine that identifies the mere fact of being liked with the value of the object liked so fails to give direction to conduct when direction is needed that it automatically calls forth the assertion that there are values eternally in Being that are the standards of all judgments and the obligatory ends of all action. Without the introduction of operational thinking, we oscillate between a theory that, in order to save the objectivity of judgments of values, isolates them from experience and nature, and a theory that, in order to save their concrete and human significance, reduces them to mere statements about our own feelings.

Not even the most devoted adherents of the notion that enjoyment and value are equivalent facts would venture to assert that because we have once liked a thing we should go on liking it; they are compelled to introduce the idea that some tastes are to be cultivated. Logically, there is no ground for introducing the idea of cultivation; liking is liking, and one is as good as another. If enjoyments are values, the judgment of value cannot regulate the form which liking takes; it cannot regulate its own conditions. Desire and purpose, and hence action, are left without guidance, although the question of regulation of their formation is the supreme problem of practical life. Values (to sum up) may be connected inherently with liking, and yet not with every liking but only with those that judgment has approved, after examination of the relation upon which the object liked depends. A casual liking is one that happens without knowledge of how it occurs nor to what effect. The difference between it and one which is sought because of a judgment that it is worth having and is to be striven for, makes just the difference between enjoyments which are accidental and enjoyments that have value and hence a claim upon our attitude and conduct.

In any case, the alternative rationalistic theory does not afford the guidance for the sake of which eternal and immutable norms are appealed to. The scientist finds no help in determining the probable truth of some proposed theory by comparing it with a standard of absolute truth and immutable being. He has to rely upon definite operations undertaken under definite conditions—upon method. We can hardly imagine an architect getting aid in the construction of a building from an ideal at large, though we can understand his framing an ideal on the basis of knowledge of actual conditions and needs. Nor does the ideal of perfect beauty in antecedent Being give direction to a painter in producing a particular work of art. In morals, absolute perfection does not seem to be more than a generalized hypostatization of the recognition that there is a good to be sought, an obligation to be met—both being concrete matters. Nor is the defect in this respect merely negative. An examination of history would reveal, I am confident, that these general and remote schemes of value actually obtain a content definite enough and near enough to concrete situations as to afford guidance in action only by consecrating some institution or dogma already having social currency. Concreteness is gained, but it is by protecting from inquiry some accepted standard which perhaps is outworn and in need of criticism.

When theories of values do not afford intellectual assistance in framing ideas and beliefs about values that are adequate to direct action, the gap must be filled by other means. If intelligent method is lacking, prejudice, the pressure of immediate circumstance, self-interest and class-interest, traditional customs, institutions of accidental historic origin, are not lacking, and they
tend to take the place of intelligence. Thus we are led to our main proposition: *Judgments about values are judgments about the conditions and the results of experienced objects; judgments about that which should regulate the formation of our desires, affections and enjoyments.* For whatever decides their formation will determine the main course of our conduct, personal and social.

If it sounds strange to hear that we should frame our judgments as to what has value by considering the connections in existence of what we like and enjoy, the reply is not far to seek. As long as we do not engage in this inquiry enjoyments (values if we choose to apply that term) are casual; they are given by “nature,” not constructed by art. Like natural objects in their qualitative existence, they at most only supply material for elaboration in rational discourse. A *feeling* of good or excellence is as far removed from goodness in fact as a feeling that objects are intellectually thus and so is removed from their being actually so. To recognize that the truth of natural objects can be reached only by the greatest care in selecting and arranging directed operations, and then to suppose that values can be truly determined by the mere fact of liking seems to leave us in an incredible position. All the serious perplexities of life come back to the genuine difficulty of forming a judgment as to the values of the situation; they come back to a conflict of goods. Only dogmatism can suppose that serious moral conflict is between something clearly bad and something known to be good, and that uncertainty lies wholly in the will of the one choosing. Most conflicts of importance are conflicts between things which are or have been satisfying, not between good and evil. And to suppose that we can make a hierarchical table of values at large once for all, a kind of catalogue in which they are arranged in an order of ascending or descending worth, is to indulge in a gloss on our inability to frame intelligent judgments in the concrete. Or else it is to dignify customary choice and prejudice by a title of honor.

The alternative to definition, classification and systematization of satisfactions just as they happen to occur is judgment of them by means of the relations under which they occur. If we know the conditions under which the act of liking, of desire and enjoyment, takes place, we are in a position to know what are the consequences of that act. The difference between the desired and the desirable, admired and the admirable, becomes effective at just this point. Consider the difference between the proposition “That thing has been eaten,” and the judgment “That thing is edible.” The former statement involves no knowledge of any relation except the one stated; while we are able to judge of the edibility of anything only when we have a knowledge of its interactions with other things sufficient to enable us to foresee its probable effects when it is taken into the organism and produces effects there.

To assume that anything can be known in isolation from its connections with other things is to identify knowing with merely having some object before perception or in feeling, and is thus to lose the key to the traits that distinguish an object as known. It is futile, even silly, to suppose that some quality that is directly present constitutes the whole of the thing presenting the quality. It does not do so when the quality is that of being hot or fluid or heavy, and it does not when the quality is that of giving pleasure, or being enjoyed. Such qualities are, once more, effects, ends in the sense of closing termini of processes involving causal connections. They are something to be investigated, challenges to inquiry and judgment. The more connections and interactions we ascertain, the more we *know* the object in question. Thinking is search for these connections. Heat experienced as a consequence of directed operations has a meaning quite different from the heat that is casually experienced without knowledge of how it came about. The same is true of enjoyments. Enjoyments that issue from conduct directed by insight into relations have a meaning and a validity due to the way in which they are experienced. Such enjoyments are not repented of; they generate no after-taste of bitterness. Even in the midst of direct enjoyment, there is a sense of validity, of authorization, which intensifies the enjoyment. There is solicitude for perpetuation of the object having value which is radically different from mere anxiety to perpetuate the feeling of enjoyment.

Such statements as we have been making are, therefore, far from implying that there are values apart from things actually enjoyed as good. To find a thing enjoyable is, so to say, a plus enjoyment. We saw that it was foolish to treat the scientific object as a rival to or substitute for the perceived object, since the former is intermediate between uncertain and settled situations and those experienced under conditions of greater control. In the
same way, judgment of the value of an object to be experienced is
instrumental to appreciation of it when it is realized. But the notion
that every object that happens to satisfy has an equal claim
with every other to be a value is like supposing that every object
of perception has the same cognitive force as every other. There
is no knowledge without perception; but objects perceived are
known only when they are determined as consequences of connective
operations. There is no value except where there is satisfaction,
but there have to be certain conditions fulfilled to transform a satisfaction into a value.

The time will come when it will be found passing strange that
we of this age should take such pains to control by every means
at command the formation of ideas of physical things, even those
most remote from human concern, and yet are content with haphazard beliefs about the qualities of objects that regulate our
deepest interests; that we are scrupulous as to methods of forming ideas of natural objects, and either dogmatic or else driven by
immediate conditions in framing those about values. There is, by
implication, if not explicitly, a prevalent notion that values are
already well known and that all which is lacking is the will to
cultivate them in the order of their worth. In fact the most profound lack is not the will to act upon goods already known but
the will to know what they are.

It is not a dream that it is possible to exercise some degree of
regulation of the occurrence of enjoyments which are of value.
Realization of the possibility is exemplified, for example, in the
technologies and arts of industrial life—that is, up to a definite
limit. Men desired heat, light, and speed of transit and of communication beyond what nature provides of itself. These things
have been attained not by lauding the enjoyment of these things
and preaching their desirability, but by study of the conditions of
their manifestation. Knowledge of relations having been obtained,
ability to produce followed, and enjoyment ensued as a matter of
course. It is, however, an old story that enjoyment of these things as goods is no warrant of their bringing only good in
their train. As Plato was given to pointing out, the physician
knows how to heal and the orator to persuade, but the ulterior
knowledge of whether it is better for a man to be healed or to be
persuaded to the orator's opinion remains unsettled. Here there
appears the split between what are traditionally and conventionally called the values of the baser arts and the higher values
of the truly personal and humane arts.

With respect to the former, there is no assumption that they
can be had and enjoyed without definite operative knowledge.
With respect to them it is also clear that the degree in which we value them is measurable by the pains taken to control the conditions of their occurrence. With respect to the latter, it is assumed
that no one who is honest can be in doubt what they are; that by
revelation, or conscience, or the instruction of others, or immediate feeling, they are clear beyond question. And instead of action
in their behalf being taken to be a measure of the extent to
which things are values to us, it is assumed that the difficulty
is to persuade men to act upon what they already know to be
good. Knowledge of conditions and consequences is regarded as
wholly indifferent to judging what is of serious value, though it is
useful in a prudential way in trying to actualize it. In consequence,
the existence of values that are by common consent of a secondary and technical sort are under a fair degree of control,
while those denominated supreme and imperative are subject to
all the winds of impulse, custom and arbitrary authority.

This distinction between higher and lower types of value is itself something to be looked into. Why should there be a sharp
division made between some goods as physical and material and
others as ideal and "spiritual"? The question touches the whole
dualism of the material and the ideal at its root. To denominate
anything "matter" or "material" is not in truth to disparage it. It
is, if the designation is correctly applied, a way of indicating that
the thing in question is a condition or means of the existence of
something else. And disparagement of effective means is prac-
tically synonymous with disregard of the things that are termed,
in eulogistic fashion, ideal and spiritual. For the latter terms if
they have any concrete application at all signify something which
is a desirable consummation of conditions, a cherished fulfillment
of means. The sharp separation between material and ideal
good thus deprives the latter of the underpinning of effective
support while it opens the way for treating things which should
be employed as means as ends in themselves. For since men cannot after all live without some measure of possession of such
matters as health and wealth, the latter things will be viewed as values and ends in isolation unless they are treated as integral constituents of the goods that are deemed supreme and final.

The relations that determine the occurrence of what human beings experience, especially when social connections are taken into account, are indefinitely wider and more complex than those that determine the events termed physical; the latter are the outcome of definite selective operations. This is the reason why we know something about remote objects like the stars better than we know significantly characteristic things about our own bodies and minds. We forget the infinite number of things we do not know about the stars, or rather that what we call a star is itself the product of the elimination, enforced and deliberate, of most of the traits that belong to an actual existence. The amount of knowledge we possess about stars would not seem very great or very important if it were carried over to human beings and exhausted our knowledge of them. It is inevitable that genuine knowledge of man and society should lag far behind physical knowledge.

But this difference is not a ground for making a sharp division between the two, nor does it account for the fact that we make so little use of the experimental method of forming our ideas and beliefs about the concerns of man in his characteristic social relations. For this separation religions and philosophies must admit some responsibility. They have erected a distinction between a narrower scope of relations and a wider and fuller one into a difference of kind, naming one kind material, and the other mental and moral. They have charged themselves gratuitously with the office of diffusing belief in the necessity of the division, and with instilling contempt for the material as something inferior in kind in its intrinsic nature and worth. Formal philosophies undergo evaporation of their technical solid contents; in a thinner and more viable form they find their way into the minds of those who know nothing of their original forms. When these diffuse and, so to say, airy emanations re-crystallize in the popular mind they form a hard deposit of opinion that alters slowly and with great difficulty.

What difference would it actually make in the arts of conduct, personal and social, if the experimental theory were adopted not as a mere theory, but as a part of the working equipment of habitual attitudes on the part of everyone? It would be impossible, even were time given, to answer the question in adequate detail, just as men could not foretell in advance the consequences for knowledge of adopting the experimental method. It is the nature of the method that it has to be tried. But there are generic lines of difference which, within the limits of time at disposal, may be sketched.

Change from forming ideas and judgments of value on the basis of conformity to antecedent objects, to constructing enjoyable objects directed by knowledge of consequences, is a change from looking to the past to looking to the future. I do not for a moment suppose that the experiences of the past, personal and social, are of no importance. For without them we should not be able to frame any ideas whatever of the conditions under which objects are enjoyed nor any estimate of the consequences of esteeming and liking them. But past experiences are significant in giving us intellectual instrumentalities of judging just these points. They are tools, not finalities. Reflection upon what we have liked and have enjoyed is a necessity. But it tells us nothing about the value of these things until enjoyments are themselves reflectively controlled, or, until, as they are recalled, we form the best judgment possible about what led us to like this sort of thing and what has issued from the fact that we liked it.

We are not, then, to get away from enjoyments experienced in the past and from recall of them, but from the notion that they are the arbiters of things to be further enjoyed. At present, thearbiter is found in the past, although there are many ways of interpreting what in the past is authoritative. Nominally, the most influential conception doubtless is that of a revelation once had or a perfect life once lived. Reliance upon precedent, upon institutions created in the past, especially in law, upon rules of morals that have come to us through unexamined customs, upon uncriticized tradition, are other forms of dependence. It is not for a moment suggested that we can get away from customs and established institutions. A mere break would doubtless result simply in chaos. But there is no danger of such a break. Mankind is too inertly conservative both by constitution and by education to give the idea of this danger actuality. What there is genuine danger of is that the force of new conditions will produce disruption externally and mechanically; this is an ever present danger.
The prospect is increased, not mitigated, by that conservatism which insists upon the adequacy of old standards to meet new conditions. What is needed is intelligent examination of the consequences that are actually effected by inherited institutions and customs, in order that there may be intelligent consideration of the ways in which they are to be intentionally modified in behalf of generation of different consequences.

This is the significant meaning of transfer of experimental method from the technical field of physical experience to the wider field of human life. We trust the method in forming our beliefs about things not directly connected with human life. In effect, we distrust it in moral, political and economic affairs. In the fine arts, there are many signs of a change. In the past, such a change has often been an omen and precursor of changes in other human attitudes. But, generally speaking, the idea of actively adopting experimental method in social affairs, in the matters deemed of most enduring and ultimate worth, strikes most persons as a surrender of all standards and regulative authority. But in principle, experimental method does not signify random and aimless action; it implies direction by ideas and knowledge. The question at issue is a practical one. Are there in existence the ideas and the knowledge that permit experimental method to be effectively used in social interests and affairs?

Where will regulation come from if we surrender familiar and traditionally prized values as our directive standards? Very largely from the findings of the natural sciences. For one of the effects of the separation drawn between knowledge and action is to deprive scientific knowledge of its proper service as a guide of conduct—except once more in those technological fields which have been degraded to an inferior rank. Of course, the complexity of the conditions upon which objects of human and liberal value depend is a great obstacle, and it would be too optimistic to say that we have as yet enough knowledge of the scientific type to enable us to regulate our judgments of value very extensively. But we have more knowledge than we try to put to use, and until we try more systematically we shall not know what are the important gaps in our sciences judged from the point of view of their moral and humane use.

For moralists usually draw a sharp line between the field of the natural sciences and the conduct that is regarded as moral. But a moral that frames its judgments of value on the basis of consequences must depend in a most intimate manner upon the conclusions of science. For the knowledge of the relations between changes which enable us to connect things as antecedents and consequences is science. The narrow scope which moralists often give to morals, their isolation of some conduct as virtuous and vicious from other large ranges of conduct, those having to do with health and vigor, business, education, with all the affairs in which desires and affection are implicated, is perpetuated by this habit of exclusion of the subject-matter of natural science from a role in formation of moral standards and ideals. The same attitude operates in the other direction to keep natural science a technical specialty, and it works unconsciously to encourage its use exclusively in regions where it can be turned to personal and class advantage, as in war and trade.

Another great difference to be made by carrying the experimental habit into all matter of practice is that it cuts the roots of what is often called subjectivism, but which is better termed egoism. The subjective attitude is much more widespread than would be inferred from the philosophies which have that label attached. It is as rampant in realistic philosophies as in any others, sometimes even more so, although disguised from those who hold these philosophies under the cover of reverence for and enjoyment of ultimate values. For the implication of placing the standard of thought and knowledge in antecedent existence is that our thought makes no difference in what is significantly real. It then affects only our own attitude toward it.

This constant throwing of emphasis back upon a change made in ourselves instead of one made in the world in which we live seems to me the essence of what is objectionable in "subjectivism." Its taint hangs about even Platonic realism with its insistent evangelical dwelling upon the change made within the mind by contemplation of the realm of essence, and its depreciation of action as transient and all but sordid—a concession to the necessities of organic existence. All the theories which put conversion "of the eye of the soul" in the place of a conversion of natural and social objects that modifies goods actually experienced, are a retreat and escape from existence—and this retraction into self is, once more, the heart of subjective egoisms. The typical example is perhaps the other-worldliness found in religions whose
chief concern is with the salvation of the personal soul. But other-worldliness is found as well in estheticism and in all seclusion within ivory towers.

It is not in the least implied that change in personal attitudes, in the disposition of the "subject," is not of great importance. Such change, on the contrary, is involved in any attempt to modify the conditions of the environment. But there is a radical difference between a change in the self that is cultivated and valued as an end, and one that is a means to alteration, through action, of objective conditions. The Aristotelian-medieval conviction that highest bliss is found in contemplative possession of ultimate Being presents an ideal attractive to some types of mind; it sets forth a refined sort of enjoyment. It is a doctrine congenial to minds that despair of the effort involved in creation of a better world of daily experience. It is, apart from theological attachments, a doctrine sure to recur when social conditions are so troubled as to make actual endeavor seem hopeless. But the subjectivism so externally marked in modern thought as compared with ancient is either a development of the old doctrine under new conditions or is of merely technical import. The medieval version of the doctrine at least had the active support of a great social institution by means of which man could be brought into the state of mind that prepared him for ultimate enjoyment of eternal Being. It had a certain solidity and depth which is lacking in modern theories that would attain the result by merely emotional or speculative procedures, or by any means not demanding a change in objective existence so as to render objects of value more empirically secure.

The nature in detail of the revolution that would be wrought by carrying into the region of values the principle now embodied in scientific practice cannot be told; to attempt it would violate the fundamental idea that we know only after we have acted and in consequences of the outcome of action. But it would surely effect a transfer of attention and energy from the subjective to the objective. Men would think of themselves as agents not as ends; ends would be found in experienced enjoyment of the fruits of a transforming activity. In as far as the subjectivity of modern thought represents a discovery of the part played by personal responses, organic and acquired, in the causal production of the qualities and values of objects, it marks the possibility of a decisive gain. It puts us in possession of some of the conditions that control the occurrence of experienced objects, and thereby it supplies us with an instrument of regulation. There is something querulous in the sweeping denial that things as experienced, as perceived and enjoyed, in any way depend upon interaction with human selves. The error of doctrines that have exploited the part played by personal and subjective reactions in determining what is perceived and enjoyed lies either in exaggerating this factor of constitution into the sole condition—as happens in subjective idealism—or else in treating it as a finality instead of, as with all knowledge, an instrument in direction of further action.

A third significant change that would issue from carrying over experimental method from physics to man concerns the import of standards, principles, rules. With the transfer, these, and all tenets and creeds about good and goods, would be recognized to be hypotheses. Instead of being rigidly fixed, they would be treated as intellectual instruments to be tested and confirmed—and altered—through consequences effected by acting upon them. They would lose all pretence of finality—the ulterior source of dogmatism. It is both astonishing and depressing that so much of the energy of mankind has gone into fighting for (with weapons of the flesh as well as of the spirit) the truth of creeds, religious, moral and political, as distinct from what has gone into effort to try creeds by putting them to the test of acting upon them. The change would do away with the intolerance and fanaticism that attend the notion that beliefs and judgments are capable of inherent truth and authority; inherent in the sense of being independent of what they lead to when used as directive principles. The transformation does not imply merely that men are responsible for acting upon what they profess to believe; that is an old doctrine. It goes much further. Any belief as such is tentative, hypothetical; it is not just to be acted upon, but is to be framed with reference to its office as a guide to action. Consequently, it should be the last thing in the world to be picked up casually and then clung to rigidly. When it is apprehended as a tool and only a tool, an instrumentality of direction, the same scrupulous attention will go to its formation as now goes into the making of instruments of precision in technical fields. Men, instead of being proud of accepting and asserting beliefs and "principles" on the ground of loyalty, will be as ashamed of that
procedure as they would now be to confess their assent to a scientific theory out of reverence for Newton or Helmholtz or whomever, without regard to evidence.

If one stops to consider the matter, is there not something strange in the fact that men should consider loyalty to “laws,” principles, standards, ideals to be an inherent virtue, accounted unto them for righteousness? It is as if they were making up for some secret sense of weakness by rigidity and intensity of insistent attachment. A moral law, like a law in physics, is not something to swear by and stick to at all hazards; it is a formula of the way to respond when specified conditions present themselves. Its soundness and pertinence are tested by what happens when it is acted upon. Its claim or authority rests finally upon the imperative nature of the situation that has to be dealt with, not upon its own intrinsic nature—as any tool achieves dignity in the measure of needs served by it. The idea that adherence to standards external to experienced objects is the only alternative to confusion and lawlessness was once held in science. But knowledge became steadily progressive when it was abandoned, and clued and tests found within concrete acts and objects were employed. The test of consequences is more exacting than that afforded by fixed general rules. In addition, it secures constant development, for when new acts are tried new results are experienced, while the lauded immutability of eternal ideals and norms is in itself a denial of the possibility of development and improvement.

The various modifications that would result from adoption in social and humane subjects of the experimental way of thinking are perhaps summed up in saying that it would place method and means upon the level of importance that has, in the past, been imputed exclusively to ends. Means have been regarded as menial, and the useful as the servile. Means have been treated as poor relations to be endured, but not inherently welcome. The very meaning of the word “ideals” is significant of the divorce which has obtained between means and ends. “Ideals” are thought to be remote and inaccessible of attainment; they are too high and fine to be sullied by realization. They serve vaguely to arouse “aspiration,” but they do not evoke and direct strivings for embodiment in actual existence. They hover in an indefinite way over the actual scene; they are expiring ghosts of a once sig-nificant kingdom of divine reality whose rule penetrated to every detail of life.

It is impossible to form a just estimate of the paralysis of effort that has been produced by indifference to means. Logically, it is truistic that lack of consideration for means signifies that so-called ends are not taken seriously. It is as if one professed devotion to painting pictures conjoined with contempt for canvas, brush and paints; or love of music on condition that no instruments, whether the voice or something external, be used to make sounds. The good workman in the arts is known by his respect for his tools and by his interest in perfecting his technique. The glorification in the arts of ends at the expense of means would be taken to be a sign of complete insincerity or even insanity. Ends separated from means are either sentimental indulgences or if they happen to exist are merely accidental. The ineffectiveness in action of “ideals” is due precisely to the supposition that means and ends are not on exactly the same level with respect to the attention and care they demand.

It is, however, much easier to point out the formal contradiction implied in ideals that are professed without equal regard for the instruments and techniques of their realization, than it is to appreciate the concrete ways in which belief in their separation has found its way into life and borne corrupt and poisonous fruits. The separation marks the form in which the traditional divorce of theory and practice has expressed itself in actual life. It accounts for the relative impotency of arts concerned with enduring human welfare. Sentimental attachment and subjective eulogy take the place of action. For there is no art without tools and instrumental agencies. But it also explains the fact that in actual behavior, energies devoted to matters nominally thought to be inferior, material and sordid, engross attention and interest. After a polite and pious deference has been paid to “ideals,” men feel free to devote themselves to matters which are more immediate and pressing.

It is usual to condemn the amount of attention paid by people in general to material ease, comfort, wealth, and success gained by competition, on the ground that they give to mere means the attention that ought to be given to ends, or that they have taken for ends things which in reality are only means. Criticisms of the
place which economic interest and action occupy in present life are full of complaints that men allow lower aims to usurp the place that belongs to higher and ideal values. The final source of the trouble is, however, that moral and spiritual "leaders" have propagated the notion that ideal ends may be cultivated in isolation from "material" means, as if means and material were not synonymous. While they condemn men for giving to means the thought and energy that ought to go to ends, the condemnation should go to them. For they have not taught their followers to think of material and economic activities as really means. They have been unwilling to frame their conception of the values that should be regulative of human conduct on the basis of the actual conditions and operations by which alone values can be actualized.

Practical needs are imminent; with the mass of mankind they are imperative. Moreover, speaking generally, men are formed to act rather than to theorize. Since the ideal ends are so remotely and accidentally connected with immediate and urgent conditions that need attention, after lip service is given to them, men naturally devote themselves to the latter. If a bird in the hand is worth two in a neighboring bush, an actuality in hand is worth, for the direction of conduct, many ideals that are so remote as to be invisible and inaccessible. Men hoist the banner of the ideal, and then march in the direction that concrete conditions suggest and reward.

Deliberate insincerity and hypocrisy are rare. But the notion that action and sentiment are inherently unified in the constitution of human nature has nothing to justify it. Integration is something to be achieved. Division of attitudes and responses, compartmentalizing of interests, is easily acquired. It goes deep just because the acquisition is unconscious, a matter of habitual adaptation to conditions. Theory separated from concrete doing and making is empty and futile; practice then becomes an immediate seizure of opportunities and enjoyments which conditions afford without the direction which theory—knowledge and ideas—has power to supply. The problem of the relation of theory and practice is not a problem of theory alone; it is that, but it is also the most practical problem of life. For it is the question of how intelligence may inform action, and how action may bear the fruit of increased insight into meaning: a clear view of the values that are worth while and of the means by which they are to be made secure in experienced objects. Construction of ideals in general and their sentimental glorification are easy; the responsibilities both of studious thought and of action are shirked. Persons having the advantage of positions of leisure and who find pleasure in abstract theorizing—a most delightful indulgence to those to whom it appeals—have a large measure of liability for a cultivated diffusion of ideals and aims that are separated from the conditions which are the means of actualization. Then other persons who find themselves in positions of social power and authority readily claim to be the bearers and defenders of ideal ends in church and state. They then use the prestige and authority their representative capacity as guardians of the highest ends confers on them to cover actions taken in behalf of the harshest and narrowest of material ends.

The present state of industrial life seems to give a fair index of the existing separation of means and ends. Isolation of economics from ideal ends, whether of morals or of organized social life, was proclaimed by Aristotle. Certain things, he said, are conditions of a worthy life, personal and social, but are not constituents of it. The economic life of man, concerned with satisfaction of wants, is of this nature. Men have wants and they must be satisfied. But they are only prerequisites of a good life, not intrinsic elements in it. Most philosophers have not been so frank nor perhaps so logical. But upon the whole, economics has been treated as on a lower level than either morals or politics. Yet the life which men, women and children actually lead, the opportunities open to them, the values they are capable of enjoying, their education, their share in all the things of art and science, are mainly determined by economic conditions. Hence we can hardly expect a moral system which ignores economic conditions to be other than remote and empty.

Industrial life is correspondingly brutalized by failure to equate it as the means by which social and cultural values are realized. That the economic life, thus exiled from the pale of higher values, takes revenge by declaring that it is the only social reality, and by means of the doctrine of materialistic determination of institutions and conduct in all fields, denies to deliberate morals and politics any share of causal regulation, is not surprising.

When economists were told that their subject-matter was
merely material, they naturally thought they could be “scientific” only by excluding all reference to distinctively human values. Material wants, efforts to satisfy them, even the scientifically regulated technologies highly developed in industrial activity, are then taken to form a complete and closed field. If any reference to social ends and values is introduced it is by way of an external addition, mainly hortatory. That economic life largely determines the conditions under which mankind has access to concrete values may be recognized or it may not be. In either case, the notion that it is the means to be utilized in order to secure significant values as the common and shared possession of mankind is alien and inoperative. To many persons, the idea that the ends professed by morals are impotent save as they are connected with the working machinery of economic life seems like deflowering the purity of moral values and obligations.

The social and moral effects of the separation of theory and practice have been merely hinted at. They are so manifold and so pervasive that an adequate consideration of them would involve nothing less than a survey of the whole field of morals, economics and politics. It cannot be justly stated that these effects are in fact direct consequences of the quest for certainty by thought and knowledge isolated from action. For, as we have seen, this quest was itself a reflex product of actual conditions. But it may be truly asserted that this quest, undertaken in religion and philosophy, has had results which have reinforced the conditions which originally brought it about. Moreover, search for safety and consolation amid the perils of life by means other than intelligent action, by feeling and thought alone, began when actual means of control were lacking, when arts were undeveloped. It had then a relative historic justification that is now lacking. The primary problem for thinking which lays claim to be philosophic in its breadth and depth is to assist in bringing about a reconstruction of all beliefs rooted in a basic separation of knowledge and action; to develop a system of operative ideas congruous with present knowledge and with present facilities of control over natural events and energies.

We have noted more than once how modern philosophy has been absorbed in the problem of effecting an adjustment between the conclusions of natural science and the beliefs and values that have authority in the direction of life. The genuine and poignant issue does not reside where philosophers for the most part have placed it. It does not consist in accommodation to each other of two realms, one physical and the other ideal and spiritual, nor in the reconciliation of the “categories” of theoretical and practical reason. It is found in that isolation of executive means and ideal interests which has grown up under the influence of the separation of theory and practice. For this, by nature, involves the separation of the material and the spiritual. Its solution, therefore, can be found only in action wherein the phenomena of material and economic life are equated with the purposes that command the loyalties of affection and purpose, and in which ends and ideals are framed in terms of the possibilities of actually experienced situations. But while the solution cannot be found in “thought” alone, it can be furthered by thinking which is operative—which frames and defines ideas in terms of what may be done, and which uses the conclusions of science as instrumentalities. William James was well within the bounds of moderation when he said that looking forward instead of backward, looking to what the world and life might become instead of to what they have been, is an alteration in the “seat of authority.”

It was incidentally remarked earlier in our discussion that the serious defect in the current empirical philosophy of values, the one which identifies them with things actually enjoyed irrespective of the conditions upon which they depend, is that it formulates and in so far consecrates the conditions of our present social experience. Throughout these chapters, primary attention has perforce been given to the methods and statements of philosophic theories. But these statements are technical and specialized in formulation only. In origin, content and import they are reflections of some condition or some phase of concrete human experience. Just as the theory of the separation of theory and practice has a practical origin and a momentous practical consequence, so the empirical theory that values are identical with whatever men actually enjoy, no matter how or what, formulates an aspect, and an undesirable one, of the present social situation.

For while our discussion has given more attention to the other type of philosophic doctrine, that which holds that regulative and authoritative standards are found in transcendent eternal values, it has not passed in silence over the fact that actually the greater part of the activities of the greater number of human be-
ings is spent in effort to seize upon and hold onto such enjoy-
ments as the actual scene permits. Their energies and their enjoy-
ments are controlled in fact, but they are controlled by external
conditions rather than by intelligent judgment and endeavor. If
philosophies have any influence over the thoughts and acts of
men, it is a serious matter that the most widely held empirical
theory should in effect justify this state of things by identifying
values with the objects of any interest as such. As long as the
only theories of value placed before us for intellectual assent
alternate between sending us to a realm of eternal and fixed val-
ues and sending us to enjoyments such as actually obtain, the
formulation, even as only a theory, of an experimental empiri-
cism which finds values to be identical with goods that are the
fruit of intelligently directed activity has its measure of practical
significance.

11. The Copernican Revolution

Kant claimed that he had effected a Copernican revolu-
tion in philosophy by treating the world and our knowledge of it
from the standpoint of the knowing subject. To most critics, the
endeavor to make the known world turn on the constitution of
the knowing mind, seems like a return to an ultra-Ptolemaic
system. But Copernicus, as Kant understood him, effected a
straightening out of astronomical phenomena by interpreting
their perceived movements from their relation to the perceiving
subject, instead of treating them as inherent in the things per-
ceived. The revolution of the sun about the earth as it offers itself
to sense-perception was regarded as due to the conditions of hu-
man observation and not to the movements of the sun itself. Dis-
regarding the consequences of the changed point of view, Kant
settled upon this one feature as characteristic of the method of
Copernicus. He thought he could generalize this feature of Co-
pernican method, and thus clear up a multitude of philosophical
difficulties by attributing the facts in question to the constitution
of the human subject in knowing.

That the consequence was Ptolemaic rather than Copernican
is not to be wondered at. In fact, the alleged revolution of Kant
consisted in making explicit what was implicit in the classic tra-
dition. In words, the latter had asserted that knowledge is deter-
mined by the objective constitution of the universe. But it did so
only after it had first assumed that the universe is itself consti-
tuted after the pattern of reason. Philosophers first constructed a
rational system of nature and then borrowed from it the features
by which to characterize their knowledge of it. Kant, in effect,
called attention to the borrowing; he insisted that credit for the
borrowed material be assigned to human reason instead of to di-
vine. His “revolution” was a shift from a theological to a human
authorship; beyond that point, it was an explicit acknowledg-