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PERSONALISM

BY

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BOSTON AND NEW YORK
HOUGHTON MIFFLIN COMPANY
The Riverside Press, Cambridge

Published February 1908

PREFACE

Early in the last century, M. Comte, the founder of French positivism, set forth his famous doctrine of the three stages of human thought. Man begins, he said, in the theological stage, when all phenomena are referred to wills, either in things or beyond them. After a while, through the discovery of law, the element of caprice and arbitrariness, and thus of will, is ruled out, and men pass to the second, or metaphysical stage. Here they explain phenomena by abstract conceptions of being, substance, cause, and the like. But these metaphysical conceptions are really only the ghosts of the earlier theological notions, and disappear upon criticism. When this is seen, thought passes into the third and last stage of development, the positive stage. Here men give up all inquiry into metaphysics as bootless, and content themselves with discovering and registering the uniformities of coexistence and sequence among phenomena. When this is

done we have accomplished all that is possible in the nature of the case. Metaphysics is ruled out as a source of barren and misleading illusions, and science is installed in its place as a study of the uniformities of coexistence and sequence which are revealed in experience.

In this view Comte was partly right and partly wrong. By explanation Comte understood causal explanation, and he was quite right in pointing out that explanation in terms of personality is the one with which men begin. He was equally right in saying that abstract metaphysics is only the ghost of the earlier personal explanations. Later philosophic criticism has shown that the conceptions of impersonal metaphysics are only the abstract forms of the self-conscious life, and that apart from that life they are empty and illusory. Comte was equally right in restricting positive science to the investigation and registration of the orders of coexistence and sequence in experience. But he was wrong in making caprice and arbitrariness essential marks of will, and equally wrong in rejecting all causal inquiry. The history of

thought has judged his doctrine in this respect. Causal inquiry, though driven out with a fork, has always come running back, and always will. It only remains to give the causal doctrine the form which is necessary to free it from the objections of criticism.

The aim of these lectures is to show that critical reflection brings us back again to the personal metaphysics which Comte rejected. We agree with him that abstract and impersonal metaphysics is a mirage of formal ideas, and even largely of words, which begin, continue, and end in abstraction and confusion. Causal explanation must always be in terms of personality, or it must vanish altogether. Thus we return to the theological stage, but we do so with a difference. At last we have learned the lesson of law, and we now see that law and will must be united in our thought of the world. Thus man's earliest metaphysics reëmerges in his latest; but enlarged, enriched, and purified by the ages of thought and experience.

In war the success of a campaign seldom depends solely upon sheer fighting and direct

assaults upon the enemy's position. It often depends equally, and even more fundamentally, upon seizing and holding certain strategic positions which may command the enemy's communications, or threaten his rear, or make his position untenable. Intellectual campaigns are subject to the same law. They are commonly decided at points quite remote from the apparent battlefield, and without any "thunder of the captains and the shoutings." These are the strategic points that command the field and decide the day. They lie in our epistemology and metaphysics — subjects which seem to have little or no practical bearing, yet out of them are the issues of intellectual life or death. Our notions of knowledge and its nature, our conception of reality and causality, our thoughts respecting space and time, — the two great intimidating phantoms, — these are the things that decide our general way of thinking and give direction to our thought even in morals and religion. Some harmless-looking doctrine is put forth in epistemology, and soon there is an agnostic chill in the air

that is fatal to the highest spiritual faiths of the soul, or some sensual blight and mildew spread over the fairer growths of our nature. Space and time are made supreme laws of existence, and determinism and materialism and atheism are at the door. This general fact explains the form of the campaign. The "thunder of the captains and the shoutings" are omitted, in order to deal with the questions which both experience and reflection show to be the really strategic points in philosophic discussion.

BORDEN P. BOWNE.

February 1, 1908.

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PERSONALISM

I

COMMON SENSE, SCIENCE, AND PHILOSOPHY

Common sense has always thought rather meanly of philosophy, either as losing itself in abstract verbiage which makes no connection with reality, or else as falling into dangerous and destructive errors. Aristophanes, wishing to deride philosophy, represented Socrates as floating in the clouds and uttering a deal of nonsense, which was supposed to be philosophical. And we are all familiar with the formula which refers to "science," that is, philosophy, "falsely so-called," and which couples "philosophy and vain deceit" in a way not intended to be complimentary. Goethe expressed the same opinion when he made Mephistopheles say, "A speculating fellow is like a beast on a blasted heath led round in circles by an evil spirit, while all about are

pastures fair and green." Milton is even more pronounced, for he mentions philosophizing as one of the pursuits of hell. One group of devils is described as holding high debate over

> "Fixed fate, free will, foreknowledge absolute,
> And found no end, in wandering mazes lost."

Much of this popular opinion is due to ignorance, but the warmest friend of philosophy must admit that there is also much in the history of thought to justify the popular view. Philosophers themselves are not always clear as to their own meaning, and have often spoken a language "not understanded of the people." Nonsense and pernicious errors mingle in about equal proportions in philosophical literature. Many a navigator has sailed away over the misty seas of speculation and never come back; and many an ambitious climber, imitating the "Excelsior" youth, has climbed out of sight and never returned to earth again. Fogbanks have often been mistaken for land, and islands of mist have passed for solid continents. A fearful proportion of philosophical discussion at best is barren and often pernicious. Prob-

ably nine tenths of the treatises on this subject might be burned up without any loss to the world, and with some small gain to the fuel pile. Could the good Caliph Omar return to life and make a bonfire of our philosophical literature, as he did of the Alexandrian library, it would not be an unmitigated calamity.

And this is no judgment of outsiders merely, but of philosophers themselves. The ever-recurrent outbreaks of skepticism and agnosticism among them remind us of the instability of the philosophical structure; and just now the pragmatists, distantly echoing Kant's doctrine of the primacy of the practical reason, are pointing out what sorry stuff the traditional philosophy is, and more in sorrow than in anger, as in true friendship bound, are inflicting numerous "faithful wounds." It is not surprising, then, that common sense should propose to throw philosophy, along with physic, to the dogs and have none of it.

We might well conclude, then, that we should let philosophy alone, as at best a useless science. Unfortunately this cannot be

done. Every one has a philosophy of some sort, wittingly or unwittingly. Every one has some notions about reality, the nature of things, the meaning and outcome of life, and the like; and these constitute his philosophy. Monsieur Jourdain in Molière's play, as you remember, talked prose all his life without knowing it, and many persons do the same thing with philosophy. For philosophy is simply an attempt to give an account of experience, or it is a man's way of looking at things. The common-sense man finds a lot of bodies about him in space and a series of changes going on in time, and in these he rests as final. That is his philosophy. The materialist conceives that the world of experience can be explained by molecules and atoms, endowed with forces of attraction and repulsion which work forever through space and time. That is his philosophy. The agnostic holds that we can know nothing beyond phenomena. The causal power behind is forever hidden. That is his philosophy. The theist holds that the order of things can be explained only by an intelligent cause

back of all appearance and manifestation. That is his philosophy. But every one has a philosophy of some sort, implicit or explicit, and commonly he is all the more controlled by it the less he is aware of its presence. If men could and would let philosophy alone I sometimes think I should be willing to have them do so; for there is a great deal of false and pernicious philosophizing. We might even say that strait is the gate and narrow is the way that leadeth to philosophical insight, and few there be that find it; while wide is the gate and broad the way that leads to philosophical confusion and destruction, and many there be who go in thereat. But since we must have a philosophy, whether we will or not, it is important that we get the best. If we do not sow good seed the enemy will sow tares, and by and by we have to reap the tares that have been sown. The whole system of naturalistic thought, with its materialistic and atheistic tendencies, is but the outcome of the crude metaphysics of common sense, and it can be permanently overthrown only by dis-

crediting that metaphysics. So long as space and time and matter and force are openly or tacitly assumed to be the standard realities, or the standards of reality, there will always be a root of bitterness in our speculation which will spring up again and again to annoy us.

It is not, then, a question of having or not having a philosophy, but of having a good or a bad one. And this question is of great practical importance, for, while a good philosophy may not have much positive value, a bad one may do measureless harm. Nations may be paralyzed, and individuals may be wrecked, by a fatalistic and pessimistic philosophy. A sense philosophy may tend to mildew the life of a people and cast discredit upon all the spiritual aspirations of man. An agnostic philosophy may paralyze both the mental and moral nature and leave men thwarted and despairing in impenetrable darkness. The most destructive errors that have devastated humanity have been rooted in philosophy, and many of the worst aberrations of religion run

back to some philosophical doctrine as either their source or their justification. And a little reflection shows that philosophy is no unimportant affair. It would not be a serious matter if we made an error in our theory of the double stars, or if we mistook the order of the geological strata, or blundered in the atomic weights of some of the elements; but it would be a very serious matter if we went astray in those fundamental conceptions of life, its worth and destiny, with which philosophy deals. It would be a serious matter if philosophy reached a conception of life and the world which was incompatible with those high faiths of humanity by which hitherto nations have nourished themselves into greatness and men have nobly lived and bravely died. Would it, then, make no difference to personal life or to civilization if we should replace these faiths by materialism or atheism? Could we safely exchange our Christian philosophy for that of India? Would life go on just as well if, with the agnostic, we decided to restrict all thought to things seen and tem-

poral, and forbade any reference to the unseen and eternal? These questions answer themselves. Mr. Spencer in his last work, "Facts and Comments," seems not to have weakened in his agnostic conviction, but he advises the skeptic not to say too much about agnosticism; as faith is a comfort to many who have no other support. Such considerations show that philosophy is not a matter of practical indifference. It may not "bake bread for us," it has been said, "but it gives us God, freedom, and immortality;" and, we may add, it gives even the bread which it does not bake a savor it would not otherwise possess.

We need, then, a sound philosophy at least as a kind of intellectual health officer whose business it is to keep down disease-breeding miasms and pestiferous growths, or as a moral police whose duty it is to arrest those dangerous and disturbing intellectual vagrants which have no visible means of support, and which corrupt the people.

This negative function is very important. A great crop of errors readily springs up on

the plain of sense and mechanical thought. In this way sensualism, materialism, atheism, like weeds, are sure to grow unless there be a philosophy of higher character to keep them down. These lower philosophies tend to usurp possession of the mind; and in their presence the higher faiths of the soul soon wither and perish. And these lower views cannot be dispelled by authority, but only by a careful examination of their philosophical foundations. Then they are seen in their baselessness and fatuity. Positively, philosophy has the function of formulating and systematizing life and experience so as to bring out into clear consciousness our aims and principles. It must close up the ways of error and open the highways of progress. With all its shortcomings, philosophy deserves well of humanity in this respect. It has driven away nightmares and enabled us to see visions. Only a good philosophy can displace a bad one.

The generation just passed had abundant illustration of the practical importance of philosophy. That was a time of great develop-

ment in the physical sciences and in the commercial application of science to our control of nature. There were great generalizations in physics, such as the conservation of energy, and the correlation of the physical forces; and equally great generalizations in biology. The application of scientific method to historical study, also, and the ever-widening discovery of law, leading to the belief in its universal reign, had great influence. New facts crowded upon us and new interpretations were demanded. The old mental equilibrium was broken up and the new one had not yet been established. The new wine of science and evolution went to the head and produced many woes and more babblings. It was a matter of course that at such time religion should seem to be imperiled. To the passive mind even new truth seems dangerous until it has become familiar. All who had any grudge against religion loudly proclaimed its baselessness, and many who were interested in religion were profoundly disturbed by the new order. Everything seemed to be in solution. The foun-

tains of the great deep were broken up. The elements melted with fervent heat, and some things passed away with a great noise. Naturalism came to the front with a mechanical philosophy, and commercialism tended to fix all eyes on gain as even better than godliness. The latter produced a feeling that we could do just as well without religion as with it, and the former found no place for it. It was proclaimed by many, and feared by more, that the high hopes and dreams of humanity were baseless. The truth about man had been found out, and the truth was that instead of being a child of the Highest he is merely the highest of the animals, having essentially the same history and destiny as they, — birth, hunger, labor, weariness, and death. Man was viewed as simply an incident in the condensation of dispersed matter, or the cooling of a fiery gas.

For a time the religious world was in a condition of stampede and panic, but after a while it became clear that the difficulty lay not in the facts themselves but in the philosophy by

which they were explained. The great source of the disturbance of that time, apart from the horror of change natural to the passive mind, was the lack of any adequate philosophic equipment. The new facts were interpreted on the basis of a crude sense-realism, and this view has always had a tendency to materialism and atheism. But now that we have a better critical apparatus the difficulties have disappeared. We are now able to live in peace and quietness with the facts once thought so threatening, and we look back on that period of panic only to wonder at the superficiality that caused it. We smile at the naïve dogmatism and the extraordinary logic of the movement. Had we had a generation ago our present philosophical equipment there would have been no flurry over evolution, the transformation of species, the reign of law, and the many other things which were supposed to be fatal to man's higher faiths. The storm we had was part of the price we paid for being philosophically unprepared.

It is clear, then, that philosophy is practically

important. It is not necessary, of course, that everybody should be a philosopher, any more than that everybody should be a physician or a lawyer, but just as it is important that these professions should be represented in the community so that all may share in their advantages, so it is equally important that philosophy should be represented in the thought of a community, and without it there is no security against all manner of superstitions and intellectual aberrations. Religion, conscience, and even intellect itself grovel or fall into vagaries when not subject to critical supervision. But it is equally clear from a survey of conditions that philosophers themselves need to bring forth fruits meet for repentance, if their science is to receive general respect. Some improvement in this direction may be hoped for from the pragmatists' criticism. We need to pay more attention to first principles and to practical bearing and outcome. Mr. Huxley tells of an Irish cabman who was told to drive fast. Without waiting to inquire where he was to go, he drove off

furiously. When the passenger asked him where he was going he replied, "Oi don't know, yer hanner, but annyway Oi 'm drivin' fast." One is often reminded of this good man in reading current philosophical literature.

Philosophers themselves by no means always clearly understand their own aims, and the teachers of the science are sometimes confused as to its meaning and contents. It cannot be doubted that a great deal of time and strength is wasted in philosophical study because of misdirection and failure properly to analyze the problems. Teachers often lose themselves in details and reach no insight into the essential questions. Even distinguished occupants of philosophical chairs sometimes come under this condemnation. They are experts in the bibliography and biography of the subject. They are full of information on the editions and the commentaries, and in short seem to know everything about philosophy but philosophy itself. The scholastics distinguished "knowledge of the thing" from "knowledge about the thing," and the latter is what we

too often find when we are looking for the former. The principle which gives meaning and unity to the whole is missed altogether, and any criticism which may be made is "unprincipled" and superficial in consequence. There is abundant knowledge of details, but when we come to the subject itself we often find some naive and uncritical dogmatism or perhaps no idea whatever; and sometimes it is even held to be a mark of especial mental breadth to have no system at all; as if the inability to think organically and consistently were a sure sign of greatness. Such philosophers are strong on the history of philosophy. They remind us that we can understand a thing only by studying its evolution. As if a man could write edifyingly upon the history of a subject which he did not himself thoroughly understand; or as if a man could read to much edification the history of a subject of which he knew nothing. The only result would be barren superficialities in the work and a fluency of speech without understanding in the reader.

When we are dealing with concrete institutions, legislation, etc., there is truth in the claim that they must be historically studied for their complete understanding; but when we are dealing with the formal truths of intelligence, they are to be understood in and through themselves. Any student of average ability can be made to see the truth of the binomial theorem by reflection upon the proof offered, and he can equally well learn how to apply the theorem by inspection of its terms. In neither case is any historical study needed for insight, though it might be interesting in itself. But a history of mathematics as an introduction to mathematics would not tend to edification. Equally inverted pedagogically is the history of philosophy as an introduction to philosophy. Either it must confine itself to worthless platitudes which will enable the student to talk without understanding, or it must be as unintelligible as a history of the higher mathematics would be to one who had never studied algebra. While, then, we must always have the highest respect

for the historical method, it manifestly applies to some things better than to some other things, and we must not allow a mechanical repetition of formulas to obscure this fact. The men who have helped philosophy forward have seldom been men learned in the bibliography of the science, but men who grappled with the problems themselves. Descartes, Locke, Berkeley, Hume, Kant are illustrations. Hobbes said that if he had read as much as some of the stall-fed philosophers of his time he should have known as little as they.

Again, philosophers, from failure to keep in touch with reality, have often run into barren elaborations of obvious commonplace which might well justify the contempt of common sense. Here logic reminds us that explanations which leave matters as dark as ever lose from that fact all reason for existence. Philosophers sometimes forget this and in their theoretic zeal for their formulas unwittingly give awful examples of theoretic obsession. A distinguished philosopher furnishes us with illustrations.

How does a child learn to write? To most of us it seems sufficient to say that he must try and try again. But the distinguished philosopher gives a more elaborate account, as follows: —

"What he [the child] actually does is to use his hand in a great many possible ways as near as he can to the way required; and from these excessively produced movements, and after excessively varied and numerous trials, he gradually selects and fixes the slight successes made in the direction of correct writing. It is a long and most laborious accumulation of slight functional selections from overproduced movements."

The next selection is still more profound, and illuminates a deeper mystery.

"Selective thinking is the result of motor accommodation to the physical and social environment, this accommodation taking place in each case, as all motor accommodation does, from a platform of earlier 'systematic determination' or habit. In the sphere of the physical environment as such, the selection is from

overproduced movements projected out from the platform of the habitual adaptations of the members brought into play; in the sphere of the social environment it consists in the accommodation of the attention, secured by the overproduction of motor variations projected from the platform of the habitual attention complex. The presentations from which the selected motor variations issue are believed, or called 'true,' while the organization which the motor complex gradually attains holds the data of knowledge in relations of theoretical and analytical 'validity.'"

Fortunately life can go on in its main interests on a less complicated platform than this. These operose and stilted elaborations of commonplaces remind one of the man mentioned by Swift, who, thinking that the ordinary method of being measured for a suit of clothes was too crude, had himself surveyed for a suit, as much more scientific. After an elaborate measurement of lines and angles and much intricate calculation, a result was reached which could have been gained directly and

more effectively by a moment's use of a tape line.

So, then, two things are plain: first, the importance of philosophy, and, second, the very general confusion which attaches to the subject, not only in popular thought, but also in the minds of supposed experts themselves. The first step out of this confusion must lie in seeking to reduce it and help to a better understanding of the problem by looking for some starting-point which will serve as a common ground for common sense and philosophers of all schools, something on which all may agree as a point of departure.

We find such common ground in the following postulates: —

First, the coexistence of persons. It is a personal and social world in which we live, and with which all speculation must begin. We and the neighbors are facts which cannot be questioned.

Secondly, there is a law of reason valid for all and binding upon all. This is the supreme condition of any mental community.

Thirdly, there is a world of common experience, actual or possible, where we meet in mutual understanding, and where the great business of life goes on.

These conditions commend themselves as absolutely necessary in order to give any rational standing to our investigations, and they cannot be questioned by any one without immediate and obvious absurdity. If any one should doubt the coexistence of persons and assume that he was the only being in existence, it would not be worth while to argue with him. And if any one should doubt that the laws of thought are essentially the same for different persons he could not rationally propose to argue with any one else, for his arguments could only show what was reasonable for himself, and this by hypothesis need not be rational for any others. Again, if any one questioned the world of common experience, this experienced world in which we all live and meet one another in mutual understanding and to which we have to adjust ourselves in the direction of our lives, he also would shut him-

self off from any intelligible communication with others. It is only, then, as we assume and admit these general postulates that our discussion could have any rational standing. If, however, any one chooses to deny them we have no objection. We only insist that he shall keep the peace and not disturb the rest of us by his inconsistent outcry.

It is well, however, to note that these facts do not admit of being speculatively deduced or demonstratively established. If they need demonstration it cannot be given. They involve some very deep mysteries and carry us into the depths of metaphysics, the philosophy of the infinite and its relation to the finite. But, on the other hand, they do not need demonstration, being so cogently forced upon us that any skepticism regarding them can never be more than verbal. In dealing with them of course we must be careful not to find more in them than the facts themselves necessitate, or not to impart into them a system of crude metaphysics, as if this were a part of the original datum. But when this condition is duly

regarded the facts themselves are not open to question. Every system of whatever kind has to begin with something behind which there is no going and which is to be unconditionally accepted. In our human thinking we must begin by admitting the points in question.

It is also well to bear in mind that we have here a common ground for all intelligent thinkers, whatever their philosophic theories may be. Hume and Berkeley and Mill would accept these postulates as readily as Reid and Hamilton and the most dogmatic of realists in general. For Hume matter was substantially nothing in theory; for Berkeley it was an idea only; for Mill it was a "permanent possibility of sensation," — but practically matter was the same to them as to every one else. They had to adjust themselves to material things and their laws, and had precisely the same kind of experience as their realistic neighbors. The differences among the philosophers do not concern the facts of experience or anything which they can be shown to imply for possible experience. The differences begin

with the philosophic interpretations. The facts are interpreted by different schemes of metaphysics, or perhaps the possibility of interpretation is denied, thus producing different philosophies; but the facts themselves cannot be practically questioned without insanity, or even with it. Agnosticism, idealism, nihilism, all leave experience untouched, and for experience they all agree with common sense. There is an order of experience which we do not make but find, with which we have to reckon and to which we must adjust ourselves in order to live at all. In this conviction of common sense all philosophers agree, whatever reasons they may give for it.

Thus we secure an intelligible and manageable problem. We have the world of persons, the laws of reason, and the world of experience, or the world of perception, and the world of life and history for our data, and the just claims of common sense are recognized. Common sense has always claimed that we are not living in a world of illusions, but in the real world, and this we not only

admit but affirm. The basal facts, therefore, for philosophy are the personal world, the common reason, and the world of experience. With this living, aspiring, hoping, fearing, loving, hating, human world, with its life and history and hopes and fears and struggles and aspirations, philosophy must begin. We are in a personal world from the start, and all our objects are connected with this world in one indivisible system. And this world of experience stands absolutely in its own right, and is independent of our metaphysical theories concerning it. We may have various theories about it, but the experience itself is what it is, and its contents are revealed only in life.

This personal beginning of all speculation should be emphasized, as oversight of the fact has led to some of the great aberrations of philosophy. In particular naturalism begins with matter and force under the conditions of space and time, and at once we have an insoluble dualism in our theory, and also a strong tendency toward materialism and the elimina-

tion of personality altogether. Such errors are avoided when we recognize the primacy of the personal world from the start. This matter and force of naturalism are a pair of abstractions broken from the system of living experience, and probably having only an abstract existence.

Returning now to experience, and confining our attention for the present to the physical world, we point out first that we speak of the system of experience instead of the world of things, as that is a phrase which carries with it many questionable metaphysical implications. The order of experience cannot be questioned, but when we import into it the notion of material and impersonal substances underlying it we have already transcended experience. Here is where the idealistic systems break off. They all agree on the data of experience, its laws, and the practical expectations we may form for our guidance, but they find neither proof of the existence of these substances nor any use for them, supposing them to exist. By experience, then, we mean

the world of objects, so far as they can be the subjects of a real or possible experience, and we imply nothing beyond this by way of metaphysics. How the order of experience is possible is a matter for later inquiry.

But after yielding thus far to the scruples of the idealist, we must next point out in the name of common sense that this world of experience is real in the sense of being trustworthy, or something which can be practically depended upon. It is not illusion, as illusion means something which does not fit into the system of common experience on its own plane, and is therefore a fancy or phantom of the individual, like the visions of a fever patient. But all that we find or can find in the order of common experience is to be unhesitatingly accepted as real, and for the very good reason that there is no help for it. And this is all that common sense means by reality in general,— something which is there for all and which can be depended upon.

But these terms, real and unreal, are exceedingly vague, and their meaning deserves

some further specification. They are so far from having a single meaning, that the same things may be called real and unreal at the same time, according to our standpoint. Thus finite things may be called real on their own plane of finitude, and unreal as contrasted with some basal and absolute existence. But there is no contradiction, for the unreality of the finite is only a denial of its eternal self-existence, and this gives it a temporal and phenomenal character in comparison with the eternal. But real and unreal are proper contradictions only when applied in a given class or on a given plane. Thus unreal appearance in space is such only because it does not fit into our general system of space experience; but when it does thus fit and is consistent with the totality of space experience, it is real in the only intelligible sense of the word. To ask whether the totality of space experience is real or illusory is to confuse ourselves by mixing two realms. The reality of space experience lies in its validity for experience. It is possible that this real experience might be looked upon as only phenom-

enal from a deeper metaphysical standpoint, but that would in no way modify the reality of the experience, but only the interpretations which we might draw from it.

As matter of experience, then, experience is real, that is, valid and trustworthy, and not illusory. This point is to be emphasized, as confusion here has led to not a few philosophical errors and some religious aberrations. Some philosophers, especially in the Orient, deciding that only the self-existent is real, proceed to rule out all finite existence and experience as illusion; but all they are justified in doing is to say that finite existence and experience are not real in the sense of absolute and eternal existence. They may yet be entirely real as experiencing subjects and experienced objects. It would lead to a great clearing up in Oriental thought if these terms were clearly defined and consistently applied. Considerable *maia* would disappear forthwith.

In like manner some persons among ourselves have thought it a sufficient proof of the unreality of pain and disease to call them un-

real, that is, not substantial. In this sense, of course, they are unreal, but they remain very real forms of experience notwithstanding; and in dealing with them as forms of experience we are not helped in any way by our metaphysics. Suppose we decide that hunger and cold are illusions. As such they remain just as insistent and peremptory as before. Hunger may be an illusion and food may be an illusion and cold may be an illusion, but the only effective way of dealing with the illusions, hunger and cold, is to apply certain other illusions known as food and clothing and shelter and warmth and so on, and it is just as hard and just as necessary to get these under the name of illusion as under any other name whatever. Berkeley did not find his butcher's bill or grocer's bill in any way changed by his metaphysical theory; and in general this world of experience, real or possible, is not modified by our metaphysical notions about it. Even if we go to the extent of utter nihilism, life itself ought not to be affected. Thus, if we call our own selves illusions and our life an illusion, life

remains just what it was before, and inasmuch as it goes on fairly well now as illusion there is no assignable reason why it might not continue as illusion and even pass into better and better forms of illusion. It might be possible, therefore, for one to fall back upon experience and ignore the metaphysician altogether, with the understanding that life itself is what it is and that it is not modified by what we call it.

But if experience be thus undeniable, what need of philosophy in any case, or what function does philosophy have? It might almost seem as if it were a species of psychological vermiform appendix, without any remaining function, and only a seat of dangerous inflammations.

In reply it must be said that there might well be beings the contents of whose experience should be perfectly plain and open to thought, so that nothing would be needed but to describe and register those contents with their laws. We find, however, in our own case that experience, while fundamental and also

true on its own plane, is not necessarily final. Our experience is such that when we reflect upon it we find ourselves unable to rest in it and are compelled by the necessities of thought to go beyond it, not for its reality or trustworthiness, nor for its truth, but for its explanation and understanding. For instance, the visible heavens are something whose truth is not to be questioned; but on the other hand, when we compare the phenomena of the visible heavens we find that we cannot rest in them, but must go beyond them to the astronomic heavens as their only adequate explanation. We find here the true relation of experience and its interpretation. Experience itself must be accepted as unconditionally trustworthy. If it is not so we have nothing on which to build. Here is the dilemma of all systems of traditional phenomenalism. They begin by denying the truth of experience, and then seek from the untrue experience to deduce something which is to be called true. In that case we are seeking to infer trustworthy conclusions from untrustworthy premises,

something which logic will not permit. The correct order is to recognize the truth of experience, so far as it goes, but to see that experience may need interpretation, as in the case of the visible and astronomic heavens again.

Brother Jasper made considerable merriment years ago by insisting that the sun moved, for he said he had seen the sun on one side of the house in the morning and on the other side of the house in the afternoon, and as the house had not moved the sun had moved, and therefore the sun does move. Now, in Brother Jasper's original contention he had a fact which astronomy could not ignore and one which astronomy was bound to explain, under penalty of seeing its theory condemned; and the proof of the astronomic theory rests on the fact that it includes not only Brother Jasper's fact, but a great many other facts of which Jasper had no knowledge; but Jasper was right as to his fact. He only failed to see that his fact admitted, and indeed demanded, another explanation.

Now in this respect Brother Jasper very

well represents the position of common sense respecting experience. It is rightly persuaded that experience is something which can be depended upon, and it proceeds to explain this fact by certain assumptions which may be doubted. In this way the crude metaphysics of common sense is produced, at which critical philosophy has always taken offense. Reflection, however, shows that this experience, when critically studied, does not allow us to rest in it as final, but requires us to go beyond it for its ultimate explanation. If we bear this in mind we shall see that it is possible to hold at once the trustworthiness of experience and also the necessity of transcending it.

We may, then, speak of experience as true or false according to our standpoint, but we must be very careful in applying these terms lest they lead us into error. We see that the untaught rustic in some sense lives continually in a world of illusion. He takes the visible heavens as final, and has no suspicion of the astronomical heavens. He takes his experience of material things also as final, and has no

suspicion of the truths which physical science reveals concerning them. He is living, then, in continuous gigantic illusion, in this sense, that his eyes are holden, yet not in the sense that his experience is false. His experience is true so far as it goes, but his interpretation of it is mistaken. Or we might say his experience is very limited and hence admits of an interpretation which would be seen to be inadequate if the experience were more extensive. The whole cycle of scientific truth is hidden from him, not contradicting anything that he knows, but, because he knows so little, lying entirely beyond his horizon. If, however, his experience should enlarge, he would not find his old truths contradicted, but a good many of his old limited notions would disappear, and many other notions would receive proper limitation.

This astronomical illustration is not introduced as being perfectly parallel to the metaphysical interpretations of philosophy, but it serves to show at least how experience may be at once true and not self-sufficient, requiring us to go beyond it for its interpretation.

Returning again to experience we discern that it has certain contents and ways of being and happening, and this leads to the partition of territory between science and philosophy. Things hang together in certain ways, and events come along together according to certain rules. These uniformities of coexistence and sequence admit of being studied and described and registered without reference to metaphysics. Whatever our metaphysical scheme, be it realistic or idealistic or agnostic or nihilistic, things do hang together in experience in certain ways. In the outer world of perception, in the inner world of mind, and in the social world of history, there are certain orders of likeness and difference, of coexistence and sequence, and concomitant variation among the facts of experience. These are revealed only in experience, and whether we like them or not, and whether we can make anything out of them or not, they are undeniably there. If there be any question as to the order of chemical change, we make the experiment and the fact is established. If we would know

the arrangement of the geological strata, we look and see. Things occur and happen and hang together in certain ways, and all the king's oxen and all the king's men could not alter this fact. Some ecclesiastical authorities once took offense at the doctrine of the earth's motion and denounced it with all their might; but the world kept right on moving after texts had been quoted and anathemas had been uttered against it.

The knowledge of these uniformities is of the utmost practical value for the guidance of our lives. When we have learned what they are we can find our way from point to point in the world of experience. We avail ourselves of our knowledge to reach desired effects by arranging their antecedents, or to escape undesired effects by removing their antecedents. Our entire control of the inner and outer world is reached in this way, and the knowledge thus reached is the sum of practical wisdom. This knowledge, as said, can be gained only by observation and experiment. No amount of reflection upon ideas will enable us to deduce

a priori any of these facts. In this work also we are independent of metaphysics except in the most general sense. We need not have a theory of gravitation to discover that certain changes can be formulated in the law of the inverse square. We need not have a theory of electricity or magnetism to notice that a certain set of physical changes have such and such laws. Hydrogen and oxygen may be in themselves things or phenomena or nothings, yet we know that a certain measure of what we call oxygen and hydrogen will unite to form a certain amount of what we call water. This matter may be highly mysterious in its innermost essence, but for practical purposes we know how to deal with it, and know what will happen under circumstances open to observation and experiment. And, as said, this order of experience remains even if we decide to call things nothings, for the hydrogen nothing and the oxygen nothing would still unite to form the water nothing, and we are as well off as ever, no better and no worse, for our metaphysics. This knowledge of the con-

tents and laws of experience is originally begun by common sense. The spontaneous and unreflective experience of humanity has got together a good deal of information. To carry on this work with greater precision and wider range is the work of science. Science has properly no principles beyond those of common sense observation and trial. It only applies those principles more thoroughly and invents more accurate methods of observation and experiment, but scientific methods move along the lines of common sense. And this work of science is full of beneficence, and every intelligent person should wish it success. No one can find any reason for objecting to it, for every one must recognize in it one of the most beneficent forms of human activity. It is the great source of our mastery over nature, and must go on until that mastery has been vastly extended, leading to the casting out of old forms of disease, the better guidance of life, the putting off of human drudgery upon muscles of steel, and the subjection of what we call the forces of nature to human service to

a degree hitherto undreamed of, a degree of which our present control of nature gives only the faintest suggestion. In this work science has inalienable rights, and no philosopher or theologian may molest or make it afraid. It is in this work, too, that science does invaluable service, for it is just this knowledge of the way things hang together in an order of law that gives us our control of nature and makes civilization possible. We cannot overestimate the importance of science in its own field.

But this field is limited. If these spatial and temporal facts with their various uniformities were all known, an important question would remain untouched. This is the question of meaning and causal interpretation, and this question the mind insists upon asking. After we have found that things exist and hang together in certain ways in space and time, we next need to know what they mean, and what the cause is that underlies the cosmic processes. What is the nature of the causality, and is it moving toward any goal? This question belongs to philosophy. Nothing that

science does or can do even tends to answer it. Science discovers, describes, registers the facts; philosophy interprets them. It seeks to penetrate to the hidden seat of the power that underlies the world and to detect the secret meaning that animates it. Both the scientific and philosophic inquiry are equally necessary for the full satisfaction of the human mind, but their coördinate rank has not always been recognized. The positivists rule out the causal inquiry altogether. They hold that all we can do is to register the orders of coexistence and sequence in space and time. All beyond that is fruitless. The agnostics come to the same conclusion by a somewhat different road. The causal inquiry is one that we are bound to make, but one that we can never answer. Practically, then, we must be positivists, with, however, a sense of the omnipresent mystery upon which all things depend and from which they proceed. Common sense does not distinguish the questions at all. It believes in causality, but finds it in sense objects, and there is no mystery about them. When this

view is carried out it gives us the familiar naturalism of materialistic and atheistic thought.

But a more critical philosophy declines any of these views. Time has judged both positivism and agnosticism, and the human mind has rejected them. Common sense remains on the surface and has no suspicion of the depths of the problem. These depths critical reflection seeks to reveal or to sound.

But here the objection may be raised: if experience is to be unconditionally accepted there would seem to be little need for any puzzles over the causation in the case, for things about us are manifestly causal, and so what need is there to go beyond those things, simply describing them not only in their temporal and spatial relations but also in their causal relations? This leads to the insight that the question of causality is very much deeper and more mysterious than is commonly supposed. This appears from the study of physics as well as from abstract metaphysical reflection.

A first thought, of course, is that causality is given in immediate experience of things; but

since the time of Hume this notion has been obsolete among practiced thinkers. There is of course no question that causality is in play in the production of physical changes, but where the causality is to be located and how it is to be conceived is a problem not so easily managed. Common sense locates it in the things themselves, but as new facts are discovered and reflection upon them is extended this is seen to be an impossible view. Thus, take this desk at which I stand. It is easily described in terms of experience, and in such terms there is no mystery about it. But when I proceed to ask concerning the nature of the material of which it is composed I soon find myself beginning to grope. The wood, according to the physicists and chemists, is composed of molecules, which in turn are built of atoms, and nowadays these atoms themselves seem to be systems of particles still more minute. And when inquiry is continued we are told of still deeper mysteries, of vortex rings in an ether, with other dark sayings, the result of which is to show that the things about us are not

substantial things, but rather processes of an energy beyond them; and at last we are led, in the words of Mr. Spencer, to recognize "the one absolute certainty that he [man] is ever in the presence of an Infinite and Eternal Energy, from which all things proceed." However true this conclusion may be, the facts adduced serve to show that the problem of causation has deeper mysteries in it than we at first suspected. We are still sure, as said, that causation is in play as the ground of physical changes, but we seem compelled to locate it, not in the phenomena themselves, but in the basal energy beyond them on which they depend and by which they are coördinated. This inquiry takes us into the depths of metaphysics.

Thus we see a way of harmonizing common sense, science, and philosophy. They are not mutually contradictory or indifferent realms, but rather mutually supplementary aspects of the mind's effort in the attempt to understand itself and its experience. All conflicts between them, then, are entirely the outcome

of misunderstanding and ignorance. Common sense and science must discover the facts, their contents, their spatial and temporal laws, otherwise philosophy has nothing to work upon; but, on the other hand, after science has done this work, the higher interpretation remains necessary, and without it the mind cannot fully satisfy all its tendencies and come to rest. Each inquiry is justified and highly important in its own field, and each must recognize the coördinate importance of the other.

Science, we have said, studies the laws of coexistence and sequence among the facts of experience, and leaves their interpretation to philosophy. A certain extension of the scientific field, however, must be made in this way. Science may undertake a certain kind of interpretation in its own field of space and time without going into the metaphysical field which belongs to philosophy. The astronomical illustration, which we have already given, serves to show this. The astronomer need not go beyond his own spatial phenomena and the laws which obtain therein

in order to reach his astronomical conclusions. Proceeding on the experience of the variation of the apparent size of bodies according to their distance, we can infer from the given spatial phenomena how they would appear from another point of view, and in this way we may pass to affirm the astronomical heavens as the way in which the system would look if we extended our space vision. If the visible heavens are only apparent we can argue to their appearance if their distances from us were diminished. Passing, then, in imagination, back and forth in space, we can form some conception of the great sidereal system and its mighty spaces. In so doing we use no new principle, but only apply the familiar laws of space and space appearance.

And thus, in general, we find that phenomena interpreted by their own laws give a hint of past conditions and also point to future conditions. From a given state of things we can infer the past state of things or look forward to a future state of things,

in accordance with the laws observed to hold among them. Thus we can read back the geological history of our earth to some extent, and also its biological history, or its astronomical history. From given erosions and strata, and from a succession of fossil forms in these strata, and from various astronomical data, we can do somewhat in the way of reading back into the past of the system. In like manner, from the present conditions, laws, and tendencies, we can infer something respecting the future. But in all of these cases the inference remains within the phenomenal realm, or among the phenomena of space and time, and they involve no new metaphysical principle beyond the simple recognition of those phenomena and their observed laws. In this sense, then, science not merely discovers and describes and registers the facts of experience, but it also infers from them many other facts as existing elsewhere in space, or in past or future time.

It is to be observed, however, that this scientific inference is hypothetical and can-

not claim to have the certainty of the facts of experience which can be verified in experience itself. It has a certain measure of probability and is not to be gratuitously rejected. But, on the other hand, it can never lay claim to be assured matter of fact, as it rests upon certain assumptions which are far from being necessary truths. This inferred knowledge of the past assumes that we know all the determining circumstances, that the order of change is constant, and that no manifestation of a new force from without or within occurs; and as this is something we never can know, we are not entitled to be dogmatic. Of course the reasoning in such cases may be sound, but the premises may be open to doubt. For example: If a certain valley is being cut away at a fixed rate, we can readily calculate how long it has taken to form it. Or if the delta of the Mississippi is extending a given distance every year, we can by simple division tell how long it has been in forming. Or if a certain peat-bed has a given thickness and has been deposited

one inch a year, we can easily tell how long the deposition has taken. In such cases, as said, the reasoning may be exact, the mathematics perfect, but the conclusion depends upon the assumed truth of the premises. It might be in the case of our peat-bed that we should find at the bottom of the bed, say a Roman shoe, or coins of the date of Augustus Cæsar, in which case, if our mathematics had given us a million or two of years as the quotient, we should know that, while the mathematics was right, the inference itself was wrong.

Again, we can never be sure that there might not have been manifestations of unsuspected forces, bringing about new conditions which would make our reasoning invalid. For instance, if there were a number of beings living in a world of oxygen and hydrogen, they might conceivably learn the physics of gases very thoroughly, and they could infer that the gases would contract with cold or expand with heat, but they would not have any hint of what would happen if an electric spark should

pass through. In that case there would be a sudden manifestation of unsuspected chemical properties, resulting in very different physical and chemical properties in the water vapor which would result. If these hypothetical beings should survive the process, they might then proceed to study the physics of water vapor and become dogmatic again as to what was possible on the basis of the law of continuity; and their reasons would be valid until the vapor cooled below a certain point, when there would be another break of continuity; and the result would be water with another set of hitherto unsuspected properties. And if the speculators still lived and should once more grow dogmatic about continuity, their conclusions might be justified until the water was cooled down to 32 degrees Fahrenheit, when another wonder would happen. The water would pass into ice, in bold defiance of the law of continuity, and still a new set of properties would appear. This serves to show that we must be somewhat careful not to be too dogmatic in our inferences from the pre-

sent state of things, for what we have illustrated here in the large may take place in the small all the time. Indeed, the system of spatial changes and successions, based upon purely kinematic considerations of the composition of motions, is continually suffering modifications from the dynamic realm, conceived either as the nature of the elements or as some energy outside of them and working upon them. To what extent this is possible in general is of course unknown, but enough is known to warn us against a confident dogmatism based on the supposed law of continuity. Only the self-confident dogmatist knows that the system has already manifested all its essential potentialities.

Logic makes the further suggestion at this point to the effect that no moving system can ever give an account of its origin; for when a system of law is given it is logically possible to read the system backwards, but the backward reading in such a case does not represent any actual fact, but simply what would have been the fact if the system had existed

through that time. Every such system, then, has what may be called a virtual past. Thus, if we should suppose the solar system created outright, the equations which express the compositions and motions of the planets at the moment of creation could be read backward, but the backward reading would refer to a virtual past, not a real one. The same is true for any order of law in a changing world. It admits of being read backward, and there is no sure test whereby we can distinguish the virtual from the real past. Our analytic thought naturally assumes that the simple elements preceded compounds; but this is only a logical precedence, and we find no warrant for turning it into a temporal relation. If there have always been chemical elements, for all we can say they may always have been chemically active and chemically united in any order of complexity. Dogmatizing on origins is logically a very perilous business. It generally ends in mistaking the simplifications of analysis for the original forms of existence. Wisely, then, did Mr. Mill say even of the so-

called laws of nature that we should confine our affirmations to a "reasonable degree of extension to adjacent cases."

Science, then, has the world of temporal and spatial phenomena for its field; but it is necessary to remember that this world has its roots in an invisible and impicturable world of power and possibly of purpose, and the real reason for all spatial and temporal manifestation must ultimately be sought in the world of power. And as this and its implications are very largely hidden from us, we need to beware of all dogmatism respecting either past or future which is far removed from our practical interests.

Our first step toward the personal interpretation of experience consists in the insight that we are in a personal world from the start, and that the first, last, and only duty of philosophy is to interpret this world of personal life and relations. Any other view can only lead to the misleading abstractions and aberrations with which the history of thought abounds.

II

THE PROBLEM OF KNOWLEDGE

How is experience possible? This is the question with which Kant inaugurated a new era in philosophy. Before his time there had been two views respecting the origin of knowledge. One was that all knowledge is from experience. Mind is purely passive in knowing, and impressions are made upon it from without. The famous metaphor of the tabula rasa has served this school as both doctrine and argument ever since the time of Plato. Knowledge, then, is a mere reading off of what the mind passively receives. The other view was that the mind may know many things independently of experience. The former view had been reduced to absurdity by Hume, and the latter view had run into a barren formalism in the hands of Leibnitz's disciples. Both views were superficial. The empirical school had never decided

what experience means when the mind is utterly passive, and they had found it easy with Locke to deduce many rational principles from a passively received experience. But Hume came and showed that such an experience must become a vanishing phantasmagoria, which perishes as fast as it is born and leaves nothing articulate behind it. Since, however, we do have an articulate experience, it is plain that the question of the origin of knowledge is subordinate to the deeper question respecting the origin of experience itself. If it should turn out that experience is a product of our rational nature, the folly of seeking to deduce reason from experience would be manifest. Hence the epochal significance of the question, How is experience possible?

Kant's answer is well known. Experience is not something given ready-made from without, but is actively constructed by the mind within. Experience is possible only through a certain constitutive mental activity, according to principles immanent in the understanding. In this way the raw material of sense impressions,

which in themselves are fleeting and discontinuous, is built into a rational world of experience. This insight was Kant's great contribution to philosophy, and it remains, in spite of all criticism, a permanent possession of reflective thought.

This result finally vacates the traditional empiricism which views the mind as only passively receptive in knowledge. Hume showed the inarticulate nihilism to which the doctrine must come when made consistent, and Kant showed that actual experience is a mental product. In this result he had been forestalled by Hume, in a somewhat left-handed way, in his admission that there is much in thought which cannot be found in an experience of the passive type, and which he ascribed therefore to a "mental propensity to feign." When carefully studied, it turns out that this "propensity to feign" is a very active faculty in Hume's system. Between Hume and Kant the old sense empiricism is deprived of all visible means of rational support. It now belongs to the family of superstitions.

The principles of knowing are primarily immanent laws of mental activity. This we must now endeavor to bring out into clear vision, as the great difficulty in popular philosophizing and all the strength of traditional naturalism lie in the apparent immediacy of knowledge, so that it seems to be no problem at all. This makes it easy to believe that a great system of things can exist and be known without the activity of any rational and spiritual principle. This assumption is the corner-stone, and indeed the whole foundation, of all mechanical philosophizing. Hence the need of making this activity evident.

Knowledge of course cannot be defined except in terms of itself, neither can it be deduced from that which is not knowledge. There must always be a certain unique and immediate character to knowledge which can rest on nothing but itself. In some sense, then, there is no answer to the question, How is knowledge possible? for there is nothing deeper or other than knowledge by which to explain it. Still the study of knowledge may reveal certain con-

ditions and implications which are unsuspected by unreflective thought and which have profound significance for philosophical theory. This fact gives us our next subject of inquiry. We do not aim to tell how knowledge is possible, in the sense of giving a recipe by which it might be compounded from that which is not knowledge, but in the sense of studying the conditions and implications of the knowing process. And, first of all, we must make clear the problem and our starting-point.

A fundamental distinction in knowing is that between the "me" and the "not-me." I place all other things or persons as my objects in changeless antithesis to myself as conscious subject. But inasmuch as this "not-me" includes my fellow men, the "me" is soon enlarged by their addition, and then the antithesis becomes the "us" and the "not-us." We human beings become the "us," the subjects, and the cosmic order with whatever else there may be becomes the "not-us." Then the "not-us" breaks up again into the cosmic order, so far as it is an object of scientific study, and its cause.

If we could attain to clear and definite knowledge on all of these points, we should have made great progress in philosophy.

It will very likely be objected by some that we have made too sharp an antithesis between the "me" and the "not-me," the "us" and the "not-us." This objection is due to the fact that many persons have contracted the habit of talking about monism without any very clear conception of their own meaning, and still less of its concrete possibility. Whatever monism can do for us, it can never confound us with one another so as to identify Jesus and Judas, or make Mr. Spencer's critics the authors of his philosophy. Whatever universal elements the fact of knowledge may contain or imply, as a concrete process knowing is necessarily individual, a gathering by the "me" of information respecting the "not-me"; and any other method of treatment will result in confounding all distinctions and telling us, perhaps, that the subject of the universal experience is the same as the subject of the particular experience — a

dark saying, to which unfortunately no key has been furnished, not even for teachers.

In addition, we must note that our knowing in its very nature implies being in the sense of a content which is the object of the knowing. Knowing as an act never ends in itself as a psychological fact. It always relates itself to a content which the knowing act does not make but reproduces. There is, then, in the very idea of our knowing a presupposition of something existing apart from the knowing as a mental event, and this, indeed, is the very essence of the idea. This fact has always been overlooked by empiricists, who have thought the only problem of knowledge was to group particular sensations in the individual consciousness, and when this has been done to their own satisfaction they have supposed that the problem of knowledge was solved. In fact, however, they have not even seen the problem, to say nothing of solving it. If their associational mechanism worked perfectly, it would only give sensations associated in some particular consciousness, and could never give

anything beyond it. Solipsism would be the only result. This outcome is escaped by the ambiguity of the term sensation, which means primarily an unqualified and particular impression in the individual sensibility, and which then, without warning, is transformed into a symbol or revelation of a world of things existing beyond itself. But this is something very different. If the sensations are only affections of the sensibility, they never carry us beyond themselves; but if they point to and reveal a world beyond them, we have something more than sensationalism. All the apparent success of sensationalism rests upon this ambiguity, as Green has shown with such thoroughness in his Introduction to Hume.

Assuming, then, this world of things other than myself, in the sense that they cannot be identified with myself, we have the question, How is a knowledge of such things possible?

Knowledge is conditioned both by the nature of the subject and by the nature of the object. In order that a thing may be known, the subject must act in certain ways and the

object must be of a certain nature. If the subject remained passive and inert, there would be no knowledge; and if the object were such as to admit of no rational construction, again there could be no knowledge. We consider the activity of the subject first. How is knowledge possible as a subjective apprehension of objects other than the knowing subject?

The general answer to this question is that our human knowing of other than purely subjective states must depend upon some form of interaction between the "me" and the "not-me." This "not-me," so far as yet appears, might conceivably be the world of things about us, or it might be an all-embracing impersonal energy, or it might be a supreme spirit upon whom we all depend. Common sense, of course, assumes that the interaction is between apparent objects and ourselves, for there seems to be nothing else in sight. This view, however, loses its plausibility as soon as we come to see the phenomenality of the world of objects. Then we find ourselves shut up to one or the other of two views; but for our present

purposes it makes no difference what view we take of the "not-me." Whatever it be it cannot give us ready-made knowledge, or do anything but furnish a stimulus to our own mental activity. In all interaction between things the reaction is but an expression of the agent's own nature, for the manifestation of which other things but furnish the occasion. Hence the mental reaction which we call knowledge can be looked upon only as an expression of our mental nature according to principles immanent in itself. But this statement is too abstract for easy understanding by the unpracticed reader, and we must attempt a more concrete explanation.

Common sense begins by taking knowledge for granted. In the beginnings of mental development knowledge is not even a problem. Things are there, and are reflected by the mind as a matter of course. Of the complex and obscure processes and postulates of cognition, spontaneous thought has no suspicion, and knowledge would have always been taken as a matter of course had not experience revealed

difficulties and contradictions in our thinking. Men stumbled at an early date upon these difficulties and skepticism was awakened, and thus thought was gradually forced to consider its own methods and to inquire into the possibility of knowledge itself; but the problem did not receive its full and adequate statement until the time of Kant. From his time epistemology has been a leading department of philosophy. Common sense supposes that knowledge arises without any process of mystery, but epistemology shows that the matter is exceedingly complex. The existence of things is by no means the same as our knowledge of them, and reflection makes plain that if things existed precisely as they appear to us the knowledge of them could arise only as the mind by its own action reproduces the contents of things for thought. Knowledge is nothing which can be imported ready-made into a passive mind, but the mind must actively construct knowledge for itself. We see this most readily in the case of conversation or any form of mutual understanding between per-

sons. In such cases no ideas pass from one mind into another, but each mind for itself constructs the other's thought, and thus apprehends and comprehends it. This is self-evidently the case in all personal communion, and every one would see the absurdity of any other supposition. Thoughts are not things to be exchanged or handed along. They exist only through thinking, and to perceive another's thought is to think it for ourselves. But this equally expresses the fact in all knowing. To know things is to think them, that is, to form thoughts which truly grasp the contents or meanings of the things. The things do not pass ready-made into the mind. Indeed they do not pass into the mind at all, but upon occasion of certain action upon the mind the mind unfolds within itself the vision and knowledge of the world. And this it does, according to the physiologist's report, without pattern or copy, and in consequence of certain nervous changes of which moreover it knows nothing directly and commonly knows nothing whatever. This being the case, it is manifestly

idle to think of knowledge as impressed on a passive mind, or as carried ready-made into the mind. The knowledge originates within, and the laws and forms of knowledge must primarily be the laws and forms of thought itself. Just as little as ideas pass from the teacher's mind into the pupil's mind, just as little do they pass from things without into the knowing mind.

This matter is plain enough upon reflection, but common sense has its difficulties. We venture therefore another illustration. Suppose a man who had lived all his life in a telegraph office and who had to get all his information respecting the existence and nature of an external world by the clicks of the instrument. The clicks are like nothing but themselves. They resemble neither the things they are supposed to represent, nor the thoughts they are supposed to evoke. But if under such circumstances the man did read them back into the external world, it is manifest that he must have the key in himself, as only thus could he pass from clicks to meanings. But this

illustration hardly even adumbrates the obscurity and difficulty of the actual process of perception. The sense clicks left to themselves mean nothing; it is only as they are made the bearers of a rational content that they acquire any significance. Sensations at best in their perceptive relation are only symbols, the meaning must be furnished by the percipient mind.

This conclusion must stand even on the supposition that we simply apprehend or read things in sense perception without modification. But most of our objective knowing is not perception, but interpretation. The world as it is for sense is very different from the world as it is for thought. In looking at a picture the colored surfaces and outlines are in the sense. The meaning is in thought. In reading a book the printed page is in the sense. The signification is in thought, and only in thought. One who does not know how to read would look in vain for meaning in a book, and in vain would he seek to help his failure by using eye-glasses. The same is true

also for our knowledge of the world. That which is in sense is very different from that which is in thought. The sense world is flitting, fleeting, discontinuous. Epistemology shows that it is all an inarticulate, phantasmagoric flux or dissolving view until thought brings into it its rational principles and fixes and interprets it. The sense world, so far as it is articulate, is already a thought world. Its permanences and identities are products of thought. The complex system of relations whereby it is defined and articulated is a thought product, which can in no way be given to sense. The far-reaching inferences of science whereby our spontaneous thought of the world is so profoundly transformed, are something which exist for neither eye nor ear, but for thought only. The world of science differs from the world of sense as widely as the conceptions of the astronomer differ from the algebraic signs by which he expresses them.

At first glance this is a hard saying for the plain man of common sense. He is perfectly sure that the things he sees are really there,

and there as he sees them, and he is not aware of any of these processes of which we speak. But the question now is, not whether the things be there, but how they come to be there for us; and when this distinction is made even the "plain man" can be made to see that there are more things in this matter than have been dreamed of in his philosophy. By common consent the last term on the physical side of the perceptive process is some form of nervous change, and this is but a fleeting impression with nothing abiding about it. When these facts are remembered it becomes plain that a permanent and rational world can be reached from these antecedents only as the mind reacts upon them and by laws immanent in itself proceeds to build up the rational order of experience. The flitting and discontinuous impression is interpreted into a continuous and abiding world only by a permanent self with its outfit of rational principles; and if this were taken away there would be only an inarticulate flux of impressions without rational contents.

Some further illustration may be useful in illuminating this matter. The work of thought is so quick and subtle that it is easy to overlook it altogether and to take the products of thought as original data antecedent to thought. Thus it seems self-evident that sensation, at least, is something which may be given without any rational activity. But this is true only for the fleeting temporal impression, and not for the sensation as anything rationally articulate. But the temporal impression itself is nothing for intellect until it is fixed into an abiding meaning. As occurring, the impression is dispersed through the divisibility of time into an indefinite number of parts each of which is external to every other and different from every other. But thought cannot grasp any such elusive thing as this unless it be able to fix this vanishing flow into a single and permanent meaning, and only thus does the impression become anything for thought. Similarly with regard to recurrence of sensations, this is impossible as a psychological and temporal fact. Past

sensations can recur as little as past time can recur. Recurrence is possible only as the mind fixes its experience into abiding meanings and identifies those meanings in successive phases of the sense flow; and apart from this synthesis and identification by the mind, the sense flow would have neither fixity nor permanence nor recurrence of any kind. The same is true for the discontinuity of our sensations and the continuity of the world of things. The sensations are discontinuous, and if they were all, there would be equal discontinuity in things; but the mind interprets the discontinuous sensations into a world of continuous things on its own rational warrant, and apart from this interpretation there would be no framework nor systematic connection at all in the world of experience. Thus it is manifest that without this synthetic and interpretative action of the mind there could be no world whatever for us.

And now to complete the paradox, it must be said that no one can ever perceive any world but the one he makes. I can perceive another's

thought only on condition that I think that thought; and the thought so far as I think it can never be other than mine. I may have the sure conviction in connection with it that it reproduces the content of another's thought, but it can exist for me only as it becomes my own thought, the product of my own thinking. In the same way and with equal evidence the world I perceive is the world I construct. When we are looking at a series of moving pictures we see a great many things that are not there. The train rolls up to the station. Passengers leave or enter the cars. The platform is thronged with persons hurrying to and fro. Yet this busy scene is all in the beholder's mind. The things he sees are the things he constructs. And the same is true in all perception. These "constructs" are all any one can possibly have in consciousness, though it may be that they all carry with them a reference to existence beyond the percipient consciousness. This reference constitutes their objectivity, and makes them possible objects for others also; nevertheless the "construct"

itself, with of course this objective reference, is the only possible content of the percipient consciousness, and this "construct" must always be the mind's own product. And be the object what it may, we never can come any nearer to it than this "construct" will bring us.

These considerations show how exceedingly complicated the perceptive process is upon analysis, and how utterly mistaken those persons are who speak of an immediate knowledge of reality as if it involved no process whatever. But it would be a mistake to infer any doctrine of idealism from these facts. They belong to the process of perception, but this process itself never decides as to the reality of the object perceived. Reflection shows that in any case perception must arise in this way, that is, through a reaction of the mind against action upon it so as to build up or construct the world for itself. It is not merely and only a construction by the mind, it is a construction which carries with it a reference to the content existing apart from the perceptive act.

All thinking has this objective reference. It claims not to produce but to reproduce a content existing apart from the knowing act itself. Furthermore, if we should pass to an idealistic affirmation on the strength of this reasoning the immediate consequence would be solipsism, for it is just as true of the neighbors as of things, that our knowledge of them is a mental construction. Primarily our thoughts of our neighbors arise within our own minds as a mental interpretation of our sense experience, and if we are to deny any kind of an existence to things on account of the process, we must equally deny the neighbors for the same reason. Any tenable idealism, therefore, must rest not upon the process of perception, but upon an analysis of the product of perception. That is, we must examine our objects with the aim of seeing which of them, or how much of them, is to be viewed as having proper existence and how much of them has only phenomenal existence, that is, existence for intelligence. To illustrate: the world of sense qualities is found to have only phenom-

enal existence, not because of the process of perception, but because a study of them shows that they have no meaning apart from intellect with its function of sensibility.

Thus far we have spoken of knowledge as conditioned only by the nature and activity of the subject. But it is manifest that the nature of the object is also a determining factor. We have spoken of the mind as imposing its laws and forms upon experience and thus reaching objects; but it is manifest that this is only part of the matter. For unless the objects themselves were harmonious with these laws and forms, the latter could not be imposed upon them. It is manifest that I can understand another person's speech only as I think his thought for myself, but it is equally manifest that I cannot understand his thought unless there be some thought to understand. Or, again, in the interpretation of an inscription which I might discover, I can interpret it only as I have the key in myself, and it is equally evident that interpretation presupposes that the inscription has

rational meaning. It would be hopeless to attempt to understand random scratches. The same is true in the interpretation of the sense signs by which we reach the knowledge of nature. The mind must have the key in itself, but there must also be an objective order and fixed meaning as the presupposition of interpretation. Otherwise we should be seeking to understand mere noises or random scratches, which would be absurd. When this thought is carried out it implies an objective rational order parallel to our subjective thinking. As speech implies a mind at both ends of the process, so knowledge under our human conditions equally implies a mind at both ends. Noise becomes speech only as thought is expressed in it, and understood through it. So the affections of sense become knowledge only as they are the media for expressing and transmitting thought beyond them.

And here it might occur to some unconvinced empiricist to return to his claim that the sensations are all. For, after all, he might ask, what is there in experience but the sense

content, actual or possible, and what is there that cannot be expressed in terms of sensation, real or expected, or conceived as possible? How can motion be expressed except in terms of changing sensations, and how can distance and size be figured except in sensational terms?

Such questions, if seriously asked, would show loyalty and determination rather than insight into the problem. They would not touch the question respecting the form of experience at all; and this is one of the matters at issue between empiricism and apriorism. The spatial and temporal form, and the relations of identity, substantiality, and causality are not in the sense experience at all as a mere affection of the sensibility. Bearing this fact in mind, the questions only imply a certain phenomenalistic doctrine of sense objects. Applied to persons they lead straight to solipsism; for other persons could be reduced to groups of my sensations, real or possible, in the same way and with the same right. Finally, as applied to sense objects, they reach no "common to all," which

is the presupposition of a mutually intelligible experience. Mr. Mill, working along this line, defined matter as a "permanent possibility of sensation," but left us in very great uncertainty as to its whereabouts. If it were permanent in time and space, it would be very like a reality instead of a mere possibility. If it be said to exist only in consciousness we are embarrassed, remembering that there are many consciousnesses, and we need to know in which one it has its seat, and also how there can be any common system of experience at all on this view. This difficulty recurs in all phenomenal systems, and there is no removing it until we plant behind the phenomenal system, sensational or otherwise, a Supreme Intelligence which manifests his thought through it and thus founds that objective unity of the system of experience which is presupposed in all our knowing.

But this doctrine of knowledge as taking place through our own "constructs" can hardly fail to raise the question as to the validity of knowledge. May not these "constructs"

be really only shadows of our own minds, rather than true apprehensions of reality?

Looked at abstractly this possibility cannot be denied, but the question itself is by no means without confusion. It speaks of a true apprehension of reality as if this were a perfectly clear notion, which is by no means the case. We must remember that experience itself, with ourselves as having it, is the only sure reality in the case; and to ask whether this be a true apprehension of reality is not self-evident in its meaning. Surely, before we seek to know any other reality than this we should show that such reality exists.

But whatever reality there may be, it is plain, as said, that our knowledge of it must arise in this way; and it is equally plain that our knowledge of anything in the heavens above or the earth beneath must consist in seeing how we must think about it. Our thought cannot become the thing, neither can the thing pass bodily into our thought. We can only think about the thing and see if we reach any result which satisfies our reason and

fits into the system of experience so as to harmonize with it. In that case we have the only positive proof possible of the validity of knowledge.

Now the first fact that meets us here is the validity of our personal knowledge, or our mutual understanding of one another. If we should attempt to justify this knowledge by any insight into the process we possess we should never succeed. But the knowledge verifies itself. In spite of the obscurity of the process and the impossibility of any demonstration that this process must result in valid knowledge, we contrive to be quite sure of one another's existence and of our mutual understanding. We find the same thing extending also into the field of experience, and this shows that our conceptions are valid there also. Whatever mystery attaches to the process of knowledge and whatever verbal doubts may be raised about it, the knowledge vindicates itself within its own sphere by the clearness of our apprehension and by its consistency in experience. But this discharges the skeptical

doubt for all practical purposes by showing that it has no foundation in our personal life and experience, and is therefore only an abstract doubt without any concrete grounds. Any further question that may arise must deal with the contents of experience itself. It may be that reflection on these contents would lead to many modifications of popular notions in order to make our spontaneous thought consistent with itself; but there would be no scepticism in such a result. But this doubt has played such a rôle in modern philosophy that we must consider it.

The distinction of appearance and reality in common use is a familiar one and occasions no embarrassment of any sort, as it lies entirely within the sphere of sense experience. Thus, a straight stick looks bent when one end is thrust into the water. A large thing looks very small at a great distance. The mountains look blue when seen through a haze, and distance lends many an enchantment. When a house is seen from afar it has a certain appearance, which varies constantly as we approach it. In

all these cases common sense distinguishes the appearance from the reality, but proceeds to rectify the appearance by referring it to the report of other senses or by comparing it with our total experience of the object. The reality of a house is not the visual presentation, but it is a building of a certain size which we would come to if we moved in a certain direction. The reality of the bent stick is the stick as it appears when drawn from the water and handled and measured, etc. In such cases, then, reality and appearance are contrasted, but the contrast carries with it no doubt or difficulty, at least for common sense. It would of course be very embarrassing for a theory of pure sensationalism, as in that doctrine a varying sensation would mean a different object.

But out of the Kantian theory of knowledge a series of difficulties emerged which tended to confirm agnosticism respecting real things and to limit us simply to a knowledge of appearances or phenomena. This doctrine we now have to consider. It has played a great rôle in all philosophy since Kant's time and

is very far from being entirely clear in its meaning as well as sound in its foundations.

Kant's general claim was that the laws of thought or categories of the understanding, as he called them, are valid only for phenomena and are not valid for things in themselves. He said their only function consists in giving form to our sensations, and that apart from these sensations they are entirely empty. Now, the sensations themselves are simply affections of sense which have nothing corresponding to them apart from the mind. In that case, being subjective in their nature, no possible arrangement of them can make them other than subjective. The categories are merely principles of arrangement of this subjective material, and by consequence the apparent knowledge, or the seeming knowledge, is only a knowledge of appearances or phenomena, and cannot claim to have existence beyond the range of human experience.

This is Kant's famous doctrine of relativity, and it is by no means clear even in its meaning and still less satisfactory in its logic. We

shall find that Kant is here under the influence of sundry untenable notions.

In clearing up the doctrine it is plain first of all that Kant has failed to consider the position in his doctrine of the plurality of persons, which he everywhere assumes. As we have before pointed out, any doctrine of perception which rests upon an analysis of the process only must end in solipsism. Hence if we make the world of things subjective presentations because the knowledge of them arises through our mental construction, we must do the same thing with the world of persons, for the knowledge of them has an equally subjective character. Kant passes from "me" to "us" without telling us how he makes the transition. He really begins with "us," — not merely with the individual self, but with the whole collection of individual human beings, — and gets an experience valid for us all in exceedingly obscure ways. But what Kant did not do the critic must do, and we must inquire into the relation of these many minds to one another in a system of phenomenal knowledge.

To begin with, it is not clear in what sense other minds can be called phenomenal to me. Phenomena are appearances, and only in an accommodated sense can minds be said to appear at all. If, however, we make other minds phenomenal on the strength of our theory of knowledge, it would really seem that personal communion vanishes altogether. For we can know these other minds only through our thought of them, and that thought is said to give us merely appearances, which, moreover, do not appear. Thus all contents of other consciousness vanish entirely from our knowledge. But Kant never considered this application of his theory and had no doubt whatever of the possibility of mutual understanding in as intimate a sense as any one would care to affirm.

But Kant affirms the phenomenality of knowledge not so much of other minds as he does of "the mind," or "the Ego." Even our own minds are phenomena, or our knowledge of ourselves is phenomenal only. This Kant tries to make out by showing that we have no proper knowledge of the transcendental or

ontological self, but only of the empirical self. Much of this is a deduction from his own theory of knowledge, rather than a demonstration on the basis of experience. The transcendental ego, in distinction from the living, conscious, active self of experience, is a fiction, like all the other "noumena," and is as baseless and worthless as they. Kant finds various "paralogisms" in rational psychology, none of which, however, makes out his case. The rational psychologists of Kant's time had laid claim to a knowledge of the nature of the soul which they really did not possess. For the disproof of this knowledge no doctrine of phenomenalism is needed, but solely a criticism of the arguments offered. This part of Kant's work was well done. But his general disproof of all real knowledge of the thinking self did not satisfy Kant himself apparently, as we find from the modifications made in the second edition of the "Critique." He omits a large part of the argumentation of the first edition in the second and says, "It would be a great, nay, even the only, objection to our Critique if

there was a possibility of proving apriori that all thinking beings are by themselves thinking substances; that as such (as a consequence of the same argument) personality is inseparable from them and that they are conscious of their existence as distinct from all matter, for we should then have made a step beyond the world of sense and entered into the field of noumena, and after that no one could dare to question our right of advancing further, of settling in it, and as each of us is favored by luck, taking possession of it. . . . Hence synthetical propositions apriori would be not only admissible, as we maintain in reference to objects of possible experience, but would be extended to things in general and to things by themselves, a result which would put an end to the whole of our Critique and bids us leave everything as we found it." Here it seems pretty clear that Kant would have liked to admit a real knowledge of the self, but he fears that to admit it would undermine the whole of the Critique, and of course that could not be permitted. Hence he allows himself some exceed-

ingly doubtful reasoning in support of his rejection of the knowledge of a noumenal self.

But on the other hand what a phenomenal self would be which in turn had other phenomena appearing to it is something left altogether undecided by him. The fact is we have here a very distinct contradiction. A phenomenon which is not an appearance to somebody is a logical impossibility. It is possible to look upon things as phenomenal only; but to look upon the self which views these phenomena as itself phenomenal in the same sense is altogether impossible. Where there is no perceiving subject there can be no phenomena; and when we put the subject among the phenomena, the doctrine itself disappears. So, then, Kant's doctrine of phenomenalism with regard to the self must be withdrawn. Of course many questions may be asked respecting the self which we are not able to answer, but the self itself as the subject of the mental life and knowing and experiencing itself as living, and as one and the same throughout its changing experiences, is the surest item of knowledge we possess.

The Kantian doubt, then, must be limited to the world of external things; and here, too, its meaning and application are by no means obvious. It is clear in the first place that any doctrine of phenomenalism which affirms a series of unknowable noumena behind phenomena is in unstable equilibrium. For phenomena are the immediate fact, and if they do not mediate for us any valid knowledge of noumena, the latter are philosophically worthless and logically unaffirmable. For we must never forget that experience itself, with ourselves as its subjects, is the primary fact; and anything which we affirm beyond this fact must be for its explanation. This makes it strictly impossible to affirm anything to which no laws and forms of thought apply. If, then, the categories apply only to phenomena the noumena disappear altogether. For these forms include space and time, unity and plurality, cause and effect, substance and attribute, reality and negation, and so forth. Hence the thing in itself is in neither space nor time, is neither one nor many, neither cause nor effect, neither substance nor

attribute, neither real nor unreal. Manifestly such a thing is nothing, either in thought or existence.

To this result any doctrine which denies the application of the categories of thought to reality must certainly come. The thing in itself, or things in themselves, must be brought within the range of thought or must go out of existence. As soon as we remember that these things are affirmed solely for the sake of making experience intelligible to us, the emptiness of this kind of agnosticism immediately appears. Accordingly the agnostic soon finds himself compelled to apply some of the categories of thought to his unknowable reality. The most naïve illustrations of this fact appear in Mr. Spencer's manipulation of his Unknowable. When he is dealing with religion and theology he will hear of no affirmation whatever respecting the Unknowable, but when he has once imposed upon them the injunction of perpetual silence, he soon begins to know a great deal about the Unknowable. It forthwith appears as one and eternal and

causal, and moreover we are told that the likenesses and changes among things point to likenesses and changes in the fundamental reality itself, so that from the former we can get a great deal of information respecting the latter. This led to Mr. Mill's remark that in this way we seem able to get a "prodigious amount of knowledge respecting the Unknowable." Contradictions of this kind are necessary in the nature of the case. The thing which is invoked to explain the world of life and experience must necessarily stand in causal relations to it and admit, to some extent, of being known thereby.

Returning now to the Kantian view, it is plain that it mainly rests on a naïve assumption of uncritical thought. For common sense all things except our individual ideas are extra-mental. They exist apart from our consciousness and are supposed, as a matter of course, to exist apart from all consciousness. This gives us a world of things in themselves. When next epistemology shows that we can grasp these things only through the thoughts we form of them, and further points out the

exceedingly complex and obscure nature of the processes of knowledge, we then seem to have all the conditions for a doctrine of agnosticism. The mind is now clearly limited to the thought sphere, and things exist beyond that sphere; hence, manifestly, we can know only phenomena and can never reach things in themselves. Here the assumption is that things are first and undeniable in their extra-mentality, and then thought is challenged to know them, which it is manifest thought can never do under these conditions.

But the true way out is to show that no such problem as is here proposed exists. By extra-mental existence common sense really means to deny individual illusion, and if it could secure this common sense would be satisfied. But a truly extra-mental existence, in the sense of something beyond thought and independent of it and in no way amenable to it, is an impossible conception. If we assume that the world of things originated in thought and expressed thought they would be homogeneous with thought, and there would be no

apriori reason why we should not know them. This theistic suggestion brings the world of things within the thought sphere and assimilates the problem of knowledge to that of mutual understanding among persons. In that case things are indeed independent of our thinking for their existence, but they are not independent of all thinking. They lie within the thought sphere, and that impassable gulf between the thought world and thing world, into which the agnostic tumbles, does not exist. This theistic suggestion Kant nowhere recognizes in his epistemology, although it manifestly puts an entirely different aspect upon the question. It makes the thought sphere all-embracing, but within that sphere it distinguishes between the finite knower and the world of things, thus leaving the antithesis between them as it exists for common sense. At the same time by making the world of things the expression of thought, it leaves them open to our apprehension and understanding. This is the result to which idealism is fast leading us. And when we combine this

theistic suggestion with the fact already mentioned, that nothing whatever can be affirmed which does not stand in articulate rational relation to the world of experience, we see how empty any doctrine of absolute agnosticism must be.

Indeed, this whole doctrine of phenomenalism must be revised to bring it into accord with the demands of thought. By phenomena, if the term is to be anything more than another word for fact, we must understand those things which exist only in and for intelligence. They are not phantoms or illusions, nor are they masks of a backlying reality which is trying to peer through them; they are simply what they purport to be in experience. At the same time they have no extra-mental existence, although they may well have an extra-human existence. The world of sense qualities illustrates the conception. These have no existence in space apart from intelligence. They are really only effects in the sensibility, and would disappear if the sensibility were away. If the ideality

of space and time be allowed, then all that appears in space and time, the whole physical world in short, is only phenomenal. At the same time it is to be noted that these phenomena are not illusions, but have their special type of reality. They have the reality of being forms and factors of our experience, and our knowledge of them and practical dealing with them make up the great bulk of life. Noumena, on the other hand, or things in themselves, are to be ruled out altogether as myths. The antithesis of phenomena and noumena rests on the fancy that there is something behind phenomena which we ought to perceive but cannot, because the masking phenomenon thrusts itself between the reality and us. Phenomena, however, are not the masks of anything, but so far as cognition goes they are what they seem to be. They are *effects* of something, which may possibly be known through them, and in no other sense are they to be spoken of as masks, or even as manifestations of a hidden reality. The only intelligible and permissible

question concerns not their nature but their causality. What is the power at work which produces the phenomenal order? This is an intelligible question, and the only permissible one at this point.

When this question is raised we see at once that it can never be solved in picture terms. Metaphysics shows that true substantial existence can only be conceived under the causal form. For the explanation of the world we need an agent, not a substance. With this insight all thought of describing the agent in static or picture terms vanishes. Causes are revealed in their deeds only. They do not look, they act. Thus the question of knowledge becomes this: Can we know anything of the invisible power behind the phenomenal system, or rather which produces the phenomenal system? Of course we can know nothing in picture form, but can we know anything in any way? Something indeed we must know, or the thought vanishes altogether; but it may be that we can only form such general notions as that it must

be causal and unitary and permanent, and for the rest must content ourselves with describing the orders of coexistence and sequence among the products of its activity. On the other hand, it is possible that a study of these products should reveal purpose, plan, and character in this unpicturable power. Only a study of the facts can decide this point; but if such a knowledge of this power be possible, we have all we care to know. And if it should prove impossible, it would be because of the ambiguous indications of the facts, and not because the real things in themselves are hidden by masking phenomena.

Thus we set aside the Kantian agnosticism, or at least the agnosticism based upon Kant's system. At the same time we point out that there is a good deal of value even in Kant's relativity of knowledge. A thorough-going limitation of the categories to our human subjectivity ends, as we have seen, in the denial of independent objectivity altogether. At the same time there is a large element of such

subjectivity in our thinking. The practical application of the categories is largely formal only and relative to our intellectual convenience. The unities and identities and substantialities which appear in our human thought and speech are mostly our own products. They result from the application of the categories of thought to the fluent and unsubstantial manifold of sense, and have only relative validity. Thus the unities we find in experience are mainly formal. This is the case with all spatial and temporal unities; for these can have only conceptual existence: Reality, or substantiality, also, is largely formal and relative in its application. Most of our substantive conceptions present no real thinghood, but only processes or phenomena or activities to which the mind has given a substantive form, but which are never to be mistaken for things. Light, heat, electricity, magnetism, and a great multitude of abstract nouns are illustrations.

Identity, too, is more often formal than real. We find very few real identities in experience, where certainly most things are in perpetual

change and flow. In all such cases the identity is formal, imposed by the mind for its own convenience and expressing no ontological fact. Our classifications also are largely relative, not representing any eternal ideas or veritable cosmic groupings, but solely conveniences and points of view of our own. They are relative to our sensibility or to our purposes, and can lay no claim to be looked upon as any abiding part of the cosmic furniture. They are what Herbart would call "accidental views." In calling attention to this fact, thus shutting off the hasty dogmatism of the pre-Kantian period, Kant has done a great service of lasting value. Hereafter we have to proceed, not dogmatically but critically, in seeking to eliminate the purely relative and accidental point of view.

There is another limitation of knowledge springing out of phenomenalism which is of great value. This is the claim that the categories of thought have no application apart from the objects of a real or possible experience. This does not imply any things in

themselves to which the categories may not be applied, but only that experience, real or possible, is the field of their fruitful application. This is perfectly valid when by experience we mean the whole of experience, not merely the sense experience of the outer world but also the inner experience of the conscious self. With this understanding the doctrine is this. The categories in themselves are simply forms of mental arrangement and merely prescribe the form in which experience is to be ordered when it is given. In this respect they are like the rules of grammar, which prescribe how we shall speak if we speak at all, but which in themselves have no concrete contents. Living speech, then, is not merely grammar, but definite meanings expressed according to grammatical rules, and when there is no specific meaning the grammar itself moves in a vacuum. All experience, according to Kant, is real only through some given fact, and apart from such facts is empty. Thus we might talk of sensations of a class we have never experienced, as the sensations of a tenth

sense; but it is plain that such talk, however learned it might be, would be formal and empty, as there would be no concrete sensation to give significance or substance to our words. In the case of real sensation, on the contrary, there is an actual experience which gives content to our reflection. Until the actual experience is given there is no security that there is anything whatever corresponding to our formal phrases; but when experience is given we have no longer simple logical concepts, but we have something lived and realized. Now Kant said that the categories are applied only to such sense experience and otherwise are empty. Here he made the mistake of limiting experience to the physical sensations and did not extend his doctrine to the data of self-consciousness. When this limitation is removed it then becomes strictly true that the categories have simply the function of forming and expressing some matter which is directly experienced or which can be assimilated to experience, and apart from that relation they are formal and empty. They must always be brought

into contact with experience in some way in order to acquire reality, or to make sure they represent any possible object for thought. Thus if we talk of the categories of being, unity, identity, causality, substance, etc., in abstraction from any given experience, they are utterly vacuous, so that we cannot tell whether there be any corresponding fact or not; and it is only as we find these categories realized in living self-experience that they acquire other than a formal meaning, or pass for anything more than purely verbal counters. They are like grammar when there is no speech, or rules for saying something when there is nothing to be said.

Thus, take the category of being. Suppose we ask what we mean by it. At last it would be found that it means either objectivity in experience, or else it means just our own conscious life. Any other conception passes into abstraction and emptiness. Similarly with identity. This may mean the formal identity of logical meaning or it may be taken to mean a continued existence through a period of

time. In the latter case, which is supposed to be the metaphysical meaning, we really do not know by speculation whether such a thing be possible or not. Successive existence is not identity, and changeless existence cannot be found. Here again we have to fall back upon experience. Identity is given as the self-equality of intelligence throughout experience, and any other conception destroys itself. In like manner unity also may be purely formal, as when we call a thing one; but when we come to real unity only experience can tell us whether it be possible and what form it must take on. There can be no real unity in anything existing in space and time, for in that case everything would be dispersed in infinite divisibility. We find the problem solved only in the unity of a conscious self, which is the only concrete unity that escapes the infinite dispersion of space and time. In like manner when we attempt to think causality abstractly and impersonally we find ourselves lost in the infinite regress, and if we escape it we have no means of telling whether there is anything

corresponding to our ideas or not. It is absolutely necessary to find in experience something that will insure that our ideas have some corresponding concrete existence; or else we are simply shuffling verbal counters, as when we speak of sensations of the tenth sense, or we are indulging in a calculus of imaginary quantities. In the latter cases there may be a certain formal grammatical and logical consistency in our utterances, but there is no contact with reality. In the case of causation we escape this mere conceptualism only as we find in the self-conscious causality of free intelligence the meaning of causality and the assurance that it represents a fact.

This view might well be called transcendental empiricism, in distinction from the traditional sense empiricism. The meaning is that all thought about reality must be rooted in experience and that apart from experience we never can be sure whether our conceptions represent any actual fact or not. The categories themselves are not something which precede the mind and found its possibility.

They are rather modes of mental operation. They are the forms which the mind gives to its experience, but the mind is not to be understood through them. Rather they are to be understood through the mind's living experience of itself.

An important bearing of this result upon speculative thought should be noticed. Explanation largely consists in classification; that is, in gathering similar things into groups or series. Such explanation always remains on the surface and leaves the mystery of things absolutely untouched. No amount of classification gives us any insight. It merely puts the new fact into a familiar class or refers it to a familiar law; but it leaves the fact itself as mysterious in its essential nature as ever. Thus when the fall of a body or the floating of a ship or the rising of smoke is referred to the law of gravity, we get no insight into the nature of gravitation. We simply see such facts to be cases of a familiar kind, but the kind itself in its inner nature is as opaque as ever. Whenever we transcend this type of

explanation we pass into the causal realm; and here again we get no real insight but only superficial classification, unless we somewhere come upon something which is capable of real explanation so as to give us rational insight. And this we find only in the case of free intelligence. This is the only causality of which we have any knowledge and the only causality which really explains. Hence either we must content ourselves with superficial classification, or else we must find in free intelligence the only principle of causal explanation.

This result introduces great simplicity into speculative thinking and vacates a great deal of speculation as formal and empty. When our conceptions cannot be verified in spatial and temporal experience nor realized in self-consciousness, they make no connection with reality and are to be unconditionally rejected as fictitious or barren. When, then, any new speculative explanation of any fact whatever is offered us, we ask, Is the explanation classificatory or causal? If the former, we point out that it remains on the surface and really explains

nothing. If the latter, we point out that it equally explains nothing unless the conception of causality admits of being verified in self-consciousness, as something actual and not merely formal. If it does not meet this requirement, then into the fire with it, along with the mob of verbal theories which have confused and deluded the human mind from the beginning.

By this time, probably, we may begin to fear that there is not much basis left for objective knowledge, or possibly we may think when so much is made phenomenal, that we are not grasping reality at all; and the query arises whether, after all, we are not living in the midst of illusion, and whether if we knew things as they really are we should not find them altogether different from what we think them to be. This thought springs out of the illusion that there is an absolute system of reality to which our thoughts ought to correspond in order to be true. This is one of the dogmatic fictions. For us the real can never be primarily anything but the contents of

experience and whatever we may infer from them. Back of experience we find no truly real of the noumenal type, but we infer or affirm a cause which is founding and maintaining the order of experience. To ask whether this order be true is really meaningless, unless we suppose some absolute system of impersonal reality back of experience; and this notion is baseless. When this is seen the only permissible question becomes this: Does our experience exhaust the possibilities of experience and consciousness? From a theistic standpoint the universe itself is no proper static existence, but only the divine thought finding realization through the divine will, and that thought for us must find expression in the order of our experience. But it is quite credible that our present experience does not exhaust the contents of that thought and so does not exhaust the possibilities of experience. If further possibilities should unfold we should not have a truer experience, but a more extensive one. Our present experience is of a certain type, with certain contents and limitations, and it is en-

tirely possible that there should be other beings with different types and contents of experience. It is equally possible that we ourselves shall pass into a new order of experiences, in which case we should have no right to say that the present order is false, but merely that it is not all and final. In like manner the new order would not be rightly described as more true than the present order, but only as perhaps higher and richer in content, giving a fuller and more abundant life. In this sense there may be any number of universes of experience, each of which is relative to its own subjects, and all of which are embraced in the thought or plan of the Infinite Mind and Will on which they all depend.

Thus we dispense with the extra-mental universe of unreflecting thought. That view arises from confounding extra-human with extra-mental. We equally dispense with the unknowables of agnostic systems. These systems have a crudely realistic foundation and a self-destructive logic. We also set aside those anti-climactic notions of transfigured realism which

attempts to define reality apart from intelligence and ends by presenting us with a set of barren and worthless abstractions as the truly real, while the whole system of living experience is excluded from reality altogether. The static universe which eludes knowledge equally disappears, and in its place we have the known world of experience which points to intelligence as its source. Thus we conserve the sense of reality and validity in knowledge, and at the same time recognize the results of criticism. We remain where we began, in the world of personal experience, and with the strengthened conviction that this world can never be explained on any impersonal plane. The world of experience exists for us only through a rational spiritual principle by which we reproduce it for our thought, and it has its existence apart from us only through a rational spiritual principle on which it depends, and the rational nature of which it expresses. This is our second step toward personalism.

III

PHENOMENALITY OF THE PHYSICAL WORLD.

In our last lecture we saw how complex is the process of knowledge. The object becomes an object for us only through a constructive activity of our own whereby we constitute the object for consciousness. But this fact in itself, while preparing the way for phenomenalism, does not establish it. We have now to consider the phenomenality of the physical world. This is the next step in the establishment of personalism.

For spontaneous thought all sense objects exist as they seem, veritable substantial things in space and time. Later reflection, however, turns them into phenomena, that is, into things which exist only for and through intelligence. It must be noted, however, in accordance with our previous discussion, that this does not turn them into illusions or de-

lusions. It allows them still to be real in their way, but finds that their reality is not a substantial and independent existence, but rather consists in their being forms and factors of our common experience. We have seen that there are two kinds of reality, phenomenal and ontological. Only the latter is substantial; the former is real for and in experience; but reflective thought shows that it is properly phenomenal, existing only in and for intelligence.

Spontaneous thought, again, has no doubt that space and time exist as veritable things of some sort. Indeed, it generally regards them as the most undeniable of things. Things in the ordinary sense might conceivably be nonexistent. We can conceive that space which is now filled might be void, and that time in which events occur should be empty, but the void space and time would still, according to common sense, exist, the space in its boundless extension and the time in its continual flow. For the present we allow this belief to stand, and point out that even then many of the things which we suppose to exist in space and

time cannot so exist apart from the mediation of intelligence. In this way we may possibly accustom ourselves to the thought that this world which is known only through intelligence also exists only through and for intelligence. We shall see that very many things which we suppose exist apart from intelligence would really disappear if intelligence were away.

Conceive a musical symphony. At first sight we might say the symphony exists in space and time. It is inclosed within the walls of the room and lies between certain temporal limits, and therefore has temporal and spatial existence. This, however, is superficial; for the symphony, apart from the synthetic and unifying action of intelligence, really cannot exist in any assignable sense. It exists, as anything articulate and intelligible, only for the composer and performer on the one hand, and for the audience on the other. As something in space and time it would consist of air waves mutually external and without unity or connection. The corresponding sounds are also mutually external as spatial or temporal events.

If, then, one were bent on finding the symphony within the walls of the room, and should proceed to chase the mutually external waves in space and the successive waves in time back and forth throughout the hall and the time of the playing, he would soon become aware that the symphony, apart from the unifying action of consciousness which unites the many and the successive into one, would be something strictly non-existent for intelligence. However real the waves or the coexistent and successive sounds may be in themselves, it is not until they are united in a consciousness which grasps and unifies them all in one complex musical apprehension that the symphony exists or can exist. All that can take place in space or time in connection with such music is but the means for making the musical conception pass into act and revealing it to other consciousnesses, the audience; but the symphony itself exists primarily for the composer or performer, and secondarily for the audience, and all else is but a means for mediating the thought of the composer for the hearers.

Probably all would admit this for a symphony. We might say there is nothing substantial in a piece of music, and hence we can hardly regard it as anything abiding or existing objectively. But the same must be admitted for anything whatever that has its existence successively, that is, in time. Every such successive thing, in itself, is made up of mutually external existences, and these attain to any abiding existence only through the activity of some non-successive being which is able to unite the successive existences into the thought of something fixed and permanent. Every such successive thing must be phenomenal, for, like the symphony, it exists and can exist only for and through intelligence. Or if we prefer to say the thing exists, then the claim is that it exists only through intelligence. This we now proceed to show.

Experience shows only two kinds of permanence, fixity of meaning and permanence of the thinking subject. The first is logical sameness, or identity of meaning, and is absolutely

necessary to any thought whatever. If the meaning of things could change from moment to moment, no thought would be possible. Sensation itself, as we have seen, is possible as anything articulate only as the flowing impression is fixed into an abiding meaning of which the impression may be the bearer or manifestation, while the meaning gives the significance of the impression. Without such fixed meaning even the simple sensation vanishes into an inarticulate impression, about which nothing whatever can be said. Similarly in the case of any changing or developing thing, we form some conception which gathers up all the phases of the thing into one thought which expresses the true nature of the thing. If it were impossible to express the nature of the thing, however changing, by some abiding conception, then we should need a new thought for each new phase of the thing; and as the thing is incessantly changing, we should need an incessant stream of new conceptions, with the result that we should lose the thing altogether in the mul-

tiplicity of conceptions which would be affirmed.

This formal or logical sameness, as the supreme condition of thought, is formulated in the law of identity: A equals A, which means that everything, whatever it may be, fixed or changing, must admit of being conceived in such a way as to be an abiding object or have an abiding meaning for intelligence. Without this, as said, it vanishes altogether.

But it is plain that this formal sameness is only for intelligence. The fixed meaning, as such, does not and cannot exist in space and time, for there everything is flowing and changing. The fixed meaning is simply what the object is for intelligence, but the thing conceived of as temporal never at any instant realizes that fixed meaning. The meaning is only successively translated into the temporal form, and never really exists except for the mind, which by means of it masters the flowing succession. The symphony again illustrates the fact. The symphony never exists in time, and never can so exist except for a non-tem-

poral consciousness. In the same way the flowing world of change exists for us only through the system of changeless ideas, and these are impossible and meaningless apart from intelligence. Thus intelligence appears as the supreme condition of the existence of those things which seem to us independent of all intelligence. If the things themselves are really processes in space and time, they become anything articulate for us only through the ideas by which we fix the processes into a meaning. But, on the other hand, it is plain that these processes could not be grasped through these ideas unless they were really the expressions of ideas. It would be incredible that we should know things by ideas essentially unrelated to them; and as the ideas by which the things are constituted are independent of us, there must be a supreme intelligence behind the things which makes them the bearer or expression of the ideas. We cannot understand noises unless they are informed with thought, and they can be informed with thought only as there is a thinker at the other end. In the

same way things can be grasped by thought only as they are the products of thought.

The same problem reappears in the debate between nominalism and realism, and this also admits only of an idealistic solution. The realist rightly holds that the particular is nothing except as the expression of an idea, and the nominalist rightly holds that the idea is nothing apart from concrete realization. A pure particular, without any universal element, would disappear entirely from thought; and a pure universal, with no local habitation or name, would float in the air without contact with reality. There can be no living experience without both elements, and there can be no experience apart from an immanent intelligence.

These formal identities of classification, also, common sense would be fairly ready to hand over to phenomenalism. Classes as such have only conceptual existence; but the case is thought to be different with things. There is in them a substantial identity, which remains the same through change. In addition

to the formal fixity of meaning, there is also a real sameness of being. Here, then, we have not merely the identity of logic, but also the concrete and substantial identity of things; and this, common sense holds, cannot be argued away into any shadowy phenomenality. This brings us to consider the problem of change and identity in impersonal things.

On this point there have been two positions since the earliest times in philosophy. One school, the Eleatic, has held to identity and permanence in things and has excluded change from their existence; the other, the Heraclitic, has maintained the reality of change and has found it impossible to discover any permanence in existence. Change penetrates into being itself, so that all things flow. Each school has been able to convict the other of irrationality, but on the impersonal plane neither school has been able to set its own house in order so as to satisfy reason and logic.

In criticism of the Eleatic view, it is plain

that the changing world of experience, which is the fact immediately given, can never by any possibility bring us to a world of changeless existences in any literal and absolute sense of the term; for if there were a world of such changeless character, it could never be brought into any assignable relation to the changing world. We could never logically reach it from that world, and we could never make any use of it for the explanation of the changing world. The common-sense view of the matter seeks to make a kind of division of labor in the case of the thing, putting the permanence or identity into some back-lying core, and putting the change into the activities or qualities of the thing. These are supposed to change, while the permanent core simply abides and maintains its identity. But it is manifest that this view is altogether impossible; for if there be no change in things, there is no assignable reason why there should be any changes in the activities of things or among things. The rigid monotony and identity of substance must lead to an equally rigid monotony and identity of

activity or manifestation of whatever kind. But since the actual world is a world of change and motion, we cannot, reasoning backward by the law of the sufficient reason, come to anything unchanging, and in that sense permanent. Common sense may be perfectly correct in saying that there must be something permanent, but it is certainly incorrect in finding that permanence in some rigidly changeless and identical substance.

But, on the other hand, the disciple of universal change has failed to inquire what the perception or existence of such change would demand. Manifestly if all things changed, the thinking subject among the rest, the notion of change could never arise; for it is only as this change is projected upon and contrasted with an abiding background of some kind, possibly the self-consciousness of the thinking subject, that even the conception of change is possible. We have already seen that the formal identity of meaning is necessary in order to think at all; and now it appears that in some way an identity of the

subject is equally necessary in order to make even the conception of change possible.

Thus it appears that the only identities we can find in the thing world are the formal identities of logical meaning, and when we attempt to find anything more in the way of concrete identity in the thing world we look for it in vain. All that we come upon is fixity of form or process, and the only concrete identity we can find anywhere turns out to be the unity of the conscious subject. But this identity is not to be viewed as any rigid core of being, but rather as the self-equality of intelligence through its experience, and the change which we discover is not a successive running off of events in abstract time, but is rather and only the form under which the self-equal intelligence realizes its conceptions under the relation of succession. On the impersonal plane this problem of change and identity admits of no solution. We cannot find the abstract identity, and we cannot find the abstract changes when we look for them. We have simply a world of experience in which the same

ideas and forms remain valid, and through which the conscious subject remains as the only fixed point to which everything, both permanence and change, has to be referred. Self-consciousness is the origin of ordinates in this field, and whenever we transfer the problem to the impersonal world of space and time and abstract principles, we soon find it eluding us or vanishing in insoluble contradictions.

Similar reflections on the problem of causation, as metaphysics shows, would compel us to regard the so-called world of things as merely processes of an energy not their own; such processes, then, would be necessarily phenomenal. Having in themselves no substantiality, they would become only phases of an activity beyond them. As such they would have only the permanence of a process which is essentially successive, and as such, again, they can exist only for intelligence; that is, these supposed substantial things become like our symphony. In the symphony a musical idea is successively unfolded, and in the unity of that idea and the continuity of its manifes-

tation through the activity of the performer and the receptivity of the audience the symphony has its only existence; but in itself, in abstraction from the idea and the performer, it breaks up into an inarticulate and chaotic mass of sounds. In the same way impersonal things are reduced to processes in which a phenomenal form may be maintained or an idea continuously or successively manifested, but which nevertheless exists only in and through the continuous process and the abiding meaning, and in abstraction from these they also became meaningless and as empty of significance as the symphony would be in abstraction from the performer and the audience.

These considerations serve to show that intelligence plays no small part in the existence of those things which we regard as existing independently of intelligence in space and time. Upon analysis we fail to find the supposed core of being or stuff upon which common sense relies in its picture logic in this matter, and in place of it we discover simply

the idea, the process, the succession, which needs intelligence to sum it up and inform it with meaning, so that it becomes anything intelligible and articulate for us.

This result would be valid for the world of things in space and time, even if we supposed space and time to be themselves real existences as common sense views them. Even then the things of experience could be helped to real existence only through a constitutive and synthesizing intelligence. But there are many reasons for saying that space and time themselves are only phenomena, and that of course carries with it the phenomenality of everything that appears in them, that is, the phenomenality of the whole system of objective experience.

This view, however, seems so great a paradox as to border on the limits of absurdity if it does not transcend them. Nevertheless, it is a view to which we seem to be shut up, and the view to which reflective thought is quite generally coming. We will seek, therefore, to explain it, so as to remove something of the

paradox and help ourselves to a better understanding of what it means.

And, first of all, we must distinguish between phenomenal and ontological reality in the case. For experience, space and time are perfectly valid as forms or laws of the same. We cannot have experience of a certain type which is non-spatial, neither can we have experience into which the temporal form does not enter. Phenomenally, then, space and time are real, that is, they are valid in and for our experience, and there can be no thought of denying this validity. In this sense, spontaneous thought is quite correct in maintaining the reality of space and time; but when on the other hand they are taken to be something independent of experience, lying beyond and behind experience as its pre-condition, then common sense has wandered into metaphysics and has hypostasized the conditions of experience into independent existences. In this way the two great phantoms of space and time have been produced, which have exercised so pernicious an influence in the history of thought.

To common sense it is at first sight incredible that this view should ever be held by any one, because it would seem that we are immediately aware of ourselves as in space and time. And therefore only a person insane or irredeemably frivolous would think of arguing about their existence; and moreover the existence itself is so manifest, so obvious, so undeniable, that there is no mystery about it, and no question as to its reality.

So indeed it seems, but first of all epistemology points out that space and time, however real they may be in themselves, cannot become real to us except as they are principles of thought or principles immanent in our mental operation. For us space, like all other things, exists only through our own mental construction, and apart from that construction, however real it might be, it would not exist for us at all. The primary fact epistemologically is that we relate our objects in the spatial and temporal form because of the space and time law immanent in intelligence; and all our experiences or intuitions respecting

space and time must be understood from the side of the mental law. Thus, with regard to space, we have no original intuition of an existing space which is one and infinite and all-embracing, but we relate all our objects of a certain kind in a common scheme in which we can find our way from any one to any other by a continuous and homogeneous process. Hence we regard space as one. Again, this synthesis applies to all objects of a certain kind, so that we cannot conceive any such objects as lying beyond its range. Hence we regard space as all-embracing. Finally, the synthesis admits of no exhaustion, but rather provides for indefinite repetition. As we cannot exhaust number by counting, so we cannot exhaust space by any progressive synthesis. Hence we regard space as infinite. But the unity, the infinity, and the all-embracing character of space depend entirely upon the nature of the space law. They are but the results of the inexhaustibility and universal applicability of the space law within its own sphere.

The same is true for the unity and eternity of time. There is no immediate apprehension of time as anything one and eternal, but the time law by which we relate the objects of experience to one another and the conscious self admits of no exhaustion, and hence we regard time as eternal; but the unity and eternity of time, like that of space, mean only the oneness and inexhaustibility of the synthetic law by which we relate objects. Now, given this law, we should have temporal and spatial experience, whatever the independent fact might be. Or we should have temporal and spatial experience if there were no objective space and time whatever. Illustration of this occurs in every vivid dream. The dream time and space have nothing in common with the time and space of waking experience. They are simply the form of the dream, the form which the mind itself gives to its dream objects; and when the dream breaks up and vanishes, we do not suppose that the space in which the dream occurred is left over for later dreams, but the space and time vanish with the dream

experience, as simply the space and time of that experience.

That this is the case with the dream experience every one will admit. We see that the space and time relations of the dream have nothing in common with our waking space and time relations, and we also see that those space and time relations are instituted by the mind in its dream activity such that the objects often stand out for us with all the vividness of waking experience. In such cases we have a clear illustration of the fact that the mind can build for itself an experience in the space and time form out of its own resources without any corresponding space and time in existence. But the same general view must be taken of our so-called real space and time. They are really only the form of our outer and inner experience. They consist of relations among the objects of experience, and if we should conceive the experience itself to be canceled there would be nothing left behind corresponding to space and time, so that instead of being veritable somewhats in which

things exist and events occur, they are rather and only the forms of experience and have their being only in and through intelligence itself.

The general reason for this conclusion is the fact that as soon as we break space and time from their connection with experience as its form, and regard them as something independent of it which contains experience, then all manner of contradictions emerge at once and existence itself is made impossible. Thus in the case of space, the general law of space, when space is conceived of as independently existing, would be the mutual externality of points and parts. Every point and part is outside of every other point and part, and the distinction of points and parts admits of no end, the result being that space, conceived of as independently real, admits of indefinite division, and in that case the things which are in space would likewise admit of indefinite division, and in that case, again, being itself would be dispersed into endless plurality without unity through the endless divisibility of

space. Thus, conceive a cubic foot of space. It has in itself no unity except the formal one which we give it by calling it a cubic foot; but in itself, if we make the cubic inch a unit, the cubic foot is not one but seventeen hundred and twenty-eight, and each cubic inch is in the same condition; and, again, there can be no unity, but plurality and mutual externality without end. If, however, we conceive a substance to exist in a real space of this kind, the same fact applies. If there were a cubic foot of such substance, then the parts in the seventeen hundred and twenty-eight cubic inches would also be mutually external, and these again could be divided indefinitely; and thus once more we lose ourselves in the infinite divisibility. These mutually external parts could be no true units, as each would lie outside of every other, and they could be held together and held apart only as we make each part the centre of attractive and repulsive forces of some sort, whereby each should prescribe to every other its place; and thus again the supposed unitary being would disappear

in an indefinite plurality, to which no limit could be assigned. No unit could be found, because in the nature of such a process there is no unit possible. The nature of the space law forbids any unit in such a case. If, however, we regard space as only phenomenal, we then have to continue our divisions only so far as experience may indicate. We are not required to affirm an infinite extension and divisibility of space, but an indefinite extension and divisibility of phenomena; for while the space law itself, like the law of number, contains no provision for stopping, its concrete application, as in the case of number, must always depend upon the nature of experience and not upon the abstract law itself. In that case, as Kant showed in the first two antinomies, we escape the impossibilities involved in the notion of a finite or infinite space or a finite or infinite divisibility of space.

Similarly in the case of time, the notion of time as the form of our experience is perfectly simple and level to every intelligence. As Berkeley has it, I may make an engagement

to meet a person at a certain place and a certain time, and every one understands what this means. But when I abstract from these relations of concrete experience and begin to consider space and time in themselves, then I am lost and embrangled in inextricable difficulties. Berkeley added that the consideration of this abstract time led him to "harbor odd thoughts" of his own existence.

In the case of time these "embrangling" difficulties appear in the fact that time itself, considered as a real something flowing along, is full of contradictions. Indeed this conception of time is the chief source of those puzzles by which, to use another phrase of Berkeley's, speculative thought in all ages has been so "miserably bantered." As specimens of the "bantering," consider the difficulty in the notion of a standing or flowing time. If time stands, then time as a whole exists, that is, past and future coexist. Thus the time idea disappears. But if time as a whole flows, we can form as little idea of this as we can of a moving space. An infinite space that moved

to the right, and left a spaceless void on the left, would be no more absurd than a moving time. Such a time must move out of itself in the past and leave a timeless void behind it, and it must move into a timeless void before it, or it must move into itself and telescope itself—all of which notions are impossible. Again, supposing time to be substantially real, rather than a form of experience, it is clear that things can exist only in the present. They cannot exist in the past and they cannot exist in the future. But on the other hand they cannot exist in the present, for the present is only the timeless plane of separation between the past and the future. If we should conceive the present itself to have duration in it, either we should have a past and future in the present, or we should deny the continuity of the temporal flow. But if, on the other hand, the present has no duration, then things cannot exist at all. Results like these make plain to us that we are on the wrong track in seeking to make time and space independent somethings apart from experience. They are

rather the forms of that experience. They have their meaning only in relation to that experience, and considered in abstraction from that experience they become simply the portentous phantoms of unreflective thought, and, like all phantoms, they disappear upon investigation.

What was said of the finitude or infinitude of space may be repeated respecting time. If time were a veritable existence, we should have to regard it as either finite or infinite; but the case is different when time is made phenomenal. The time law, indeed, makes no provision for beginning or ending, but its concrete application must always depend upon the nature of experience and not upon the abstract law itself. On the basis of experience we can affirm neither the finitude nor the infinitude of the temporal series, but must confine ourselves to what we find in experience. Hence to the claim that space and time must be either finite or infinite, and finitely or infinitely divisible, the claim out of which Kant developed the first two antinomies, the reply is that as forms of experience they are neither finite nor infinite, and

that experience finds no occasion to decide for one or the other of these alternatives.

To this result thought assuredly comes; but some further exposition is needed to bring it out into clearness. For we and all things seem to be so manifestly in space and time that any argument against it, however irrefutable it might be in logic, would still produce no conviction. This thought rests to some extent on the oversight of the distinction already made between phenomenal and ontological reality. As we have so often said, there is no thought of denying the phenomenal reality of space and time, but only their ontological existence. If, then, we are asked, Are things in space and time? we answer, Yes, or no, according to the standpoint. Things are in space and time as having space and time relations in our experience. They are not in space and time as something independent of experience, and which would be there if experience were away. For the rest, the difficulty in accepting the view rests on the failure to observe the relativity in the spatial and temporal judgment which arise from the limitations

of the judging subject. The whole matter takes on a different aspect from this standpoint.

In the previous lecture, when speaking of the relation of our mental forms to the independent object, we pointed out that these forms cannot be arbitrarily imposed upon the object, but that the object itself must have an affinity for some forms rather than others; otherwise the connection of thought and thing would be purely a random one. But we cannot see the square as round, or the crooked as straight, or change the forms and positions of things at pleasure. And, in general, in order that spatial phenomena shall appear as they are and where they are, there must be something in the dynamic relations of the system which demands just this order and no other. The space relations, then, are not arbitrarily imposed upon a system which is indifferent to them; they are rather the translation into intuitional forms of the unpicturable dynamism of the system. The same is true for time relations also. We cannot reverse the time order so as to make the

antecedent the consequent, or put yesterday after to-day. Here is an order which, while phenomenal, is also fixed ; and this fact can be understood only as the time relation is connected with a deeper dynamic relation. From this dynamic standpoint both the spatial and the temporal judgment in their concrete application are greatly modified, and their relativity is placed in a clearer light.

We note this first in the case of space. When we attempt to locate the percipient mind in space, we find it impossible to do so. The unity of the mental subject will not unite with the spatial form of existence. Nevertheless we have in our experience the antithesis of here and there, and all concrete judgments of space depend upon it. In the purely geometrical judgment there is nothing concrete, and the whole matter lies within the spatial intuition. But in concrete experience the matter is different, and the position of the person himself becomes the origin of all space judgments. The subject establishes himself in a central here, in antithesis to an all-surrounding there. Into this

judgment the organism itself enters to a notable degree, and the here of the subject cannot be determined as a point in objective space, as that would eliminate the subject altogether. On the contrary, the here is determined by the subject's immediate activity. Instead of saying we act where we are, we must literally reverse the proposition and say we are where we immediately act. No other definition of presence or location can be given. In that case our presence, or our here, becomes relative to the range of our immediate action. If we could act as immediately and effectively on things beyond the sea as we do upon things at arm's length, we should be as present beyond the sea as we are in our immediate neighborhood. Or if our organic activities embraced the whole earth as immediately and intimately as they embrace what we call our body, we should be present to the earth in the same sense as we are now present to the organism. Thus we see that concrete presence is nothing that can be geometrically determined in an absolute space, but is rather a function of our dynamic rela-

tions. It is the dynamic relation that determines the space relations. And we also see that presence in space is relative to our dynamic range. Immediate action is presence; immediate action on all things is omnipresence. But neither presence nor omnipresence is to be conceived as filling a spatial volume by a limited or unlimited bulk. Now from this dynamic point of view, being in space acquires an entirely new meaning. We are not in space as existing somewhere in a boundless void or in a void of any kind; but we are in space as limited in our dynamic range and as able therefore to work only mediately on most things. It is this dynamic relation and limitation which underlies our spatial experience. And so long as the limitation continues, so long we shall have the corresponding spatial limitation in experience. The ideality of space therefore does not permit us to transcend space in experience, but it does enable us to dismiss the great phantom of an all-embracing void. But only the infinite and absolute being can be said to transcend space in the sense of limita-

tion. On the other hand, while space relations obtain among the objects of experience, the totality of things does not exist in space at all, but rather and only in the infinite consciousness and will. If we will ask for the place of the world, we must say the Divine Intelligence is that place, and this in turn is spaceless but establishes space relations. And the system of things spacelessly and unpicturably depends on the spaceless and unpicturable God.

Much the same thing is to be said of the time judgment. There is a great deal here also that is relative to our human limitations, and for understanding the ideality of time it is necessary to bear this in mind. Time can be interpreted only from the side of experience, and more especially from the standpoint of self-consciousness. Experience, we have seen, cannot be in the present as a separate point of time, but rather the present is in experience. We cannot define the present as a point in an independent time, and if we could it would be simply the plane of separation between past

and future, and existence would be made impossible. The present of experience is simply a relation in self-consciousness which gives the origin for all time measures and judgments, and the range of this present depends solely upon the range of the apprehending activity of the mind. The present, therefore, is no fixed measure, but is relative to our mental power. Epistemology shows that to introduce a real objective succession into thought would destroy it. Subject and predicate must be simultaneously grasped in one timeless act, or they fall asunder and thought cannot even begin. The present of experience therefore is not in some independent time, but is only a special relation in consciousness. The person who can grasp only a few things has a small present; one who can grasp many things has a larger present; and one who can grasp all things has an all-embracing present or a changeless now.

This bringing of the present, with the resulting time judgment, into relation to activity greatly modifies the subject. Supposing time

to be an independent fact, our experience is all in the past, for as soon as it occurs it passes with its date. In that case what we call our present consciousness becomes a memory of things which no longer exist. This result would lead to some grotesque inferences if it were duly analyzed. Fortunately the fact is otherwise. We call those things present which we possess in a certain immediacy of consciousness; and if we possessed all our experiences in a similar immediacy, the whole experience would be present in the same sense. There would still be a certain order of arrangement among the factors of experience which could not arbitrarily be modified, but all the members of the series would be equally present to consciousness. If now there were a being who could retain all the facts of his experience in similar immediacy, he would have no past; and further, if such being were always in full possession of himself so as to be under no law of development and possessing no unrealized potentialities, he would also have no future, at least so far as his own existence might be con-

cerned. His present would be all-embracing, and his now would be eternal.

Taking up once more the question, Are we in time? we see that it has several meanings and the answers must vary to correspond. If it means, Are things and events in a real time which flows on independently of them? the answer must be, No. If it means, Does our experience have the temporal form? the answer must be, Yes. If we further inquire concerning the possibility of transcending temporal limitation, it is clear that this can be affirmed only of the Absolute Being, for only in Him do we find that complete self-possession which the transcendence of time would mean. In this sense temporality is a mark and measure of limitation.

We may be helped to some extent in the reception of this view if we remember the large element of relativity in our time judgment in any case. Without going deeply into metaphysics, we can see that if our present time rate were modified our estimate of time might be profoundly affected. We can easily conceive

the present rate to be so modified as to make a day seem a thousand years or a thousand years a day. The life of an ephemeron might be stretched out into ages, or the slow motions of the hills might be made to seem like the shifting of the clouds. Or, if we should think away the various periodicities of experience, which are no necessities of thought, the changes of day and night, the movements of the seasons, the alternations of rest and labor, sleeping and waking, youth and age, it is hard to tell how much would be left of the time judgment. In fact nothing would be left except our conviction of antecedence and sequence among the factors of our experience, and our estimate of this would have in it a large element of relativity. Thus, suppose a mind were engaged in a process of thought which it could conduct without weariness, it is hard to see what temporality such a process would have; or if a mind were engaged in any activity into which the element of weariness did not enter, again it would be fairly difficult to tell what the temporal element would mean

for the working mind. The relation of antecedence and sequence would remain, but that would be only the form of the activity and would not implicate the agent any more than the temporal form of a romance or drama would implicate the author.

Thus we see that the space and time of experience are very different from the space and time of the geometrical and numerical intuition, and that they are very largely relative to ourselves. This relative element must of course be eliminated from the divine relation to space and time. Immediate action on all things means spatial omnipresence, and complete self-possession and self-realization mean temporal omnipresence. The Absolute therefore cannot be included in any necessary and successive development without speculative disaster; and any temporal relations we may affirm must be limited to the cosmic system. But if we attempt to view this system as the projection of a corresponding temporal system in the divine consciousness, we commit ourselves to the infinite regress and end in an impossible

dualism. The successive can exist only for the non-successive; and self-possessing, self-sufficient intelligence is the only thing that can be non-successive. But we are not to think of this Supreme Intelligence as a rigid monotony of being, but rather as the perfect fullness of life, without temporal ebb or flow. Until we reach this view, thought must remain in unstable equilibrium. The antithesis of the permanent and the changing is unmediated; the infinite regress yawns for us; and we fall back from personality, which alone explains anything, into some impossible impersonal mechanism. But we must bear in mind that this non-temporality for God means essentially his absolute self-possession and lack of our human limitations which grow out of our dependence. Otherwise we shall eliminate God from the cosmic movement altogether, and put Him out of all relations of sympathy with the world of finite spirits. Then the last end would be worse than the first. We escape this result by remembering that our problem is to explain the world of experience, and this cannot be done by

affirming a statically immovable and intellectually monotonous being, but only by positing a self-sufficient, self-possessing, all-embracing intelligence, which, as such, is superior to our finite temporal limitations.

Now, gathering up these considerations, we see how completely phenomenal the whole system of objective experience is. It is not something running off in an infinite space and time by itself, but is rather a great mental function depending upon self-consciousness and the synthetic activity of intelligence. But as we have said before, things are not thereby rendered illusions. They remain still undeniable factors of experience, only we have discovered that intelligence itself is the great constitutive factor and condition of this experience. Things are still real, but real for intelligence; and those outlying things in themselves, the noumena of Kant's philosophy, or the unknowable of other systems, are to be looked upon as fictions of unclear thought. The thought sphere is all-embracing, and beyond it is nothing. Of course this does not mean simply the thought of the

finite individual, but cosmic thought, on which the cosmic movement itself depends.

A final word may be added respecting the ontological character of mechanics and mechanical science. Metaphysics shows that neither matter, force, nor motion has any such existence as common sense attributes to them. Mechanics, then, must be looked upon as at best only a science of phenomena, and a good part of it must be viewed as of the nature of a device for calculation. The compositions and decompositions of forces and motions, the analysis of motion into abstract laws, the breaking up of complex facts into simple ones, are to be looked upon as devices of method, and not as some actual process in reality. They are purely relative to ourselves, as much so as the degrees of the circle, or the meridians and parallels of the geographer. Considered as an abstract logical system, the science of mechanics is of course perfectly valid. The manipulation of the assumed data is entirely independent of concrete facts; but when it sets up to be an

account of what is actually going on in space and time, we then have to point out the mistake. At the same time we also insist upon the practical value of the science, for as a matter of fact phenomena have laws. They come together, vary together, and succeed one another according to rule. These laws are largely spatial and temporal, and admit of geometric and numerical expression. Every such expression is valuable if it helps us to a knowledge of the order of phenomena, and especially if it gives any practical control of them. As said, they are useful if they help us; but considered as veritable transcripts of reality, they are only hypostasized abstractions. They do not give us the essential dynamism of the system. The true efficient causality lies in a realm into which science as such has neither the call nor the power to penetrate. It follows, then, that science must always be classificatory and descriptive. In this field it has absolute right of way, and it is one of life's most useful handmaids; but when it claims to be more than this and becomes metaphysical, it is pretty

sure to err and stray from the way, and sometimes it falls into the pernicious errors of materialism and atheism.

Of course on this view nature is phenomenal, existing only in and for intelligence. Nature itself is process, and it has continuity only for its cause and for the observer. In some sense, then, we may say that nature is never the same from one instant to another, — as in a progressive piece of music the performance is continually varying. In one sense it may be called the same and in another sense not the same, but it really has sameness and continuity only for the performer and the audience. And it continually takes on the form which the musical idea calls for, and hence is continually becoming something else. This is the general view which we take of the natural system. As process it has continuity only for its cause and for the observer, and the continuity consists simply in the continuity of the laws according to which the process moves, and the unity of purpose which underlies it. In the strictest sense a moving world has no continuity in itself, but only for

the observing or producing mind. Apart from this mind, nature, supposing it to exist at all, would be but the mirage of vanishing phantoms, each and all perishing in the attempt to be born. But granting the observer and the phenomenal world, the only continuity possible would be the continuous validity of the laws and purposes of the process. New phenomena as events would differ from the old, however similar they might be, as another day is a new day, notwithstanding the likeness to old days; but all the phenomena, new and old alike, would be comprehended in the same scheme of law and relation, and this fact constitutes the unity and continuity of the system. It does not consist, then, in any rigid identity and monotony of the facts of the system from everlasting to everlasting, but in a subordination of all, new and old alike, to the same laws.

In the next place it may be pointed out that on this general view many systems may be conceived as possible. Our human world, when we look at it carefully, has after all a large element of relativity. We look upon its

contents and rightly view them as objective, that is, as independent of our human wills. But when we inquire into its contents we find that they largely consist of our own sense life put into rational forms, yet in such a way that if we should conceive the sense element dropped out it might be exceedingly difficult to tell what would remain. Take away the sense qualities and the resistances and the distances, all of which are relative to ourselves, and we should find nothing left that could be called a world; and so, however much we may regard this human world of ours as being objectively founded, we must nevertheless query whether it be not after all a certain human world only and of such a sort that we are not able to affirm it to have any existence for beings who might be differently constituted from ourselves in their sensuous nature. The world of ether, for instance, is not adjusted to our senses, and it has therefore only a theoretical existence for us. We cannot make anything out of it for ourselves, beyond a somewhat obscure assistant of our

optical equations; and, on the other hand, many of our solid things seem to be practically transparent for various influences which we seem to detect. It is, therefore, by no means an impossible thought that the things which are solid for us might be vacua for others, and the things which are vacua for us might be solid for others.

This leads again to the surmise, mentioned in the last lecture, that there may be widely different systems of reality for beings who are differently constituted, or for the same beings in different stages of their development. Being in this world means nothing more than having a certain form and type of experience with certain familiar conditions. Passing out of this world into another would mean simply, not a transition through space, but passing into a new form and type of experience differently conditioned from the present; and how many of these systems are possible, or to what extent this change might go, is altogether beyond us. Of course these many systems would all be objectively founded; that is, they would be

rooted in the will and purpose of the Creator; and they would also be one in the sense that the creative purpose would embrace them all in one plan; but they would not be one in the sense of being only phases or aspects of one absolute reality. They would be stages in God's unfolding plan, but not aspects of a static universe. This static universe is a phantom of abstract thought. Apart from the finite spirit, the only reality is God, and his progressively unfolding plan and purpose and work.

Thus we find reason, first, for limiting our affirmations in any concrete sense to our human world; and, second, for keeping open the door of possibility. As we have said in the previous lecture, the possibilities of consciousness seem unbounded. We have here and now only a simple experience, and it is permitted to us to think that we may yet pass into new types of experience in which new possibilities of consciousness shall be realized. Of course, so far as positive conception is concerned, this is only a dream. But yet it may be well to keep the way open, for dreaming is sometimes a

useful exercise, provided always we distinguish what we dream from what we know.

For common sense the world of things is something which, for the present at least, exists by itself without any assistance from intelligence. But upon reflection it appears that this world is a function of intelligence in such a way that apart from intelligence it has neither existence nor even meaning. Space and time existence and self-conscious existence exhaust the possibilities for us. Any other conception is purely verbal and without any corresponding thought. But space and time existence is phenomenal only, existing only for and through intelligence. Thus the claim of personalism is being established.

IV

MECHANICAL OR VOLITIONAL CAUSALITY

The world may be considered from the standpoint of contents and meaning. From this point of view a world of rational contents and meanings leads us to affirm a supreme reason behind it all as its essential source and abiding condition. The meanings we find are really there for intelligence, but they are there only through intelligence. But the world must be regarded also from the standpoint of causality. It is not merely an idea, it is also a deed. It is not merely a presentation to us which ends in itself, it is also a revelation of the cosmic activity of the Supreme Will. Some idealists would seem to have held the former view, and it must be admitted that as a psychological possibility it cannot be disproved; at the same time the total impression of experience is such that it

cannot be allowed. The world has a history and an existence apart from us. God's cosmic activity is not confined to producing presentations in us, but is rather directed to producing the great cosmic order itself, which thus has existence for Him apart from its relation to us. Thus the world becomes not merely a thought, but a thought expressed in act. It is God's idea; it is also God's deed. Both elements are necessary for the full expression of our thought respecting the world. Of course, if any one chooses to say that the world is only a presentation in us and is no great system of activity apart from us, no sufficient logical injunction can be issued against him. But no injunction would be necessary; simple contact with experience would soon dispose of the notion.

This insight introduces us to the question of causality. We have now to extend our personal interpretation of the world into the field of causality, by showing that this category also vanishes in contradiction until raised to the personal plane. By causality in

the proper sense we mean dynamic determination. There is a logical determination of ideas and relations which is not dynamic. Such is the case with the premises which determine a conclusion, or with the sides of a figure which determine the angles. There is nothing dynamic here. But it is otherwise with antecedents and consequents, or with concomitant variations among things. Here there is more than a time relation of coexistence or sequence; there is also a relation of dynamic determination which we call causal. This we now proceed to examine.

This notion of causality on examination proves so difficult that many have denied both the idea and the fact. This is generally due to some exigency of system. The empiricists have studied to reduce the idea to succession, saying that by causality we really mean invariable sequence, and if we think we mean more than this, it is due, as Hume said, to "a mental propensity to feign." This claim, of course, results from their empirical

doctrine. According to that, sensation is the only original mental fact, and out of it all later conceptions are built. But as simple sensation has in it no causality, but is only a simple impression in the sensibility, there is no way of reaching the idea of causality from their data. Accordingly, it must be reduced to invariable sequence, because their system provides for nothing else. Again, some rationalists have taken offense at the idea as not fitting well into their logical scheme. Logic, simply as an order of inclusion and exclusion, or the relation of premises to conclusions, makes no provision for dynamics, and equally no provision for time in any form. Accordingly, rationalists of this kind have their own manifest troubles with the idea, and conclude before long that the idea must be ruled out altogether. Any rationalistic theory must do this that seeks to construct a theory of intelligence without including the will. The traditional intuitionalists also have seldom been clear as to the form of the idea, and have oscillated con-

fusedly between power and will and other conceptions even more abstract. Because of such confusion and the practical barrenness of the question in the concrete, Comte advised us, as we have seen, to give up causal inquiry entirely as useless in any case. The agnostics also recognize the causal inquiry as one we are bound to make, but one we can never answer. Practically, then, we must be positivists, as we have said, with, however, a sense of omnipresent mystery on which all things depend and to which we refer whenever we get into speculative trouble. Common sense, however, has no difficulty in the case. It believes in causality and finds it permanently in sense objects, and there is no mystery about them or their activities.

We must agree with common sense as to the necessity of affirming causality, and no theorist has ever escaped this necessity. Even those who deny causality always assume it in one place or another. Thus the thoroughgoing empiricist, who, like Hume, reduces causality to nothingness and unconnected succession,

forthwith proceeds to deny his own view by explaining how our later ideas arise, or are produced by their antecedents. Of course on that theory this is hopelessly inconsistent, for nothing arises from anything, or is due to anything; but certain things were, and certain other things are; but in the sense of a determining connection nothing is because anything was, but everything simply is, is for no reason whatever. This inconsistency, as said, is one that no empirical system has ever succeeded in avoiding, and, if it should avoid it, at once our thought system would become a curious sort of apriorism in which the influence of experience vanishes entirely, and any insight which we may have or acquire is not to be referred to any past experience, but stands absolutely in its own right. It is further plain that on such a view the system of objective thought would perish altogether, for in that case things, if real, would be mutually indifferent and non-existent. Events would be groundless, and experience would fall asunder into chaos. Our perceptions, too, could

never be related to a real world in any way, and would be only groundless phenomena in the individual consciousness. Thus perception would perish in solipsism, and being itself would become only the momentary and vanishing presentation. Nihilism would be the end. We conclude, therefore, that the idea and fact of causation cannot be dispensed with in any philosophical system.

At the same time, however, it is manifest that this does not decide the form of the idea and the location of the causality. Causality as the ground of cosmic changes is to be affirmed beyond any question, but whether it is to be located in the things of sense perception or in some power beyond them, is not yet apparent. And whether it is to be conceived as impersonal power or as living active intelligence also remains to be decided. The phenomenality of the sense world has a profound bearing on the location of causality and also on its meaning.

But the subject itself is so complex that we need to distinguish the factors that enter into

it lest we lose ourselves in confusion. In addition to the validity of the idea, we have, as we have just seen, the question of form and location, and we have also a use of the word in popular speech and inductive science which must be noted if we would have the metaphysical problem clearly before us. If we divide we may conquer.

Let us distinguish, then, first of all, causality in the inductive sense from causality as dynamic or productive efficiency. The first may be called causality in the scientific sense, the second causality in the metaphysical sense.

A large part of our speech into which the idea of causality apparently enters is concerned only with inductive causality, and this is really a question of phenomenal relations merely, and does not touch the question of causality at all. We illustrate the distinction.

As a matter of fact, we find that events occur under certain conditions. When the conditions are fulfilled the event appears. We may call the total group of conditions the cause, and upon occasion we may call any one of the

conditions the cause. The complete cause and the only adequate one is the whole group. Nevertheless, if the group were given with the exception of one member, we should call that member the cause of the event which would follow its addition to the group. Any event with complex antecedents would have only one adequate cause, but it might also be said to have as many causes as antecedents. Or any one of these might upon occasion complete the group and then be viewed as the cause. This is causality in the inductive sense. It has nothing to do with efficiency, but only with the order in which events occur. In other words, we find when we look into experience an order of concomitant change and an order of invariable succession. When we have change here, there is change yonder, fixed in kind and in degree. This for practical purposes may be called the interaction of the things, but it is really only the fixed order in which these concomitant changes occur together. Similarly, in the case of succession we find that when certain antecedents are given, certain consequents result.

And this we may call causation, again. But, in fact, it is merely the fixed order in which events succeed one another.

That the study of this order, or the way in which things hang together in the order of change, is of the utmost importance, is plain upon inspection. The chief part of practical wisdom lies in our knowledge of it. This study must be pursued inductively, and not speculatively. It can be prosecuted on any theory of metaphysics, and need not concern itself, except in the most general way, about metaphysics at all. The phenomenal conditions under which events occur, are quite distinct from the metaphysical agency by which they are brought about, and they may be studied by themselves. By insisting on this distinction we make a field for inductive study unembarrassed by metaphysical scruples, and we also rescue the metaphysical problem from the confusion which results from confounding the empirical and the metaphysical points of view.

It is further plain that this is all that is needed for science and practical life. We may

well believe that there is some hidden causation in play, but we do not need it for practical purposes. Neither do we observe it. It is a thought problem, and not a problem for induction. In electricity we need not have any theory about the metaphysics of electricity. We need only to know that certain changes, which we call electric, follow upon certain other changes which we may produce, and that they in turn result in still other changes. When we know this law of succession we have all that we need for the practical application of what we call electricity. The thing itself may be never so mysterious, but whatever it may be, we know in experience that the order of sequence is such and such, and then by producing the antecedents we get the consequents. The power at work finds out for itself how to produce the consequents, but we need to know only the actual order and law of change. Similarly in chemistry, we need have no theory of the elements themselves or no deep metaphysics. We need only to know that things which we call chemical bodies may

be so manipulated that certain other things will result. Given this knowledge, we have all that we need to know for the complete development of chemistry as a practical science. So also in astronomy, we need have no theory of gravitation in its metaphysical nature. We need only to know that the acceleration of bodies takes place according to the formulated law of gravitation. Given this, we are able to construct our equations and find the whereabouts of the planets without any theory whatever of a metaphysical nature. We may still believe, or indeed may be sure, that there is causality in the case, but yet sense does not reveal it or locate it. We do not need any theory of it for practical purposes. Without doubt the underlying causality will find out for itself how to do the work. We need only to know the rules according to which the work is done. Milton had an angel leading the earth around the sun. The astronomer could get along just as well with the angel as with some theory of central forces, provided of course the angel brought his accelerations and motions

under the law of the relative masses and the inverse square of the distance. In that case the astronomer could locate the angel as well as the planet, and would be quite indifferent whether the planets were moved by angels or by central forces of whatever kind, since all he needs to know is that the motions take place according to the law as formulated. Similarly in mechanics the causal idea is needless. This has long been thought to be a dynamic science, since one department of it bears the title of dynamics; nevertheless it has been reduced to a set of equations of relation, from which all properly causal relations have been eliminated. And this is rightly regarded as a great advance by the masters of the science, so that there is no longer anything dynamic whatever in science, whether observational or theoretical, but simply a study of the way in which phenomena hang together in the observed order of law. Of course, as said, this does not deny the idea of causation, but simply locates it in another realm.

We now pass to causality in the sense of dynamic efficiency. The necessity of affirming a causal ground is stringent, and, as we have said, no theorist has ever succeeded in long maintaining a denial of it. But it is not so easy to fix the form and place of that ground as we might at first sight think. The traditional intuitionalist has been very strenuous in maintaining the reality of causation, against Hume and all his disciples, but he has been a little hasty in locating the causality he affirms, and quite unclear as to its meaning. In particular, he has located it with all assurance between the physical antecedent and the physical consequent. Under the influence of his crude realism, he has regarded both of these as things in real space and time; and as he could see nothing else in the neighborhood, of course the antecedent must become the efficient cause. Hence this realism has had no end of causes, of which the existence is never to be doubted. But as soon as we come to distinguish between phenomenal and ontological reality and to reflect upon the antithesis of the phenome-

nal and the real, this dogmatic assurance begins to be shaken. It is possible antecedent to reflection that the cause is found in the things of perception, but it is equally possible that these things are only phenomenal processes of an energy beyond them and manifesting itself in them, in which case the causality is no longer in them but elsewhere. This is the conception which physicists themselves now largely hold, and to which physical discovery more and more lends itself. This view, it will be seen, does not question the reality of causation in the case. It only questions its location and the form in which we conceive it. That in interaction and causal sequence we really see no causality but only change according to rule for which we affirm and seek causality, is a commonplace since the time of Hume and Kant. We may be sure that there is causality in play, but whether in the things themselves or beyond them is not plain. This brings us to consider the notion of efficient causality, its form and location.

We have seen in the previous lecture how

difficult it is to connect being at all with time. We there found that no being that has its existence successively and without any non-temporal principle can be said properly to exist at all. It is a flow in which nothing flows and nothing abides. The same applies to causality. In the universal flow we have a causing in which nothing causes, and a continual changing for which no abiding ground can be discovered. This view makes all thought impossible. There are no abiding subjects and no abiding predicates, but only a vanishing razzle-dazzle in the place of both. In addition some further puzzles emerge in the case of causality, arising from the relation of the past to the present and the future in any system of mechanical and realistic thought.

First, it is plain that if the future is to be the product of the past or is to be explained by the past, it must in some way be included in the past. Otherwise it is a groundless becoming; the law of connection and reason vanishes, and experience falls hopelessly asunder. If we could exhaustively think the past without

finding the future in it, in the sense of being necessitated by it, the future would be groundless; and if on the other hand we find the future in the past, we are at a loss to know just what this means. The future was not in the past, in the sense of being present there, and yet must have been in the past in the sense of being necessitated by it or grounded in it. Otherwise it could never have risen out of it. Now how can these things be?

Manifestly this problem is not a fictitious one, but arises necessarily out of the attempt to think causality in relation to time. We cannot allow the future to be independent of the past without dissolving all connection so that thought itself would perish; but when we make the future dependent on the past we are bound to make some provision in the past for it, and it is not easy to see just what this will be.

Here we help ourselves by a word which in one form or another has been with us since the time of Aristotle; and no more striking illustration can be found of the ease with

which problems can be verbally solved to our entire satisfaction, though the solution really solves nothing. The word in the case is potentiality. The present and future were not in the past actually, but potentially; and this word is to a great many so satisfying that no questions remain after it is pronounced. And yet manifestly this solution makes more problems than it solves. This potentiality must in some way have been an actual determination of the real; otherwise it would explain nothing. It was, then, an actuality of some sort, and yet not an actuality of a strictly actual type. But how to represent the difference between a potential actual and an actual actual is something quite beyond us. If we have recourse to description and say that potential means only that future conditions develop out of past conditions, we see at once that "develop out of" in a strict sense has the same difficulties, for how can that come out which was in no sense in? But if we mean only that new conditions temporally follow old conditions, then we affirm mere succession

and miss the idea of ground and connection altogether.

If our aim were only to talk without very much thinking, then probably the best method would be to write or pronounce the word potentiality and its derivatives with all possible gravity, and consider the problem as sufficiently solved; but if in addition to talking we also desire to think, we might well inquire whether this notion of potentiality represents any real thought whatever, or if so, then under what form it must be conceived. We shall do well to recall here some things said in our second lecture. We there pointed out that all these terms of the understanding in themselves are only forms of thought which leave it entirely undecided whether there be any concrete reality corresponding to them, and we said that they have application only as we find some concrete experience which illustrates them. Otherwise they are abstractions without any real content, or they are formal principles which float in the air until some concrete experience tells us what their actual

meaning is. Now in the case of potentiality it is clear that when we are thinking on this problem of the relation of past and future, we must provide for this fact which we name potentiality. But when we thus name it we have not yet found the form under which it is to be conceived, and the further fact is that on the impersonal plane nothing whatever can be found which shows us that the fact is in any way thinkable. There is nothing whatever in experience which indicates to us that the problem contained in the word admits of any solution, and it is not until we bring the matter up from the plane of necessity and impersonal causation to the personal plane that we get any hint that the problem can be solved at all. Potentiality is a clear notion only on the plane of freedom. Here it means the self-determination of the free agent. It is the fact that the free agent can do or not do, that he has therefore various possibilities open to him, and these we may speak of as potentialities. Here the problem is solved in experience, and we find a possible and permissible meaning to

the words. But on the plane of the necessary it is pure opacity. It must be something which is at once real and not real, actual and not actual. Unless we can master this, the alternative is to refer all motion, progress, development, evolution, to a supreme self-determination which ever lives and ever founds the order of things. In that case the past is not potential of the future, any more than the summer is potential of the winter, or the setting of the sun is potential of the rising of the moon; but both past and future are phases of a movement which abuts on freedom, and of which the successive phases are but implications and manifestations of the one thought which is the law and meaning of the whole. This is a meaning of potentiality that finds illustration in experience, and is understood through experience. In any other sense it eludes us altogether, and only expresses a problem for which on the impersonal plane we can find no solution.

In popular thought mechanical and volitional causality are differentiated by their re-

lation to time. The former is pushed out of the past, the latter looks toward the future. This is essentially the form of intellectual causality, the great mark of which is the forward look. It is causality self-moving toward ends which lie before; hence, it is called final causality, or a causality which looks toward ends. In mechanical causality what was determines what is; in volitional causality free intelligence chooses things which are to be and works for their realization. It is between these conceptions that we have to decide.

But before proceeding to the discussion we point out in passing that the inductive argument for intelligence in the power behind phenomena rests chiefly on this forward look on things. Mechanical causality in itself is a resultant of past conditions, and has no reference to future ends. Everything is product and nothing is purpose. But in final causality the movement is toward ends which are to be realized, so that the present is determined with reference to the future, and this is possible only as causality becomes free and purposive.

The future as such cannot determine the present. This is possible only as the future results exist as present conceptions in consciousness for the realization of which intelligence is acting. Apart from intelligence final causality is literally preposterous, as Spinoza said; for it turns the effect into a cause of itself. It is plain, too, that this inductive argument depends solely upon the relation of present and future, and not upon any details of method. Historically the argument has largely proceeded upon some particular conception of method, and thus has seemed weak or worthless when the conception of method changed. Hence the doctrine of evolution has seemed to many to weaken the argument for purpose in nature. In fact, however, for all who see in the antecedent stages of evolution a preparation for things to come, or the earlier phases of a progressive movement, the facts of evolution become the most impressive of all the inductive arguments for purpose in the world; for in that case the entire movement in its great outlines has the forward look, and

is thereby marked as rooting in the causality of intelligence. And the argument becomes more impressive than the argument from detailed marks of special contrivance, by as much as its boundless range in space and time transcends the petty extensions and durations of the traditional discussion. We return now to the main question of mechanical or volitional causality.

Mechanical causality for spontaneous thought is the great type. Such thought is busy mainly with material and mechanical objects, and hence its conception of causality necessarily takes on a material and mechanical form. Thus mechanical causation tends to become the great type, if not the only type, of causation, while volitional causality is looked upon as something portentous and anomalous. And if it be allowed at all, the attempt is often made by some doctrine of determinism, or volitional necessity, to reduce it to the mechanical form. This conception is manifestly dependent on the notion of an independently existent time, which is supposed to be the supreme law of all other existence. The things that

were, were the causes of the things that are; and all causality is from the past to the future, as a kind of universal parallelogram of forces according to which antecedents determine their consequents, and so the stream goes on unceasingly. When this is connected with the space form, material and mechanical causation seems to be the only possible type of causality. Thus the great space and time phantoms are seen to be the source of the mechanical conception. But when we recall the ideality of space and time, this view at once begins to lose its self-evidence. Indeed, this ideality reduces every doctrine of mechanism to phenomenal significance, and deprives it of all claim to represent the essential dynamics of the world. Its value lies entirely in its practical convenience, and it must never be allowed to intimidate us into supposing that it is the real fact of existence. We might, then, set the mechanical doctrine aside without further discussion; but there are certain confusions in the doctrine, even on its own temporal basis, which it is worth while to point out. In this way we

may succeed in loosening our dogmatic faith in the chimera.

A little reflection soon reveals that this mechanical causality is far from being the easy notion it at first sight seems to be. By its essential nature it is supposed to be conditioned by its antecedents. The effect cannot be given until the antecedents are given, and when they are given it is given. But this involves a pair of contradictions, neither of which can be removed. In such a scheme, and assuming the independent reality of time, the whole series of causal events must coexist or run off in the same instant. For unless we make the grotesque assumption that empty time does something, we must allow that when the dynamic conditions are completed the effect is there without delay. Hence in the mechanico-temporal series, as soon as the dynamic antecedents are given the consequents are given, and their consequents in turn are given, and so on to the end of the series, so that the beginning and the end temporally coincide. This is one member of the antinomy.

The other member consists in the infinite regress which this conception of causality involves. On this view everything refers to something behind it, and so on in endless regress. Hence the real ground of everything lies beyond and below the horizon and can never be reached. Thus the law of causation itself disappears. There can be no causality on this view without a first, and on the other hand this view forbids us ever to find a first. There can be no first moment in time, for back of any moment there is an indefinite number of moments. Likewise there can be no first in a mechanical order of conditioned causality, without assuming something non-mechanical beyond it. The causal idea demands completeness in the series of conditions, and it never can be completed on the mechanical plane. No first day or first night can be found by any regress along the series of days and nights as such, for each day has a preceding night and each night a preceding day.

In the very old days, when animals had the gift of speech, the cat waited on the owl to

know what philosophy deals with. The owl replied, "Philosophy considers such questions as this: Which was first, the hen or the egg?" "Why," said the cat, "that question admits of no answer." "Of course not," rejoined the owl, "and for that I give the gods very great thanks. For only consider: what would we philosophers have to do if the question were settled?"

This fable well illustrates the impossibility of reaching a first by any regress in a conditioned series, or a series of conditioned members. We can indeed describe the temporal relations of the hens and eggs, and this serves all practical purposes; but the hen-and-egg series can never be explained in this way. Regress, however long continued, does not even tend to explain it. It is like seeking to support a chain by adding extra links to the upper end, yet without providing any hook for the support of the whole. This is the second member of the antinomy.

But here it may occur to us that there is no more need to affirm a dynamic first than

there is to affirm a temporal first; and since time itself is unbegun, causality also may be unbegun. This calls attention to a curious difficulty in the notion of an independently existing time. There certainly can be no first in an independent time, for back of any moment whatever in a temporal series an indefinite number of earlier moments could be found. But if there be no real first there is equally no real second, or any other number, with the result that all finite time measures are purely relative and have no significance in the infinitude of time. The conclusion would be that the time of experience is relative to experience only, and we could never relate it to the infinite time of abstraction. We have simply another argument for the phenomenality of experienced time, and the non-existence of this self-existent time, which is but the phantom shadow of the temporal process abstracted from experience. Not in this way can we escape the necessity of a dynamic first, that is, a dynamic act which refers us to no other. In this sense every truly causal act is a dynamic first. The

true cause is never to be sought at the unattainable beginning of an infinite series, but is rather immanent throughout the series, as the living power by which all things exist and all events come to pass; and this cause is as near and as active in the last as in the first.

To the infinite regress, then, and the resulting failure of the causal idea we are certainly shut up if we adopt a temporal and linear conception of the hen-and-egg type. The hen-and-egg series demands explanation as much as any particular hen or egg; and no particular hen or egg is really explained until the hen-and-egg series is also accounted for — which it never can be by any endless regress. This is so manifest that the general effort has been to exchange the linear causality for an abiding cause, which was and is and is to come, and this cause abides from age to age, so that we have no succession of causes, but only one cause throughout the series of effects. We seem in this way to escape the infinite regress, also, as we have only to refer effects to this cause without further specification. We may

also drop the word mechanical, which is a little too suggestive of the coarse machines of human contrivance to apply to this invisible and unpicturable energy; and instead of it let us rather speak of necessary causality in distinction from volitional causality. Thus we find the fixed and abiding one in the changing and passing many.

This looks well until examined, and it certainly sounds better than the previous putting; but it really shows good intentions rather than insight into the problem. In fact, we have in it once more the attempt of common sense to find something which abides through the world of change. It allows that a succession of causes as distinct things would never do, but it is quite clear that an impersonal cause might well exist as one and the same from everlasting to everlasting, and produce a great variety of effects without losing its proper identity. There is in the view, however, the common-sense oversight of the dialectic in the metaphysics of change and identity. In discussing that problem, we found in the last lecture

that on the impersonal plane no identity can be discovered. We came to the phantasmagoric flux of Heraclitus, which is the destruction of both thought and thing. We also saw the impossibility of making any use of the world of rigid identity, in case we found it. In the view before us all this is overlooked, and it is assumed as a matter of course that both change and identity can be united in the impersonal. But when this is seen to be impossible, we no longer have one cause or one being, or indeed any cause or being whatever, but simply a causing in which nothing causes and nothing is caused, and a movement in which nothing moves and nothing is moved. We have a kind of metaphysical vermiform peristalsis, or peristaltism, in which nothing worms itself along from nothing to nothing, and is mistaken for something on the way. A moving body without continuity and identity would not be a moving body, but only a succession of optical phenomena; and if there were no observer, not even this could exist. The impersonal changing cause is in this case.

Its unity and identity are not in the flow itself, but in the observing mind; and when that is removed, there is nothing articulate left. In addition, it is clear that the view does not escape the infinite regress if it assumes that this causing is in time; for instead of an infinite series of conditioned causes, we have an infinite series of conditioned causings, each of which points to an earlier causing, — and we are no better off than before.

All that we bring away from these crude notions is the conviction that causality must be affirmed, but that it cannot be conceived in the mechanical and temporal form. The suggestions of uncritical common sense prove to be only phrases which contain a problem rather than a real solution. In every mechanical doctrine of causality every present change finds its causality in an infinite regress, which can never be completed and in which thought perishes. In volitional causality we trace the act to the personal purpose and volition, and there the regress ceases.

Another difficulty in the mechanical notion

is its tautology. Whenever we think of causality on the plane of mechanical necessity, we find ourselves forthwith reduced to motions which contain no progress. What may be called the law of the logical equivalence of cause and effect in all necessary schemes of thought at once confronts us. The cause which is to explain an effect in such a system must always be the cause which in principle contains the effect. If it did not contain it, it would not explain it. But if, on the other hand, it contains it, then the explanation is tautologous, because the explanation itself contains the very fact to be explained. If we could think the cause exhaustively without finding the effect provided for in it, it would not explain the effect; but if we find the effect already provided for in the cause, then the effect is indeed explained, because the explaining cause already contains it. This is the hopeless deadlock of all mechanical thinking along causal lines, and it can never be escaped by any device of logic whatever. Thus we see that the net result of all such thinking is tau-

tology and infinite regress. The logical equivalence of cause and effect in such a scheme takes all progress out of it. In such a system there is nothing new, but only an unfolding of alleged eternal potentialities, and the notion of these potentialities we have already seen to be hopelessly obscure and contradictory. Thus once more the notion of mechanical causality shows itself as entirely unmanageable. If this is what causality means we might as well become positivists at once, for surely there is no more barren business conceivable than this. Time and strength are wasted, and expenses are not paid.

And this is not all, for a further difficulty emerges. No change of any kind is provided for in such a scheme. If the connection of antecedent and consequent is purely logical, the premises and conclusion must coexist, and all things are there at once and forever. If, on the other hand, there is some dynamic principle which passes from form to form, we cannot explain this without making the change all-inclusive; and then all things flow. If we

think to rest the change on necessity, we are not helped, for the necessity of change means a changing necessity. If the necessity remained rigidly the same throughout the series, no reason for any change whatever could be found. The change, then, must penetrate into the necessity itself, and a changing necessity means another necessity, and once more our unity breaks up into indefinite plurality. There is no way of connecting the multitudinous necessities with any principle that unites them and makes them possible, or prescribes the order of their manifestation. In some way the many must be referred to the one, and change must be referred to the changeless, but this can never be done on the mechanical and impersonal plane. The only one we can find is the unitary intelligence, and the only changeless we can find is the self-equal intelligence. All other unities and identities vanish into plurality and the Heraclitic flow. There is, then, no one changeless necessity which explains all things, but an infinitude of necessities with nothing to coördinate them.

And here again it may be well to remind ourselves once more that this is not a question of inductive science or common-sense experience, but solely of consistent thinking. Nothing that we have said has any bearing on the study of succession and concomitant variation, which is the great field of practical science. Neither does it concern the fact of causation, but only its form and nature. Unless we bear this constantly in mind, we might think it sufficient to say causality is there anyway, and hence our objections are unavailing. Diogenes, in reply to Plato's arguments against motion, simply got up and walked. So here we may say the problem is solved by walking. But the answer to this is that the problem is not thus solved, for it is really not the question whether there be causality, but how we shall conceive it. It is a question between two competing conceptions of causality, the mechanical or the volitional. As we have so often said, only the order of change is given. Its causal explanation is a problem for thought, and the explanation must be self-consistent. There is

no doubt that causality is there, but how to conceive it is the problem. Shall we view it as mechanical or volitional, necessary or free, blind or seeing? These are questions for thought to solve, and the value of competing solutions is to be found in their adequacy to the facts and to the demands of our reason.

Thus we see that the way of mechanical causality is hard. Instead of being a manifest intuition, as at first seemed to be the case, it rather turns out to be a perfect nest of contradictions and impossibilities. Volitional causality is the only causality of which we have experience. Of mechanical causation we have no experience whatever, and when we attempt to think it and note its implications and the difficulties into which it brings us in connection with the problem of time, the infinite regress, the barren tautology, and the Heraclitic flux, we see that the notion itself is so full of difficulties as to be worthless, if it were otherwise possible. But with volitional causality the case is different. Here we have the

causality of conscious intelligence which possesses and directs itself. Here we have a cause that can make new departures without losing itself in the infinite regress, — a cause that was and that also is, — a cause that does not lie temporally behind the process, but is immanent in the process as the abiding power on which it forever depends. Here is a unity which in the oneness of consciousness can posit plurality and remain unity still. Here is an abiding power which can form plans, foresee ends, and direct itself for their realization. Here is a cause which in the self-equality of intelligence remains identical across the changes which it originates and directs. And this is the only conception that meets the demands of the causal idea. It is not only the only conception of which we have any concrete experience, and the only one, therefore, of which we can be sure that it represents any actuality at all, but it is the only one that does not shatter on its own inherent inconsistency and the only one that is really compatible with intelligence itself; for, as will appear later on,

will is an important and essential function in what we call intellect. Intellect, conceived simply as a logical mechanism of ideas, is something that is totally incompatible with rational thought, and lands us in the midst of antinomies worse than those of the Kantian system.

This brings us to the question of freedom, a matter which has been very much misunderstood by most speculators. These have discussed it from the standpoint of the reality of time, and with various mechanical analogies and metaphors in their minds, and without any suspicion of the emptiness of mechanical causality in general. Motives have been treated as mechanical forces of one kind or another, which may be quantitatively compared on a dynamic scale and their resultant determined. The great time phantom has lent its misleading suggestions further to confuse the matter, and so it has come to be an accepted dogma with many that freedom itself is a considerable affront to reason, so much so that the

pure reason left to itself is always deterministic; and belief in freedom, if held at all, is maintained only for moral or sentimental reasons. This, however, is a fundamental misconception, as we have seen and shall further see. Freedom itself has the deepest speculative significance for reason and science, as well as for morals and religion.

Concrete problems can never be safely considered in the abstract. Many a proposition may seem self-evident when abstractly taken, which looks very different when put into concrete form. And many ideas are mutually contradictory when abstractly compared, which harmonize admirably when concretely realized. This is especially the case with the doctrine of freedom. The difficulties in it have largely arisen from an abstract consideration, which puts asunder things that belong together. Our first care, then, must be to decide what we mean by freedom in the concrete. If we succeed in vindicating a real freedom, we may dispense with the abstract freedom of the closet speculator.

By freedom in our human life we mean the

power of self-direction, the power to form plans, purposes, ideals, and to work for their realization. We do not mean an abstract freedom existing by itself without relation to intelligence or desire, but simply this power of self-direction in living men and women. Abstract freedom is realized only as one aspect of actual life, and must always be discussed in its concrete significance.

With this understanding of what freedom is, we recur to its speculative significance. This appears first in its bearing on the problem of error. That problem lies in this fact. First, it is plain that unless our faculties are essentially truthful, there is an end to all trustworthy thinking; but, secondly, it is equally plain that a large part of thought and belief is erroneous; hence the question arises as a matter of life and death for rational thought, how to reconcile the existence of error with faith in the essential truthfulness of our faculties. Freedom is the only solution which does not wreck reason itself. If our faculties are essentially truthful and trustworthy, but may be

carelessly used or willfully misused, then we can understand how error should arise without compromising the truthfulness of our faculties. But on any other basis error becomes cosmic and necessary, and reason is overwhelmed in skepticism.

This matter has never been adequately considered by necessitarians, or generally by philosophers. They have been content to take knowledge for granted, and have failed to see that any philosophic theory must develop its doctrine of knowledge out of its own resources, and to see that many theories are suicidal and therefore are fatal to the first condition of all theorizing, — trust in reason itself. Such is the case with all materialistic, atheistic, necessitarian, and mechanical schemes of thinking in general. In any such system the distinction between truth and error disappears, and one notion is as good as another while it lasts, since all alike are equally necessary. Hence any one wishing to find his way into the problem of freedom will do well to consider first of all the relation of freedom to intelligence itself,

and the collapse of rationality involved in the system of necessity.

Necessity, on the other hand, is commonly supposed to be a perfectly clear and self-evident notion. This view is pretty sure to arise in the early stages of reflection, but deeper study dispels it. The only clear conception we have of necessity is rational necessity, that is, the necessity which attaches to the relation of ideas, as in logic and mathematics; but this necessity is not found in experience, whether of the inner or outer world. The elements of experience and their connections are all contingent as far as rational necessity goes; that is, we cannot deduce them from ideas or connect them by any rational bond. The necessity, then, if there be any, is metaphysical, and this logic finds to be an exceedingly obscure notion, and one which eludes any positive conception. It can be neither sensuously cognized nor rationally apprehended, and the more we wrestle with the idea the worse our puzzle becomes. We have already found it impossible to do anything with the notion without adding to it the further notion

of potentiality, and what a necessary metaphysical potentiality might be we have found it impossible to say. It must be in some sense an actuality, or it could never affect reality; and yet it cannot be an actual actuality without antedating itself. We are driven, then, to distinguish two kinds of actuality, potential and actual, without, however, the least shadow of insight into the distinction between them; and in order to do this we have to make causality temporal, which is impossible. Non-temporal causality, on the other hand, would be motionless on the impersonal plane, and would lead to nothing. Thus the doctrine of necessity finds itself in unstable equilibrium, between the groundless becoming of Hume's doctrine, in which events succeed one another without having any inner ground or connection, and a doctrine of freedom, in which the ground of connection and progress is to be found, not in any unmanageable metaphysical bond which defies all understanding, but in the ever-present freedom which posits events in a certain order and thus forever administers all that we mean by the

system of law, and founds all that we mean by necessity in things.[1] In addition, we recall the overthrow of rationality involved in all necessary systems.

Some traditional misunderstandings concerning the meaning of freedom must next be considered. First, it is supposed that freedom asserts pure lawlessness. This is sheer fiction. Freedom everywhere presupposes a basis of fixity or uniformity, to give it any meaning. Without this, of course, thought perishes. Now that this freedom and uniformity can coexist, is something which cannot be speculatively decided. The fact must be given as real before its possibility can be known. The abstract notion of freedom and the abstract notion of necessity are contradictory, just as the abstract notion of unity and plurality, or simplicity and complexity, is a contradiction; but then abstractions have no jurisdiction in the case. We must look away from the abstract notions to the concrete

[1] For a fuller discussion, see the Author's *Metaphysics*, revised edition.

facts, if we would get any light on this problem. There is no abstract freedom and no abstract necessity. Turning now to experience, we find given a certain measure of self-control and a certain order of uniformity. The former represents the only concrete notion of freedom we possess, and the latter represents the only concrete notion of necessity. Anything beyond this is abstract and fictitious.

The clearest illustration of the concrete union of these antithetical elements is found in thought itself. The laws of thought represent absolute fixities of mental procedure. They are the constants of the mental equation, representing no legislation of the will but the changeless nature of reason. They admit, then, of no abrogation or rebellion; and yet, while thus secure from all tampering and overthrow, they do not of themselves secure obedience. For this there is needed an act of ratification by the free spirit. The mind must accept these laws and govern itself in accordance with them. Only thus do we become

truly rational, and that by our own free act. Thus we discover freedom and uniformity united in reality, or rather we discover reality as having these opposite aspects. It is not compounded of them as if they preëxisted, but it manifests itself in this antithetical way. Thus we see that the assertion that freedom means lawlessness is mistaken. An element of uniformity must always be allied with freedom, even in the absolute being; at the same time we see that this element becomes controlling only through freedom.

The further objection that freedom would make science impossible is equally superficial. We must remind ourselves once more of the essentially practical nature of concrete science, and also of the hypothetical character of its deductions. Science exists to help us to understand and master our living experience, and only so far as it does this has it any real value or logical foundation. When it is freed from this aim, it becomes simply a baseless dogmatism. The debate between empiricism and apriorism also shows that neither school can

answer the question whether experience can be depended upon. The very stiffest apriorism can do no more than show that certain principles represent our mental constitution and determine the general form of our experience, but they give no security for the actual order of life. Space and time are mental forms, but they do not decide what shall appear in space and time. Causality is a necessity of thought, but it does not determine what events shall be caused or what the method of causality shall be. Thus all the laws of nature are contingent. They are specifications under certain apriori principles, but they are not necessary implications of any or all of them. Accordingly Mr. Mill has told us that we may never erect them into absolute laws, but must rather limit them to a "reasonable degree of extension to adjacent cases." This is really the sum of wisdom in the case. We are to refrain from dogmatism about the infinities and eternities, and hold our science for what it is worth. And if we are asked to explain the formula and tell what constitutes "adjacency" and what "de-

gree of extension" is "reasonable," the answer must be found in the range of our practical needs; that is, our faith must be practical rather than speculative, and must become vague and uncertain when the matter is far and permanently removed from any practical interest.

Now applying these considerations to the claim that freedom would make science impossible, we see how baseless it is when applied to any real science. Concrete science, as we have so often said, concerns itself solely with the modes of being and happening among things and events, or with the uniformities of coexistence and sequence to be found in experience. This work is entirely independent of the question of freedom. The belief in freedom vacates no science, whether of psychology or physics or chemistry. As we have seen, any actual freedom presupposes law and vanishes without it; and as we have also seen, no experienced law is incompatible with our freedom. We use the laws for the realization of our purposes. We govern the world and ourselves

through the laws revealed in experience. The laws left to themselves would realize none of our plans and products, but just as little could we ourselves realize them apart from the order of law. Freedom, then, is not opposed to physics or chemistry or psychology or any other modest science which studies the laws of things and events, but only to some absolute "Science," that is, that speculative theory which ignores the indications of experience and the practical aim and foundation of concrete science, and seeks to bind all things together in a scheme of necessity; and this, so far from being science, is only inconsistent and illiterate dogmatism, a pseudo-science and an enemy of humanity.

The abstract treatment of the subject has led to the fancy that the free person must be indifferent to all considerations of wisdom and knowledge. If he regards them at all, he shows that he is influenced by motives, and in so far is not free. This is pure abstraction. Suppose there were a free person with experience of life's meanings and insight into its values and

obligations. There is nothing in his freedom to hinder his acting rationally or to excuse him for acting irrationally; but how he will act does not find its sufficient ground in the "antecedent phenomena" alone, but also in the mystery of self-determination. And this is something which cannot be mechanically analyzed or deduced as a necessary resultant — it can only be experienced. The attempt to analyze it contradicts it. The attempt to construct it denies it. It can only be recognized as the central factor of personality, the condition of responsibility, and the basis of the moral life. Criticism cannot hope to construe it; it can only point it out as a fact, and show that the objections to it rest only on an imperfect understanding of thought itself.

Persons untrained in philosophic reflection will likely think that this view makes a poor foundation for science and philosophy, but they must be told that really it is the best foundation there is; and apart from closet intimidations it is good enough, and it works well enough in practice. We have no need to

inquire what science as abstraction demands, but rather what we human beings may demand, or assume. And here it is plain that we may not assume anything beyond those practical uniformities which we find verified in life; and when we go beyond this we are venturing at our own risk, and commonly with the more hardihood the less we know. There is no security for anything in the notion of necessity, as we have so often said; for as a matter of fact if the world be the expression of necessity, it is one which is compatible with change, and that being so, no one can tell how much change it may be compatible with. No reflection upon the pure notion of necessity tells us anything more than this, — that whatever happens or may happen is necessary, but what it may be that will happen we can tell only by waiting and seeing. From our point of view, the reason for the uniformity of things, or the progress of things, or the coming or the going of things, must be found at last in the will and plan of God. There is no better security than this in any abstract speculative principle, for every

such principle helps us only by begging the question. Indeed, there is really no other security, for intelligence is the only foundation of uniformity of which we have any experience. We know that intellect in its self-conscious activity can maintain uniformity throughout change; and when we thus assimilate the world order to self-consciousness we have a sense of insight and satisfaction which is lacking on any other view, apart from the fact that every other view simply begs the question. Our confidence in the orderliness of nature is really of a semi-ethical character, and so far as its existence as a mental fact is concerned, it is less a logical warrant than a psychological expectation. We give up, then, the whole scientific apparatus, from mechanics on, as anything ontological, and hold it only for its practical value in mastering experience. The fancy that it is reality itself, the true existence and dynamics of the universe, has been definitely set aside.

Now it is not science proper that opposes this view, but dogmatism; and this dogmatism

understands neither itself nor its problems. "We, the people," have an interest in discovering the practical uniformities in experience; "we, the people," are equally interested in vindicating the rational and moral values of life — which are also facts of experience; and "we, the people," are the only realities in the case, and the final court of appeal.

From this theistic point of view, as was pointed out in the second lecture, the universe is no fixed and completed static fact, but rather a process in which the divine thought is being progressively realized. When we combine this view with the subjectivity and relativity of time, we are freed from all the puzzles about the finitude or infinitude of the universe. Science is permitted to discover all it can about the space and time relations of events, and philosophy is permitted to discover all it can about the power and purpose behind events, but neither is permitted to erect the forms of our experience into absolute existences which would make experience itself impossible. The space and time laws, as we have

seen, contain no provision for stopping, but that decides nothing as to the space and time contents. On this point only experience can decide, and experience gives no indication. Similarly, we cannot do much with the notion of the universe as a "whole" or a "totality." In a vague way we must believe that all things have their place in the divine thought, but when we go beyond this and analyze the notion of a whole or totality as applied to the system of things, the air becomes so thin that breathing is difficult and flight impossible; and we fall a prey to logical chimeras and verbal illusions.

Mechanical causality vanishes with the independent existence of time, which is its fundamental condition. There is a certain picturability to it when its objects and events are spatially and temporally separate, but this completely disappears when space and time are made subjective. After that the doctrine becomes only a formal shuffling of verbal phrases, and we have absolutely no means of showing that there is any corresponding reality. We

have seen that any concept of the understanding must be formal and empty until some experience certifies it as real. We have no such experience in the case of mechanical causality, and hence, even if it were a consistent notion, it could never be shown to be a fact. Experience certifies only volitional causality as real, and our thought of causality must be either that or nothing.

And if it be asked how such causality is possible, the answer must be that the question itself is irrational. The basal fact, whatever it be, can never be construed in its possibility; that would be a denial of its fundamental character. All that can be done in the nature of the case is to show it to be a fact, and a fact that accounts for all other facts. Here we come again upon our transcendental empiricism. Intellect explains everything but itself. It exhibits other things as its own products and as exemplifying its own principles; but it never explains itself. It knows itself in living and only in living, but it is never to be explained by anything, being itself the only principle of

explanation. When we attempt to explain it by anything else, or even by its own principles, we fall down to the plane of mechanism again, and reason and explanation disappear together. But when we make active intelligence the basal fact, all other facts become luminous and comprehensible, at least in their possibility, and intelligence knows itself as their source and explanation.

When we consider the world as an object of knowledge, we come to personalism as the only tenable view. When we consider it from the standpoint of causality, we come equally to personalism as the only tenable view.

V

THE FAILURE OF IMPERSONALISM

Impersonalism might rightly be ruled out, on the warrant of our previous studies. We have seen that when our fundamental philosophic principles are impersonally and abstractly taken, they disappear either in contradiction or in empty verbalism. In all our thinking, when critically scrutinized, we find self-conscious and active intelligence the presupposition not only of our knowledge but of the world of objects as well. We might, then, rest our case and demand a verdict. Pedagogically, however, it seems better to continue the case. The naturalistic obsession is not easily overcome, and it takes time to form right habits of thinking, even when the truth is recognized. The present lecture, then, is devoted to showing somewhat more in detail the shortcomings of impersonal philosophy.

Impersonalism may be reached in two ways.

The sense-bound mind sees a great variety of extra-mental, impersonal things in the world about us, and these very naturally bulk large in thought. Thus things, with of course such modifications of the conception as a superficial reflection may suggest, tend to become the basal fact of existence. In this way naturalism arises, with its mechanical way of thinking and its materialistic and atheistic tendencies. This is one form of impersonalism.

The other form of impersonalism arises through the fallacy of the abstract. Uncritical minds always attempt to explain the explanation, thus unwittingly committing themselves to the infinite regress. Accordingly when they come to living intelligence as the explanation of the world, they fancy that they must go behind even this. We have the categories of being, cause, identity, change, the absolute, and the like; and intelligence at best is only a specification or particular case of these more general principles. These principles, then, lie behind all personal or other existence, as its presupposition and source, and constitute a

set of true first principles, from which all definite and concrete reality is derived by some sort of logical process or implication. This is a species of idealistic impersonalism. In its origin it is antipodal to naturalism, but in the outcome the two often coincide. Strauss said of the Hegelian idealism that the difference between it and materialism was only one of words; and this was certainly true of Hegelianism of the left wing.

These two forms of impersonalism we have now to consider, and we begin with naturalism.

As is the case with so many other terms, naturalism may have two meanings. It may be a principle of scientific method, and it may be a philosophic doctrine. In the former sense it is about identical with science itself, and is full of beneficence. By making the notion and fact of law prominent, it has given us control over the world and ourselves, and has freed the human mind from endless superstition and ignorance. Nature is no longer the

seat of arbitrary caprice; and life no longer swarms with omens, portents, and devils. One must read at length in the history of humanity to recognize our debt to naturalism in this sense. We live in peace and sanity where our ancestors lived among dangerous and destructive obsessions, because a wise naturalism has displaced the false supernaturalism of earlier times. When, therefore, we speak of the failure of naturalism, we do not mean the failure of scientific naturalism, for this is one of humanity's best friends.

But philosophical naturalism is another thing. This is not a science, but a philosophy, and it has to be subjected to philosophical criticism in order to estimate its value. This general view is closely allied to common-sense realism, and is indeed but a kind of extension or refinement of it. As the untrained mind is naturally objective in its thinking, the things and bodies about us are taken for substantial realities as a matter of course, and they tend in advance of reflection to become the standard by which all else must be measured and to

which all else must conform. Things that we can see and handle are the undeniable realities. About them there can be no question; but things invisible are, for common sense, doubtful; and as these things of sense experience by an easy generalization may be gathered under the one head, matter, and their activities ascribed to the one cause, force, matter and force come to be the supreme and basal realities of our objective experience. When their realm is extended, they often come to be viewed as the sole realities. But these realities are in space and time, which are looked upon as undoubted facts of a sort, and when they are combined with matter and force we get the fundamental factors of the scheme. Space and time furnish the scene; matter furnishes the existence; and force, manifesting itself in motion, furnishes the causality. These five factors constitute nature, and from them nature is to be construed and comprehended. Mr. Spencer presents them as the factors on which an interpretation of the world must rest, and according to him cosmic processes consist in

an integration of matter and concomitant dissipation of motion. Here space and time are implied, matter and motion are expressed, and force, as the backlying causality, is understood; and all interpretation of nature, it is said, must be in terms of these factors. This might be called the programme of philosophic naturalism. It aims to explain all the higher forms of experience, including life and society, in terms of matter and force working in space and time under the forms of motion. To what extent this is a coherent and consistent system we have now to consider, and for a time we shall limit our inquiry to its explanation of the objective world of bodies, postponing any inquiry into its explanation of life and mind and society.

This system, as said, is allied in its beginnings with common-sense realism, and never gets entirely away from it. Whatever changes may be made in the common-sense view in the direction of transfigured realism, it still commonly holds on to the conception of an impersonal order of things; and even when it trans-

forms things themselves into phenomena or processes, it still affirms the existence of energy under mechanical laws, producing a series of impersonal effects and moving from phase to phase according to the parallelogram of forces. It is an attempt to explain the world by impersonal and mechanical principles. Of course there is no suspicion that transfigured realism and phenomenalism are veritable Trojan horses for the theory.

This view was perfectly natural and almost necessary for spontaneous thought, when it became a little reflective and sought to unfold the implications of its crude sense metaphysics. But in this view we have a double abstraction. First, the objects of experience, which are given only in experience and which analysis shows are conceivable only as functions of intelligence, are abstracted from all relation to intellect as the veritable fact in itself which is later to explain intellect. This is as much as if one should abstract language from intelligence and then adduce language as the explanation of intelligence. The second

abstraction is that even in experience itself only one aspect is fixed on, that of extension and motion, and this is supposed to be the real. All else is accidental and subordinate, but matter and motion are beyond any question. The world of qualities, all that gives life to experience, is ignored, and only the quantitative aspect is retained. But this is another product of fiction. There is no such world except among the abstractions of physicists. It is as little real as the forms of abstract mechanics by which we represent the relations of phenomena, without, however, pretending to reproduce the actual causality. Oddly enough, there is a strong idealistic factor in this naturalistic mechanism. Looking at the moving atoms with critical eye, nothing but quantitative distinctions and relations are discovered to exist. Qualitative distinctions and relations are contributed by the spectator, and they are the chief part of the real problem. According to the theory, the fact would be a great multitude of elements falling apart and together according to the laws of motion, but

then there is very much more than this in experience. Indeed, this is not experience at all. A mind which could completely grasp the moving elements as they are in themselves and not in the appearance, would miss the most important part in the system, that is, the whole world of sense qualities and distinctions, in the midst and enjoyment of which we live. Thus the most important part of experience is not explained at all, but is handed over to a kind of subjective experience somewhere in consciousness, while the theoretical explanation applies only to abstractions. Thus we invert the true order of fact. We discredit the real experience, or ignore it, and triumphantly solve an imaginary problem. As pointed out in a previous lecture, we are shut up by this way of thinking to transfigured realism and all its fictitious problems, with the result that the world we experience becomes more and more subjective, while the alleged real world becomes less and less accessible and less and less worth knowing. This result we reach quite apart from

the phenomenality of the whole mechanical scheme as shown in Lecture III.

A further reflection on this view as it commonly appears in popular discussion is that on its own realistic ground it is throughout ambiguous. There are two entirely different types of explanation in logic, explanation by classification and explanation by causality; and naturalism oscillates confusedly between them. At times we are told that explanation consists entirely in discovering the uniformities of experience, and that the ultimate explanation must consist in discovering the most general uniformity of experience. At other times, however, the causal idea shuffles in and the attempt is made to explain by causality. We must consider both types in our criticism.

Explanation by classification always remains on the surface. Things are grouped together by means of some common factor of likeness, but we never get any insight into the inner nature of things in this way. Such explanation has only a formal convenience, but we never can reach causes or reasons by this road.

We merely unite similar things in groups or series, and thus rescue them from their isolation and get a common name for them all. Such explanation merely drops out the differences of things and retains the point or points in which they are similar, and then regards that as their true explanation. How little this in itself helps us to insight is manifest upon reflection. We may gather all living things under the one head, organism, but in this case we simply find a common term for a multitude of things, which are not identified in any way by the classification, but simply brought under a simple head for purposes of logical convenience. Organism applies to every living thing whether animal or vegetable, spore or tree, microbe or elephant; and these differences, which are really the essential things in the case, are simply dropped out of sight, and we have the one term, organism, by which we are to understand the multitudinous plurality of living things. In the same way we may regard all objects as cases of matter and motion. But we get by such classification exceed-

ingly little information. The generalization is so vague as to include all things at the expense of meaning practically nothing. We get very little valuable insight by classing all the products of human invention in the world as machines, or by classing all living organisms as integrations of matter and motion. It may be that they all come under the head of matter and motion in some aspects of their being, but even then we have no valuable information. It is, indeed, possible that some sciences would need to consider only the matter and motion aspect, just as a shoemaker might consider men only as shoe-wearing animals, and no harm would be done if this aspect were seen in its partial and superficial character. In some respects our human life is a case of matter and motion, and in some other respects it is not a case of matter and motion. There may be matter and motion in connection with thought, but thought is not matter and motion.

If the naturalistic formula, then, confines itself simply to such classification, it is plain that it might be in a way true, and equally

plain that it would be at best only a partial view and might be worthless, inasmuch as it would leave all the differences of things, which constitute their special peculiarities and the leading problem in dealing with them, out of consideration, and merely find their explanation in some one point in which they should agree. It would be scarcely more absurd if we should decide to explain all human bodies by the fact that they all had noses and ears, and should then leave out of consideration the multitudinous personal peculiarities whereby each is constituted a separate and incommunicable individual.

It is plain, then, that if the naturalistic explanation is to be of any use to us, it must go beyond these superficial generalities of classification, and must descend into the realm of causation, and also give account of the specific peculiarities or differentia of concrete things. And here difficulties begin to thicken.

Objects in space, large or small, can be pictured, and it seems at first as if the naturalistic view admitted of being really conceived.

We can easily imagine a variety of bodies in space variously grouped and moving, and these bodies might conceivably be very small, so as to give us the molecules or atoms of theoretical physics. These also admit in a way of being pictured in their spatial relations or combinations; but when we come to add to these the notion of causality, so as to explain the order of spatial and temporal change, we find grave difficulties arising. With bodies of the kind described, the only thing we can explain is amorphous masses; that is, with bare lumps we can explain only heaps. Unless we assume a mover without, we must posit moving forces within; and unless these forces are under some structural law, they will explain only amorphous masses again. Simply pulling and pushing in a straight line, as central forces are supposed to do, make no provision for organization. Assuming, then, the existence of such forces, we have a double order of facts, one of spatial change and one of a metaphysical nature. The former is a change among things; the latter is a change in things. The former

depends on the latter. All substantial changes among things must be viewed as translations into phenomenal form of dynamic relations in things, and the spatial system can be understood only through the dynamic system. No spatial change explains itself or anything else until it is referred to a hidden dynamism. If we subtract a chemical element from a given molecule no one can see the slightest reason in that fact for the resulting chemical change, unless we assume a system of dynamic relations within the elements themselves which determines the form of their manifestation and interaction, and this system must be as complex and various as the phenomena themselves.

If we had a great mass of type no one would be dull enough to suppose that that would explain literature, even in its mechanical expression. It might indeed be said that literature in its mechanical form arises through the differentiation and integration of type; but while this would be true it would hardly pay expenses, for the work of the compositor can-

not be done by polysyllabic words. But if we were determined to get along without the type-setter, we should have to endow the type with highly mysterious forces if they are to be equal to their task. Plain pushes and pulls would simply give us type in heaps or scattered about, as the pushes or pulls predominated, and this would not meet the case. We must have type which will pull and push themselves into the order demanded by the thought. Thus if the type were to set up "Paradise Lost," they would have to be such that sundry type would come to the front and arrange themselves in the following order:—

> "Of man's first disobedience and the fruit
> Of that forbidden tree whose mortal taste
> Brought death into our world and all our woe,
> Sing, heavenly muse."

The other type must likewise march to their proper positions in order to make up the work. But in that case it is plain that the idea of the work is already immanent in the constitution of the type, otherwise we should be seeking to explain the orderly result by the chance jostlings of the type. That this is impossible every

one can see in the case of typesetting. Every one sees here that the arrangement of the type is as much a part of the problem as their existence, and that the existence does not imply the arrangement. But if we insist on making the existence imply the arrangement, we must carry the arrangement into the existence in the form of "subtle tendencies" and "mysterious potentialities;" and these, in addition to being of exceedingly elusive meaning, do not illumine the problem at all, but rather darken it. To complete the parallel we must suppose that the type themselves were not originally given in their separate character, but only an indefinite, incoherent, unknowable homogeneity, which through continuous differentiations and integrations produced the type with all their specific characters and subtle tendencies and mysterious potentialities. This gives us an idea, on the naturalistic basis, of the necessity of a hidden dynamism for the explanation of spatial grouping and also of its unmanageable complexity.

This invisible dynamic system is overlooked

altogether by spatial thought. Such thought has only the atoms and the void as data, and it can easily conceive the atoms as variously grouped within this void. The spatial imagination serves for this insight and nothing more is demanded; but when thought is clarified to the point of seeing the necessity of forming an unpicturable dynamism behind the system of spatial changes, then the dark impenetrability of our physical metaphysics begins to appear. Spatial combination we can picture; volitional causality we experience; but what that is which is less than the latter and more than the former is an exceedingly difficult problem. The fact is, we are simply using formal counters here, and are unable to tell whether there is anything whatever corresponding to them. We believe that there must be cause and ground, and then we suppose that the atoms themselves can be causes; but when we attempt to think the matter through, then we soon find that we are applying the categories, as Kant would say, in a region where we have no experience, or rather no in-

tuition. The result is, our thought may be in a way formally correct, but we have no assurance that it represents any actual fact whatever. This, then, shows first of all the dark unpicturability of naturalistic metaphysics from the dynamic side; and remembering the results of the discussion of the previous lecture, we find reason for saying that this metaphysics is entirely fictitious. It is an attempt to apply the notion of causality under circumstances, and in a form, which it is impossible for us to construe.

Can life and mind and morals and society be explained on a naturalistic basis? These questions were warmly debated in the last generation, but seldom understood. How naïve it all was, is manifest as soon as we look at the matter from a more critical standpoint. The space and time world of phenomena explains nothing; it is rather the problem itself. The real account of anything must be sought in the world of power; and this world eludes us altogether, unless we raise power to include intelligence and purpose. The unpicturable no-

tions of the understanding, as substance, cause, unity, identity, etc., elude all spatial intuition, and vanish even from thought when impersonally taken. Concerning life and mind and man, it is permitted to look for all the uniformities we can find among their antecedents and concomitants, but this is only classification and reveals no causality. And any fairly clear-minded critic is willing to have anything whatever discovered in the space and time realm; for he knows that the only question of any real importance is that of causation. Those persons who expect to find matter to be the sufficient cause of life, and those who fear it may be, reveal thereby such profound ignorance of the true state of the problem that, while charity is called for, they merit no further consideration. Even if so-called spontaneous generation proved to be a fact, it would only mean that living things may arise under other phenomenal conditions than those that generally obtain; it would not mean that "material causes" are able of themselves to produce living beings. The wonder would lie altogether in the phe-

nomenal realm, and would leave the question of the power at work as obscure as ever. Thus as soon as we distinguish the question of classification and spatial arrangement from that of causality, we see how superficial naturalistic philosophy has been. Classification has passed for identification, phenomena have been made into things, and sequence has been mistaken for causality. This naïve confusion has made speculation very easy.

But supposing this dynamic difficulty in a way removed, we next meet another puzzle arising from overlooking the distinction between concrete and exhaustive thinking and symbolic or shorthand thinking. In other words, popular naturalism assumes that we have the simple physical elements in simple spatial relations, and that they are endowed with certain central forces of no very complex kind, but such that they admit of producing a great variety of complications, thus passing from the simple to the complex and from the homogeneous to the heterogeneous. Every one will recall at this point the current formula of evo-

lution, which claims to proceed from the like to the unlike, from the simple to the complex, from homogeneity to heterogeneity, through continuous differentiations and integrations. This difficulty is only a specification in detail of the tautology which inheres in every mechanical doctrine of causation, as pointed out in the last lecture.

This fancy is almost the sum of naturalistic philosophizing. If the infinite complexity of the concrete problem, in spite of all the simplifications and identifications of words, were seen, naturalism would lose all credit. The fancy in question is simply the fallacy of the universal, and rests upon mistaking the logical process for an ontological one, or from mistaking logical application for ontological implication. The class term applies to every member of the class, but it implies no one of them. Thus the term man applies to every human being, but it does not imply any living human being whatever. But this is overlooked by the speculator, and he thinks it very possible to pass from complexity to simplicity, from heteroge-

neity to homogeneity, and in this way he succeeds in reaching some simple, almost contentless, terms, and these, which are really the last terms of logical abstraction, are supposed to be the first terms of real existence. Then these terms, because very simple and vague and indefinite in themselves, seem to raise no questions and excite no surprise. They may well, then, be taken as original starting-points for world building and similar cosmological exploits. In this way, then, such abstractions as matter and force are reached, and they take the place of the physical elements, which are the only realities in the case. But in all this we simply forget the concrete facts. They remain as complex and multiform as ever. There is no simple thing, matter, and no simple fact, motion, to be distributed, but rather an indefinite number of moving things of various quantity and quality and in the most complex and mysterious dynamic relations. When we pass to the concrete we see the difference between the logical concept and the concrete reality, and we also see that logical simplification does not

affect the reality at all. When, then, we replace the physical elements by the logical abstraction, matter, we do not reach anything indefinite or incoherent or homogeneous. Each of these elements has its own definite qualities definitely related in a definite system of definite law. There is no incoherency in the real system, and no progress toward greater coherency, except in relation to standards which we impose upon the system. If we take the solar system as a standard, we may call the nebulous period incoherent. If we take a solid body as a standard, we may call a gas incoherent. If we take a mature organism as a standard, we may call the embryo incoherent. But in all these cases the incoherency is relative to an assumed standard, and is non-existent for the underlying nature of things and the system of law. The homogeneity and heterogeneity, the coherence and incoherence, are relative to the speculator and his point of view, and in fact are but shadows of himself.

We may, then, admit the evolution formula as a description of the order in which things

come along, such that the earlier forms were simple and homogeneous and the later forms more complex and differentiated; but we cannot admit that this represents any possible order of mechanical causality or any simplification of the concrete problem. We can never by classification reduce our problem to lower terms. If we begin with the complex no logic will enable us to escape into the simple on the impersonal plane, and if we begin with the simple we can never advance to the complex. Whatever we begin with, we are compelled to retain, however far back we may reason. The law of the sufficient reason compels us to find in the premises full and adequate preparation for the conclusion; and if the conclusion be complex, then there must be corresponding complexity in the premises. We may call it potential rather than actual, but all the same we are compelled to make our antecedents such that when they are exhaustively understood they are seen to contain, even to the minutest detail, all that will ever appear in the conclusion. The logical equivalence of cause and

effect in any necessary scheme to which we referred in the last lecture makes this absolutely necessary, and hence makes it forever impossible to look upon the evolutionary doctrine as valid in causation. If we suppose a cause apart from the movement, which is successively manifesting a plan beginning with the early and simple forms and then proceeding to higher and more complex and differentiated forms, we can understand that by assimilating it to our own intellectual life; but apart from that the doctrine is absolutely impossible. We are compelled on the impersonal plane to assume everything either actually or potentially at the beginning, or, if there was no beginning, then to assume it from everlasting.

The two conceptions of evolution, evolution as a description of the phenomenal order and evolution as a doctrine of causation, have never been sufficiently distinguished by the rank and file of speculators in this field. They have taken the phenomenal order for the causal order, and have seldom raised the question as to what their evolution really means and

what its conditions may be. Accordingly we have the proposition to evolve the atoms, with all the familiar formulas about passing from the homogeneous to the heterogeneous, etc. Nowadays that the supposedly fixed elements seem to be combinations of something simpler, this attempt is frequently met with. It is suggested that the atoms of those substances which lie in the same chemical group are perhaps built up from the same ions, or at least from ions which possess the same mass and electric charge, and that the differences which exist in the materials thus constituted arise more from the manner of the association of the ions in the atom than from differences in the fundamental character of the ions which build up the atoms. Well, here we have the same thing—the attempt to explain qualitative by quantitative difference, and the same failure to inquire what the attempt really presupposes.

If we should conceive a half-dozen bricks placed one at each angle of a pentagon and one at the centre, and should then conceive

an additional brick added so as to have one at each angle of a hexagon and one at the centre, we see no reason whatever for any particular change of quality of the combination arising from the addition of the new brick. And that is all that bare quantity can do. No variations of quantity contain any explanation of qualitative change, unless we assume a qualitative system in connection with the quantity. We can add elements to atomic groups or subtract them; but unless the elements themselves stand in definite dynamic relations which imply particular groups and qualities, to the exclusion of other groups and qualities, we cannot deal with the problem at all. If the atoms are not in such relations, the problem is of course insoluble; and if they are in such relations, we assume the fact to be explained from the start. It is then conceivable that our present elements might be analyzed into other elements which might be called simpler, but the thing which is not possible is by such an analysis to escape from the complexity of the existing system, because we should have

to trace into those antecedents which are to produce the present complexity and difference the same complexity and difference in one form or another.

Moreover, in thinking the matter through we should have to inquire whether evolution as such assumes anything or not. Does it begin with something vague, formless, and lawless, or does it begin with a definite system and reign of law, so that everything is determined in its place and relation? In the former case we can take no step whatever in the way of understanding anything. It would be simply the notion of pure being, which is nothing, and which, if it were anything, could never be used for the understanding of experience. But if we begin with a definite system of law, in which all the factors are subject to the reign of law, then it is plain we never can introduce anything new into the system, for everything is determined from the beginning; and if there was no beginning, everything was determined from everlasting. In any mechanical system, under the

law of the logical equivalence of cause and effect, it is forever impossible to make new departures or to reach anything essentially new. We can only oscillate between the present actuality and the past potentiality, potentializing the present as we go back in our thought, and actualizing the potentiality as we come forward in our thought, but always so that potential plus actual must remain a constant quantity. In popular thought about this matter there is a continual oscillation, for the most part unsuspected, between the two points of view. We try to explain everything by antecedents, and so by the aid of the fallacy of the universal as we go backward we succeed in reaching to our satisfaction some indefinite, incoherent homogeneity. But logic forthwith shows the emptiness of this notion and the impossibility of reaching it. Then we begin again, mindful this time of the reign of law, and assume an order of law, and then fail to notice that as soon as we do that, on the impersonal plane we have determined everything for all future time, so that nothing new may

hereafter be introduced without some irruption from without. No new departures are possible in a mechanical scheme.

The same difficulty appears when we work the question forward instead of backward. Here again the naturalistic speculator has commonly been under the influence of sense bondage and has tacitly assumed that what he could not see was not there, so that differences which did not manifest themselves to the senses might be regarded as non-existent. But the same law which we have been referring to makes it clear that no developing thing can ever be understood or defined by what it momentarily is, but only by all that which it is to become. It can be explained, then, not by reference to its crude beginnings, but only by reference to the finished outcome. Aristotle reached this insight two thousand years ago. When, then, the biological speculator tells us, as if it were a very conclusive fact, that the embryos of many of the higher animals look alike in their earliest stages, we are not so much impressed as perhaps we are expected to be;

for, however much things may look alike, if they are under different laws of development they are, to the eye of reason, even in the earliest phases, unlike with all the unlikenesses that later appear. The human embryo, when it is undistinguishable by sight from the embryo of a dog or sheep, is after all a human embryo, and not the embryo of a sheep. It is already under the law of human development, and when it quickly passes into the human form this is not something adventitiously taken on through some verbal hocus-pocus about differentiation and integration, but is simply the manifestation of the immanent organic laws under which it holds its existence and its development takes place.

The whole question of the transformation of species has been equally confused in naturalistic discussion. There are really two questions to be considered. One is, Can existing organic forms be genetically traced to earlier forms so that the lines of descent as we go backward converge to some common origin, as the branches of a tree all meet in a common

trunk? The other question is, What are the individual things themselves, and what is the power that produces them? The former question belongs to science, the latter belongs to philosophy.

The former question has only a subordinate interest, and philosophy is content to have the answer fall out as it may, provided fact and logic be duly regarded. Its supposed importance is due to the implicit assumption of a self-running nature which does a great many unintended things on its own account, and to the fancy that such genetic connection would mean identity of nature in the successive members of the series.

The second question is the only one of any real importance. In considering it we must first note the nominalism of the doctrine of descent.

A species as such is nothing but a group of individuals which more or less closely resemble one another. In the case of the more prominent living species we should probably add the notion of genetic connection, but this

would in no way affect the nominalism of the doctrine. If, then, the so-called transformation of species took place, the objective fact, apart from our logical manipulation, would be this: If individuals were taken from points widely apart in a line of descent, they would be so unlike that we should not class them together. But this would not identify individuals, or higher and lower forms. The fact would be a power producing individuals in such a way that they could be variously classified, possibly on an ascending scale and in adaptation to higher and fuller life. In that case we should have the familiar progress from the simple to the complex, from the low to the high, and all the rest; but it would be entirely free from all those fearsome identifications of man with the monkey, etc., which have so infested the popular imagination. For one holding the phenomenality of nature and the volitional character of all so-called natural causality, there is nothing to excite alarm in any permissible doctrine of the transformation of species.

We find naturalism, then, entirely in its right when it seeks to give a description of the phenomenal order according to which things have appeared, but we find it as a philosophy exceedingly superficial and uncritical. Apart from the critical doubts which we have discovered in the previous lecture respecting mechanical causality in general, and the necessity of lifting the problem of causation to the personal plane in order to keep it from vanishing in the Heraclitic flux, we find that this doctrine vanishes in complete and barren tautology as soon as we take it concretely and exhaustively, instead of symbolically and in a shorthand way. This way of thinking is compelled to carry the present into the past, or into its machinery of whatever sort, in such a way as to empty it of all progress of any kind. When, then, in such a scheme we make a cross section of the cosmic flow or any part of it anywhere, we are compelled to find potentially or actually present all that ever will be; and if we choose to carry the regress never so far back, the same necessity attends us; and if at last we reach

some nebulous period of dispersed matter or a fiery cloud, even there, when we look around upon the situation with our eyes open, we are compelled to find latent and potential all that will ever emerge in all the future through which the system may endure. In addition, when naturalism becomes mathematical and seeks to reduce all qualitative distinctions to quantitative ones, it leaves the real world altogether, and becomes a pure abstraction like the world of abstract mechanics. Like that world, it has only representative value, and is never to be mistaken for the world of real existence.

These are the leading difficulties of naturalism as a philosophy. There are numberless difficulties of detail, but into these we forbear to enter. The doctrine is sufficiently convicted and judged by its doctrine of causality, and the hopeless tautology and endless regress to which it is condemned, and also by the impossibility of verifying as actual any of its leading conceptions. They must forever remain, at best, mere conceptual forms, to which no reality can be shown to correspond.

Naturalism may be dismissed as a failure. It remains to show that impersonalism as idealism is equally so. When we approach the metaphysical problem from the side of knowledge, it is easy to overlook the fact of will and causality in existence, and conclude that things are only ideas. And then, since the mind also is an object of knowledge, it is easy in the same way to reach the conclusion that it too is only an idea or group of ideas. The next thing is to eliminate the personal implication from these ideas, and then we forthwith reach the conclusion that the mind itself is a function of impersonal ideas. Thus impersonalism is once more installed.

It is easy to see how this view arises. The epistemological interest makes us unwilling to admit anything that cannot be conceptually grasped. Accordingly it seeks to make ideas all-embracing. At the same time it is clear that this view is a tissue of abstractions. The impersonal idea is a pure fiction. All actual ideas are owned, or belong to some one, and mean nothing as floating free. We have al-

ready seen that the various categories of thought, apart from their formal character as modes of intellectual procedure, get any real significance only in the concrete and self-conscious life of the living mind. Apart from this, when considered as real they become self-destructive or contradictory. The idealism of the type we are now considering assumes that these categories admit of being conceived in themselves, and that they are in a measure the preconditions of concrete existence, and in such a way that we might almost suppose that a personal being is compounded of being plus unity plus identity plus causality, etc. Thus personal existence appears as the outcome and product of something more ultimate and fundamental. The fictitious nature of this view has already appeared. When we ask what we mean by any of these categories, it turns out, as we have seen, that we mean the significance we find them to have in our self-conscious life. In the concrete the terms have no meaning except as it is abstracted from our own personal experience. The only unity we know anything about,

apart from the formal unities of logic, is the unity of the unitary self; and the only identity we know anything about is no abstract continuity of existence through an abstract time, it is simply the self-equality of intelligence throughout its experience. And the change which we find is not an abstract change running off in an abstract time, but is simply the successive form under which the self-equal intelligence realizes its purpose and projects the realizing activity against the background of its self-consciousness. Similarly for being itself; in the concrete it means the passing object of perception, or else it means existence like our own.

So much for the nature of the categories. But still graver difficulties arise when we inquire concerning the place of their existence and the ground of their combination and movement. If we suppose them to precede personality, we must ask where they exist. The only intelligent answer that can be given would be that they exist either in space and time, or in consciousness. The former supposi-

tion would turn them into things, and then they would dissolve away in the dialectic of spatial and temporal existence ; the latter is contrary to the hypothesis, which is that they are preconditions of consciousness. Thus they retreat into some kind of metaphysical *n*th dimension, where we cannot follow them because they mean nothing.

A further difficulty emerges when we ask for the ground of grouping and movement of these ideas. If we conceive their relations to be purely logical we should make immediate speculative shipwreck. The intellect conceived of as merely a set of logical relations is totally incapable of explaining the order of experience, for logic is non-temporal. Conclusions coexist with the premises. There is no before or after possible in the case. If, then, the universe as existing were a logical implication of ideas, it and all its contents would be as eternal as the ideas. There would be no room for change, but all their implications would rigidly coexist. In this view also finite minds, with all their contents, as implications of eter-

nal ideas, would be equally eternal; and as error and evil are a manifest part of these contents, it follows that they likewise are necessary and eternal. Hence we should have to admit an element of unreason and evil in the eternal ideas themselves; and by this time the collapse of the system would be complete. There is no escape from this result so long as we look upon the intellect as a logical mechanism of ideas. Only a living, active, personal intelligence can escape this fatalism and suicidal outcome of the impersonal reason. A purely logical and contemplative intellect that merely gazed upon the relations of ideas, without choice and initiative and active self-direction, would be absolutely useless in explaining the order of life.

The claim that thought must comprise everything is itself unclear in its meaning. In our human thinking of course there is a world of objects which we do not make but find, and this dualism can never be eliminated from our thinking. But this world of objects is retained within the thought sphere by being made the

product and expression of intelligence, and as such it is open to apprehension and comprehension by intelligence. But when it comes to the self-knowledge of intelligence, there is always an element which mere conceptual knowing can never adequately grasp. We have seen that concepts without immediate experience are only empty forms, and become real only as some actual experience furnishes them with real contents. Hence there is an element in self-knowledge beyond what the conceptions of the understanding can furnish. This is found in our living self-consciousness. We conceive some things, but we not only conceive, we also live ourselves. This living indeed cannot be realized without the conception, but the conception is formal and empty without the living. In this sense intelligence must accept itself as a datum, and yet not as something given from without, but as the self-recognition of itself by itself. Intelligence must always have a content for its own recognition. The recognition would be impossible without the content, and the content would be

nothing without the recognition. In this fact the antithesis of thought and being finds recognition and reconciliation; but the fact itself must be lived, it cannot be discursively construed. Thought and act are one in this matter, and neither can be construed without the other.

In closing this discussion we recall once more our doctrine of transcendental empiricism. The meaning and possibility of these terms must finally be found in experience itself, and not in any abstract philosophizing. When the terms are abstractly taken without continual reference to experience, it is easy to develop any number of difficulties and even contradictions in our fundamental ideas. No better proof of this can be found than Mr. Bradley's work on Appearance and Reality. This is a work of great ability, but written from the abstract standpoint. The result is that it might almost be called a refutation of impersonalism, although such refutation was far enough from Mr. Bradley's purpose. He finds all the categories and relations of thought

abounding in contradiction. Inherence, predication, quality, identity, causality, unity, space, time, things, and even the self, swarm with contradictions. Mr. Bradley seems to think that these difficulties are all removed in the absolute, but he fails to see that his logic would pursue him even into the absolute, unless it be personally conceived. Otherwise the absolute is simply a *deus ex machina* kept strictly behind the scenes, and worked only by stage direction from the manager.

But the difficulties urged by Mr. Bradley do exist for all impersonal philosophy; and they can be removed only as the problem is raised to the personal plane, and we take the terms in the meaning they have in living experience. Thus identity is entirely intelligible as the self-identification of intelligence in experience. We can easily give identity a meaning according to which the soul is not identical, but there is no loss in this, as we have no interest speculative or practical in such identity. Again, unity is entirely intelligible as the unity of the self in the plurality of its

activities. Here again it is easy to define unity in such a way as to exclude plurality; but here also nothing is lost, for we have no interest of any sort in such a unity. The same may be said of the other categories. They may easily be defined in such a way as to involve contradictions or make them worthless, but philosophy is not concerned over the fate of such abstractions; it cares only to know the forms the categories take on in living experience. And here we find, as we pointed out in discussing freedom, that many things which when abstractly taken seem contradictory prove quite compatible in the concrete.

Finally, the notion of the self can easily be taken in such a way as to be worthless. We are asked of what use the self is, after all, in explaining the mental life. How does its unity explain the plurality and variety of consciousness? And the answer must be that in some sense it does not explain it, and yet the unity is no less necessary. For the consciousness of plurality is demonstrably impossible without the fact of conscious unity. This unity does

not indeed enable us to deduce plurality, and hence the plurality must be viewed as an aspect of the unity, but not as an aspect of an abstract unity without distinction or difference, but a living, conscious unity, which is one in its manifoldness and manifold in its oneness. Taken verbally this might easily be shown to be contradictory, but taken concretely it is the fact of consciousness, and none the less so because our formal and discursive thought finds it impossible to construe it. And in general the self taken abstractly is indeed worthless, as all causes are on the impersonal plane. The law of the sufficient reason, which is supposed to demand causation, always shuts us up to barren tautology when impersonally taken. In such cases all our explanations only repeat the problem. But the self is not to be abstractly taken. It is the living self in the midst of its experiences, possessing, directing, controlling both itself and them; and this self is not open to the objection of barrenness and worthlessness, being simply what we all experience when we say me or mine. This self

can never be more than verbally denied, and even its verbal deniers have always retained the fact. The language of the personal life would be impossible otherwise.

On all of these accounts, then, we affirm that impersonalism is a failure whether in the low form of materialistic mechanism or in the abstract form of idealistic notions, and that personality is the real and only principle of philosophy which will enable us to take any rational step whatever. We are not abstract intellects nor abstract wills, but we are living persons, knowing and feeling and having various interests, and in the light of knowledge and under the impulse of our interests trying to find our way, having an order of experience also and seeking to understand it and to guide ourselves so as to extend or enrich that experience, and thus to build ourselves into larger and fuller and more abundant personal life.

The metaphysics of impersonalism is certainly impossible, but it may be objected that

personalism itself is open to at least equal objection. Some of these have become traditional and conventional, and seem to call for a word in passing.

In cruder thought the attempt is always made to solve the problem by picturing, and this ends by confounding the person with the physical organism. Of course it is easy to show that personality as thus conceived is impossible. The more significant objections arise from an abstract treatment of the subject and an attempt to construe personality as the outcome of impersonal principles. But abstraction can do nothing with the question, as the indications of living experience are the only source of knowledge in this matter. Personality can never be construed as a product or compound; it can only be experienced as a fact. It must be possible because it is given as actual. Whenever we attempt to go behind this fact we are trying to explain the explanation. We explain the objects before the mirror by the images which seem to exist behind it. *There is nothing behind the mirror.*

When we have lived and described the personal life we have done all that is possible in sane and sober speculation. If we try to do more we only fall a prey to abstractions. This self-conscious existence is the truly ultimate fact.

Of course our human existence, with its various limitations and its temporal form, readily lends itself to the thought that personality develops out of the impersonal. If we should allow this to be the fact in our own case, we should still have to admit that the impersonal out of which our personality develops has already a coefficient of personality as the condition of the development. The essentially impersonal can never by any logical process other than verbal hocus-pocus, which is not logical after all, be made the sufficient reason for a personal development. But our existence does not really abut on, or spring out of, an impersonal background; it rather depends on the living will and purpose of the Creator. And its successive phases, so far as we may use temporal language, are but

the form under which the Supreme Person produces and maintains the personal finite spirit.

The objections to affirming a Supreme Person are largely verbal. Many of them are directed against a literal anthropomorphism. This, of course, is a man of straw. Man himself in his essential personality is as unpicturable and formless as God. Personality and corporeality are incommensurable ideas. The essential meaning of personality is selfhood, self-consciousness, self-control, and the power to know. These elements have no corporeal significance or limitations. Any being, finite or infinite, which has knowledge and self-consciousness and self-control, is personal; for the term has no other meaning. Laying aside, then, all thought of corporeal form and limitation as being no factor of personality, we must really say that complete and perfect personality can be found only in the Infinite and Absolute Being, as only in Him can we find that complete and perfect selfhood and self-possession which are necessary to the fullness

of personality. In thinking, then, of the Supreme Person we must beware of transferring to him the limitations and accidents of our human personality, which are no necessary part of the notion of personality, and think only of the fullness of power, knowledge, and selfhood which alone are the essential factors of the conception.

Thus impersonalism appears as doubly a failure. If we ask for the positive foundation of its basal conceptions, we find that there is none. They are empty forms of thought to which no reality can be shown to correspond, and upon criticism they vanish altogether. If we next ask what insight impersonalism gives into the problems of experience, we find nothing but tautology and infinite regress. Such a theory surely does not pay expenses. The alternative is personalism or nothing.

VI

THE PERSONAL WORLD

One great difficulty in bringing popular thought to better philosophical insight lies in its bondage to sense objects. Things that can be seen and handled are preëminently real, and there is always a tendency to think that only such things are real. In this state of mind it is exceedingly difficult for any doctrine of idealistic type even to get a hearing, as it seems so plainly absurd. Some relief from this obsession may be obtained by pointing out how large a proportion of our human life is even now invisible and impalpable. In this way the sense-bound mind may be made more hospitable to the thought of invisible and non-spatial existence in general.

First of all, we ourselves are invisible. The physical organism is only an instrument for expressing and manifesting the inner life, but the living self is never seen. For each person

his own self is known in immediate experience and all others are known through their effects. They are not revealed in form or shape, but in deeds, and they are known only in and through deeds. In this respect they are as formless and invisible as God himself, and that not merely in the sense of being out of sight, but also in the sense of not lying within the sphere of visibility in any way. What is the shape of the spirit? or what the length and breadth of the soul? These questions reveal the absurdity of the notion without criticism.

Indeed, the most familiar events of everyday life have their key and meaning only in the invisible. If we observe a number of persons moving along the street, and consider them only under the laws of mechanics, and notice simply what we can see or what the camera could report, the effect is in the highest degree grotesque. A kiss or caress described in anatomical terms of the points of contact and muscles involved would not be worth having in any case, and would be unintelligible to

most of us. And all our physical attitudes and movements seem quite ridiculous whenever we consider them in abstraction from their personal meaning or the personal life behind them. What could be more absurd than a prayer described in physical terms of noise and attitude, apart from the religious meaning? Or what could be more opaque than a description of a scientific experiment in terms of bodies and instruments, apart from a knowledge of the problem and of the unseen persons who are trying to solve it? But the grotesqueness in these cases does not exist for us, because we seldom abstract from our knowledge of personality so as to see simply what sense can give. These physical forms we regard as persons who are going somewhere or are doing something. There is a thought behind it all as its meaning and key, and so the matter seems to us entirely familiar. Thus out of the invisible comes the meaning that transforms the curious sets of motions into terms of personality and gives them a human significance. Indeed, our estimate even of the body itself

depends largely upon its connection with the hidden life of the spirit. A human form as an object in space, apart from our experience of it as the instrument and expression of personal life, would have little beauty or attraction; and when it is described in anatomical terms there is nothing in it that we should desire it. The secret of its beauty and value lies in the invisible realm.

The same is true of literature. It does not exist in space or time or books or libraries, but solely in the invisible and non-spatial world of ideas and consciousness. A person looking for literature in a book or in a library would hopelessly err and stray from the way, because all that can be found there would be black marks on white paper and collections of these bound together in various forms, which would be all that eyes could see. But this would not be literature, for literature has its existence only in mind and for mind as an expression of mind, and is simply impossible and meaningless in abstraction from mind. Similarly with history. Our human history never

existed in space and never could so exist. If some visitor from Mars should come to the earth and look at all that goes on in space in connection with human beings, he would never get any hint of its real significance. He would be confined simply to integrations and dissipations of matter and motion. He could describe the masses and groupings of material things, but in all this he would get no suggestion of the inner life which gives significance to it all. As conceivably a bird might sit on a telegraph instrument and become fully aware of the clicks of the machine without any suspicion of the meaning or existence of the message, or a dog could see all that eyes can see in a book yet without any hint of its meaning, or a savage could gaze at the printed score of an opera without ever suspecting its musical import, so this supposed visitor would be absolutely cut off by an impassable gulf from the real seat and significance of human history. The great drama of life, with its likes and dislikes, its loves and hates, its ambitions and strivings, and manifold ideas, inspirations,

and aspirations, is absolutely foreign to space, and could never be in any way discovered in space. So human history has its seat in the invisible.

Similarly with government. The government does not exist in state-houses or halls of Congress. It is a relation of personal wills, as all society is likewise a relation of personal wills, with their background of conscious affection, ideas, and purposes. It is in this hidden realm that we live, and love or hate, obey or disobey, and live in peace or strife. Wars have not existed in space, and real battlefields are in the unseen. They are the conflicts of ideas, of aspirations, of mental tendencies, and all the fighting that ever took place in space was but a symbol and expression of the inner unpicturable strife. And this illustrates what is true of the whole life of man. Love and hate, desire and aspiration, exaltation and depression, the whole contents of human life, in short, are invisible, and the spatial is merely the means of expressing and localizing this unpicturable life; it has only symbolical sig-

nificance for the deeper life behind it. All this our Martian visitor would miss, that is, he would miss man and his history altogether.

Thus we see to what a large extent human life is now in the invisible realm, and that, as said, not merely in the sense of being out of sight, but as something that does not admit in any way of being pictured. It may use spatial phenomena as a means of expression, but in itself it is strictly unpicturable. And for this great world of reality, if we must have a whereabouts, we must say that not space but consciousness is its seat. These things belong not to a space world, but to the world of consciousness, which is something very different. This is the seat of the great human drama of individual life and of human history. This would be the case on any view of space whatever, but it is self-evidently the case when we view space as subjective, for then the world of consciousness becomes the seat of all worlds, not merely the world of history and personal relations, but also and equally the seat of the

world of space appearance and the world of physical science. It will be noted, however, that this view in no way denies the reality of the human world. It merely relocates it. That world remains all that it was before and is just as real as ever. We have simply discovered that it is not to be thought of in phenomenal terms of space and time, but rather in terms of itself, in the incommensurable terms of life and feeling, and love and hate, and aspiration or dejection, and hope and despair, etc. Similarly the space world is not made unreal by this general view. We simply mean that it is not a self-sufficient something by itself, but is rather a means of expression of the underlying personal life which is the deepest and only substantial fact.

The more we dwell upon this view the more mysterious our life becomes for the imagination. We see that our life now actually goes on in the invisible, and that space has only a symbolical function with respect to this hidden life. We impress ourselves upon the spatial system and manifest our thought and purpose

in it and through it, but the actors never appear. So far as concerns man, the space world has the ground of many of its determinations in the invisible world of human thought and purpose, and is constantly taking on more and more our human image and superscription. In its relation to man the space world is largely a potentiality, waiting for realization by man himself. There are harvests waiting to grow and flowers waiting to bloom, but it cannot be until man sets his hand to the work. The flora and fauna of the earth are increasingly taking their character from our will and purpose. Even climate itself is not independent of our doings or misdoings. So far as we are concerned, the space world is nothing complete and finished in itself, but is forever becoming that which we will it to be. And when we recognize our own invisibility and the symbolical character of space as only a means of expressing our hidden thought and life, we find a growing hospitality toward the view that there is a great invisible power behind the space and time world as a whole,

which is using it for expressing and communicating its purpose.

Unless, then, appearances are unusually deceitful in this case, it is plain that man is no impotent annex to a self-sufficient mechanical system, but is rather a very significant factor in cosmic ongoings, at least in terrestrial regions. He is an inhabitant of the invisible world, and projects his thought and life on the great space and time screen which we call nature. But naturalism, in its sense bondage, misses all this, and seeks for man in the picture world of space images, where, in the nature of the case, he can never be. With this initial blunder, man becomes less and less in the system, first a phenomenon, then an "epiphenomenon," and finally he tends to disappear altogether. Meanwhile matter and motion go on integrating and dissipating as per schedule, and $\frac{1}{2}M\,V^2$ remains a constant quantity. The whole history of thought contains no more grotesque inversion of reason.

A world of persons with a Supreme Person at the head is the conception to which we

come as the result of our critical reflections. The world of space objects which we call nature is no substantial existence by itself, and still less a self-running system apart from intelligence, but only the flowing expression and means of communication of those personal beings. It is throughout dependent, instrumental, and phenomenal. But a problem remains in the relation of these finite spirits to the Absolute Spirit. This problem also has suffered from an abstract treatment, which has led to many pernicious errors.

Metaphysics shows that we cannot explain the existence and community of the many without affirming a fundamental reality which is truly one, and which produces and coördinates the many. When we ask for the relation of the many to the one, the imagination tries to solve the problem by some quantitative conception, as that the many are made out of the one, or are included in the one, as the parts are included in the whole. The multitudinous suggestions of this kind are set aside by the insight that these quantitative ideas

are incompatible with the true unity of the one. Metaphysics shows that the fundamental reality must be conceived not as an extended stuff, but as an agent to which the notion of divisibility has no application. When we further recall that this agent must be regarded as self-conscious intelligence, the untenability of any quantitative conception becomes self-evident. The conception of the many as made out of the one, or as resulting from any fission or self-diremption of the one, or as being the parts of the one, — its "internally cherished parts," — is seen at once to be an attempt of the uncritical imagination to express an unpicturable problem of the reason in the picture forms of the spatial fancy. When these reflections are continued, we reach the result that the unpicturable many must be conceived as unpicturably depending on the unpicturable one.

This result has been perhorresced by many able thinkers in recent times as committing us to a destructive and pernicious pantheism, and they have taken refuge in an impossible

pluralism. Some have gone so far as to hold that the many have always existed, as the only means of rescuing finite personality. But surely this is to throw the child out with the bath. The dangers against which these thinkers protest are indeed real, and their pernicious character is clearly seen in the Vedanta philosophy of India. But there is no relief in such a despairing pluralism. The way out must be sought in a careful scrutiny of our terms and a resolute adherence to experience itself in its form of transcendental empiricism.

It would be easy to fall into pantheism at this point by emphasizing the dependence of the finite spirit, or by taking that dependence in an abstract and absolute sense. We must guard against this by observing that words here can never be adequately defined by the dictionary, but only by carefully noting the facts they are meant to express. Now when we consider our life at all critically, we come upon two facts. First, we have thoughts and feelings and volitions which are inalienably our own. We also have a measure of self-control, or the power

of self-direction. Here, then, we find in our experience a certain selfhood and a relative independence. This fact constitutes our personality. The second fact is that we cannot regard ourselves as self-sufficient and independent in any absolute sense. And a further fact is that we cannot interpret our life without admitting both of these facts, and that to deny either lands us in contradiction and nonsense. Now our independence means just that experienced limited self-control; and our dependence means just that experienced lack of self-sufficiency. How these two aspects of experience can be combined in the same being we cannot tell, any more than we can tell how freedom and uniformity can be united in the same being. But we find them thus united nevertheless. It is only as we take the ideas abstractly that we find them contradictory; what they may be in reality can be learned only from experience. We have no insight whatever into real possibility or impossibility which will enable us to decide one way or the other apart from experience. The depend-

ence, then, of the finite spirit, in the sense of its non-self-sufficiency, does not prove its nothingness or unreality; and this dependence, as said, must be interpreted by the facts and not by the dictionary. It is permitted to mean only what we find it to mean in living experience.

The pantheistic view, on the other hand, has insuperable difficulties. The problem of knowledge, we have before seen, is insoluble except as we maintain the freedom of both the finite and the infinite spirit. That all things depend on God is a necessary affirmation of thought, but that all things and thoughts and activities are divine is unintelligible in the first place, and self-destructive in the next. That God should know our thoughts and feelings and should perfectly understand and appreciate them is quite intelligible, but that our thoughts and feelings are his in any other sense is a psychological contradiction. If, however, we insist on so saying, then reason simply commits suicide. It is God who thinks and feels in our thinking and feeling, and hence it is God who

blunders in our blundering and is stupid in our stupidity, and it is God who contradicts himself in the multitudinous inconsistencies of our thinking. Thus error, folly, and sin are all made divine, and reason and conscience as having authority vanish.

In addition to these difficulties the divine unity itself disappears. What is God's relation as thinking our thoughts to God as thinking the absolute and perfect thought? Does he become limited, confused, and blind in finite experience, and does he at the same time have perfect insight in his infinite life? Does he lose himself in the finite so as not to know what and who he is, or does he perhaps exhaust himself in the finite so that the finite is all there is? But if all the while he has perfect knowledge of himself as one and infinite, how does this illusion of the finite arise at all in that perfect unity and perfect light? There is no answer to these questions so long as the Infinite is supposed to play both sides of the game. We have a series of unaccountable illusions, and an infinite playing hide and seek

with itself in a most grotesque metaphysical fuddlement. Such an infinite is nothing but the shadow of speculative delirium. These difficulties can never be escaped so long as we seek to identify the finite and the infinite. Their mutual otherness is necessary if we are to escape the destruction of all thought and life.[1]

This mutual otherness is equally demanded by the moral and religious relation which we have next to consider. Pantheism is not a religion, but an inconsistent philosophical speculation. Religion demands the mutual otherness of the finite and infinite, in order that the relation of love and obedience may obtain. Both love and religion seek for union, but it is not the union of absorption or fusion, but rather the union of mutual understanding and sympathy, which would disappear if the otherness of the persons were removed. Any intelligible or desirable longing after God or identification with him would vanish if we should "confound the persons." The extravagant language of mysticism on this point is the

[1] See Author's *Metaphysics*, revised edition, p. 102.

expression of religious desire, and is never to be literally taken.

The metaphysical relation of dependence in itself has no religious quality. It applies to all finite things alike, and is compatible with complete lack of spiritual sympathy and fellowship, as it equally comprises both the good and the bad. But while it does not imply a religious relation, it is nevertheless a pre-condition of it. There would be no religion in a world of self-sufficient beings. The religious relation, then, is something superinduced upon the more general relation of dependence.

In general, the question of religion has a much better standing in the intellectual world than it had years ago. The sensational philosophy long held that religion, as a late growth, is to be understood through its psychological antecedents as a product of evolution. Thus it was largely regarded as an adventitious excrescence upon human nature and without any real significance for human life, and many held that it would be a decided gain for humanity, and especially for the treasury, if re-

ligion could be finally exorcised. In all this the essential ambiguity of empirical and evolution doctrine was completely overlooked, and it was assumed as a matter of course that that which was temporally first in psychological development was the truly real, or the material out of which all later developments were made. Accordingly, as the earlier phases of religion, like the earlier phases of all things human, were pretty crude, it was supposed that these were the true originals and essential meaning of religion. Now all this has passed away. We have come to see that this historical study at best could give only the order of temporal development, without deciding whether there was not some immanent law underlying the unfolding. We have equally come to see that no development is possible without assuming such a law, and that the true nature of a developing thing can be learned, not by looking at the crude beginnings, but only by studying the full unfolding of the finished product. If we would know what intelligence is, we must consider it in its mighty works and not in its

first, blind gropings. So if we would know what religion is, we must consider it in its great historical manifestations, rather than in the dim imaginings of undeveloped men.

On all these accounts religion has come to be recognized as a great human fact. It is not an invention of priests or politicians, nor an unimportant annex of life, but it is deep rooted in humanity itself. Neither is it something that has significance only for the future life; for religion is clearly seen to have profound significance for this life, either for good or evil. There are religions that debase and defile; there are religions that industrially cripple and politically paralyze the people. The forces that make for evil or for obstruction have in many cases incarnated themselves in the people's religion, and there can be little industrial progress, or social development, or political improvement, until the grip of these religions has been broken. And, on the other hand, religion may be a great source of progress, of illumination, of inspiration, both for the individual and for the people. This

changed point of view is everywhere apparent to one acquainted with the course of thought in the last twenty-five years. I never so fully realized it before as I did at the World's Fair in St. Louis. I attended there an International Congress of Arts and Sciences, the members of which were scholars from all over the civilized world, and I was greatly impressed by the fact that whenever religion was mentioned, or whenever any question arose that directly or indirectly bore upon it, the references to religion were all of a friendly kind. It was taken for granted as a great human fact, as a fact in which human nature culminates, and as a fact having the same warrant as all other human facts. It is to be studied sympathetically, therefore, and with an open mind. This is indeed progress.

It is equally gratifying to note that the Christian attitude also toward the non-Christian religions has greatly changed in recent years. Christians themselves have been slow in understanding the truth and glory of the Gospel, the good news of God. For a long

time it was held that God was good only to those to whom the Christian revelation had come, and that all others were unconditionally lost. But at last we have learned that God is not made good by the Christian revelation, but only declared and shown to be good; he has always been good; he has always been the Father Almighty, and has always had purposes of grace concerning his children, whether they knew him or not. The insufferable blasphemy that condemned the whole non-Christian world indiscriminately has utterly disappeared among intelligent Christians. The God who has been dealing with all past generations is the God of grace whom our Lord has revealed, and they are still in his hands, whether in this world or in any other.

Similarly, Christian thought has changed concerning the great outlying non-Christian systems. These also were thought at one time to be evil and only evil, and without any value whatever for their adherents. Accordingly, it was the fashion to deride and decry

these religions, to emphasize their shortcomings and failures, and to oppose to them Christianity in its ideal form. But further study has revealed how unjust all this was, and now we have come to believe that the great non-Christian systems also had their place in God's providential plan for men. We find it possible to think of Confucius, Mencius, and Buddha, and many another as veritable prophets of the Most High, and as having done an important work among the people for whom they wrought; not indeed making anything perfect, but preparing the way and contributing much to the organization and development of the people. And this, too, should not surprise, still less offend, any Christian, for we are told that "a portion of the Spirit is given to every man," that "there is a light which lighteth every man that cometh into the world;" that "God is no respecter of persons, but that in every nation he that feareth God and worketh righteousness is accepted of him." With this faith and our conviction that the world always has been in

the hands of God, we are not surprised but rather delighted to find traces of divine guidance and inspiration in other than Christian lands; and when we read the Sacred Books of the East we rejoice to find indications of the Holy Spirit's presence. This does not mean, of course, that these systems are perfect or final; on the contrary, criticism shows how far from perfect they are, and that they never could build humanity into its best estate; but it does mean that God has not been absent from the religious history of the race, and has never left himself anywhere without a witness. The sun does not envy the stars, yet they disappear in the brightness of its shining; so Christianity does not envy any of these lesser lights, but gathers up into itself all their illumination so that they, too, disappear in the brightness of its shining. And if one should point to the aberrations of these other religions in disproof of this view, the obvious remark is that Christianity itself has gone astray in not a few times and places, sinking now and then to as utter superstí-

tion as could be found in sorcery or incantation.

Any one inclined to emphasize as decisive the failure of the non-Christian religions to reach their ideal might profitably reflect on the history of the Christian churches of western Asia and northeastern Africa, or on the religious rabble that gather and fight, except as restrained by Turkish soldiery, about the church of the Holy Sepulchre.

So, then, religion also is a fact of human experience, and must receive its recognition and interpretation as belonging to reality. This fact preëminently leads to a personal conception of existence. Pantheism, as said, is a philosophy rather than a religion, and whenever it is held as a philosophy the need of personality soon vindicates itself by some form of polytheism. We must now consider the direction the normal development of religion must take.

Religion can begin with almost nothing, but it can have a normal unfolding only under appropriate conditions. Religion is no sim-

ple and changeless thing, but it is a function of our whole nature and varies with our development. Intellect, heart, conscience, and will alike contribute to our religious conceptions. Hence when there is little mental or moral development the religious instinct can cling to a stick or a stone or some low and hideous animal. But as life unfolds and intellect is clarified and conscience becomes regnant in our religious thinking, it then appears that there are certain conditions that must be met by any religion that is to command the assent of developed humanity. First of all, the object worshiped must be something which satisfies the intellect. As I have just said, when intellect is asleep almost anything can be made a religious object, but when intellect is awake and alert and thought has done its work, it then becomes impossible for the intellect to worship any being lower than the Highest. Religion in idea aims at the perfect, and will have the perfect or nothing. When our insight is scanty we may content ourselves with very imperfect notions; but

when once the larger vision comes, the older conception must either be abandoned or must be enlarged to meet the newer insight. This fact does away with all low superstitions; they flourish only in the darkness of ignorance. But when the mind has been nourished on the great truths of science, the great revelations of world study and historical and philosophical study, it becomes simply impossible for that mind to rest in any of the forms of polytheism and idolatry. Such a mind may make the motions of religion for selfish or other reasons, but it never really worships in any temple where the god is lower than the Highest. And if it be said that these images, etc., are but symbols, the answer is the same. No developed mind can find any worthy symbol of the Highest in animal forms and idolatrous rites and practices. The intellect stands in such a temple either silent or scoffing, and this is equally true whether the temple be Christian or non-Christian. Intellect has its inalienable rights in religion; and when they are not regarded, religion is sure, sooner or

later, to grovel in abject and paralyzing superstition. The history of the Christian religion furnishes abundant illustration.

And equally religious development must take the direction of affirming not only a supreme reason but also a supreme righteousness. As a matter of fact, humanity has been distressingly slow in uniting the ethical and religious ideal, and historically there has been a great deal of religion that was either non-ethical or immoral, the two factors, the religious and the ethical, being brought into no vital union. We see this in both the ethnic religions and the non-Christian universal religions, and we see it also even in Christian lands. A great many people who are nominally Christians and who verily believe themselves to be really such, seem to have little thought that their religion makes any demands upon their conscience and that it should root and result in righteousness. Mechanical devices of ritual and the repetition of verbal forms appear to be the sum of their religion. They differ from other idolaters, not in the spirit of their worship, but in the acci-

dent of its form. But there can be as genuine idolatry with words and phrases as with wood or stone images. "God is a spirit, and they that worship him must worship him in spirit and in truth." "He hath showed thee, O man, what is good; and what doth the Lord require of thee, but to do justly, and to love kindness, and to walk humbly with thy God?" These great words strike with doom all superstitions and all immoral and mechanical religion. It is manifest that nothing can claim to be the perfect religion in which the religious and ethical factors are not indissolubly blended. The failure to unite these two factors is the great source of the hideous and destructive aberrations that have defiled religious history and made many religions the enemies of humanity. All these must wither away under the rebuking gaze of the developed intellect and conscience.

And not only must the object of worship be supreme reason and supreme righteousness, it must also be supreme goodness. This is a continuation of the somewhat negative con-

ception of righteousness into the positive conception of ethical love. It is at this point that religious thinking has oftenest come short. If God is to be of any religious value to us and an object of real and adoring worship, he must be supremely good. This demand has by no means always been understood, and in consequence we find a kind of subconscious effort in religious development to think a truly ethical thought about God in connection with a world like this. The outlying religions have largely conceived God as indifferent and selfish. The gods of Epicurus were deaf or indifferent to human sorrow. The God of philosophy has largely been of the same sort, a kind of absolute metaphysical being, with no active moral quality, or if moral at all, in an abstract and unreal way. Likewise the God of theology for a long time hardly attained to any real active goodness, such as the thought of ethical love implies. This God, too, was rather metaphysically conceived, and his holiness consisted mainly in making rules for men and in punishing their

transgression. He was conceived largely after the fashion of the medieval despot, and the conception of any obligation on his part to his creatures would have been looked upon almost as blasphemy. But now we have begun to think more clearly and profoundly as to what ethical love demands, and with this thought the immoral, selfish, and indifferent gods have disappeared, and the God of theology, also, has been greatly modified. We see that the law of love applies to power as well as to weakness, that the strong ought to bear the burdens of the weak and not to please themselves; that the greatest of all must be the servant of all, and the chief of burden bearers. This insight has already wrought a great change in our traditional theology, and the end is not yet. We are no longer content with an absolute being selfishly enjoying himself, or with a simply benevolent being who gives gifts to men at no cost to himself. Such a being falls below the moral heroes of our race, and even below the ordinary man and woman who live lives of devotion and sacri-

fice. We cannot worship any being who falls below our human ideals of love and goodness.

It is but an extension of the same thought to add that the final religion must be one that has a worthy thought of man, and provides a task for him which will furnish the will with an adequate object and a supreme inspiration. We might conceivably get along without any religion, but when thought is once awake we see that a religion which is to command our lives must be one which brings man also to his highest estate. We cannot believe in man without believing in God, and we cannot believe in God without believing in man. God's goodness itself would disappear if the religion did not mean our highest life and blessing; and if our life is to end with the visible scene and we are to be cast aside like the worn-out straw sandals of the coolies, then religion itself collapses; the universe is a failure, and God is a failure, too. It is not a selfish interest on our part which dictates thoughts like this. It is rather the desire to think worthily of

God and of his work, and that is impossible so long as we fail to think worthily of man and of his destiny in God's plan.

Here again the non-Christian religions have largely come short: they have not been able to think consistently, and in such a way as to carry conviction, of the destiny of man. They have wavered between annihilation and a dreary round of undesirable existence, with no power to awe or attract. And here again Christianity is a revelation of supreme significance and magnificent audacity. Looked at from the outside we are animals like the other animals, having the human form, indeed, and yet subject to the same general laws as the animal world, — birth and death, hunger and pain, labor and weariness. But our Christian faith holds that this is only the outward appearance, not the inward spiritual fact. We are now the children of God, and it doth not yet appear what we shall be, but we know that when he shall appear we shall be like him, for we shall see him as he is. And thus our life is transformed. We are not simply the

highest in the animal world, we are also and more essentially children of the Highest, made in his image likewise, and to go on forevermore with him; made, as the old catechism had it, to glorify God and to enjoy him forever, growing evermore into his likeness and into ever deepening sympathy and fellowship with the eternal as we go on through the unending years, until we are "filled with all the fullness of God." This is the true evolution. Man is making, he is not yet made.

"All about him shadow still, but, while the races flower and fade,
Prophet eyes may catch a glory slowly gaining on the shade."

There is darkness enough in the valleys, no doubt, but there is also a gleam upon the hills and a glow in the upper air.

These are great dreams. They are not dreams that speculation can justify, neither are they dreams that speculation can discredit. They are rooted in the spiritual nature and historical life of our race. If criticism denies knowledge it equally overthrows unbelief, and

leaves all room for belief if life and its unfolding needs point that way. This is no small service. This is not a machine and dead world, but a world of life and personality and morals and religion; and in such a world it is permitted to see visions and dream dreams, to form ideals and live in their inspiration, and to venture beyond knowledge in obedience to those "high instincts" which have always been, and still remain, the "fountain light" of all our spiritual day.

Reference was made in the beginning to Comte's doctrine of the three stages of human thought, — the theological, the metaphysical, and the positive. Comte held that the first two must disappear, and only the last remain. He was right as respects the abstract metaphysical, but we retain the other two. We are positivists in respect to science, and theologians as respects causation. This view conserves and satisfies all our essential human interests in this field, and vacates a mass of impersonal philosophizing which criticism shows to be baseless,

and which in experience has often proved itself to be an enemy of humanity.

And now I wish, with expressions of apology for the repetition it will involve, to consider the practical bearing and application of personalism in dealing with our concrete problems. The abstract method, with its resulting abstractions, has taken such hold of popular thinking that no single exhortation will serve to root it out.

We have again and again pointed out that experience is first and basal in all living and thinking, and that all theorizing must go out from experience as its basis, and must return to it for verification. With this understanding, we see that science of the saner and deeper type is in no way disturbed by our phenomenalistic teaching. We know that there are various ways of behavior among things, or ways of being and happening among the facts of experience, and that science has the function of investigating these, and of discovering, describing, and registering them for the guidance of life. This study can go on practi-

cally on the basis of any metaphysical scheme; for even our metaphysics, while of use in understanding life, does not really in any way make or modify it. As was pointed out in our first lecture, if we should become nihilists or agnostics it would not alter the way in which things actually do hang together in the order of experience, and would leave the practical work of life untouched. What would really follow in that case would be simply that by way of speculation we could not interpret life, but life itself with its practical expectations and their practical verifications in experience would still remain, and we should be practically no worse off than before. The only thing that is forbidden by our general view is science as a dogmatic system, which, however, is not science, but merely a species of philosophy without foundation.

As was said in treating of empiricism and apriorism, both doctrines leave a very important question untouched, namely, whether the order of life can be practically depended upon. No system of philosophy gives any answer to

this except a dogmatic one, which simply mistakes the monotonies of dogmatic thinking for the fundamental laws of existence. Our view, therefore, leaves science in no worse plight than it is on any other scheme of thought. The practical trustworthiness of life can be learned only from experience and verified only in experience. When then our affirmations respecting the order of nature are far and permanently removed from any practical bearing, they must become vague and insecure. This insight must be regarded as a distinct advance in philosophical reflection. Those dogmatic systems that deal with the infinities and eternities never had any proper foundation, as Kant taught us to see, and they were continual sources of theoretical onslaughts on the practical interests of life. It is therefore something to be clear of them. At the same time all fruitful practical science remains untouched. We may go on looking for the uniformities among things and events, and applying the knowledge thus gained to the control of life, with all practical confi-

dence. Yet we must always remember that the space and time world of phenomena roots in a mysterious world of power, and that we must therefore refrain from erecting our space and time system into anything absolute and self-contained.

The question of the warrant of knowledge has never been conceived with perfect clearness. The debate between the empirical and the apriori school has been carried on on the assumption that the validity of knowledge absolutely depended upon it. This is only partly true. There are two questions at issue between these schools, — the form, and the validity of knowledge ; and these two are to some extent independent. The empiricist seeks to explain the subjective form of knowledge by the association of sensations, and here his failure is complete. The rationalist rightly points out that the form of experience, even as mental fact and without any reference to its validity, cannot be explained in this way. Hume himself could not account for this form without assuming a very active " mental pro-

pensity to feign," that is, without admitting the rational nature. Thus sensationalism is canceled; it cannot explain the form of knowledge and still less the validity of knowledge. As between the two schools, then, we must side with the rationalists. But, unfortunately for our speculative peace, it turns out when the question of validity is raised that the two schools are not so far apart; for the apriori doctrine itself has been used for limiting knowledge to appearances only. Kant and Hume were far enough apart in their doctrine of knowledge, but they agreed more nearly in their metaphysics than is commonly recognized. Hume said that reason is a weak faculty, so that by way of speculation we can attain to no knowledge or science. Kant said that the reason is full of illusions when it transcends experience, so that a knowledge of things in themselves, or other than appearances, is forever denied to us. But both Hume and Kant admitted that we cannot practically rest in this result, but must fall back on faith in the practical needs and interests of life. Thus the

two men, who were antipodal in their epistemology, practically coincided in their metaphysics. Again, Kant belabored Berkeley for his subjective idealism, but here, too, the difference was rather epistemological than metaphysical; for Kant's own doctrine of phenomena, when made consistent, differs little from Berkeley's view. And, in general, as we have seen, the apriorist can never do more than outline the general forms of experience, without giving any security for its concrete contents and relations. But without this security it is plain that knowledge is theoretically exposed to doubt, and thus, it may be said, skepticism finally triumphs.

The answer is that this is only a formal triumph of no practical significance. For a universal skepticism is really none. It casts equal doubt upon everything, and thus leaves all our beliefs in the same relation to one another as before. The only significant skepticism is one which finds ground for special doubt, and the only dangerous skepticism is one that discredits the higher interests of our nature in the

name of the lower. But to doubt everything is practically to doubt nothing. Such a doubt is only a question of the general trustworthiness of life, and this question can be solved only in living. Theoretically it is always inconsistent, and practically it becomes only a pretext for rejecting anything we dislike. For the inferences that have been drawn from universal skepticism have generally been illogical and partisan. One of the humors of the history of thought is the zeal with which Hume's doctrine has been played off against religion, in complete unconsciousness of the fact that it is quite as effective against science. In both cases the true conclusion is that by way of speculation we can justify neither religion nor science; but since speculation itself is discredited, we need not be concerned at its failure. But life still remains with all its practical interests, and we are permitted to believe and assume whatever this practical life may suggest or demand, and that without being molested by speculative philosophy. It is true that nothing can be speculatively justified, and just as

little can anything be speculatively discredited. Logic and reason being set aside as guides of life, our instincts remain and we may live by them if we choose. As was pointed out in the first lecture, we might even become nihilists in metaphysics without changing any practical belief or expectation. For life is as it is and may well be worth living, whatever our metaphysics; and for all we can say life may go on through an indefinite variety of future forms, whatever our metaphysics. The fearsome conclusions drawn by the skeptic are due to the attempt to reason after reason has been discredited.

We are greatly helped in this matter by the growing insight into the practical nature of belief. One of the superstitions of a superficial intellectualism has been the fancy that belief should always be the product of formal logical processes. But, in fact, the great body of our fundamental beliefs are not deductions but rather formulations of life. Our practical life has been the great source of belief and the constant test of its practical validity, that

is, of its truth. Such beliefs are less a set of reasoned principles than a body of practical postulates and customs which were born in life, which express life, and in which the fundamental interests and tendencies of the mind find expression and recognition. In this way the great organism of belief is built up. It grows out of life itself. It is wrought out in action rather than in speculation, and has the significance of any other great natural product. As soon as we bring the order of life and belief under the notion of law, we see that it has in a way cosmic significance. It is no accident or whim of the individual, but is rooted in the nature of things. Thus the great catholic beliefs of humanity become expressions of reality itself, and on any theory of knowledge they must be allowed to stand, unless there be some positive disproof. Their teleological nature is manifest. They are not here for themselves, but for what they can help us to. They are the expressions of life and also the instruments by which life realizes itself. This insight is a great advance upon

the method of rigor and vigor, which sought formally to deduce whatever is to be believed. At last life and experience themselves are installed as the great source of practical belief, and we have sufficiently recovered from the superstition of intellectualism to be able once more to trust the order of life and our moral and spiritual instincts.

Science, we have before said, must always be classificatory and descriptive, and can never deal with the true causes and reasons of things. This, we have pointed out, is true even for dynamical science, which many think gives the real agencies of the world. It should be added as an implication of this fact, that the several sciences should deal with their various classes of facts as they are given in experience, without distorting them to make them fit some other group. What we really desire is a dealing with the facts in accordance with their true nature, and not a wresting of the facts for the sake of some all-inclusive generalization which explains nothing. Oversight of the relative and nominalistic nature of much of our

classification, together with the unchastened hankering after totality and systematic completeness, is perpetually leading the dogmatic mind to sweep all things together into some vague but pretentious generalization which promises to make all things one, but which succeeds only by ignoring all the essential characters of things.

This resolute adherence to experience is a counsel of perfection which cannot be too much insisted upon. In the mental realm it is of such importance that we may be excused for further dwelling upon it. In this realm beyond all others there has been a tendency to distort the facts, or to substitute something else for them. In fact there has been comparatively little properly logical and scientific work done in psychology. A truly scientific procedure under the guidance of a critical logic would aim of course to find what the psychological facts are without any admixture of theory, and to determine their laws in their own terms. This would give us at least the psychological facts, and might also give us

some of the uniformities that obtain among them. Unfortunately, for various reasons, another method has been largely followed. The result is that theories about the facts have very largely been substituted for the facts, and various metaphors, drawn from the physical realm, have wrought no small damage. It is plain that language in this region must be figurative or metaphorical. We have no direct means of telling or describing our internal states except by the use of physical figures, which never accurately represent the facts, but which we set forth as symbols of the facts, in the hope that others may understand us. But when, as often happens, the figure itself is mistaken for the fact, then confusion lieth at the door. There is really no physical fact or analogy that rightly represents any intellectual fact or process whatever. But by identifying the physical figure with the mental fact, it becomes easy to mistake an exegesis of the metaphor for a dealing with the fact. Thus language has been a great source of aberration in psychology. Another source of error closely

allied to this is the fact that we tend to think of things under space forms and to substitute the body for the personality. This tendency also serves to hide the mental facts from us in their true nature, and when it is finished it not infrequently bringeth forth materialism. The mythologies of cerebral psychology serve as illustration. For errors of this kind the sufficient prescription is to adhere to the concrete experience. When the mental facts are seen in their true nature, the impossibility of assimilating them to any kind of physical fact is at once obvious.

The same prescription must be observed in dealing with the physical conditions of the mental life. The relations of mind and body can be described only in terms of concomitant variation. From an inductive standpoint the causality between them is mutual; that is, physical states are accompanied by various mental states, and conversely various mental states are accompanied by physical states. There is a field here for study of these concomitant variations, a knowledge of which

may have considerable practical value. But we must be equally careful here to confine ourselves to the data of experience and not proceed to romantic excesses of theory as has often been done. A misunderstanding of the doctrine of the conservation of energy has led to some very naïve work on the part of psychologists and physicists alike. It has been thought that we must never hold that the mind affects the body or that the body affects the mind, because to do so would be to violate this great doctrine, which is often mentioned as the corner-stone of science. If we take this notion in earnest it would imply that our thoughts have nothing whatever to do with the control of our bodies, and that our physical conditions contain no reason for our mental states. Of course the scientific doctrine contains no warrant for any such romantic nonsense as this. The doctrine itself simply affirms a certain quantitative equivalence in the transformation of energy, and that only on certain assumed conditions. It does not tell us, for instance, that there might not be

direction of our bodies from some spiritual principle in interaction with them; it leaves that to be decided by experience. Within the inorganic realm there is good reason for believing that this equivalence is maintained, though even here we must beware of erecting the doctrine into an absolute principle. This would be to fall a prey to the uncritical dogmatic desire for totality in the physical realm. But whether our thoughts and purposes have any influence upon our physical states is to be determined by experience only, and in conducting experiments for deciding the matter almost any one is as wise as the wisest physicist. If anything more than a small measure of good sense were needed, sufficient evidence would be found in the emphasis which the medical world is now placing on mental states as cause or cure of disease. Discounting, then, the vagaries of continuity theorists, we may look for such laws as we may discover for the interaction of physical and mental states, and make what use we can of them without being disturbed by the conservation of energy. In

general we must maintain a somewhat agnostic attitude towards all speculation on this subject, which goes beyond some few principles which may be verified in experience. Such are the laws of concomitant development, laws of habit, laws of health, laws of rest and repair, general laws of the mutual influence of body on mind and mind on body. We know the physical echoes the mental, and that the mental varies with the physical. Laws of this kind lie open to investigation, but whatever lies beyond them in the way of abstract speculation must be received with the utmost caution.

Not to form abstract theories but to formulate and understand this personal life of ours is the first and last duty of philosophy. This must be done in its own terms. To tell us that this life as lived is a case of matter and motion is nonsense. To tell us that this life is explained by matter and motion is equally nonsense. This is simply to introduce an abstraction from experience as the explanation of experience. We must indeed be careful to recognize the order of law which we call na-

ture, but we must also be careful not to erect it into any self-sufficient existence or power that does things on its own account. For us nature is only an order of uniformity, established and maintained by an ever-living and ever-acting Intelligence and Will. Nature is a function of the will and purpose of the ever-present God. And this uniformity, so far from oppressing us or destroying our freedom, is the absolute pre-supposition of our having any freedom or rational life whatever. It is a fancy of dogmatic naturalism that a system of law shuts up everything to a rigid fixity which can be modified only by irruption and violence; but this is true only for a fictitious system, the product of the dogmatic imagination. In actual experience we find an order of law and we also find that order within certain limits pliable to our will and aims. The order of law is the one thing that founds our control of nature, and by means of it we continue to bring to pass many things which the system of law, left to itself, would never accomplish. All machines of human invention

owe their value to the order of law, but that order alone would never have produced any of them. We plant some wheels and shafting at the foot of a waterfall, and the force of gravity is at our service for the driving of looms, the grinding of flour, the lighting of a city, etc., but gravity alone would never have done it. The order of law is a pre-supposition of it all, but we count for something after all.

This is the way the facts lie in experience, and when we duly consider it we see that the uniformity we call law is by no means incompatible with the self-direction we call freedom. Even in thought itself, as we saw in discussing freedom, uniformity can as little dispense with freedom as freedom can dispense with uniformity. The laws of thought, which are absolute uniformities of reason, do not insure right thinking without the self-control of the free spirit. There is no self-control without the laws, and there is no effective rationality without the self-control. And in the mental life as a whole we find the same fact; there

are laws which found self-control, and there is self-control which realizes itself through these laws. If there were no dependable order in our mental states, all self-direction, education, mental development, mutual intercourse would cease.

When it comes to combination, the order of law merely prescribes the outcome or resultant of the component factors. If magnets are revolved under certain conditions, there will be an electric current. If a lighted match be touched to dry gunpowder, there will be an explosion. If a certain law is passed under given social conditions, it will have certain consequences. The consequences are at once uniform and conditional. The laws will apply to all conditions if they arise, but do not prescribe how the conditions shall arise nor what they shall be. In this respect they are like the rules of grammar, which never tell us what shall be said, but only how it shall be said. The system of law, then, as experienced, is no self-inclosed system, but one capable of receiving modifications from without, yet

without any violation of the laws. Thus for every believer in freedom there are mental states or acts which cannot be deduced from the antecedent mental states. By their very nature they lie beyond scientific explanation, yet when they have arisen they become subject to the fundamental laws of mental action. So with our sensations, they cannot be deduced from the antecedent state of mind, but are excited from without. But after they have been excited they then combine according to certain laws inherent in the nature of the mind. Hence the integrity of the mental order does not consist in a self-inclosed continuity of mental states, but in the identity of the mental laws which determine the combination and succession of mental states, however produced. The same must be said of the cosmical order. Here, too, there is much which cannot be explained by antecedent states of the system. Human thought and purpose have realized themselves in the physical world, and have produced effects which the system, left to itself, would never have reached. But these

interventions violate no laws of nature. The effect produced enters at once into the great web of law, and is combined with other effects according to a common scheme. Hence the integrity of the cosmic order does not consist in a self-inclosed movement, but in the subjection of all its factors to the same general laws. It is only in this sense that we can speak of the continuity of nature. The continuity is not in any substantial something called nature, but solely in the sameness of the laws according to which nature is administered, and of the purpose which is being realized through it.[1]

In the strict sense of the word, nothing whatever can be explained by the antecedent state of the system. When we have had experience of the order the antecedents may often be such as to lead us to expect certain consequents, but they are never such that we can deduce the consequents as any necessary implication. Even the familiar order of life is opaque to us, and we know not the ways of the power

[1] See Author's *Metaphysics*, revised edition, p. 267.

at work. We can as little deduce the later phases from the earlier as we can deduce the later parts of an opera from the first act. It all depends on what is going on in the invisible world of powers; and for even the show of real insight we must have recourse either to the empty notion of the "nature of things," or to the conception of purpose which is guiding the power. Temporal and spatial antecedents explain nothing so long as we remain in the phenomenal realm. Suppose two persons of traditional ways of thinking, but one traditionally religious and the other traditionally irreligious, should discuss the question whether a cold and rainy season, with resultant bad crops, were a divine admonition to men, lest they forget. They would likely wrangle indefinitely over the adequacy or inadequacy of the "antecedents," whereas the only real question would be whether the event, taken in connection with all its circumstances, suggested purpose on the part of the hidden power.

Thus I have sought to explain and illustrate

what is meant by speaking of nature as a function of will and purpose, and to do it in such a way as shall conserve the interest of all sane and sober science of the non-dogmatic type, and at the same time provide for the higher moral and spiritual interests of humanity. Nature is not here for its own sake, or to keep $\frac{1}{2}MV^2$ a constant quantity. If we are in a personal world, the final cause of nature must be sought in the personal and moral realm. Criticism frees us from all the naturalistic nightmares of necessity and a self-running material world, and allows us to trust our higher human instincts once more. Philosophy replaces the infinitely far God by the God who is infinitely near, and in whom we live and move and have our being. But for the practical realization of this divine presence, logic and speculation can do little for us. This belief must be lived to acquire any real substance or controlling character. This is the case with all practical and concrete beliefs. If we ignore them practically we may soon accost them skeptically; and they vanish like a fading gleam. Or we

may build them into life and organize our lives around them, and they become "truths that wake to perish never." "To as many as receive him, to them gives he power to become the sons of God."