
The Creative Mind

An Introduction to Metaphysics

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V

THE PERCEPTION OF CHANGE

My first words are words of thanks to the University of Oxford for the great honor she has done me in inviting me to address her. I have always thought of Oxford as one of the few sanctuaries where, reverently maintained, passed on by each generation to the next, the warmth and radiance of ancient thought are preserved. But I also know that this attachment to antiquity does not prevent your University from being very modern and very much alive. More especially in what concerns philosophy, am I struck to see with what profundity and what originality the ancient philosophers are studied here (did not one of your most eminent masters only recently touch up the interpretation of the Platonic theory of Ideas on its essential points?); and I am also struck, on the other hand, by the fact that Oxford is in the vanguard of the philosophical movement with the two extreme conceptions of the nature of truth: integral rationalism and pragmatism. This alliance of past and present is fruitful in all fields, nowhere more so than in philosophy. To be sure, we have something new to do, and perhaps the moment has come to be fully alive to it; but the fact that it is new does not mean that it must be revolutionary. Let us rather study the ancients, become imbued with their spirit and try to do, as far as possible, what they themselves would be doing were they living among us. Endowed with our knowledge (I do not refer so much to our mathematics and physics, which would perhaps not radically alter their way of thinking, but especially our biology and psychology), they would arrive at very different results from those they obtained. That is what particularly strikes me in the

problem I have undertaken to deal with here, that of change.

I chose it, because I consider it fundamental, and because I believe that if one were convinced of the reality of change and if one made an effort to grasp it, everything would become simplified, philosophical difficulties, considered insurmountable, would fall away. Not only would philosophy gain by it, but our everyday life—I mean the impression things make upon us and the reaction of our intelligence, our sensibility and our will upon things—would perhaps be transformed and, as it were, transfigured. The point is that usually we look at change but we do not see it. We speak of change, but we do not think about it. We say that change exists, that everything changes, that change is the very law of things: yes, we say it and we repeat it; but those are only words, and we reason and philosophize as though change did not exist. In order to think change and see it, there is a whole veil of prejudices to brush aside, some of them artificial, created by philosophical speculation, the others natural to common sense. I believe we shall end by coming to an agreement about them, and shall thus form a philosophy in which everyone will collaborate, upon which everyone will be able to agree. That is why I should like to fix two or three points upon which it seems to me agreement has already been reached; it will gradually be extended to the rest of them. The first lecture therefore will deal less with change itself than with the general characteristics of a philosophy attached to the intuition of change.

Here, first of all, is a point upon which every one will agree. If the senses and the consciousness had an unlimited scope, if in the double direction of matter and mind the faculty of perceiving was indefinite, one would not need to conceive any more than to reason. Conceiving is a make-shift when perception is not granted us, and reasoning is done in order to fill up the gaps of perception or to extend its scope. I do not deny the utility of abstract and general ideas—any more than I question

the value of bank-notes. But just as the note is only a promise of gold, so a conception has value only through the eventual perceptions it represents. It is not, of course, merely a question of the perception of a thing, or a quality, or a state. One can conceive an order, a harmony, and more generally a *truth*, which then becomes a *reality*. I say that we agree on this point. Everyone could see for himself, in fact, that the most ingeniously assembled conceptions and the most learnedly constructed reasonings collapse like a house of cards the moment the fact—a single fact really seen—collides with these conceptions and these reasonings. There is not a single metaphysician, moreover, not one theologian, who is not ready to affirm that a perfect being is one who knows all things intuitively without having to go through reasoning, abstraction and generalization. There is no difficulty therefore about the first point.

And there will not be any more about the second, which we come to now. The insufficiency of our faculties of perception—an insufficiency verified by our faculties of conception and reasoning—is what has given birth to philosophy. The history of doctrines attests it. The conceptions of the earliest Greek thinkers were certainly very close to perception, since it was by the transformations of a sensible element like water, air or fire, that they completed the immediate sensation. But from the time the philosophers of the school of Elea, criticizing the idea of transformation, had shown or thought they had shown the impossibility of keeping so close to the sense-data, philosophy started off along the road it has since traveled, the road leading to a "supra-sensible" world: one was to explain things henceforth with pure "ideas." It is true that for the ancient philosophers the intelligible world was situated outside and above the one our senses and consciousness perceive: our faculties of perception showed us only shadows projected in time and space by immutable and eternal Ideas. For the moderns, on the contrary, these essences are constitutive of sensible things themselves; they are veritable substances,

of which phenomena are only the surface covering. But all of them, ancient and modern, are agreed in seeing in philosophy a substitution of the concept for the percept. They all appeal from the insufficiency of our senses and consciousness to the faculties of the mind no longer perceptive, I mean to the functions of abstraction, generalization and reasoning.

On the second point we can therefore be agreed. I come then to the third, which, I imagine, will not occasion any discussion either.

If such is really the philosophical method, there is not, there cannot be *a* philosophy as there is *a* science; on the contrary there will always be as many different philosophies as there are original thinkers. How could it be otherwise? No matter how abstract a conception may be it always has its starting point in a perception. The intellect combines and separates; it arranges, disarranges and co-ordinates; it does not create. It must have a matter, and this matter can only reach it through the senses or the consciousness. A philosophy which constructs or completes reality with pure ideas will therefore only be substituting for or adding to our concrete perceptions as a whole, some particular one of them it has elaborated, thinned down, refined and thereby converted into abstract and general idea. But there will always be something arbitrary in its choice of that privileged perception, for positive science has taken for itself all that is incontestably common to different things; or in other words *quantity*, and all that remains for philosophy therefore is the domain of *quality*, where everything is heterogeneous to everything else, and where a part will never represent the whole except in virtue of a contestable if not arbitrary decree. One can always oppose other decrees to this one. And many different philosophies will spring up, armed with different concepts. They will struggle indefinitely with one another.

Here, then, is the question which arises, and which I consider essential. Since any attempt at purely conceptual philosophy calls forth antagonistic efforts, and

since, in the field of pure dialectics there is no system to which one cannot oppose another, should we remain in that field or, (without, of course, ceasing to exercise our faculties of conception and reasoning), ought we not rather return to perception, getting it to expand and extend? I was saying that it is the insufficiency of natural perception which has driven philosophers to complete perception by conception—the latter having as its function to fill in the spaces between the data of the senses or of consciousness and in that way to unify and systematize our knowledge of things. But the examination of doctrines shows us that the faculty of conceiving, as it advances in this work of integration, is forced to eliminate from the real a great number of qualitative differences, to extinguish in part our perceptions, and to weaken our concrete vision of the universe. For the very reason that each philosophy is led, willy-nilly, to proceed in this way, it gives rise to opposing philosophies, each of which picks up something of what the other has dropped. The method, therefore, goes contrary to the purpose: it should in theory extend and complete perception; it is obliged in fact to require that many perceptions stand aside so that some one of them may become representative of the others. —But suppose that instead of trying to rise above our perception of things we were to plunge into it for the purpose of deepening and widening it. Suppose that we were to insert our will into it, and that this will, expanding, were to expand our vision of things. We should obtain this time a philosophy where nothing in the data of the senses or the consciousness would be sacrificed: no quality, no aspect of the real would be substituted for the rest ostensibly to explain it. But above all we should have a philosophy to which one could not oppose others, for it would have left nothing outside of itself that other doctrines could pick up; it would have taken everything. It would have taken every thing that is given, and even more, for the senses and consciousness, urged on by this philosophy to an exceptional effort,

would have given it more than they furnish naturally. To the multiplicity of systems contending with one another, armed with different concepts, would succeed the unity of a doctrine capable of reconciling all thinkers in the same perception—a perception which moreover would grow ever larger, thanks to the combined effort of philosophers in a common direction.

It will be said that this enlarging is impossible. How can one ask the eyes of the body, or those of the mind, to see more than they see? Our attention can increase precision, clarify and intensify; it cannot bring forth in the field of perception what was not there in the first place. That's the objection.—It is refuted in my opinion by experience. For hundreds of years, in fact, there have been men whose function has been precisely to see and to make us see what we do not naturally perceive. They are the artists.

What is the aim of art if not to show us, in nature and in the mind, outside of us and within us, things which did not explicitly strike our senses and our consciousness? The poet and the novelist who express a mood certainly do not create it out of nothing; they would not be understood by us if we did not observe within ourselves, up to a certain point, what they say about others. As they speak, shades of emotion and thought appear to us which might long since have been brought out in us but which remained invisible; just like the photographic image which has not yet been plunged into the bath where it will be revealed. The poet is this revealing agent. But nowhere is the function of the artist shown as clearly as in that art which gives the most important place to imitation, I mean painting. The great painters are men who possess a certain vision of things which has or will become the vision of all men. A Corot, a Turner—not to mention others—have seen in nature many an aspect that we did not notice. Shall it be said that they have not seen but created, that they have given us products of their imagination, that we adopt their inventions because we

like them and that we get pleasure from looking at nature through the image the great painters have traced for us? It is true to a certain extent; but, if it were only that, why should we say of certain works—those of the masters—that they are true? Where would the difference be between great art and pure fancy? If we reflect deeply upon what we feel as we look at a Turner or a Corot, we shall find that, if we accept them and admire them, it is because we had already perceived something of what they show us. But we had perceived without seeing. It was, for us, a brilliant and vanishing vision, lost in the crowd of those visions, equally brilliant and equally vanishing, which become overcast in our ordinary experience like “dissolving views” and which constitute, by their reciprocal interference, the pale and colorless vision of things that is habitually ours. The painter has isolated it; he has fixed it so well on the canvas that henceforth we shall not be able to help seeing in reality what he himself saw.

Art would suffice then to show us that an extension of the faculties of perceiving is possible. But how does this extension work?—Let us notice that the artist has always been considered an “idealist.” We mean by that that he is less preoccupied than ourselves with the positive and material side of life. He is, in the real sense of the word, “absent-minded.” Why then, being detached from reality to a greater degree, does he manage to see in it more things? We should not understand why if the vision we ordinarily have of external objects and of ourselves were not a vision which we had been obliged to narrow and drain by our attachment to reality, our need for living and acting. As a matter of fact, it would be easy to show that the more we are preoccupied with living, the less we are inclined to contemplate, and that the necessities of action tend to limit the field of vision. I cannot go into a demonstration of this point; I am of the opinion that an entirely new light would illuminate many psychological and psycho-physiological questions if we recognized that distinct perception is

merely cut, for the purposes of practical existence, out of a wider canvas. In psychology and elsewhere, we like to go from the part to the whole, and our customary system of explanation consists in reconstructing ideally our mental life with simple elements, then in supposing that the combination of these elements has really produced our mental life. If things happened this way, our perception would as a matter of fact be inextensible; it would consist of the assembling of certain specific materials, in a given quantity, and we should never find anything more in it than what had been put there in the first place.

But the facts, taken as they are, without any mental reservation about providing a mechanical explanation of the mind, suggest an entirely different interpretation. They show us, in normal psychological life, a constant effort of the mind to limit its horizon, to turn away from what it has a material interest in not seeing. Before philosophizing one must live; and life demands that we put on blinders, that we look neither to the right, nor to the left nor behind us, but straight ahead in the direction we have to go. Our knowledge, far from being made up of a gradual association of simple elements, is the effect of a sudden dissociation: from the immensely vast field of our virtual knowledge, we have selected, in order to make it into actual knowledge, everything which concerns our action upon things; we have neglected the rest. The brain seems to have been constructed with a view to this work of selection. That could easily be shown by the way in which the memory works. Our past, as we shall see in our next lecture, is necessarily automatically preserved. It survives complete. But our practical interest is to thrust it aside, or at least to accept of it only what can more or less usefully illuminate and complete the situation in the present. The brain serves to bring about this choice: it actualizes the useful memories, it keeps in the lower strata of the consciousness those which are of no use. One could say as much for perception. The auxiliary of action, it

isolates that part of reality as a whole that interests us; it shows us less the things themselves than the use we can make of them. It classifies, it labels them beforehand; we scarcely look at the object, it is enough for us to know to which category it belongs. But now and then, by a lucky accident, men arise whose senses or whose consciousness are less adherent to life. Nature has forgotten to attach their faculty of perceiving to their faculty of acting. When they look at a thing, they see it for itself, and not for themselves. They do not perceive simply with a view to action; they perceive in order to perceive—for nothing, for the pleasure of doing so. In regard to a certain aspect of their nature, whether it be their consciousness or one of their senses, they are born *detached*; and according to whether this detachment is that of a certain particular sense, or of consciousness, they are painters or sculptors, musicians or poets. It is therefore a much more direct vision of reality that we find in the different arts; and it is because the artist is less intent on utilizing his perception that he perceives a greater number of things.

Well, what nature does from time to time, by distraction, for certain privileged individuals, could not philosophy of such a matter attempt, in another sense and another way, for everyone? Would not the role of philosophy under such circumstances be to lead us to a completer perception of reality by means of a certain displacement of our attention? It would be a question of *turning* this attention *aside* from the part of the universe which interests us from a practical viewpoint and *turning it back* toward what serves no practical purpose. This conversion of the attention would be philosophy itself.

At first glance it would seem that this has long since been done. More than one philosopher has in fact said that in order to philosophize he had to be detached, and that speculation was the reverse of action. We were speaking a few moments ago of the Greek philosophers: not one of them expressed the idea more forcefully than

Plotinus. "All action," he said (and he even added "all fabrication") "weakens contemplation."

And, faithful to the spirit of Plato, he thought that the discovery of truth demanded a conversion of the mind, which breaks away from the appearances here below and attaches itself to the realities above: "Let us flee to our beloved homeland!"—But as you see, it was a question of "fleeing." More precisely, for Plato and for all those who understand metaphysics in that way, breaking away from life and converting one's attention consisted in transporting oneself immediately into a world different from the one we inhabit, in developing other faculties of perception than the senses and consciousness. They did not believe that this education of the attention might most frequently consist in removing its blinders, in freeing it from the contraction that it is accustomed to by the demands of life. They were not of the opinion that the metaphysician, for at least half of his speculations, should continue to look at what every one looks at: no, he had always to turn toward something else. That is why they invariably call upon faculties of vision other than those we constantly exercise in the knowledge of the external world and of ourselves.

And precisely because he disputed the existence of these transcendent faculties, Kant believed metaphysics to be impossible. One of the most profound and important ideas in the *Critique of Pure Reason* is this: if metaphysics is possible, it is through a vision and not through a dialectic. Dialectics leads to contrary philosophies; it demonstrates the thesis as well as the antithesis of antinomies. Only a superior intuition (which Kant calls an "intellectual" intuition), that is, a *perception* of metaphysical reality, would enable metaphysics to be constituted. The most obvious result of the Kantian *Critique* is thus to show that one could only penetrate into the beyond by a vision, and that a doctrine has

value in this domain only to the extent that it contains perception: take this perception, analyze it, recompose it, turn it round and round in all directions, cause it to undergo the most subtle operations of the highest intellectual chemistry, you will never get from your crucible anything more than you have put into it; as much vision as you have put into it, just so much will you find; and reasoning will not have made you go one step *beyond* what you had perceived in the first place. That is what Kant brought out so clearly and that, it seems to me, is the greatest service he rendered to speculative philosophy. He definitively established that, if metaphysics is possible, it can be so only through an effort of intuition. —Only, having proved that intuition alone would be capable of giving us a metaphysics, he added: this intuition is impossible.

Why did he consider it impossible? Precisely because he pictured a vision of the kind—I mean a vision of reality “in itself”—that Plotinus had imagined, as those who have appealed to metaphysical intuition have imagined it. By that they all understood a faculty of knowing which would differ radically from consciousness as well as from the senses, which would even be orientated in the opposite direction. They have all believed that to break away from practical life was to turn one’s back upon it.

Why did they believe that? Why did Kant, their adversary, share their mistake? How is it they one and all had this conception even if they drew opposite conclusions from it—they constructing a metaphysics, and he declaring metaphysics impossible?

They believed it because they imagined that our senses and consciousness, as they function in everyday life, make us grasp movement directly. They believed that by our senses and consciousness, working as they usually work, we actually perceive the change which takes place in things and in ourselves. Then, as it is incontestable that in following the usual data of our senses and consciousness we arrive in the speculative order at in-

soluble contradictions, they concluded that contradiction was inherent in change itself and that in order to avoid this contradiction one had to get out of the sphere of change and lift oneself above Time. Such is the position taken by the metaphysician as well as by those who, along with Kant, deny the possibility of metaphysics.

Metaphysics, as a matter of fact, was born of the arguments of Zeno of Elea on the subject of change and movement. It was Zeno who, by drawing attention to the absurdity of what he called movement and change, led the philosophers—Plato first and foremost—to seek the true and coherent reality in what does not change. And it is because Kant believed that our senses and consciousness are in fact exerted in a real Time, that is, in a Time which changes continuously, in a duration which endures; it is because, on the other hand, he took into account the relativity of the usual data of our senses and consciousness (a relativity which he laid down, furthermore, long before the transcendent conclusion of his endeavor that he considered metaphysics impossible without an entirely different kind of vision from that of the senses and the consciousness—a vision, moreover, no trace of which he found in man).

But if we could prove that what was considered as movement and change by Zeno first, and then by metaphysicians in general, is neither change nor movement, that of change they retained what does not change, and of movement what does not move, that they took for an immediate and complete perception of movement and change a crystallization of this perception, a solidification with an eye to practice—and if we could show on the other hand, that what Kant took for time itself was a time which neither flows nor changes nor endures; then, in order to avoid such contradictions as those which Zeno pointed out and to separate our everyday knowledge from the relativity to which Kant considered it condemned, we should not have to get outside of time (we are already outside of it!), we should not have to free ourselves or change (we are already only too free of

it!); on the contrary, what we should have to do is to grasp change and duration in their original mobility. Then we should not only see many difficulties drop away one by one, and more than one problem disappear; but through the extension and revivification of our faculty of perceiving, perhaps also (though for the moment it is not a question of rising to such heights) through a prolongation which privileged souls will give to intuition, we should re-establish continuity in our knowledge as a whole—a continuity which would no longer be hypothetical and constructed, but experienced and lived. Is a work of this kind possible? That is what we shall seek to determine, at least as far as the knowledge of our surroundings is concerned, in our second lecture.

SECOND LECTURE

You gave me such sustained attention yesterday that you must not be surprised if I am tempted to take advantage of it today. I am going to ask you to make a strenuous effort to put aside some of the artificial schema we interpose unknowingly between reality and us. What is required is that we should break with certain habits of thinking and perceiving that have become natural to us. We must return to the direct perception of change and mobility. Here is an immediate result of this effort. *We shall think of all change, all movement, as being absolutely indivisible.*

Let us begin with movement. I have my hand at point *A*. I move it over to point *B*, traversing the interval *AB*. I say that this movement from *A* to *B* is by nature simple.

But of this each one of us has the immediate sensation. No doubt while we are moving our hand from *A* to *B* we say to ourselves that we could stop it at an intermediary point, but in that case we should not have to do with the same movement. There would no longer be a single movement from *A* to *B*; there would be, by hypothesis, two movements, with an interval. Neither from within, through the muscular sense, nor from without

through sight, should we still have the same perception. If I leave my movement from *A* to *B* as it is, I feel it undivided and must declare it to be indivisible.

It is true that, when I watch my hand going from *A* to *B* and describing the interval *AB*, I say: "The interval *AB* can be divided into as many parts as I wish, therefore the movement from *A* to *B* can be divided into as many parts as I like, since this movement is applied exactly upon this interval." Or again: "At each instant of its trajection, the mobile passes through a certain point, therefore one can distinguish in the movement as many stages as one likes, therefore the movement is infinitely divisible." But let us reflect for a moment. How could the movement *be applied upon* the space it traverses? How can something moving coincide with something immobile? How could the moving object *be* in a point of its trajectory passage? It *passes through*, or in other terms, it *could be there*. It would be there if it stopped; but if it should stop there, it would no longer be the same movement we were dealing with. It is always by a single bound that a passing is completed, when there is no break in the passage. The bound may last a few seconds, or days, months, years: it matters little. The moment it is one single bound, it is indecomposable. Only, once the passage is effected, as the trajectory is space and space is indefinitely divisible, we imagine that movement itself is indefinitely divisible. We like to imagine it because, in a movement, it is not the change of position which interests us, it is the positions themselves, the one the movement has left, the one it will take, the one it would take if it stopped on the way. We need immobility, and the more we succeed in imagining movement as coinciding with the immobilities of the points of space through which it passes, the better we think we understand it. To tell the truth, there never is real immobility, if we understand by that an absence of movement. Movement is reality itself, and what we call immobility is a certain state of things analogous to that produced when two trains move at the same speed, in the

same direction, on parallel tracks: each of the two trains is then immovable to the travelers seated in the other. But a situation of this kind which, after all, is exceptional, seems to us to be the regular and normal situation, because it is what permits us to act upon things and also permits things to act upon us: the travelers in the two trains can hold out their hands to one another through the door and talk to one another only if they are "immobile," that is to say, if they are going in the same direction at the same speed. "Immobility" being the prerequisite for our action, we set it up as a reality, we make of it an absolute, and we see in movement something which is superimposed. Nothing is more legitimate in practice. But when we transport this habit of mind into the domain of speculation, we fail to recognize the true reality, we deliberately create insoluble problems, we close our eyes to what is most living in the real.

I need not recall the arguments of Zeno of Elea. They all involve the confusion of movement with the space covered, or at least the conviction that one can treat movement as one treats space, divide it without taking account of its articulations. Achilles, they say, will never overtake the tortoise he is pursuing, for when he arrives at the point where the tortoise was the latter will have had time to go further, and so on indefinitely. Philosophers have refuted this argument in numerous ways, and ways so difficult that each of these refutations deprives the others of the right to be considered definitive. There would have been, nevertheless, a very simple means of making short work of the difficulty: that would have been to question Achilles. For since Achilles finally catches up to the tortoise and even passes it, he must know better than anyone else how he goes about it. The ancient philosopher who demonstrated the possibility of movement by walking was right: his only mistake was to make the gesture without adding a commentary. Suppose then we ask Achilles to comment on his race: here, doubtless, is what he will answer: "Zeno insists that I go from the point where I am to the point the tortoise

has left, from that point to the next point it has left, etc., etc.; that is his procedure for making me run. But I go about it otherwise. I take a first step, then a second, and so on: finally, after a certain number of steps, I take a last one by which I skip ahead of the tortoise. I thus accomplish a series of indivisible acts. My course is the series of these acts. You can distinguish its parts by the number of steps it involves. But you have not the right to disarticulate it according to another law, or to suppose it articulated in another way. To proceed as Zeno does is to admit that the race can be arbitrarily broken up like the space which has been covered; it is to believe that the passage is in reality applied to the trajectory; it is making movement and immobility coincide and consequently confusing one with the other."

But that is precisely what our usual method consists in. We argue about movement as though it were made of immobilities and, when we look at it, it is with immobilities that we reconstitute it. Movement for us is a position, then another position, and so on indefinitely. We say, it is true, that there must be something else, and that from one position to another there is the *passage* by which the interval is cleared. But as soon as we fix our attention on this passage, we immediately make of it a series of positions, even though we still admit that between two successive positions one must indeed assume a passage. We put this passage off indefinitely the moment we have to consider it. We admit that it exists, we give it a name; that is enough for us: once that point has been satisfactorily settled we turn to the positions preferring to deal with them alone. We have an instinctive fear of those difficulties which the vision of movement as movement would arouse in our thought; and quite rightly, once we have loaded movement down with immobilities. If movement is not everything, it is nothing; and if to begin with we have supposed that immobility can be a reality, movement will slip through our fingers when we think we have it.

I have spoken of movement; but I could say the same for any change whatever. All real change is an indivisible change. We like to treat it as a series of distinct states which form, as it were, a line in time. That is perfectly natural. If change is continuous in us and also in things, on the other hand, in order that the uninterrupted change which each of us calls "me" may act upon the uninterrupted change that we call a "thing," these two changes must find themselves, with regard to one another, in a situation like that of the two trains referred to above. We say, for example, that an object changes color, and that change here consists in a series of shades which would be the constitutive elements of change and which, themselves, would not change. But in the first place, if each shade has any objective existence at all, it is an infinitely rapid oscillation, it is change. And in the second place, the perception we have of it, to the extent that it is subjective, is only an isolated, abstract aspect of the general state of our person, and this state as a whole is constantly changing and causing this so-called invariable perception to participate in its change; in fact, there is no perception which is not constantly being modified. So that color, outside of us, is mobility itself, and our own person is also mobility. But the whole mechanism of our perception of things, like the mechanism of our action upon things has been regulated in such a way as to bring about, between the external and the internal mobility, a situation comparable to that of our two trains—more complicated, perhaps, but of the same kind: when the two changes, that of the object and that of the subject, take place under particular conditions, they produce the particular appearance that we call a "state." And once in possession of "states," our mind recomposes change with them. I repeat, there is nothing more natural: the breaking up of change into states enables us to act upon things, and it is useful in a practical sense to be interested in the states rather than in the change itself. But what is favorable to action in this case would

be fatal to speculation. If you imagine a change as being really composed of states, you at once cause insoluble metaphysical problems to arise. They deal only with appearances. You have closed your eyes to true reality.

I shall not press the point. Let each of us undertake the experiment, let him give himself the direct vision of a change, of a movement: he will have a feeling of absolute indivisibility. I come then to the second point, closely allied to the first. *There are changes, but there are underneath the change no things which change: change has no need of a support. There are movements, but there is no inert or invariable object which moves: movement does not imply a mobile.*

It is difficult to picture things in this way, because the sense 'par excellence' is the sense of sight, and because the eye has developed the habit of separating, in the visual field, the relatively invariable figures which are then supposed to change place without changing form, movement is taken as super-added to the mobile as an accident. It is, in fact, useful to have to deal in daily life with objects which are stable and, as it were, responsible, to which one can address oneself as to persons. The sense of sight contrives to take things in this way: as an advance-guard for the sense of touch, it prepares our action upon the external world. But we already have less difficulty in perceiving movement and change as independent realities if we appeal to the sense of hearing. Let us listen to a melody, allowing ourselves to be lulled by it: do we not have the clear perception of a movement which is not attached to a mobile, of a change without anything changing? This change is enough, it is the thing itself. And even if it takes time, it is still indivisible; if the melody stopped sooner it would no longer be the same sonorous whole, it would be another, equally indivisible. We have, no doubt, a tendency to divide it and to picture, instead of the uninterrupted continuity of melody, a juxtaposition of distinct notes. But why? Because we are thinking of the discontinuous series of efforts we should be making to recompose approximately

the sound heard if we were doing the singing, and also because our auditory perception has acquired the habit of absorbing visual images. We therefore listen to the melody through the vision which an orchestra-leader would have of it as he watched its score. We picture notes placed next to one another upon an imaginary piece of paper. We think of a keyboard upon which some one is playing, of the bow going up and down, of the musicians, each one playing his part along with the others. If we do not dwell on these spatial images, pure change remains, sufficient unto itself, in no way divided, in no way attached to a "thing" which changes.

Let us come back, then, to the sense of sight. In further concentrating our attention upon it we perceive that even here movement does not demand a vehicle nor change a substance in the ordinary meaning of the word. A suggestion of this vision of material things already comes to us from physical science. The more it progresses the more it resolves matter into actions moving through space, into movements dashing back and forth in a constant vibration so that mobility becomes reality itself. No doubt science begins by assigning a support to this mobility. But as it advances, the support recedes; masses are pulverized into molecules, molecules into atoms, atoms into electrons or corpuscles; finally, the support assigned to movement appears merely as a convenient schema—a simple concession on the part of the scholar to the habits of our visual imagination. But there is no need to go so far. What is the "mobile" to which our eye attaches movement as to a vehicle? Simply a colored spot which we know perfectly well amounts, in itself, to a series of extremely rapid vibrations. This alleged movement of a thing is in reality only a movement of movements.

But nowhere is the *substantiality* of change so visible, so palpable as in the domain of the inner life. Difficulties and contradictions of every kind to which the theories of personality have led come from our having imagined, on the one hand, a series of distinct psychological

states, each one invariable, which would produce the variations of the ego by their very succession, and on the other hand an ego, no less invariable, which would serve as support for them. How could this unity and this multiplicity meet? How, without either of them having duration—the first because change is something superadded, the second because it is made up of elements which do not change—how could they constitute an ego which endures? But the truth is that there is neither a rigid, immovable substratum nor distinct states passing over it like actors on a stage. There is simply the continuous melody of our inner life—a melody which is going on and will go on, indivisible, from the beginning to the end of our conscious existence. Our personality is precisely that.

This indivisible continuity of change is precisely what constitutes true duration. I cannot here enter into the detailed examination of a question I have dealt with elsewhere. I shall confine myself therefore to saying, in reply to those for whom this "real duration" is something inexpressible and mysterious, that it is the clearest thing in the world: *real duration* is what we have always called *time*, but time perceived as indivisible. That time implies succession I do not deny. But that succession is first presented to our consciousness, like the distinction of a "before" and "after" set side by side, is what I cannot admit. When we listen to a melody we have the purest impression of succession we could possibly have—an impression as far removed as possible from that of simultaneity—and yet it is the very continuity of the melody and the impossibility of breaking it up which make that impression upon us. If we cut it up into distinct notes, into so many "befores" and "afters," we are bringing spatial images into it and impregnating the succession with simultaneity: in space, and only in space, is there a clear-cut distinction of parts external to one another. I recognize moreover that it is in spatialized time that we ordinarily place ourselves. We have no interest in listening to the uninterrupted

humming of life's depths. And yet, that is where real duration is. Thanks to it, the more or less lengthy changes we witness within us and in the external world, take place in a single identical time.

Thus, whether it is a question of the internal or the external, of ourselves or of things, reality is mobility itself. That is what I was expressing when I said that there is change, but that there are not things which change.

Before the spectacle of this universal mobility there may be some who will be seized with dizziness. They are accustomed to *terra firma*; they cannot get used to the rolling and pitching. They must have "fixed" points to which they can attach thought and existence. They think that if everything passes, nothing exists; and that if reality is mobility, it has already ceased to exist at the moment one thinks it—it eludes thought. The material world, they say, is going to disintegrate, and the mind will drown in the torrent-like flow of things.—Let them be reassured! Change, if they consent to look directly at it without an interposed veil, will very quickly appear to them to be the most substantial and durable thing possible. Its solidity is infinitely superior to that of a fixity which is only an ephemeral arrangement between mobilities. I have come, in fact, to the third point to which I should like to draw your attention.

It is this: if change is real and even constitutive of reality, we must envisage the past quite differently from what we have been accustomed to doing through philosophy and language. We are inclined to think of our past as inexistent, and philosophers encourage this natural tendency in us. For them and for us the present alone exists by itself: if something of the past does survive it can only be because of help given it by the present, because of some act of charity on the part of the present, in short—to get away from metaphor—by the intervention of a certain particular function called memory, whose role is presumed to be to preserve certain parts of the past, for which exception is made, by stor-

ing them away in a kind of box.—This is a profound mistake! A useful one, I admit, perhaps necessary to action, but fatal to speculation. One could find in it, "in a nutshell" as you say, most of the illusions capable of vitiating philosophical thought.

Let us reflect for a moment on this "present" which alone is considered to have existence. What precisely is the present? If it is a question of the present instant—I mean, of a mathematical instant which would be to time what the mathematical point is to the line—it is clear that such an instant is a pure abstraction, an aspect of the mind; it cannot have real existence. You could never create time out of such instants any more than you could make a line out of mathematical points. Even if it does exist, how could there be an instant anterior to it? The two instants could not be separated by an interval of time since, by hypothesis, you reduce time to a juxtaposition of instants. Therefore they would not be separated by anything, and consequently they would be only one: two mathematical points which touch are identical. But let us put such subtleties aside. Our consciousness tells us that when we speak of our present we are thinking of a certain interval of duration. What duration? It is impossible to fix it exactly, as it is something rather elusive. My present, at this moment, is the sentence I am pronouncing. But it is so because I want to limit the field of my attention to my sentence. This attention is something that can be made longer or shorter, like the interval between the two points of a compass. For the moment, the points are just far enough apart to reach from the beginning to the end of my sentence; but if the fancy took me to spread them further my present would embrace, in addition to my last sentence, the one that preceded it: all I should have had to do is to adopt another punctuation. Let us go further: an attention which could be extended indefinitely would embrace, along with the preceding sentence, all the anterior phrases of the lecture and the events which preceded the lecture, and as large a portion of what we

call our past as desired. The distinction we make between our present and past is therefore, if not arbitrary, at least relative to the extent of the field which our attention to life can embrace. The "present" occupies exactly as much space as this effort. As soon as this particular attention drops any part of what it held beneath its gaze, immediately that portion of the present thus dropped becomes *ipso facto* a part of the past. In a word, our present falls back into the past when we cease to attribute to it an immediate interest. What holds good for the present of individuals holds also for the present of nations: an event belongs to the past, and enters into history when it is no longer of any direct interest to the politics of the day and can be neglected without the affairs of the country being affected by it. As long as its action makes itself felt, it adheres to the life of a nation and remains present to it.

Consequently nothing prevents us from carrying back as far as possible the line of separation between our present and our past. An attention to life, sufficiently powerful and sufficiently separated from all practical interest, would thus include in an undivided present the entire past history of the conscious person—not as instantaneity, not like a cluster of simultaneous parts, but as something continually present which would also be something continually moving: such, I repeat, is the melody which one perceives as indivisible, and which constitutes, from one end to the other—if we wish to extend the meaning of the word—a perpetual present, although this perpetuity has nothing in common with immutability, or this indivisibility with instantaneity. What we have is a present which endures.

That is not a hypothesis. It happens in exceptional cases that the attention suddenly loses the interest it had in life: immediately, as though by magic, the past once more becomes present. In people who see the threat of sudden death unexpectedly before them, in the mountain climber falling down a precipice, in drowning men, in men being hanged, it seems that a sharp conversion of

the attention can take place—something like a change of orientation of the consciousness which, up until then turned toward the future and absorbed by the necessities of action, suddenly loses all interest in them. That is enough to call to mind a thousand different "forgotten" details and to unroll the whole history of the person before him in a moving panorama.

Memory therefore has no need of explanation. Or rather, there is no special faculty whose role is to retain quantities of past in order to pour it into the present. The past preserves itself automatically. Of course, if we shut our eyes to the indivisibility of change, to the fact that our most distant past adheres to our present and constitutes with it a single and identical uninterrupted change, it seems that the past is normally what is abolished and that there is something extraordinary about the preservation of the past: we think ourselves obliged to conjure up an apparatus whose function would be to record the parts of the past capable of reappearing in our consciousness.

But if we take into consideration the continuity of the inner life and consequently of its indivisibility, we no longer have to explain the preservation of the past, but rather its apparent abolition. We shall no longer have to account for remembering, but for forgetting. The explanation moreover will be found in the structure of the brain. Nature has invented a mechanism for canalizing our attention in the direction of the future, in order to turn it away from the past—I mean of that part of our history which does not concern our present actions—in order to bring to it at most, in the form of "memories," one simplification or another of anterior experience, destined to complete the experience of the moment; it is in this that the function of the brain consists. We cannot here undertake the discussion of that theory which claims that the brain is useful for the preservation of the past, that it stores up memories like so many photographic plates from which we afterward develop proofs, or like so many phonograms destined to become

sounds again. We have examined this thesis elsewhere. This doctrine was largely inspired by a certain metaphysics with which contemporary psychology and psycho-physiology are imbued, and which one accepts naturally: this accounts for its apparent clarity. But as we consider it more closely, we see what difficulties and impossibilities accumulate in it. Let us take the case most favorable to the thesis, that of a material object making an impression on the eye and leaving a visual memory in the mind. What can this memory possibly be, if it is really the result of the fixation in the brain of the impression received by the eye? The slightest movement on the part of the object or the eye and there would be not one image but ten, a hundred, a thousand images, as many and more than on a cinematographic film. Were the object merely considered for a certain time, or seen at various moments, the different images of that object could be counted by millions. And we have taken the simplest example! Let us suppose all those images are stored up; what good will they serve? which one shall we use? Let us grant that we have our reasons for choosing one of them, why, and how, shall we throw it back into the past when we perceive it? But to pass over these difficulties, how shall we explain the diseases of the memory? In those diseases which correspond to local lesions of the brain, that is in the various forms of aphasia, the psychological lesion consists less in an abolition of the memories than in an ability to recall them. An effort, an emotion, can bring suddenly to consciousness words believed definitely lost. These facts, with many others, unite to prove that in such cases the brain's function is to choose from the past, to diminish it, to simplify it, to utilize it, but not to preserve it. We should have no trouble in looking upon things from this angle if we had not acquired the habit of believing that the past is abolished. Then its partial reappearance creates the effect of an extraordinary event which demands an explanation. And that is why we imagine here and there in the brain, memory "pigeon-holes" for preserving frag-

ments of the past—the brain moreover, being self-preserving. As though that were not postponing the difficulty and simply putting off the problem! As though, by positing that cerebral matter is preserved through time, or more generally that all matter endures, one did not attribute to it precisely the memory one claimed to explain by it! Whatever we do, even if we imagine that the brain stores up memories, we do not escape the conclusion that the past can preserve itself automatically.

This holds not only for our own past, but also for the past of any change whatsoever, always providing that it is a question of a single and therefore indivisible change: the preservation of the past in the present is nothing else than the indivisibility of change. It is true that, with regard to the changes which take place outside of us we almost never know whether we are dealing with a single change or one composed of several movements interspersed with stops (the stop never being anything but relative). We would have to be inside beings and things as we are inside ourselves before we could express our opinion on this point. But that is not where the importance lies. It is enough to be convinced once and for all that reality is change, that change is indivisible, and that in an indivisible change the past is one with the present.

Let us imbibe this truth and we shall see a good many philosophical enigmas melt away and evaporate. Certain great problems such as that of substance, of change, and of their relation to one another, will no longer arise. All the difficulties raised around these points—difficulties which caused substance to recede little by little to the regions of the unknowable—came from the fact that we shut our eyes to the indivisibility of change. If change, which is evidently constitutive of all our experience, is the fleeting thing most philosophers have spoken of, if we see in it only a multiplicity of states replacing other states, we are obliged to re-establish the continuity between these states by an artificial bond; but this immobile substratum of immobility, being incapable of pos-

sessing any of the attributes we know—since all are changes—recedes as we try to approach it: it is as elusive as the phantom of change it was called upon to fix. Let us, on the contrary, endeavor to perceive change as it is in its natural indivisibility: we see that it is the very substance of things, and neither does movement appear to us any longer under the vanishing form which rendered it elusive to thought, nor substance with the immutability which made it inaccessible to our experience. Radical instability and absolute immutability are therefore mere abstract views taken from outside of the continuity of real change, abstractions which the mind then hypostasizes into multiple *states* on the one hand, into *thing* or substance on the other. The difficulties raised by the ancients around the question of movement and by the moderns around the question of substance disappear, the former because movement and change are substantial, the latter because substance is movement and change.

At the same time that theoretical obscurities disappear we get a glimpse of the possible solution of more than one reputedly unsolvable problem. The discussions on the subject of free will would come to an end if we saw ourselves where we are really, in a concrete duration where the idea of necessary determination loses all significance, since in it the past becomes identical with the present and continuously creates with it—if only by the fact of being added to it—something absolutely new. And we could gradually acquire a deeper appreciation of the relation of man to the universe if we took into account the true nature of *states*, of *qualities*, in fact of everything which presents itself to us with the appearance of stability. In such a case the object and the subject should be, with regard to one another, in a situation analogous to that of the two trains we spoke of at the beginning: it is a certain regulating of mobility on mobility which produces the effect of immobility. Let us then become imbued with this

idea, let us never lose sight of the particular relation of the object to the subject translated by a static vision of things: everything that experience teaches us of the one will increase the knowledge we had of the other, and the light the latter receives will in turn be able, by reflection, to illuminate the former.

But as I said in the beginning, pure speculation will not be the only thing to benefit by this vision of universal becoming. We shall be able to make it penetrate into our everyday life, and through it, obtain from philosophy satisfactions similar to those we receive from art, but more frequent, more continual and more accessible to the majority of men. Art enables us, no doubt, to discover in things more qualities and more shades than we naturally perceive. It dilates our perception, but on the surface rather than in depth. It enriches our present, but it scarcely enables us to go beyond it. Through philosophy we can accustom ourselves never to isolate the present from the past which it pulls along with it. Thanks to philosophy, all things acquire depth—more than depth, something like a fourth dimension which permits anterior perceptions to remain bound up with present perceptions, and the immediate future itself to become partly outlined in the present. Reality no longer appears then in the static state, in its manner of being; it affirms itself dynamically, in the continuity and variability of its tendency. What was immobile and frozen in our perception is warmed and set in motion. Everything comes to life around us, everything is revived in us. A great impulse carries beings and things along. We feel ourselves uplifted, carried away, borne along by it. We are more fully alive and this increase of life brings with it the conviction that grave philosophical enigmas can be resolved or even perhaps that they need not be raised, since they arise from a frozen vision of the real and are only the translation, in terms of thought, of a certain artificial weakening of our vitality. In fact, the more we accustom ourselves to

think and to perceive all things *sub specie durationis*, the more we plunge into real duration. And the more we immerse ourselves in it, the more we set ourselves back in the direction of the principle, though it be transcendent, in which we participate and whose eternity is not to be an eternity of immutability, but an eternity of life: how, otherwise, could we live and move in it? *In ea vivimus et movemur et sumus.*