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Intuition Henri Bergson

comparison of the definitions of metaphysics and the various conceptions of the absolute leads to the discovery that philosophers, in spite of their apparent divergencies, agree in distinguishing two profoundly different ways of knowing a thing. The first implies that we move round the object; the second that we enter into it. The first depends on the point of view at which we are placed and on the symbols by which we express ourselves. The second neither depends on a point of view nor relies on any symbol. The first kind of knowledge may be said to stop at the relative; the second, in those cases where it is possible, to attain the absolute.

Consider, for example, the movement of an object in space. My perception of the motion will vary with the point of view, moving or stationary, from which I observe it. My expression of it will vary with the systems of axes, or the points of reference, to which I relate it; that is, with the symbols by which I translate it. For this double reason I call such motion relative: in the one case, as in the other, I am placed outside the object itself But when I speak of an absolute movement, I am attributing to the moving object an interior and, so to speak, states of mind; I also imply that I am in sympathy with those states, and that I insert myself in them by an effort of imagination. Then, according as the object is moving or stationary, according as it adopts one movement or another, what I experience will vary. And what I experience will depend neither on the point of view 1 may take up in regard to the object, since I am inside the object itself, nor on the symbols by which I may translate the motion, since I have rejected all translations in order to possess the original. In short, I shall no longer grasp the movement from without, remaining where I am, but fi-om where it is, from within, as it is in itself. I shall possess an absolute.

Consider, again, a character whose adventures are related to me in a novel. The author may multiply the traits of his hero's character, may make him speak and act as much as he pleases, but all this can never be equivalent to the simple and indivisible feeling which I should experience if I were able for an instant to identify myself with the person of the hero himself. Out of that indivisible feeling, as from a spring, all the words, gestures, and actions of the man would appear to me to flow naturally. They would no longer be accidents which, added to the idea I had already formed of the character, continually enriched that idea, without ever completing it. The character would be given to me all at once, in its entirety, and the thousand incidents which manifest it, instead of adding themselves to the idea and so enriching it, would seem to me, on the contrary, to detach themselves from it, without, however, exhausting it or impoverishing its essence. All the things I am told about the man provide me with so many points of view from which I can observe him. All the traits which describe him and which can make him known to me only by so many comparisons with persons or things I know already, are signs by which he is expressed more or less symbolically. Symbols and points of view, therefore, place me outside him; they give me only what he has in common with others, and not what belongs to him and to him alone. But that which is properly himself, that which constitutes his essence, cannot be perceived from without, being internal by definition, nor be expressed by

symbols, being incommensurable with everything else. Description, history, and analysis leave me here in the relative. Coincidence with the person himself would alone give me the absolute.

It is in this sense, and in this sense only, that absolute is synonymous with perfection. Were all the photographs of a town, taken from all possible points of view, to go on indefinitely completing one another, they would never be equivalent to the solid town in which we walk about. Were all the translations of a poem into all possible languages to add together their various shades of meaning and, correcting each other by a kind of mutual retouching, to give a more and more faithful image of the poem they translate, they would yet never succeed in rendering the inner meaning of the original. A representation taken from a certain point of view, a translation made with certain symbols, will always remain imperfect in comparison with the object of which a view has been taken, or which the symbols seek to express. But the absolute, which is the object and not its representation, the original and not its translation, is perfect, by being perfectly what it is.

It is doubtless for this reason that the absolute has often been identified with the infinite. Suppose that I wished to communicate to some one who did not know Greek the extraordinarily simple impression that a passage in Homer makes upon me; I should first give a translation of the lines, I should then comment on my translation, and then develop the commentary; in this way, by piling up explanation on explanation, I might approach nearer and nearer to what I wanted to express; but I should never quite reach it. When you raise your arm, you accomplish a movement of which you have, from within, a simple perception; but for me, watching it from the outside, your arm passes through one point, then through another, and between these two there will be still other points; so that, if I began to count, the operation would go on for ever. Viewed from the inside, then, an absolute is a simple thing; but looked at from the outside, that is to say, relatively to other things, it becomes, in relation to these signs which express it, the gold coin for which we never seem able to finish giving small change. Now, that which lends itself at the same time both to an indivisible apprehension and to an inexhaustible enumeration is, by the very definition of the word, an infinite.

It follows from this that an absolute could only be given in an intuition whilst everything else falls within the province of analysis. By intuition is meant the kind of intellectual sympathy by which one places oneself within an object in order to coincide with what is unique in it and consequently inexpressible. Analysis, on the contrary, is the operation which reduces the object to elements already known, that is, to elements common both to it and other objects. To analyze, therefore, is to express a thing as a function of something other than itself. All analysis is thus a translation, a development into symbols, a representation taken from successive points of view from which we note as many resemblances as possible between the new object which we are studying and others which we believe we know already. In its eternally unsatisfied desire to embrace the object around which it is compelled to turn, analysis multiplies without end the number of its points of view in order to complete its always incomplete representation. It goes on, therefore, to infinity. But intuition, if intuition is possible, is a simple act.

Now it is easy to see that the ordinary function of positive science is analysis. Positive science works, then, above all, with symbols. Even the most concrete of the natural sciences, those concerned with life, confine themselves to the visible form of living beings, their organs and anatomical elements. They make comparisons between these forms, they reduce the more complex to the more simple; in short, they study the workings of life in what is, so to speak, only its visual symbol. If there exists any means of possessing a reality absolutely instead of knowing it relatively, of placing oneself within it instead of looking at it from outside points of view, of having the intuition instead of making the analysis: in short, of seizing it without any

expression, translation, or symbolic representation—metaphysics is that means. *Metaphysics, then, is the science which claims to dispense with symbols.*

There is one reality, at least, which we all seize from within, by intuition and not by simple analysis. It is our own personality in its flowing through time—our self which endures. We may sympathize intellectually with nothing else, but we certainly sympathize with our own selves.

When I direct my attention inward to contemplate my own self (supposed for the moment to be inactive), I perceive at first, as a crust solidified on the surface, all the perceptions which come to it from the material world. These perceptions are clear, distinct, juxtaposed or juxtaposable one with another; they tend to group themselves into objects. Next, I notice the memories which more or less adhere to these perceptions and which serve to interpret them. These memories have been detached, as it were, from the depth of my personality, drawn to the surface by the perceptions which resemble them; they rest on the surface of my mind without being absolutely myself. Lastly, I feel the stir of tendencies and motor habits—a crowd of virtual actions, more or less firmly bound to these perceptions and memories. All these clearly defined elements appear more distinct from me, the more distinct they are from each other. Radiating, as they do, from within outwards, they form, collectively, the surface of a sphere which tends to grow larger and lose itself in the exterior world. But if I draw myself in from the periphery towards the centre, if I search in the depth of my being that which is most uniformly, most constantly, and most enduringly myself, I find an altogether different thing.

There is, beneath these sharply cut crystals and this frozen surface, a continuous flux which is not comparable to any flux I have ever seen. There is a succession of states, each of which announces that which follows and contains that which precedes it. They can, properly speaking, only be said to form multiple states when I have already passed them and turn back to observe their track. Whilst I was experiencing them they were so solidly organized, so profoundly animated with a common life, that I could not have said where any one of them finished or where another commenced. In reality no one of them begins or ends, but all extend into each other.

This inner life may be compared to the unrolling of a coil, for there is no living being who does not feel himself gradually to the end of his role; and to live is to grow old. But it may just as well be compared to a continual rolling up, like that of a thread on a ball, for our past follows us, it swells incessantly with the present that it picks up on its way; and consciousness means memory.

But actually it is neither an unrolling nor a rolling up, for these two similes evoke the idea of lines and surfaces whose parts are homogeneous and superposable on one another. Now, there are no two identical moments in the life of the same conscious being. Take the simplest sensation, suppose it constant, absorb in it the entire personality: the consciousness which will accompany this sensation cannot remain identical with itself for two consecutive moments, because the second moment always contains, over and above the first, the memory that the first has bequeathed to it. A consciousness which could experience two identical moments would be a consciousness without memory. It would die and be bom again continually. In what other way could one represent unconsciousness?

It would be better, then, to use as a comparison the myriad-tinted spectrum, with its insensible gradations leading from one shade to another. A current of feeling which passed along the spectrum, assuming in turn the tint of each of its shades, would experience a series of gradual changes, each of which would announce the one to follow and would sum up those which preceded it. Yet even here the successive shades of the spectrum always remain external one to another. They are juxtaposed; they occupy space. But pure duration, on the contrary, excludes all idea of juxtaposition, reciprocal externality, and extension.

Let us, then, rather, imagine an infinitely small elastic body, contracted, if it were possible, to a mathematical point. Let this be drawn out gradually in such a manner that from the point comes a constantly lengthening line. Let us fix our attention not on the line as a line, but on the action by which it is traced. Let us bear in mind that this action, in spite of its duration, is indivisible if accomplished without stopping, that if a stopping-point is inserted, we have two actions instead of one, that each of these separate actions is then the indivisible operation of which we speak, and that it is not the moving action itself which is divisible, but, rather, the stationary line it leaves behind it as its track in space. Finally, let us free ourselves from the space which underlies the movement in order to consider only the movement itself, the act of tension or extension; in short, pure mobility. We shall have this time a more faithful image of the development of our self in duration.

However, even this image is incomplete, and, indeed, every comparison will be insufficient, because the unrolling of our duration resembles in some of its aspects the unity of an advancing movement and in others the multiplicity of expanding states; and, clearly, no metaphor can express one of these two aspects without sacrificing the other. If I use the comparison of the spectrum with its thousand shades, I have before me a thing already made, whilst duration is continually in the making. If I think of an elastic which is being stretched, or of a spring which is extended or relaxed, I forget the richness of color, characteristic of duration that is lived, to see only the simple movement by which consciousness passes from one shade to another. The inner life is all this at once: variety of qualities, continuity of progress, and unity of direction. It cannot be represented by images.

But it is even less possible to represent it by concepts, that is by abstract, general, or simple ideas. It is true that no image can reproduce exactly the original feeling I have of the flow of my own conscious life. But it is not even necessary that I should attempt to render it. If a man is incapable of getting for himself the intuition of the constitutive duration of his own being, nothing will ever give it to him, concepts no more than images. Here the single aim of the philosopher should be to promote a certain effort, which in most men is usually fettered by habits of mind more useful to life. Now the image has at least this advantage, that it keeps us in the concrete. No image can replace the intuition of duration, but many diverse images, borrowed from very different orders of things, may, by the convergence of their action, direct, consciousness to the precise point where there is a certain intuition to be seized. By choosing images as dissimilar as possible, we shall prevent any one of them from usurping the place of the intuition it is intended to call up, since it would then be driven away at once by its rivals. By providing that, in spite of their differences of aspect, they all require from the mind the same kind of attention, and in some sort the same degree of tension, we shall gradually accustom consciousness to a particular and clearly-defined disposition-that precisely which it must adopt in order to appear to itself as it really is, without any veil. But, then, consciousness must at least consent to make the effort. For it will have been shown nothing; it will simply have been placed in the attitude it must take up in order to make the desired effort, and so come by itself to the intuition. Concepts on the contrary—especially if they are simple—have the disadvantage of being in reality symbols substituted for the object they symbolize, and demand no effort on our part. Examined closely, each of them, it would be seen, retains only that part of the object which is common to it and to others, and expresses, still more than the image does, a comparison between the object and others which resemble it. But as the comparison has made manifest a resemblance, as the resemblance is a property of the object, and as a property has every appearance of being a part of the object which possesses it, we easily persuade ourselves that by setting concept beside concept we are reconstructing the whole of the object with its parts, thus obtaining, so to speak, its intellectual equivalent. In this way we believe that we can

form a faithful representation of duration by setting in line the concepts of unity, multiplicity, continuity, finite or infinite divisibility, etc. There precisely is the illusion. There also is the danger. Just in so far as abstract ideas can render service to analysis, that is, to the scientific study of the object in its relations to other objects, so far are they incapable of replacing intuition, that is, the metaphysical investigation of what is essential and unique in the object. For on the one hand these concepts, laid side by side, never actually give us more than an artificial reconstruction of the object, of which they can only symbolize certain general, and, in a way, impersonal aspects; it is therefore useless to believe that with them we can seize a reality of which they present to us the shadow alone. And, on the other hand, besides the illusion there is also a very serious danger. For the concept generalizes at the same time as it abstracts. The concept can only symbolize a particular property by making it common to an infinity of things. It therefore always more or less deforms the property by the extension it gives to it. Replaced in the metaphysical object to which it belongs, a property coincides with the object, or at least moulds itself on it, and adopts the same outline. Extracted from the metaphysical object, and presented in a concept, it grows indefinitely larger, and goes beyond the object itself, since henceforth it has to contain it, along with a number of other objects. Thus the different concepts that we form of the properties of a thing inscribe round it so many circles, each much too large and none of them fitting it exactly. And yet, in the thing itself the properties coincided with the thing, and coincided consequently with one another. So that if we are bent on reconstructing the object with concepts, some artifice must be sought whereby this coincidence of the object and its properties can be brought about. For example, we may choose one of the concepts and try, starting from it, to get round to the others. But we shall then soon discover that according as we start from one concept or another, the meeting and combination of the concepts will take place in an altogether different way. According as we start, for example, from unity or from multiplicity, we shall have to conceive differently the multiple unity of duration. Everything will depend on the weight we attribute to this or that concept, and this weight will always be arbitrary, since the concept extracted from the object has no weight, being only the shadow of a body. In this way, as many different systems will spring up as there are external points of view from which the reality can be examined, or larger circles in which it can he enclosed. Simple concepts have, then, not only the inconvenience of dividing the concrete unity of the object into so many symbolical expressions; they also divide philosophy into distinct schools, each of which takes its seat, chooses its counters, and carries on with the others a game that will never end. Either metaphysics is only this play of ideas, or else, if it is a serious occupation of the mind, if it is a science and not simply an exercise, it must transcend concepts in order to reach intuition. Certainly, concepts are necessary to it, for all the other sciences work as a rule with concepts, and metaphysics cannot dispense with the other sciences. But it is only truly itself when it goes beyond the concept, or at least when it frees itself from rigid and ready-made concepts in order to create a kind very different from those which we habitually use; I mean supple, mobile, and almost fluid representations, always ready to mould themselves on the fleeting forms of intuition. We shall return later to this important point. Let it suffice us for the moment to have shown that our duration can be presented to us directly in an intuition, that it can be suggested to us indirectly by images, but that it can never-if we confine the word concept to its proper meaning-be enclosed in a conceptual representation....

Thinking usually consists in passing from concepts to things, and not from things to concepts. To know a reality, in the usual sense of the word "know," is to take ready-made concepts, to portion them out and to mix them together until a practical equivalent of the reality is obtained. But it must be remembered that the normal work of the intellect is far from being disinterested. We do not aim generally at knowledge for the sake of knowledge, but in order to

take sides, to draw profit—in short, to satisfy an interest. We inquire up to what point the object we seek to know is this or that, to what known class it belongs, and what kind of action, bearing, or attitude it should suggest to us. These different possible actions and attitudes are so many conceptual directions of our thought, determined once for all; it remains only to follow them: in that precisely consists the application of concepts to things. To try to fit a concept on an object is simply to ask what we can do with the object, and what it can do for us. To label an object with a certain concept is to mark in precise terms the kind of action or attitude the object should suggest to us. All knowledge, properly so called, is then oriented in a certain direction, or taken from a certain point of view. It is true that our interest is often complex. This is why it happens that our knowledge of the same object may face several successive directions and may be taken from various points of view. It is this which constitutes, in the usual meaning of the terms, a "broad" and "comprehensive" knowledge of the object; the object is then brought not under one single concept, but under several in which it is supposed to 'participate." How does it participate in all these concepts at the same time? This is a question which does not concern our practical action and about which we need not trouble. It is, therefore, natural and legitimate in daily life to proceed by the juxtaposition and portioning out of concepts; no philosophical difficulty will arise from this procedure, since by a tacit agreement we shall abstain from philosophizing. But to carry this modus operandi into philosophy, to pass here also from concepts to the thing, to use in order to obtain a disinterested knowledge of an object (that this time we desire to grasp as it is in itself) a manner of knowing inspired by a determinate interest, consisting by definition in an externally-taken view of the object, is to go against the end that we have chosen, to condemn philosophy to an eternal skirmishing between the schools and to install contradiction in the very heart of the object and of the method. Either there is no philosophy possible, and all knowledge of things is a practical knowledge aimed at the profit to be drawn from them, or else philosophy consists in placing oneself within the object itself by an effort of intuition.

...[A]nalysis operates always on the immobile, whilst intuition places itself in mobility, or, what comes to the same thing, in duration. There lies the very distinct line of demarcation between intuition and analysis. The real, the experienced, and the concrete are recognized by the fact that they are variability itself, the element by the fact that it is invariable. And the element is invariable by definition, being a diagram, a simplified reconstruction, often a mere symbol, in any case a motionless view of the moving reality.

But the error consists in believing that we can reconstruct the real with these diagrams. As we have already said and may as well repeat here - fi-om intuition one can pass to analysis, but not from analysis to intuition.

Out of variability we can make as many variations, qualities and modifications as we please, since these are so many static views, taken by analysis, of the mobility given to intuition. But these modifications, put end to end, will produce nothing which resembles variability, since they are not parts of it, but elements, which is quite a different thing.

Consider, for example, the variability which is nearest to homogeneity, that of movement in space. Along the whole of this movement we can imagine possible stoppages; these are what we call the positions of the moving body, or the points by which it passes. But with these positions, even with an infinite number of them, we shall never make movement. They are not parts of the movement, they are so many snapshots of it; they are, one might say, only supposed stopping-places. The moving body is never really in any of the points: the most we can say is that it passes through them. But passage, which is movement, has nothing in common with stoppage, which is immobility. A movement cannot be superposed on an immobility, or it would then coincide with it, which would be a contradiction. The points are not in the movement, as parts, nor even beneath it, as positions occupied by the moving body. They are simply projected by us under the movement, as so many places where a moving body, which by hypothesis does not stop, would be if it were to stop. They are not, therefore, properly speaking, positions, but "suppositions," aspects, or points of view of the mind. But how could we construct a thing with points of view?

Nevertheless, this is what we try to do whenever we reason about movement, and also about time, for which movement serves as a means of representation. As a result of an illusion deeply rooted in our mind, and because we cannot prevent ourselves from considering analysis as the equivalent of intuition, we begin by distinguishing along the whole extent of the movement, a certain number of possible stoppages or points, which we make, whether they like it or no, parts of the movement. Faced with our impotence to reconstruct the movement with these points, we insert other points, believing that we can in this way get nearer to the essential mobility in the movement. Then, as this mobility still escapes us, we substitute for a fixed and finite number of points an "indefinitely increasing" number-thus vainly trying to counterfeit, by the movement of a thought that goes on indefinitely adding points to points, the real and undivided motion of the moving body. Finally, we say that movement is composed of points, but that it comprises, in addition, the obscure and mysterious passage from one position to the next. As if the obscurity was not due entirely to the fact that we have supposed immobility to be clearer than mobility and rest anterior to movement! As if the mystery did not follow entirely from our attempting to pass from stoppages to movement by way of addition, which is impossible, when it is so easy to pass, by simple diminution, fi-om movement to the slackening of movement, and so to immobility! It is movement that we must accustom ourselves to look upon as simplest and clearest, immobility being only the extreme limit of the slowing down of movement, a limit reached only, perhaps, in thought and never realized in nature. What we have done is to seek for the meaning of the poem in the form of the letters of which it is composed; we have believed that by considering an increasing number of letters we would grasp at last the ever-escaping meaning, and in desperation, seeing that it was useless to seek for a part of the sense in each of the letters, we have supposed that it was between each letter and the next that this long-sought fragment of the mysterious sense was lodged! But the letters, it must be pointed out once again, are not parts of the thing, but elements of the symbol. Again, the positions of the moving body are not parts of the movement; they are points of the space which is supposed to underlie the movement. This empty and immobile space which is merely conceived, never perceived, has the value of a symbol only. How could you ever manufacture reality by manipulating symbols?

But the symbol in this case responds to the most inveterate habits of our thought. We place ourselves as a rule in immobility, in which we find a point of support for practical purposes, and with this immobility we try to reconstruct motion. We only obtain in this way a clumsy imitation, a counterfeit of real movement, but this imitation is much more useful in life than the intuition of the thing itself would be. Now our mind has an irresistible tendency to consider that idea clearest which is most often useful to it. That is why immobility seems to it clearer than mobility, and rest anterior to movement.

The difficulties to which the problem of movement has given rise from the earliest antiquity have originated in this way. They result always from the fact that we insist on passing from space to movement, from the trajectory to the flight, from immobile positions to mobility, and on passing from one to the other by way of addition. But it is movement which is anterior to immobility, and the relation between positions and a displacement is not that of parts to a whole, but that of the diversity of possible points of view to the real indivisibility of the object.

Many other problems are born of the same illusion. What stationary points are to the movement of a moving body, concepts of different qualities are to the qualitative change of an object. The various concepts into which a change can be analyzed are therefore so many

stable views of the instability of the real. And to think of an object-in the usual meaning of the word "think"—is to take one or more of these immobile views of its mobility. It consists, in short, in asking from time to time where the object is, in order that we may know what to do with it. Nothing could be more legitimate, moreover, than this method of procedure, so long as we are concerned only with a practical knowledge of reality. Knowledge, in so far as it is directed to practical matters, has only to enumerate the principal possible attitudes of the thing towards us, as well as our best possible attitude towards it. Therein lies the ordinary function of ready-made concepts, those stations with which we mark out the path of becoming. But to seek to penetrate with them into the inmost nature of things, is to apply to the mobility of the real a method created in order to give stationary points of observation on it. It is to forget that, if metaphysic is possible, it can only be a laborious, and even painful, effort to remount the natural slope of the work of thought, in order fo place oneself directly, by a kind of intellectual expansion, within the thing studied: in short, a passage from reality to concepts and no longer from concepts to reality. Is it astonishing that, like children trying to catch smoke by closing their hands, philosophers so often see the object they would grasp fly before them? It is in this way that many of the quarrels between the schools are perpetuated, each of them reproaching the others with having allowed the real to slip away....

The inherent difficulties of metaphysic, the antinomies which it gives rise to, and the contradictions into which it falls, the division into antagonistic schools, and the irreducible opposition between systems are largely the result of our applying, to the disinterested knowledge of the real, processes which we generally employ for practical ends. They arise from the fact that we place ourselves in the immobile in order to lie in wait for the moving thing as it passes, instead of replacing ourselves in the moving thing itself, in order to traverse with it the immobile positions. They arise from our professing to reconstruct reality—which is tendency and consequently mobility—with percepts and concepts whose function it is to make it stationary. With stoppages, however numerous they may be, we shall never make mobility; whereas, if mobility is given, we can, by means of diminution, obtain from it by thought as many stoppages as we desire. In other words, *it is clear that fixed concepts may be extracted by our thought from mobile reality; but there are no means of reconstructing the mobility of the real with fixed concepts.* Dogmatism, however, in so far as it has been a builder of systems, has always attempted this reconstruction.

In this it was bound to fail. It is on this impotence and on this impotence only that the sceptical, idealist, critical doctrines really dwell: in fact, all doctrines that deny our intelligence the power of attaining the absolute. But because we fail to reconstruct the living reality with stiff and ready-made concepts, it does not follow that we cannot grasp it in some other way. *The demonstrations which have been given of the relativity of our knowledge are therefore tainted with an original vice; they imply, like the dogmatism they attack, that all knowledge must necessarily start from concepts with fixed outlines, in order to clasp with them the reality which flows.*

But the truth is that our intelligence can follow the opposite method. It can place itself within the mobile reality, and adopt its ceaselessly changing direction; in short, can grasp it by means of that intellectual sympathy which we call intuition. This is extremely difficult. The mind has to do violence to itself, has to reverse the direction of the operation by which it habitually thinks, has perpetually to revise, or rather to recast, all its categories. But in this way it will attain to fluid concepts, capable of following reality in all its sinuosities and of adopting the very movement of the inward life of things. Only thus will a progressive philosophy be built up, freed from the disputes which arise between the various schools, and able to solve its problems naturally, because it will be released from the artificial expression in terms of which

such problems are posited. To philosophize, therefore, is to invert the habitual direction of the work of thought.

This inversion has never been practised in a methodical manner; but a profoundly considered history of human thought would show that we owe to it all that is greatest in the sciences, as well as all that is permanent in metaphysics. The most powerful of the methods of investigation at the disposal of the human mind, the infinitesimal calculus, originated from this very inversion. Modem mathematics is precisely an effort to substitute the being made for the ready made, to follow the generation of magnitudes, to grasp motion no longer from without and in its displayed result, but from within and in its tendency to change; in short, to adopt the mobile continuity of the outlines of things. It is true that it is confined to the outline, being only the science of magnitudes. It is true also that it has only been able to achieve its marvelous applications by the invention of certain symbols, and that if the intuition of which we have just spoken lies at the origin of invention, it is the symbol alone which is concerned in the application. But metaphysics, which aims at no application, can and usually must abstain from converting intuition into symbols. Liberated from the obligation of working for practically useful results, it will indefinitely enlarge the domain of its investigations. What it may lose in comparison with science in, utility and exactitude, it will regain in range-and extension. Though mathematics is only the science of magnitudes, though mathematical processes are applicable only to quantities, it must not be forgotten that quantity is always quality in a nascent state; it is, we might say, the limiting case of quality. It is natural, then, that metaphysics should adopt the generative idea of our mathematics in order to extend it to all qualities; that is, to reality in general. It will not, by doing this, in any way be moving towards universal mathematics, that chimera of modem philosophy. On the contrary, the farther it goes, the more untranslatable into symbols will be the objects it encounters. But it will at least have begun by getting into contact with the continuity and mobility of the real, just where this contact can be most marvelously utilized. It will have contemplated itself in a mirror which reflects an image of itself, much shrunken, no doubt, but for that reason very luminous. It will have seen with greater clearness what the mathematical processes borrow from concrete reality, and it will continue in the direction of concrete reality, and not in that of mathematical processes. Having then discounted beforehand what is too modest, and at the same time too ambitious, in the following formula, we may say that the object of metaphysics is to perform qualitative differentiations and integrations.

The reason why this object has been lost sight of, and why science itself has been mistaken in the origin of the processes it employs, is that intuition, once attained, must find a mode of expression and of application which conforms to the habits of our thought, and one which furnishes us, in the shape of well-defined concepts, with the solid points of support which we so greatly need. In that lies the condition of what we call exactitude and precision, and also the condition of the unlimited extension of a general method to particular cases. Now this extension and this work of logical improvement can be continued for centuries, whilst the act which creates the method lasts but for a moment. That is why we so often take the logical equipment of science for science itself, forgetting the metaphysical intuition from which all the rest has sprung.

From the overlooking of this intuition proceeds all that has been said by philosophers and by men of science themselves about the "relativity" of scientific knowledge. *What is relative is the symbolic knowledge by pre-existing concepts, which proceeds from the fixed to the moving, and not the intuitive knowledge which installs itself in that which is moving and adopts the very life of things.* This intuition attains the absolute.

Science and metaphysics therefore come together in intuition. A truly intuitive philosophy would realize the much-desired union of science and metaphysics. While it would make of

metaphysics a positive science—that is, a progressive and indefinitely perfect one—it would at the same time lead the positive sciences, properly so-called, to become conscious of their true scope, often far greater than they imagine. It would put more science into metaphysics, and more metaphysics into science. It would result in restoring the continuity between the intuitions which the various sciences have obtained here and there in the course of their history, and which they have obtained only by strokes of genius.

Henri Bergson. An Introduction to Metaphysics. Trans. T.E. Hulme. London: G.P. Putnam's Son's 1912.

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