***Matter and Memory* – Henri Bergson**

Introduction

Bergson states the goal of the book in the first sentence, saying that it “affirms the reality of spirit and the reality of matter, and tries to determine the relation of the one to the other by the study of a definite example, that of memory.” (p.9) While this makes the book, strictly speaking, dualistic, Bergson will nevertheless attempt to understand the two in such a way that the problems associated with dualism are overcome.

He defines matter as “an aggregate of “images.” And by “image” we mean a certain existence which is more than that which the idealist calls a *representation*, but less than that which the realist calls a *thing* – an existence placed halfway between the “thing” and the “representation.” (p.9) This makes it the common sense view. No one unversed in philosophy would ever believe that objects around them existed only for mind in general (idealist), or that those objects were completely different from how they perceived them to be (realism). In short, he considers “matter before the dissociation which idealism and realism have brought about between its existence and its appearance.” (p.10)

Bergson praises Berkeley for proving that “the secondary qualities of matter have at least as much reality as the primary qualities.” (pp.10-1) The problem was he placed all of matter into the mind as a pure idea. On the other hand, Descartes went too far in making matter “one with geometrical extensity” (p.11); a state of affairs he couldn’t explain other than as a mere accident. This led to the Kantian criticism, which explained the source of this mathematical order, but only at the expense of our understanding.

Regarding the relation between soul and body, Bergson will attempt to find a middle path between the one in which “thought is regarded as a mere function of the brain and the state of consciousness as an epiphenomenon of the state of the brain, [and the other in which] mental states and brain states are held to be two versions, in two different languages, of one and the same original…” (p.12) Both hold that complete knowledge of the brain and a complete understanding of psychophysiology would let us know every detail about the consciousness associated with that brain. He will not deny that there is a close connection between a state of consciousness and the brain, but he will deny that there is any parallelism (a direct causal relation), going either way, between the two.

In order to answer the question, we will find that an investigation of memory will be necessary. This is precisely because memory is “the intersection of mind and matter.” (p.13) We will see that “the brain state indicates only a very small part of the mental states, [specifically] that part which is capable of translating itself into movements of locomotion.” (p.14) Knowing everything about the brain state would tell you everything about the conscious state only if it were engaged in action: “…our cerebral state contains more or less of our mental state in the measure that we reel off our psychic life into action or wind it up into pure knowledge.” (p.14) This gives us “divers *tones* of mental life, or, in other words, our psychic life may be lived at different heights, now nearer to action, now further removed from it, according to the degree of our *attention to life*.” (p.14)

Of the Selection of Images for Conscious Presentation

What Our Body Means and Does

Assuming nothing, Bergson begins by asking us to note what we observe. Around us there are images which we perceive when our senses are opened to them. These images act upon each other in accord with constant laws (of nature), and since we can determine their future from their present, the former must be wholly contained in the latter.

However, one of these images is different from the others, “…in that I do not know it only from without by perceptions, but from within by affections: it is my body.” (p.17) These affections arise in between excitations I receive from outside me and movements I am about to execute. Each contains “an invitation to act, with at the same time leave to wait and even to do nothing.” (pp.17-8) I discover in myself actions begun but not fully executed; the result of a decision in which I compared recollections from previous similar situations, and determined to follow a different course. Finally, I note that my consciousness is present “in the form of a feeling or of sensation, at all the steps in which I believe that I take the initiative, and that it fades and disappears as soon as my activity, by becoming automatic, shows that consciousness is no longer needed.” (p.18) In short:

*All seems to take place as if, in this aggregate of images which I call the universe, nothing really new could happen except through the medium of certain particular images, the type of which is furnished me by my body.* (p.18)

Let us now examine bodies similar to my own. There we have afferent nerves which transmit a disturbance from the periphery to the nerve centres, and efferent nerves which move in the opposite direction. The physiologist tells us that, while the centrifugal movements generate motion in various body parts, the centripetal movements create a representation of the external world. What do we make of this last claim?

All we have described thus far – the afferent nerves, the brain, the disturbance travelling through the nerves, etc. – are only images. “If the image which I term cerebral disturbance really begot external images, it would contain them in one way or another, and the representation of the whole material universe would be implied in that of this molecular movement… The brain is part of the material world; the material world is not part of the brain.” (p.19) The brain cannot be what the images that make up the universe depend upon because the brain is a part of this image.

In general, when we think about external images and the image that is the body, we clearly see that the former influence the latter by transmitting movement to it, and the latter influences the former in the same way. The only difference is that “my body appears to choose, within certain limits, the manner in which it shall restore what it receives.” (p.19) The body does not produce representations of anything. This yields another postulate:

*My body, an object destined to move other objects, is, then, a center of action; it cannot give birth to a representation.* (p.20)

“But if my body is an object capable of exercising a genuine and therefore a *new* action upon the surrounding objects, it must occupy a privileged position in regard to them.” (p.20) Indeed, this is exactly what we find. Keeping in mind that “the office of the image which I call my body [is] to exercise on other images a real influence, and, consequently, to decide which step to take among several which are all materially possible. And since these steps are probably suggested to it by the greater or lesser advantage which it can derive from the surrounding images, these images must display in some way, upon the aspect which they present to my body, the profit which my body can gain from them.” (p.20) Objects array themselves around my body according to the utility they have for me. Size, shape, colour, the intensities of odour and sounds are all modified as my distance from them changes. Indeed, Bergson observes, “this very distance represents, above, all, the measure in which surrounding bodies are insured, in some way, against the immediate action of my body.” (pp.20-1)

*The objects which surround my body reflect its possible action upon them.* (p.21)

Next, Bergson introduces for the first time, the word ‘perception.’ What happens, he asks, if we sever the centripetal nerves? My body remains largely unchanged, but the images of the external universe disappear. In fact, “my perception has entirely vanished.” (p.21) My body has lost the ability to “extract, from among all the things which surround it, the quantity and quality of movement necessary in order to act upon them. Here is something which concerns action, and action alone. Yet, it is my perception which has vanished. What does this mean, if not that my perception displays, in the midst of the image world, as would their outward reflection or shadow, the eventual or possible actions of my body?” (pp.21-2) From this we get two definitions:

*I call* matter *the aggregate of images, and* perception of matter *these same images referred to the eventual action of one particular image, my body.* (p.22)

How does all of this happen? The afferent nerves pass on disturbances to the nerve centres, in which certain molecular (or even atomic) movements take place. These movements vary depending on the position and nature of the objects which aroused the afferent nerves. Moreover, when these molecular excitations occur, I also observe changes in my perception. So, my perception depends on these molecular movements. But how?

It is usually claimed that perception translates them somehow into a representation, but the translation is ultimately nothing more than the molecular movements themselves, but, according to our hypothesis above (in which the brain is nothing but an image itself), this doesn’t make sense. So, once more, what are the molecular movements? They are, “within my body, the movements intended to prepare, while beginning it, the reaction of my body to the action of external objects. Images themselves cannot create images; but they indicate at each moment, like a compass that is being moved about, the position of a certain given image, my body, in relation to the surrounding images… There is, then, only a difference of degree – there can be no difference in kind – between what is called the perceptive faculty of the brain and the reflex functions of the spinal cord.” (pp.23-4) Having established this congruence, Bergson then asks, how is it possible for my perception of an external universe to depend solely on internal movements of cerebral substance?

This way of understanding the situation creates the temptation to regard the molecular movements in my body (and the associated perception) “as things which are sufficient to themselves and might be isolated from the rest of the universe.” (p.24) But “is it possible to conceive the nervous system as living apart from the organism which nourishes it, from the atmosphere in which the organism breathes, from the earth which that atmosphere envelopes, from the sun round which the earth revolves? More generally, does not the fiction of an isolated material object imply a kind of absurdity, since this object borrows its physical properties from the relations which it maintains with all others, and owes each of its determinations, and, consequently, its very existence, to the place which it occupies in the universe as a whole?” (p.24) This is the prompt for Bergson to reject the notion that perceptions *depend* on molecular movements. Rather, we should say “they *vary with* them, but that these movements themselves remain inseparably bound up with the rest of the material world.” (p.25)

At this point, we find ourselves confronted by two sets of images; one system of images which may be altered by changes in a privileged, central image (my body), and, on the other hand, the same images “but referred each one to itself, influencing each other no doubt, but in such a manner that the effect is always in proportion to the cause: this is what I term *the universe*. The question is: how can these two systems exist, and why are the same images relatively invariable in the universe and infinitely variable in perception?” (p.25) It is the corresponding answer to this very question which divides realism and idealism.

Realism starts from the images that belong to science, while idealism starts from the images that belong to consciousness. Having staked out their opening positions in these realms, there is then no way for either to cross into, or even explain the existence of, the other. However, there is a common postulate the two doctrines share, and it is here we may uncover their error. They both assume that “*perception has a wholly speculative interest; it is pure knowledge*… for both parties, to perceive means above all to know.” (p.28) As we have seen, Bergson has already rejected this postulate. For him, perception is concerned only with possible action. He will now provide support for this thesis by looking at the nervous system.

All living matter, no matter how simple, is (and this seems to me to amount to a useful definition of *life*) “open to the influence of external stimulation, and answers to it by mechanical, physical and chemical reactions.” (p.28) In lower lifeforms, these stimuli automatically and necessarily produce reactions, while in higher lifeforms, the reactions can be delayed and chosen depending on the situation. This latter requires the intervention of the brain, and it is precisely this that lets us imagine “that the impression received, instead of expanding into more movements, spiritualizes itself into consciousness. But as soon as we compare the structure of the spinal cord with that of the brain, we are bound to infer that there is merely a difference of complication, and not a difference in kind, between the functions of the brain and the reflex activity of the medullary system.” (p.29) In reflex action, the stimulus is immediately communicated through the nerve centres of the spinal cord to produce muscular contraction. In delayed action, the stimulus goes through the brain before being sent out to the muscles. Why? “I do not understand, I shall never understand, that it draws thence a miraculous power of changing itself into a representation of things…” (p.29) What *does* happen is the reaction is now *chosen* from a number of alternatives. This leads to one of the most radical claims in the whole book: “In our opinion, then, the brain is no more than a kind of central telephonic exchange: its office is to allow communication or to delay it. It adds nothing to what it receives… the brain appears to us to be an instrument of analysis in regard to the movement received and an instrument of selection in regard to the movement executed. But, in the one case as in the other, its office is limited to the transmission and division of movement.” (p.30) The more complex the brain becomes, the “more numerous and the more distant are the points of space which it brings into relation with ever more complex motor mechanisms. In this way the scope which it allows to our action enlarges: its growing perfection consists in nothing else.” (p.31) If this is what the nervous system is and what it does, then perception, which is entirely (as we have already found) regulated by the nervous system, must also be “directed toward action, and not toward pure knowledge…” (p.31)

What Bergson now wants to show is that given the “system of closely-linked images which we call the material world” and given the existence of “*centers of real action*, represented by living matter [postulates which no one investigating external perception can reasonably deny]… *there must* be, ranged around each one of these centers, images that are subordinated to its position and variable with it; that conscious perception is *bound* to occur, and that, moreover, it is possible to understand how it arises.” (p.31)

The first of these claims seems to follow naturally from the postulates, but we can refine it by noting that for a rudimentary organism, perception resembles a mere contact, and there is little more than a mechanical impulse followed by a necessary movement. The higher up the chain of life we move, the more the reactions are delayed, and the greater the distance becomes “at which the animal is sensible of the action of that which interests it.” (p.32) This growing uncertainty of the reaction in relation to the stimulus is what Bergson calls the ““zone of indetermination” which surrounds its [the animal’s] activity” (p.32), and it allows an estimate of the number and the distance of the things with which it is in relation.” (p.32) This is precisely perception; that is, “a *variable* relation between the living being and the more-or-less distant influence of the objects which interest it.” (p.33) This yields a law: “*perception is master of space in the exact measure in which action is master of time*.” (p.32)

Next, we turn to the second and third claims; why conscious perception, and how does it arise? (I should note that Bergson is not going to embark on a full discussion of what *consciousness* is, here.) In order to answer this, Bergson wants to consider a simplified, idealised form of perception, one without memories, what he calls “pure perception.” Our perceptions always come before us mingled with a thousand details of our past experience, and in some cases, these latter actually supplant the former. The “pure perception” we will concern ourselves with for now is a perception that is “confined to the present and absorbed, to the exclusion of all else, in the task of molding itself upon the external object.” (p.33)

Memories, which are interior and subjective, are always added to percepts, but in addition to this, memory also contributes to perception because no matter how “brief we suppose any perception to be, it always occupies a certain duration, and involves, consequently, an effort of memory which prolongs, one into another, a plurality of moments.” (p.34) Without this contraction of “a number of external moments into a single internal moment” (p.34), no moment would ever mean anything to us because there would be nothing connecting it to any other. Both of these facts mean that we end up mistakenly thinking of perception as something created from the inside; i.e. an internal representation conjured in some mysterious fashion.

Given all of this, it is important to note that by “pure perception,” Bergson doesn’t mean perception *as it really is*; rather, he means “a perception which exists in theory rather than in fact and would be possessed by a being placed where I am, living as I live, but absorbed in the present and capable, by giving up every form of memory, of obtaining a vision of matter both immediate and instantaneous.” (p.34) Indeed, this is perception *as it really isn’t*.

So, for Bergson, “an image may *be* without *being perceived* – it may be present without being represented – and the distance between these two terms, presence and representation, seems just to measure the interval between matter itself and our conscious perception of matter.” (p.35) What is this difference then?

We may first note that if the representation *added something* to the brute presence, the process by which the one became the other would be shrouded in mystery. However, if, in this process, the image were to *lose* something of itself, we would no longer be confronted by a black box. Imagine we have our representation of the object. How does it differ from the object itself? In order to turn presence into representation, “…it would be necessary, not to throw more light on the object, but, on the contrary, to obscure some of its aspects, to diminish it by the greater part of itself, so that the remainder, instead of being encased in its surroundings as a thing, should detach itself from them as a picture. Now if living beings are, within the universe, just “centres of indetermination,”… we can conceive that their mere presence is equivalent to the suppression of all those parts of objects in which their functions find no interest” and the “images which surround us will appear to turn towards our body the side, emphasized by the light upon it, which interests our body.” (p.36) All of this means that conscious perception follows naturally from the postulates of a material world and “centers of real action” (the two postulates we assumed on p.31), and our “representation of things would thus arise from the fact that they are thrown back and reflected by our freedom” (p.37), where “freedom” is nothing more mysterious than a privileged image (a body) which is capable of a certain spontaneity of reaction. To objects incapable of perception, on the other hand, images “present each to the others all their sides at once…” (p.37)

Hence, “there is for images merely a difference of degree, and not of kind, between *being* and *being consciously perceived*. The reality of matter consists in the totality of its elements and of their actions of every kind. Our representation of matter is the measure of our possible action upon bodies: it results from the discarding of what has no interest for our needs, or more generally for our functions.” (pp.37-8) In other words, there is no mysterious ingredient called consciousness operating in perception. Perception can be completely explained with reference solely to the images that make up the world and that privileged image we call body. It is indeed nothing more than “external images reaching the organs of sense, modifying the nerves, propagating their influence in the brain… The movement will pass through the cerebral substance (although not without having tarried there), and will then expand into voluntary action.” (p.40) Since we have (because we have no other option) assumed the totality of images: “*What you have to explain, then, is not how perception arises, but how it is limited, since it should be the image of the whole, and is in fact reduced to the image of that which interests you*.” (p.40) But, we’ve already explained this. Perception is limited by the “degree of indetermination allowed to the acts of the special image which you call your body.” (pp.40-1) Conscious perception and cerebral movement, then, are in strict accordance, not because one causes the other, but because “both are functions of a third, which is the indetermination of the will.” (p.41) Indeed, we can think of these zones of indetermination as being like a photographic plate which is only able to register certain disturbances, letting the majority pass through undetected, and picking up those that affect the organism directly. Nothing is added. Nothing is created.

At this point we are able to expound what Bergson means when he calls this *conscious* perception. Simply put, perception is conscious when it ‘filters’ or ‘chooses’ which aspects of the thing it will register, a ‘decision’ made, not by a disinterested consciousness, but by that image at the centre of all other images; the body, according to its needs and interests. As he will later say, “Conscious perception signifies choice, and consciousness mainly consists in this practical discernment.” (p.49) For Bergson, the word *discernment* has this specialised meaning, indicating what is taken from *present* images in order that they become *representations* for us.

Imagine a luminous point P. Rays of light emerge from this point P and travel to the retina. From the retina, disturbances are conducted to various nervous centres, where they are either passed directly on to motor mechanisms or delayed. It is here, along the path of the sensori-motor process that the zones of indetermination must occur, so everything happens *as if* the rays of light “were *perceived* along this path and afterwards *projected* into P. Further, while the indetermination is something which escapes experiment and calculation, this is not the case with the nervous elements by which the impression is received and transmitted. Conscious perception also perceives light at point P.” (p.42) It is therefore easy to imagine that conscious perception depends on these elements, and indeed, that “the disturbance, after having travelled along these nervous elements, after having gained the centre, there changes into a conscious image which is subsequently exteriorized at the point P… There is not, in fact, an unextended image which forms itself in consciousness and then projects itself into P. The truth is that the point P, the rays which it emits, the retina and the nervous elements affected, form a single whole; that the luminous point P is a part of this whole; and that it is really in P, and not elsewhere, that the image of P is formed and perceived.” (pp.42-3) It is hard to overestimate the importance of this last sentence. First, perception is a whole that includes the object, the sensory organs, and the nervous system. Second, *the image is actually out there in the world*, not in our heads. There is no other way to understand perception without invoking magic.

The reason philosophers disdain this idea, the reason they take the lesser part of perception – that which occurs in the intracerebral process – to be the whole of perception is that if “we suppress the object perceived and keep the internal process, it seems to them that the image of the object remains.” (p.43) This is because we see in hallucinations and dreams images just as compellingly real as those we sense from external perception, even when no external object is present. However, “in psychical states of this kind memory plays the chief part” (p.43), so they are fundamentally different from perception, and as we will see later, “when perception, as we understand it, is once admitted, memory must arise, and that this memory has not, any more than perception itself, a cerebral state as its true and complete condition.” (p.43) Further though, Bergson points to people born blind from birth in whom “the visual centres are intact; yet they live and die without having formed a single visual image. Such an image, therefore, cannot appear unless the external object has, once at least, played its part: it must, once at any rate, have been part and parcel with representation.” (p.43)

What about the fact that damage to parts of our nerves or brain diminish perception? This is completely explicable on Bergson’s model. “If, for one reason or another, the disturbance cannot pass along, it would be strange if the corresponding perception still took place, since this perception would then connect our body with points of space which no longer directly invite it to make a choice.” (p.44) In a holistic fashion, and with some nice turns of phrase, Bergson talks about points of space making “an appeal to my will” (p.45) or putting a “question to my motor activity.” (p.45) Perception is diminished with damage, but it “is also diminished whenever a stable habit has been formed, because this time the ready-made response renders the question unnecessary.” (p.45) What disappears in these cases is the capacity for *discernment*.

The fact that motor activity appears unrelated to perception is easy to see when we consider that the loss of one sensory modality doesn’t impede movement, although it does diminish perception, e.g. if I lose my sight, I still have all of the same movements available to me. However, my activity is now engaged by fewer nerves. All of those sensory elements that had previously come from sight have now ceased, amounting to a “suppression of a large part of the queries or demands addressed to my activity. Now such a query or demand is, as we have seen, a perception.” (p.46) Although the external effect appears unchanged, the internal process is now quite different.

Bergson also notes that infants’ representations are at first impersonal. Lacking any sense of their own body as a centre, they are unable to make a distinction between others and them. Everything happens in a broad, anonymous field of experience.

The central idea tying all of this together is that we must start from the outside (the aggregate of material bodies around me) and work inwards (to the privileged image that is my body) if we want to understand perception:

For if you start from my body, as is usually done, you will never make me understand how impressions received on the surface of my body, impressions which concern that body alone, are able to become for me independent objects and form an external world. But if, on the contrary, all images are posited at the outset, my body will necessarily end by standing out in the midst of them as a distinct thing, since they change unceasingly, and it does not vary. The distinction between the inside and the outside will then be only a distinction between the part and the whole. There is, first of all, the aggregate of images; and then, in this aggregate, there are “centres of action,” from which the interesting images appear to be reflected: thus perceptions are born and actions made ready. *My body* is that which stands out as the centre of these perceptions; *my* *personality is* the being to which these actions must be referred. The whole subject becomes clear if we travel thus from the periphery to the centre, as the child does, and as we ourselves are invited to do by immediate experience and by common sense. On the contrary everything becomes obscure, and problems are multiplied on all sides, if we attempt, with the theorists, to travel from the centre to the periphery. Whence arises, then, this idea of an external world constructed artificially, piece by piece, out of unextended sensations, though we can neither understand how they come to form an extended surface, nor how they are subsequently projected outside our body? Why insist, in spite of appearances, that I should go from my conscious self to my body, then from my body to their bodies, whereas in fact I place myself at once in the material world in general, and then gradually cut out within it the centre of action which I shall come to call my body and to distinguish from all others? (pp.47-8)

Next, Bergson lists three facts about perception that are true, but which nevertheless often lead to the illusion of an external world constructed by the mind. First, our senses require education. The traditional understanding of this is that we need time and practice in order to match the disparate sensory impressions (which are unextended, being in the mind only) to the extended things to which they refer. For Bergson, it is true that different senses do grasp objects in different ways, ways which symbolise “a particular direction of my activity” (p.49), however, putting them together won’t yield a *complete* picture of the thing itself because the image necessarily arises from the process of *discernment*. Nevertheless, the senses require education in order to fill the intervals that exist between them; intervals which measure the gap in my needs. “The aim of this education is to harmonize my senses with each other, to restore between their data a continuity which has been broken by the discontinuity of the needs of my body, in short to reconstruct, as nearly as may be, the whole of the material object.” (p.49)

The first hypothesis is full of problems. We can’t understand how these unextended sensations could ever acquire the sense of extension for us, or how they should come together in a stable object common to the experience of everybody and which conforms to physical laws. We can never understand what matter is because we never directly perceive it, but nor can we understand spirit and this magical power it has of evoking sensations and projecting them out into space. Bergson’s hypothesis overcomes all of these problems because perception is returned to where it actually belongs. Our sensations refer to the actual things themselves and coincide in a stable object because it was only an imposed abstraction (into the different sensory modalities themselves) that broke the object up in the first place. Matter becomes something we know directly, and finally, the role of consciousness as “virtual action” (p.50) becomes clear. I understand this last to be nothing more than the process of discernment, or the way my body takes an interest in things around it according to the *possible actions* it foresees.

The second fact Bergson outlines here is the “specific energy of the nerves” (p.50), by which he means the discovery that electrical stimulation applied to nerves produces sensations congruent with the part of the brain to which that nerve travels, yielding two laws. First, different causes acting on the same nerve produce the same sensation, and second, the same cause, acting on different nerves, produces different sensations. From these, it was inferred that sensations are merely signals which each sense translates according to its own modality. This reinforces the notion that perception is made of “two distinct parts, thenceforward incapable of uniting: on the one hand homogeneous movements in space, and on the other unextended sensations in consciousness.” (p.50)

Bergson responds to this by noting that the sensations derived through direct electrical stimulation of the nerves are actually “affections localized within the body” (p.52), not external perceptions. For a fuller discussion of this, we will need to turn to the third fact, which is that “we pass by insensible degrees from the representative state which occupies space, to the affective state which appears to be unextended.” (p.52)

Bergson agrees that any perception can become affection (which is a sensation that directly affects our bodies at a specific location), e.g. the gentle touch of the sharp end of a pin gradually becoming pain as pressure is increased. Pain is intimately personal (what would a pain be detached from a subject to feel it?), and since it passes by degree into a harmless affection (i.e. a perception), it appears that “our representation of the material universe is relative and subjective, and that it has, so to speak, emerged from us, rather than that we have emerged from it.” (p.54)

Before addressing the interpretation itself, Bergson notes that it doesn’t explain affection or perception. There is no reason why reducing intensity in a phenomenon should confer on it extensity or why an increase of intensity should produce a new property; i.e. affection. Nor is there any reason why pain should arise at one moment rather than another. So, how should we understand affection?

Bergson notes that every part of a simple life form, such as an amoeba, is able to receive a stimulation and act. Touch a prolongation and it will retract. As an organism grows and becomes more complex, a division of labour occurs and anatomical elements specialise, such that some parts will be co-opted to transmit stimulation to a central nervous system where signals will be sent to motor systems. So, the organism as a whole is able to move to avoid pain, but the sensitive element that detects pain has lost its motor ability. Pain then, “is nothing but the effort of the damaged element to set things right – a kind of motor tendency in a sensory nerve. Every pain, then, must consist in an effort – an effort which is doomed to be unavailing. Every pain is a *local* effort, and in its very isolation lies the cause of its impotence; because the organism, by reason of the solidarity of its parts, is able to move only as a whole.” (pp.55-6) Why does pain occur *when* it does? Because it is precisely at that moment that the interested part of the organism rejects the stimulation. Why does an increase of intensity create a new property? It doesn’t. Pain is different in kind, not degree, from perception.

What then is the source of affection? The way we have described perception is as measuring our possible action upon things. “The distance which separates our body from an object perceived really measures, therefore, the greater or less imminence of a danger, the nearer or more remote fulfilment of a promise. And, consequently, our perception of an object distinct from our body, separated from our body by an interval, never expresses anything but a *virtual* action. But the more the distance decreases between this object and our body (the more, in other words, the danger becomes urgent or the promise immediate), the more does virtual action tend to pass into *real* action. Suppose the distance reduced to zero, that is to say that the object to be perceived coincides with our body, that is to say again, that our body is the object to be perceived. Then it is no longer virtual action, but real action, that this specialized perception will express: and this is exactly what affection is. Our sensations are, then, to our perceptions that which the real action of our body is to its possible or virtual action. Its virtual action concerns other objects, and is manifested within those objects; its real action concerns itself, and is manifested within its own substance.” (pp.56-7) This is really the core of this section; perception is virtual action referred to objects outside my body, while sensation is real action referred to my body itself.

Furthermore, in the same way that “external objects are perceived by me where they are, in themselves and not in me, so my affective states are experienced there where they occur, that is, at a given point in my body.” (p.57) Neither occur in the brain or emanate from some unextended and inexplicable source.

If we are to continue with our description of “pure perception,” we now find that we must make a slight amendment. Because my body is not a mathematical point but a concrete image, this means that “…its virtual actions are complicated by and impregnated with real actions, or, in other words, that there is no perception without affection.” (p.58) To ‘purify’ perception, we must also subtract affection. If this isn’t done, then sensation will appear to be, not just unextended (i.e. vaguely localised because, like pain, it involves a *confused* effort), but also the simple element from which our perceptions are composed, when “it is rather the impurity with which perception is alloyed.” (p.58)

Just as the psychologist can’t understand how perception can be in things unless those things could perceive, she also can’t understand how a sensation can be in the nerve unless the nerve feels. Since the nerve doesn’t feel, she places sensation *in* the brain. But then to explain how the sensation is projected from there to the place where it appears to be, a force is needed; hence, an active consciousness has to be invoked. Bergson’s model avoids all of these problems:

…if we start from representation itself, that is to say from the totality of perceived images. My perception, in its pure state, isolated from memory, does not go on from my body to other bodies; it is, to begin with, in the aggregate of bodies, then gradually limits itself and adopts my body as a centre. And it is led to do so precisely by experience of the double faculty, which this body possesses, of performing actions and feeling affections; in a word, by experience of the sensori-motor power of a certain image, privileged among other images. (p.61)

In summary, the psychological model of sensation and perception has a number of problems:

1. Sensations are believed to be unextended. How do they acquire extension (i.e. how to we come to understand them as referring to extended things)?
2. How does each unextended sensation refer to a particular point in space?
3. How do the various sensations (sight, touch, etc.) manage to coincide and agree on something in common? To explain this, we must suppose an objective order existing independent of our individual perceptions (since all people agree, and we witness phenomena obeying laws); i.e. a material world distinct from sensation.
4. However, this objective world distinct from sensation, by definition, cannot be known by us because all we know are the sensations aroused in us. The qualities of the objects in the world are an absolute mystery.
5. In addition, because we can’t explain how or why these elementary sensations arise, our own selves remain equally shrouded in mystery.

Bergson’s counter-model centred on *action* and our bodies as central images in an aggregate of images, offers an alternative that overcomes these problems.

Thus far, we have only considered pure perception, in which consciousness simply strings “an uninterrupted series of instantaneous visions, which would be a part of things rather than of ourselves.” (p.65) We have noted that the function of the body is to “receive stimulations in order to elaborate them into unforeseen reactions” (p.65), but the choice of reaction can’t simply be chance. Instead, it is suggested by memories we have of similar situations. Memory is thus “the reverberation, in the sphere of consciousness, of the indetermination of our will…” (p.65), but it will turn out to be much more than this. We will see that memory constantly mingles with our present perceptions, enriching them. Indeed, perception is the lesser of the two, and its principle role will end up being merely to call up the recollection.

One error committed by philosophers here is that they deal with *complete* perception, which is to say, a mix of pure perception and memory, failing to distinguish between the two and seeing in them a difference of intensity rather than nature. “These two acts, perception and recollection, always interpenetrate each other, are always exchanging something of their substance as by a process of endosmosis…. But they [psychologists] will have it that these mixed states, compounded, in unequal proportions, of pure perception and pure memory, are simple. And so we are condemned to an ignorance alike of pure memory and of pure perception…” (p.67)

Here Bergson makes another important comment about the crossover between realism and idealism; this time concerning the way they both treat perception as “veridical hallucinations”:

For realism, in fact, the invariable order of the phenomena of nature lies in a cause distinct from our perceptions, whether this cause must remain unknowable, or whether we can reach it by an effort (always more or less arbitrary) of metaphysical construction. For the idealist, on the contrary, these perceptions are the whole of reality, and the invariable order of the phenomena of nature is but the symbol whereby we express, alongside of real perceptions, perceptions that are possible. But, for realism as for idealism, perceptions are “veridical hallucinations,” states of the subject, projected outside himself; and the two doctrines differ merely in this: that in the one these states constitute reality, in the other they are sent forth to unite with it. (p.68)

Bergson also draws attention to another error which we have mentioned before – the tendency to see perception as a kind of contemplation directed only at speculative ends and “some strange disinterested knowledge; as though, by isolating it from action, and thus severing its links with the real, they were not rendering it both inexplicable and useless.” (p.68) Given that the past and present are distinguished only in action – the past being essentially *that which acts no longer*, and the present *that which is acting* – this position removes the distinction between the two; i.e. perception and memory. “Restore, on the contrary, the true character of perception; recognize in pure perception a system of nascent acts which plunges roots deep into the real; and at once perception is seen to be radically distinct from recollection; the reality of things is no more constructed or reconstructed, but touched, penetrated, lived; and the problem at issue between realism and idealism, instead of giving rise to interminable metaphysical discussions, is solved, or rather dissolved by intuition.” (p.69)

This concept of “pure perception” has the additional benefit of revealing to us the true difference between matter and our perception of it; which is to say, allowing us to steer a middle course between realism and idealism. Successive perceptions are always extended over a certain depth of duration, and memory (as we will see) “condenses in each an enormous multiplicity of vibrations which appear to us all at once, although they are successive.” (p.70) If we were to divide this undivided depth of time into its constituent moments, that is, “eliminate all memory, we should pass thereby from the subject to the object.” (p.70) The subjective and objective sides of perception would then “unite in an extended perception, the subjective side of perception being the contraction effected by memory, and the objective reality of matter fusing with the multitudinous and successive vibrations into which this perception can be internally broken up.” (pp.70-1)

Likewise, the similarly abstracted concept of “pure memory” will allow us make sense of materialism and spiritualism. Materialism “holds that consciousness, with all its functions, is born of the mere interplay of material elements. Hence it is led to consider even the perceived qualities of matter – sensible, and consequently felt, qualities – as so many phosphorescences which follow the track of the cerebral phenomena in the act of perception.” (p.72) Spiritualism also, in not hesitating to “despoil matter of the qualities with which it is invested in our perception, and which, on this view, are subjective appearances…” (p.72) reduces matter to something mysterious.

The only way to refute materialism is to “show that matter is precisely that which it appears to be. Thereby we eliminate all virtuality, all hidden power, from matter, and establish the phenomena of spirit as an independent reality. But to do this we must leave to matter those qualities which materialists and spiritualists alike strip from it…” (p.72) The biggest stumbling block to seeing that matter is precisely what it appears to be is that memory, “inseparable in practice from perception, imports the past into the present, contracts into a single intuition many moments of duration, and thus by a twofold operation compells us, de facto*,* to perceive matter in ourselves, whereas we, de jure*,* perceive matter within matter.” (p.73)

This is why we must investigate memory; matter cannot be understood without bracketing the contributions memory makes to perception. In addition, since pure perception gives us matter, “it follows that memory must be, in principle, a power absolutely independent of matter. If, then, spirit is a reality, it is here, in the phenomenon of memory, that we may come into touch with it experimentally.” (p.73)

Put another way, matter has no “occult or unknowable power” (p.73), and the living body is concerned solely with action. Memory, being a contribution to perception which is completely different from matter (i.e. the past, and the contraction of many moments into a single intuition), cannot be reduced to activity in a physical organ (which we have established concerns action only), and therefore will allow us to shed light on the nature of spirit.

Bergson gives two more reasons for the importance of memory, both relating to hypotheses to which the study of “pure perception” has led us. The first is that the brain is an instrument of action, not representation. This is untestable though because pure perception concerns only *present* objects, and everything always happens *as if* our cerebral state causes our perceptions. If we discover that cerebral activity is insufficient to explain the representation of an *absent* object (the office of pure recollection), then we will have reason to infer something extra-material. The second hypothesis is that pure perception places us outside in the objects themselves. Again experimental verification is impossible because practical results are the same whether “the reality of the object is intuitively perceived or whether it is rationally constructed.” (p.75) Memory can decide between the two because if we find only a difference of intensity or degree between perception and recollection, the latter would be more likely, whereas if there appears to be a difference in kind, perception will be something “entirely absent from memory, a reality intuitively grasped.” (p.76)

Of the Recognition of Images

Memory and Brain

Bergson starts this second chapter with a series of hypotheses, the first of which follows from the facts that (1) the body is only a conductor for motor actions and can only store up past actions in the form of motor contrivances and (2) for voluntary action to be chosen among a range of different options, an independent memory must gather images along the course of time.

Hypothesis 1: *The past survives under two distinct forms first, in motor mechanisms; secondly, in independent recollections.* (p.78)

According to the first hypothesis then, recognition (the utilising of past experience for present action) “must take place in two different ways. Sometimes it lies in the action itself, and in the automatic setting in motion of a mechanism adapted to the circumstances; at other times it implies an effort of the mind which seeks in the past, in order to apply them to the present, those representations which are best able to enter into the present situation.” (p.78) This gives us our second hypothesis.

Hypothesis 2: *The recognition of a present object is effected by movements when it proceeds from the object, by representations when it issues from the subject.* (p.78)

Considered temporally, the body is at the boundary between the past and the future; it is “always situated at the very point where my past expires in a deed.” (p.78) This means that the images which we call cerebral mechanisms are the link between past representations and the real, that is, action. Severing this link doesn’t necessarily destroy the past image, but does remove its capacity to act upon the real and be realised. Hence hypothesis number three.

Hypothesis 3: *We pass, by imperceptible stages, from recollections strung out along the course of time to the movements which indicate their nascent or possible action in space. Lesions of the brain may affect these movements, but not these recollections.* (p.79)

We will now investigate each of these three hypotheses in more detail.

*Hypothesis 1*

Bergson illustrates the two kinds of memory with the example of learning a lesson by heart through repetition. The lesson has been learned by heart when I am able to repeat it word for word. This kind of learning “has *all* the marks of a habit. Like a habit, it is acquired by the repetition of the same effort. Like a habit, it demands first a decomposition and then a recomposition of the whole action. Lastly, like every habitual bodily exercise, it is stored up in a mechanism which is set in motion as a whole by an initial impulse, in a closed system of automatic movements which succeed each other in the same order and, together, take the same length of time.” (p.80) However, the memory of each successive reading “has *none* of the marks of a habit. Its image was necessarily imprinted at once on the memory, since the other readings form, by their very definition, other recollections. It is like an event in my life; its essence is to bear a date, and consequently to be unable to occur again.” (p.80)

The second kind of memory is purely representation, meaning I can imagine it in my mind with any duration I please, grasping the whole of it instantaneously if I wish. The first kind of memory, however, requires a certain length of time to enact precisely because it is not a representation; it is an action: “…it is part of my present, exactly like my habit of walking or of writing; it is lived and acted, rather than represented…” (p.81) Bergson offers a particularly cogent description of the difference between these two kinds of memory which I will repeat in full:

Following to the end this fundamental distinction, we are confronted by two different memories theoretically independent. The first records, in the form of memory-images, all the events of our daily life as they occur in time; it neglects no detail; it leaves to each fact, to each gesture, its place and date. Regardless of utility or of practical application, it stores up the past by the mere necessity of its own nature. By this memory is made possible the intelligent, or rather intellectual, recognition of a perception already experienced; in it we take refuge every time that, in the search for a particular image, we remount the slope of our past. But every perception is prolonged into a nascent action; and while the images are taking their place and order in this memory, the movements which continue them modify the organism, and create in the body new dispositions towards action. Thus is gradually formed an experience of an entirely different order, which accumulates within the body, a series of mechanisms wound up and ready, with reactions to external stimuli ever more numerous and more varied, and answers ready prepared to an ever growing number of possible solicitations. We become conscious of these mechanisms as they come into play; and this consciousness of a whole past of efforts stored up in the present is indeed also a memory, but a memory profoundly different from the first, always bent upon action, seated in the present and looking only to the future. It has retained from the past only the intelligently coordinated movements which represent the accumulated efforts of the past; and it recovers those past efforts, not in the memory-images which recall them, but in the definite order and systematic character with which the actual movements take place. In truth, it no longer *represents* our past to us, it *acts* it; and if it still deserves the name of memory, it is not because it conserves bygone images, but because it prolongs their useful effect into the present moment.” (pp.81-2)

To be able to call on the representational type of memory, that is, to “call up the past in the form of an image, we must be able to withdraw ourselves from the action of the moment, we must have the power to value the useless, we must have the will to dream.” (p.83) This means that only higher life forms possess this. Lower life forms are capable only of being influenced by their past through motor mechanisms stored in their bodies.

Another distinction we can make between representational memory and motor-habit memory is that the former is incapable of being repeated. This is because it refers to details and events which have a date. Every time we recall these memory-images, the recollection is different from the original event just because it happens at a different date. Motor-habit memories, on the other hand, are essentially repeatable. Indeed, the only way they can be acquired is through a voluntary act of repetition. Representational memory is also by far the most common form of memory because it takes place at every moment of duration, whereas motor-habit memory is only laid down when we want to remember something.

However, the “radical difference between that which must be built up by repetition and that which is essentially incapable of being repeated…” (p.83) according to Bergson is the following: “Spontaneous recollection is perfect from the outset; time can add nothing to its image without disfiguring it; it retains in memory its place and date. On the contrary, a learnt recollection passes out of time in the measure that the lesson is better known; it becomes more and more impersonal, more and more foreign to our past life.” (p.83) The first then is “memory par excellence” while the second is “*habit interpreted by memory*…” (p.84).

Habit memory is obviously useful concerning action (the office of the body and brain), in the sense that it ensures “the appropriate reaction, the correspondence to environment – adaptation, in a word – which is the general aim of life. And a living being which did nothing but live would need no more than this.” (p.84) Of what use then are the memory-images which consciousness preserves? It would actually be a hindrance to our daily lives if allowed free-rein, distorting the practical nature of life, “mingling dream with reality…” (p.84). Active memory, then, must constantly inhibit these memory-images to prevent them from disturbing our lives. If, then, the “equilibrium maintained by the brain between the external stimulation and the motor reaction” (p.85) were upset (by disease or accident, for example), or relaxed (perhaps when we sleep, for example), we could expect an influx of these memories into consciousness. Nevertheless, memory-images are useful when they supply to a being “images of what preceded or followed situations similar to the present situation, so as to guide its choice…” (p.88). This can happen without direct willing, through the association of ideas, or through the way we are able to, by “a certain effort *sui generis*… retain the image itself, for a limited time, within the field of our consciousness; and, thanks to this faculty, we have no need to await at the hands of chance the accidental repetition of the same situations, in order to organize into a habit concomitant movements; we make use of the fugitive image to construct a stable mechanism which takes its place.” (p.85)

This all leads to a series of testable claims. We should see “an exaltation of spontaneous memory in most cases where the sensori-motor equilibrium of the nervous system is disturbed; an inhibition, on the contrary, in the normal state, of all spontaneous recollections which do not serve to consolidate the present equilibrium; and lastly, in the operation by means of which we acquire the habit-memory, a latent intervention of the image-memory.” (p.86) We will test these hypotheses with facts a little later.

So, there are two forms of *pure memory*; memory-image and movement. As we saw with perception, philosophers have failed to noticed this and misunderstood the mixed phenomenon of memory as a simple one. They have therefore assumed “that the cerebral mechanism, whether of the brain or of the medulla oblongata or of the cord, which serves as the basis of the motor habit, is at the same time the substratum of the conscious image. Hence the strange hypothesis of recollections stored in the brain, which are supposed to become conscious as though by a miracle, and bring us back to the past by a process that is left unexplained.” (p.89) Now, it is time to investigate the process by which memories are recalled; i.e. by which we grasp the past in the present. This process is called *recognition*, and it is what our second hypothesis concerns.

*Hypothesis 2*

It is claimed that recognition occurs when a present perception is associated with images which were formerly given in connection with an earlier perception of that image. So, we recognise someone we meet a second time because at the second meeting, “the concomitant circumstances of the original perception… surround the actual image with a setting which is not a setting actually perceived.” (p.90) Recognition arises from a blending of perception and memory. However, there is a problem with this tale. A present perception would be completely unable to bring to mind the original perception of the same (or a related) event in memory *unless the present perception had already been recognised*. How could the present perception know which memory, among all the memories that had been acquired, was associated with it unless it already recognised itself? Thus, the theory of the association of ideas ends up explaining recognition by appeal to mechanical movements in the brain, or connections between neurons; in short, a brain which stores up ideas.

There is an even bigger problem with the association theory though, making it insufficient to account for recognition. If recognition simply required a pairing of perceptions with memories, then the lack of memory images would render recognition impossible, while we should expect recognition to always be possible if memory images are retained. Neither of these are borne out by the facts. Bergson discusses a case of psychic blindness in which the patient was able to describe the town she lived in, in imagination (so, she had the memory-images), and yet was completely unable to recognise anything or navigate when physically walking through the town. “The retention, even the conscious retention, of a visual memory is, therefore, not enough for the recognition of a similar perception.” (p.92)

In another revealing case, a patient who had suffered “a complete eclipse of visual images” (p.92) was therefore unable to recognise his wife and children, and yet, recognised them as a woman and two children. This means that “not every recognition implies the intervention of a memory image; and, conversely, that we may still be able to call up such images when we have lost the power of identifying perceptions with them.” (p.92) So, in light of these facts, what is recognition?

It is clear, first of all, that the body is capable of an *instantaneous* recognition, without the help of any explicit memory-image. This then relies upon action, not representation. We can easily see this recognition at work in our daily lives as we interact with objects and navigate all without explicitly thinking about what we are doing. To recognise an object in this way is essentially to know how to use it, and “to know how to use a thing is to sketch out the movements which adapt themselves to it; it is to take a certain attitude, or at least to have a tendency to do so through what the Germans call motor impulses *(Bewegungsantriebe).* The habit of using the object has, then, resulted in organizing together movements and perceptions; and the consciousness of these nascent movements, which follow perception after the manner of a reflex, must be here also at the bottom of recognition.” (pp.93-4) Each movement is preceded by the movements which preceded it, “as when each note of a tune learnt by heart seems to lean over the next to watch its execution.” (p.94) In fact, Bergson goes on to note, “we commonly act our recognition before we think it. Our daily life is spent among objects whose very presence invites us to play a part: in this the familiarity of their aspect consists. Motor tendencies would, then, be enough by themselves to give us the feeling of recognition.” (p.95) However, there is something else going on here. Our past psychical life is still there behind us. What part does it play?

Originally, primordially, recognition is guided by our motor functions, and the present urgency they convey normally inhibits other memory-images. However, when there is a “rift between the actual impression and its corresponding movement [it is always ready] to slip in its images.” (p.95) More normally though, the recollection of past images involves an act of will, “an effort is necessary, whereby we draw back from the act to which perception inclines us: the latter would urge us toward the future; we have to go backwards into the past.” (p.95) In this case, as we have already seen, the representation analogous to the present perception has to be chosen from the total set of memory images. How does this happen? Through movement. “Movements, accomplished or merely nascent, prepare this choice, or at the very least mark out the field in which we shall seek the image we need… So we may say that the movements which bring about mechanical recognition hinder in one way, and encourage in another, recognition by images. In principle, the present supplants the past. But, on the other hand, just because the disappearance of former images is due to their inhibition by our present attitude, those whose shape might fit into this attitude encounter less resistance than the others; and if, then, any one of them is indeed able to overcome the obstacle, it is the image most similar to the present perception that will actually do so.” (pp.95-6) In essence, this is reversing the way we normally think about cognition. Rather, than the mind leading the body around, Bergson is suggesting the body (through implicit and nascent motor habits) is what guides explicit, conscious recognition by establishing the “field” in which an associated, relevant (to the present perception) memory-image might be contained. He later describes this as the movements, perhaps nascent, foregoing their practical end, and “that motor activity, instead of continuing perception by useful reactions, turns back to mark out its more striking features, then the images which are analogous to the present perception – images of which these movements have already sketched out, so to speak, the form – will come regularly, and no longer accidentally, to flow into this mould, though they may have to give up much of their detail in order to get in more easily.” (p.98)

On Bergson’s model of instantaneous recognition then, there should be two kinds of psychic blindness. In the first, memory-images themselves are unable to reappear, and in the second, “it is merely the bond between perception and the accompanying habitual movements which is broken – perception provoking *diffused* movements, as though it were wholly new.” (p.96)

The first is indisputably true, but would be so for both Bergson’s and the dominant theory. The second is the deciding hypothesis because, on Bergson’s account, in cases where there is no recognition although visual memory is not completely lost, we should see a disturbance of motor habits. On the prevailing model there should only be an interruption of the chain linking memories to sense perceptions, and hence, no reason to see motor deficiencies.

It turns out that not only is there a profound loss of the sense of direction in patients in the second case, the manner in which they draw is even more revealing. We normally copy an object by noting its general organisation and reproducing this in continuous movements. What we find in certain forms of psychic blindness though, are cases where the patient may still be able to draw bits of a line which he or she can then connect, but he is “no longer be able to draw at a stroke, because the tendency to adopt and reproduce the general *movement* of the outline is no longer present in his hand.” (p.97) This is particularly striking in cases of word-blindness in which the patient “is unable to seize what may be called the *movement* of the letters when he tries to copy them. He begins to draw them at any point, passing back and forth between the copy and the original to make sure that they agree. And this is the more remarkable in that he often retains unimpaired the faculty of writing from dictation or spontaneously. What is lost is clearly the habit of distinguishing the articulations of the object perceived, that is to say, of completing the visual perception by a motor tendency to sketch its diagram. Whence we may conclude that such is indeed the primordial condition of recognition.” (p.98)

That accounts for automatic recognition, but we now need to look at the second type of recognition; that involving the intervention of memory-images themselves. The first was recognition by *in*attention; the second is attentive recognition. Both forms begin with movement, but where the first takes us away from the object into practical action, the second brings us back to the object to dwell upon its outlines. This takes us to the last hypothesis.

*Hypothesis 3*

The question Bergson starts with here is: in attentive recognition, “…is it the perception which determines mechanically the appearance of the memories, or is it the memories which spontaneously go to meet the perception?” (p.99) All perception consists in the disturbances of nerves. If this is sufficient to provoke the springing up of memory-images, “then we might in strictness maintain that memory is but a function of the brain. But if we can establish that here, as elsewhere, movement produces nothing but movement, that the office of the sense stimulation is merely to impress on the body a certain attitude into which recollections will come to insert themselves, then, as it would be clear that the whole effect of the material vibrations is exhausted in this work of motor adaptation, we should have to look for memory elsewhere.” (p.99)

This results in two different experimentally verifiable theses. According to the first model, lesions in the brain would affect memory by destroying parts of the brain which contained those memories. According to Bergson’s model, “lesions would affect our nascent or possible action, but our action alone. Sometimes they would hinder the body from taking, in regard to the object, the attitude that may call back its memory-image; sometimes they would sever the bonds between remembrance and the present reality; that is, by suppressing the last phase of the realization of a memory – the phase of action – they would thereby hinder the memory from becoming actual. But in neither case would a lesion of the brain really destroy memories.” (p.99)

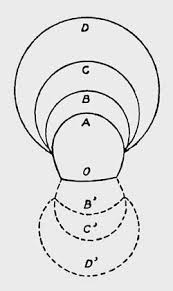
Before continuing with this line of inquiry, Bergson will expand on the general relations of perception, attention, and memory.

*Attention* is typically thought of as an intellectual state and defined as something like a “concentration of the mind.” The problem is that this is vague and unclear. Bergson, in this as in so many other areas, prefers to “define attention as an adaptation of the body rather than of the mind…” (p.100) He sees in voluntary attention a double movement, one negative, one positive. In the first, we see the arrest, or inhibition, of the practical drive. Instead of continuing our activity forwards into the future, attention halts this process, and instigates a “backward movement of the mind which thus gives up the pursuit of the useful effect of a present perception…” (p.101) The second, positive, phase will be continued by memories.

In this, “memory directs upon the perception received the memory-images which resemble it and which are already sketched out by the movements themselves. Memory thus creates anew the present perception; or rather it doubles this perception by reflecting upon it either its own image or some other memory-image of the same kind. If the retained or remembered image will not cover all the details of the image that is being perceived, an appeal is made to the deeper and more distant regions of memory, until other details that are already known come to project themselves upon those details that remain unperceived. And the operation may go on indefinitely…” (p.101) Bergson talks about attention as a power of analysis effected by a series of attempts at a synthesis. These attempts involve the retrieval of images analogous to the current perception, which our memory “launches in the direction of the new perception.” (p.102) Of course, the choice of these images is not made at random; rather, the guiding force “is the movement of imitation which continues the perception, and provides for the perception and for the images a common framework.” (p.102)

So, as we affirmed earlier, perception is never merely the passive reception of images. On the contrary, “every *attentive* perception truly involves a *reflection,* in the etymological sense of the word, that is to say the projection, outside ourselves, of an actively created image, identical with, or similar to, the object on which it comes to mould itself.” (p.102) At one level, the reflected images are more or less photographs of the perception, but behind this level lie other images stored in memory that merely resemble it, and back further, other images still that are only “distantly akin to it. All these go out to meet the perception, and, feeding on its substance, acquire sufficient vigor and life to abide with it in space.” (p.103) Moreover, once these memory-images have been projected outwards, they are inserted into the perception “so thoroughly… that we are no longer able to discern what is perception and what is memory.” (p.103) Experiments carried out by psychologists have proven this. Bergson discusses a series of experiments on reading which show that we don’t read every single letter on the page, but rather, note “here and there a few characteristic lines and fills all the intervals with memory-images which, projected on the paper, take the place of the real printed characters and may be mistaken for them. Thus we are constantly creating or reconstructing.” (p.103)

To illustrate this process of reflective perception, which he describes as a *circuit*, Bergson provides the diagram represented below:



In the centre we have the object O. A, B, C, and D represent circles of memory. The smallest, and nearest to the object, A, “is the nearest to immediate perception. It contains only the object O, with the afterimage which comes back and overlies it. Behind it, the larger circles B, C, D correspond to growing efforts at intellectual expansion.” (p.104) Because memory is always present as a whole, each circuit actually contains the whole of memory; i.e. D doesn’t represent more distant memories or a fuller penetration into memory than A. Instead, because memory is “elastic,” it is always capable of expanding more, thereby reflecting upon the object a growing number of suggested images. In other words, the last and largest enclosure of memory; rather than going further into our memory stores, elicits the most, and the most detailed, images.

The circles B’, C’ and D’ are the “growing depth, situated behind the object and virtually given with the object itself…” (p.105) Bergson calls each circle here (B’, C’, D’) the “reflection” of the associated expansion of memory (B, C, D), which thereby attains a “deeper strata of reality”; i.e. brings more memory-images to bear on the perception. In short, I think these represent the actual image of reflected perception; i.e. the image that we synthesise from the combination of the raw perception and memory.

But this process of expansion into memory is reflective; the images acquired are “the images of idle fancy or of dream...” (p.106) It doesn’t concern action, which is ultimately what all perception is directed towards. “[T]o act is just to induce this memory to shrink, or rather to become thinned and sharpened, so that it presents nothing thinner than the edge of a blade to actual experience, into which it will thus be able to penetrate.” (p.106) This thinning and sharpening process is precisely what happens as we move downward through the concentric circles towards A; the recollections become “more and more removed from their personal and original form, and more and more capable, from their lack of distinguishing features, of being applied to the present perception and of determining it after the manner of a species which defines and absorbs the individual. There comes a moment when the recollection thus brought down is capable of blending so well with the present perception that we cannot say where perception ends or where memory begins.” (p.106) Through this process of reflection a “sketch is thereby furnished to us, into which we put the right details and the right coloring by projecting into it memories more or less remote…” (p.107) (this is represented by the expanding concentric circles both above and below the object), but it is only when the fruits of this labour are reached; i.e. at the smallest circle, A, where memory and perception are able to coincide, that action is precipitated.

A notable feature of the diagram is the way that each circle always returns to the object O at the centre. It is this which Bergson wanted to emphasise to distinguish his model from the typical mechanical model in which attentive perception is a series of rectilinear processes; the object exciting sensations, sensations causing ideas to arise, each idea carrying us further and further from the object, the current perception. For Bergson, on the contrary, the object is always retained in reflective perception, and the addition of memory-images involves a complete re-working of the whole perception.

Returning to the testable hypotheses now, Bergson restates that according to his model, the failures of visual or auditory recognition in general (psychic blindness and psychic deafness) and the failures of the recognition of words (word blindness, word deafness, etc.) will arise either from the fact that “sometimes our body is no longer able automatically to adopt, under the influence of the external stimulus, the precise attitude by means of which a choice could be automatically made among our memories; sometimes the memories are no longer able to find a fulcrum in the body, a means of prolonging themselves in action. In the first case, the lesion affects the mechanisms which continue, in an automatically executed movement, the stimulation received: attention can no longer be fixed by the object. In the second case, the lesion involves those particular cortical centres which *prepare* voluntary movements by lending them the required sensory antecedent, centres which, rightly or wrongly, are termed image-centres: attention can no longer be fixed by the subject. But, in either case, it is actual movements which are hindered or future movements which are no longer prepared: there has been no destruction of memories.” (p.108) These hypotheses are essentially the same as those we looked at regarding instantaneous recognition. The only difference is they now include attention.

The pathology we discussed earlier supports Bergson here as well in revealing two kinds of disorders. “In the first kind, visual and auditory memories are still evoked, but they cannot apply themselves to the corresponding perceptions. In the second, evocation of the memories themselves is hindered…” (p.108) However, it still needs to be shown that the disorders arise from damage to the sensori-motor mechanisms of automatic attention in the first case, and the imaginative mechanisms of voluntary attention in the second. Bergson will investigate this with the case of speech, which he defines thus: “To hear speech is, in fact, first of all to recognize a sound, then to discover its sense, and finally to interpret it more or less thoroughly: in short, it is to pass through all the stages of attention and to exercise several higher or lower powers of memory.” (p.109) To support his thesis, he must show that there is both an automatic sensori-motor process and an excentric projection of memory-images, and then illustrate that lesions which produce failures in recognition disrupt them.

The typical model for how we understand speech involves basically matching auditory impressions with auditory memories. Bergson rejects this. Think about what happens when you hear someone speaking a language you don’t understand. You receive all of the sound-impressions and yet, not only do you not understand anything, you are unable even to separate out words or syllables from the mess. The typical model requires that words heard are matched with memories and thereby the corresponding idea evoked. However, this requires that the sound of the word be heard by the ear in the first place. “How can the sounds perceived speak to memory, how can they choose, in the storehouse of auditory images, those which should come to rejoin them, unless they have been already separated, distinguished – in short, perceived – as syllables and as words?” (p.110)

This problem is unresolvable if we retain the standard explanation. Instead, Bergson suggests an alternative in which “auditory impressions organize nascent movements, capable of scanning the phrase which is heard and of emphasizing its main articulations. These automatic movements of internal accompaniment, at first undecided or uncoordinated, might become more precise by repetition; they would end by sketching a simplified figure in which the listener would find, in their main lines and principal directions, the very movements of the speaker.” (p.110) What we are left with then is this motor “scanning” of the phrase with a view towards action, which sketches its broad outlines, giving us a *motor diagram* of the speech we hear. The motor diagram is an important concept because it means that hearing, like all forms of perception for Bergson, is initially *felt* in the body rather than *thought* in the mind. We grasp the outlines of what is said in our body, not just *before* we parse the string of phonemes into words and phrases, but because without this kind of opening into the speech, we wouldn’t *be able to* parse it. This gives us a delightfully holistic approach to speech, in which to “…adapt our hearing to a new language would then consist, at the outset, neither in modifying the crude sound nor in supplementing the sounds with memories; it would be to coordinate the motor tendencies of the muscular apparatus of the voice to the impressions of the ear; it would be to perfect the motor accompaniment.” (p.111)

Bergson illustrates this process by comparing it with what happens when we learn a new type of physical exercise in an excellent description which is worthy of being reprinted in full:

…we begin by imitating the movement as a whole, as our eyes see it from without, as we think we have seen it done. Our perception of it is confused; confused therefore will be the movement whereby we try to repeat it. But whereas our visual perception was of a *continuous* whole, the movement by which we endeavour to reconstruct the image is *compound* and made up of a multitude of muscular contractions and tensions; and our consciousness of these itself includes a number of sensations resulting from the varied play of the articulations. The confused movement which copies the image is, then, already its virtual decomposition; it bears within itself, so to speak, its own analysis. The progress which is brought about by repetition and practice consists merely in unfolding what was previously wrapped up, in bestowing on each of the elementary movements that *autonomy* which ensures precision, without, however, breaking up that *solidarity* with the others without which it would become useless. We are right when we say that habit is formed by the repetition of an effort; but what would be the use of repeating it, if the result were always to reproduce the same thing? The true effect of repetition is to decompose, and then to recompose, and thus appeal to the intelligence of the body. At each new attempt it separates movements which were interpenetrating; each time it calls the attention of the body to a new detail which had passed unperceived; it bids the body discriminate and classify; it teaches what is the essential; it points out, one after another, within the total movement, the lines that mark off its internal structure. In this sense, a movement is learnt when the body has been made to understand it.” (pp.111-2)

The motor diagram, as a sketch, or a few nascent muscular sensations, being “to speech itself what the rough sketch is to the finished picture…” (p.112), is the crude decomposition of the continuity of sound heard by the listener. In order to perfect the motor accompaniment, to be able to hear and respond to speech, we must get our *body* to understand it. “The muscular sensations, really and completely experienced, give it [the speech] color and life.” (p.113)

But is there evidence for the motor diagram? Is there evidence connecting the mechanisms of articulation and phonation (movements of the lips, larynx, chest, etc.) with those of auditory perception? Bergson points to cases of aphasia in which subjects have lost the capacity of spontaneous speech and yet are still able to repeat what is said to them (indicating an automatic, motor connection between aural input and oral response). He also indicates the phenomenon of *echolalia*, in which patients mechanically, and possibly unconsciously, repeat words they hear “as though the auditory sensations converted themselves automatically into movements of articulation.” (p.114) Bergson’s motor diagram hypothesis also better explains cases of word deafness in which patients retain both the auditive memory of words and the sense of hearing, yet recognise nothing said to them. The classical explanation is that the lesion “prevents the acoustic impressions from going to join the verbal auditory images in the cortical centres where they are supposed to be deposited.” (p.114) However, this presumes that verbal auditory images are stored in the brain. It also fails to explain how both acoustic impressions and verbal auditory images appear for consciousness, and yet are unable to be connected by the patient. There must be some internal process in consciousness which has broken down; precisely where Bergson’s motor diagram would be.

As I’ve described it here, the motor diagram appears almost automatic, more like a reflex. However, Bergson points out that, although it is an automatic tendency, it “is not without… a certain elementary mental effort: how otherwise could we identify with each other, and consequently follow with the same diagram, similar words pronounced on different notes and by different qualities of voice? These inner movements of repeating and recognizing are like a prelude to voluntary attention. They mark the limit between the voluntary and the automatic.” (p.116) This gives us the first half of full conscious recognition, but we must now move to the second part, passing from movements to memories.

Just to recap, Bergson has asserted that “attentive recognition is a kind of *circuit,* in which the external object yields to us deeper and deeper parts of itself, as our memory adopts a correspondingly higher degree of tension in order to project recollections towards it.” (p.116) Continuing with the case of speech, the object is then, “an interlocutor whose ideas develop within his consciousness into auditory representations which are then materialized into uttered words. So, if we are right, *the hearer places himself at once in the midst of the corresponding ideas,* and then develops them into acoustic memories which go out to overlie the crude sounds perceived, while fitting themselves into the motor diagram.” (p.116) You will notice the parallel here between visual perception, where we said the perceiver sees the objects, not in their mind, but out in the external world itself, and rather than translating light waves or electrical signals into images, they directly perceive the objects themselves. The same process occurs with auditory information. Through the motor diagram, we obtain a sketch of the information (the *ideas* in auditory perception/the size or shape of the object in visual perception). The information is not represented within my mind as an unextended image; rather, it is perceived (heard/seen) out there where it actually is (in the speaker/in the object). This is why Bergson says the hearer is in the midst of the ideas. Then reflection kicks in and memories which conform to the motor diagram are reflected back on the object (as per the diagram we saw earlier) adding depth to the crude sounds actually picked up by the ear drum. In this, Bergson describes a cooperative partnership between the communicating individuals, rather than the typical notion of two isolated egos separated by an unbridgeable chasm, in which one cannot even be sure the other exists.

The associationist picture of the same process would have it that “by the mere effect of contiguity, the perception of a sound brings back the memory of the sound and memories bring back the corresponding ideas.” (p.117) Lesions in the brain then, inhibit communication by destroying memories. Through this, we are led to believe that in the brain there are “auditory memories slumbering, whether as a physico-chemical modification of certain cells or under some other form. A sensory stimulation is then supposed to awaken them; and, finally, by an intra-cerebral process, perhaps by transcortical movements that go to find the complementary representations, they are supposed to evoke ideas.” (p.117) Described like this it certainly sounds fanciful.

Besides the reasonableness argument, Bergson highlights three problems with this hypothesis. First, no two speakers pronounce the same word the same way. The same word is even often pronounced differently by the same speaker. How could memory, which is supposed to be inert and passive according to the mechanistic hypothesis here, discover “beneath external differences, an internal similitude”? (p.118) Second, we never hear single, isolated words in proper speech. If that is how they are stored in memory, we would never be able to identify a “point of contact, between the dry, inert, isolated image and the living reality of the word organized with the rest of the phrase…” (p.118)

Finally, he discusses the notion that words are stored in the brain. If this were true, we should see in aphasia certain determined words disappear, while others remain. But, this is not what we see. Bergson notes two distinct cases of sensory aphasia. In the first, there is a “general weakening of the function, but… not the number of recollections. It seems as if the patient had no longer strength to grasp his acoustic memories, as if he turned round about the verbal image without being able to hit upon it.” (p.119) The patient can usually recall the word with a few hints, demonstrating that the memories haven’t been lost. In the second type of aphasia though, definite groups of representations do appear to have disappeared from memory. These can also be divided into two subgroups. In the first subgroup, the loss of memories is usually abrupt, and the particular memories ‘erased’ seem arbitrarily chosen. In the first case though, it is unlikely the memories have actually been lost. Not only that, Bergson suspects they may be active. He discusses the case of a patient who has forgotten the letter F. But, “…how it is possible to subtract a given letter wherever met with – to detach it, that is, from the spoken or written words in which it occurs – if it were not first implicitly recognized… Moreover, in such cases the patient may often recover the lost memories.” (p.120) The second subgroup though, contain the true aphasias, and in these cases, the loss of memories is progressive and “governed by a methodical and grammatical order, that which is indicated by Ribot's law: proper names go first, then common nouns, and lastly verbs.” (p.119) Are we to believe that every aphasia of this type just happens to attack the same areas of the brain in the same order in every patient? However, “the fact can be explained, if we admit that memories need, for their actualization, a motor ally, and that they require for their recall a kind of mental attitude which must itself be engrafted upon an attitude of the body. If such be the case, verbs in general, which essentially express *imitable actions,* are precisely the words that a bodily effort might enable us to recapture when the function of language has all but escaped us: proper names, on the other hand, being of all words the most remote from those impersonal actions which our body can sketch out, are those which a weakening of the function will earliest affect.” (p.120) In none of these cases, do we find memories stored in the brain.

Bergson then asks us to consider our own consciousness when we listen to someone whom we truly desire to understand. “Do we passively wait for the impressions to go in search of their images? Do we not rather feel that we are adopting a certain disposition which varies with our interlocutor, with the language he speaks, with the nature of the ideas which he expresses – and varies, above all, with the general movement of his phrase, as though we were choosing the key in which our own intellect is called upon to play? The motor diagram, emphasizing his utterance, following through all its windings the curve of his thought, shows our thought the road. It is the empty vessel, which determines, by its form, the form which the fluid mass, rushing into it, already tends to take.” (p.121) In other words, when you listen to someone, don’t you feel as if you are *engaged*, or maybe *attuning* yourself to them, rather than simply making mental connections between words and images? Isn’t a conversation more an opening up of yourself to your interlocutor, an unfocusing or even letting go, allowing their words wash over and through you, *resonate* within you, as it were? Indeed, if you try to focus too much on the words, you start to lose the flow of the conversation. That’s because you’re observing the conversation instead of participating in it.

Psychologists, Bergson feels, are reluctant to accept his model because “of the invincible tendency which impels us to think on all occasions of *things* rather than of movements.” (p.121) Starting from the idea, developing that into auditory memory-images which are capable of being inserted into the motor diagram, so as to overlie the sounds we hear. This is a continuous process that cannot be broken into parts without losing sight of the whole (a theme that runs through all of Bergson’s philosophy). “We have here a continuous movement, by which the nebulosity of the idea is condensed into distinct auditory images, which, still fluid, will be finally solidified as they coalesce with the sounds materially perceived. At no moment is it possible to say with precision that the idea or the memory-image ends, that the memory-image or the sensation begins. And, in fact, where is the dividing line between the confusion of sounds perceived in the lump and the clearness which the remembered auditory images add to them, between the discontinuity of these remembered images themselves and the continuity of the original idea which they dissociate and refract into distinct words? But scientific thought, analysing this unbroken series of changes, and yielding to an irresistible need of symbolic presentment, arrests and solidifies into finished things the principal phases of this development. It erects the crude sounds heard into separate and complete words, then the remembered auditory images into entities independent of the idea they develop these three terms, crude perception, auditory image and idea, are thus made into distinct wholes of which each is supposed to be self-sufficing.” (p.122)

In line with this, theorists tend to adopt a simplistic, idealised picture of language, speaking “as if a sentence were composed of nouns which call up the images of things. What becomes of those parts of speech, of which the precise function is to establish, between images, relations and shades of meaning of every kind?... Consider then the host of different relations which can be expressed by the same word, according to the place it occupies and the terms which it unites.” (p.124) It is just far too simplistic to attempt to understand language by holding that words have a one-to-one correspondence with images, which can be mechanically assembled into complete thoughts.

In truth, all language is essentially discontinuous because it proceeds by discrete words. What is important though is the thought behind the words; “…speech can only indicate by a few guide-posts placed here and there the chief stages in the movement of thought. That is why I can indeed understand your speech if I start from a thought analogous to your own, and follow its windings by the aid of verbal images which are so many sign-posts that show me the way from time to time. But I shall never be able to understand it if I start from the verbal images themselves, because between two consecutive verbal images there is a gulf which no amount of concrete representations can ever fill. For images can never be anything but things, and thought is a movement.” (p125) And we are back to continuous movement. We don’t communicate through exchanging *things* with each other, but through a movement, the whole of which is truly more than its parts. It is “the constant tendency of discursive intellect to cut up all progress into *phases* and afterwards to solidify these phases into *things*…” (p125) that overlooks this.

At this point, Bergson gives a nice description of his theory, which I will quote in full:

We have said that ideas – pure recollections summoned from the depths of memory – develop into memory-images more and more capable of inserting themselves into the motor diagram. In the degree that these recollections take the form of a more complete, more concrete and more conscious representation, do they tend to confound themselves with the perception which attracts them or of which they adopt the outline. Therefore, there is not, there cannot be in the brain a region in which memories congeal and accumulate. The alleged destruction of memories by an injury to the brain is but a break in the continuous progress by which they actualize themselves. (pp.125-6)

Finally, then, we have articulated complete perception; i.e. pure perception combined with a memory-image we send forth from memory. In short, we have found that “…distinct perception is brought about by two opposite currents, of which the one, centripetal, comes from the external object, and the other, centrifugal, has for its point of departure that which we term ‘pure memory’…” (p.127)

The centrality of reflection and memory in this process prompts Bergson to say, “…we do not go from the perception to the idea, but from the idea to the perception; and the essential process of recognition is not centripetal, but centrifugal.” (p.130) The former (moving from perception to idea) is a mechanical process that cannot produce recognition because the raw data coming in to our sensory organs completely lacks anything that we could recognise. It is only through memory-images, drawn from our memories, and overlaid on the raw sensory data in ways guided by the motor diagram, that sense can be made out of the noise (be this visual, aural, tactile, etc.). Hence, it is ultimately memory-images (or memory, or ideas) that allows recognition to occur because without them, there is nothing available to be recognised in the first place.

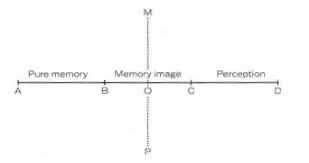
The process by which the memory-image overlays itself on the pure perception, Bergson describes as the memory-image progressing from the virtual to the actual. “…the memory-image itself, if it remained pure memory, would be ineffectual. Virtual, this memory can only become actual by means of the perception which attracts it. Powerless, it borrows life and strength from the present sensation in which it is materialized.” (p.127) It is to this ‘virtual realm’ that we will turn next.

Of the Survival of Images

Memory and Mind

Bergson begins here with a summary of the preceding, which is worth a reprint:

We have distinguished three processes, pure memory, memory-image, and perception, of which no one, in fact, occurs apart from the others. Perception is never a mere contact of the mind with the object present; it is impregnated with memory-images which complete it as they interpret it. The memory-image, in its turn, partakes of the “pure memory,” which it begins to materialize, and of the perception in which it tends to embody itself: regarded from the latter point of view, it might be defined as a nascent perception. Lastly, pure memory, though independent in theory, manifests itself as a rule only in the coloured and living image which reveals it. Symbolizing these three terms by the consecutive segments AB, BC, CD, of the same straight line AD, we may say that our thought describes this line in a single movement which goes from A to D, and that it is impossible to say precisely where one of the terms ends and another begins. (p.133)



Bergson then gives an excellent phenomenological description of just how this process plays out:

In fact, this is just what consciousness bears witness to whenever, in order to analyse memory, it follows the movement of memory at work. Whenever we are trying to recover a recollection, to call up some period of our history, we become conscious of an act *sui genesis* by which we detach ourselves from the present in order to replace ourselves, first in the past in general, then in a certain region of the past – a work of adjustment, something like the focussing of a camera. But our recollection still remains virtual; we simply prepare ourselves to receive it by adopting the appropriate attitude. Little by little it comes into view like a condensing cloud; from the virtual state it passes into the actual; and as its outlines become more distinct and its surface takes on colour, it tends to imitate perception. But it remains attached to the past by its deepest roots, and if, when once realized, it did not retain something of its original virtuality, if, being a present state, it were not also something which stands out distinct from the present, we should never know it for a memory.” (pp.133-4)

The precise problem of associationism is that it overlooks the continuity of *becoming*, the “living reality” (p.134) which Bergson so nicely describes here, in favour of a “discontinuous multiplicity of elements, inert and juxtaposed.” (p.134) In fact, each element in this process necessarily contains both something of what precedes and also of what follows it, and precisely because of this each element is mixed, or “impure.” The line MO represents the artificial division associationism makes in this process, cleaving it into two parts; sensation (OD) and image (AO). Yet, despite this break, associationism also maintains that there is only a difference of degree, or intensity, between the two, yielding *strong states* and *weak states*; the former being perceptions in the present, the latter representations (in the present) of the past. Of course, this last claim is a complete mystery for Bergson. How can a representation in the present ever make a claim to be past? Indeed, “we shall never reach the past unless we frankly place ourselves within it.” (p.135) The past is something which is essentially *virtual*. Looking for it in anything actual and already realised is pure folly. “This is, in fact, the error of associationism: placed in the actual, it exhausts itself in vain attempts to discover in a realized and present state the mark of its past origin, to distinguish memory from perception, and to erect into a difference in kind that which it condemned in advance to be but a difference of magnitude.” (p.135)

As Bergson says, “[t]o *picture* is not to *remember*.” An image will never be past unless it was in the past that I looked for it. Psychologists correctly note that “a remembered sensation becomes more actual the more we dwell upon it…” (p.136), but they then incorrectly conclude from this that “the memory of the sensation is the sensation itself beginning to be.” (p.136) In other words, “was the memory of a pain, when it began, really pain?” (p.136) Now, if this were true (that is, if sensation and memory were but differences of degree and the memory of a pain were actually a slight pain), then it would also follow that as an intense pain diminishes, it would become the memory of an acute pain; “but never will this weak state appear to me to be the memory of a strong state. Memory, them, is something quite different.” (pp.136-7)

The illusion that holds perception and memory to be the same lies in the erroneous belief we outlined in the first chapter; namely, the belief that perception has a purely speculative interest. Because memory certainly is knowledge of this kind, since its object is no longer present, it is natural to assume a difference of degree only between the two. “But there is much more between past and present than a mere difference of degree. My present is that which interests me, which lives for me, and, in a word, that which summons me to action; whereas my past is essentially powerless.” (p.137) A fuller investigation of this last point will help to further elucidate pure memory.

But first, Bergson wants to make clear what the present moment is. He will clarify this with respect to his notion of *duration*: “The essence of time is that it goes by; time already gone by is the past, and we call the present the instant in which it goes by. But there can be no question here of a mathematical instant. No doubt there is an ideal present – a pure conception, the indivisible limit which separates past from future. But the real, concrete, live present – that of which I speak when I speak of my present perception – that present necessarily occupies a duration.” (p.137) This duration covers both sides of what I call “my present;” that is, it “…has one foot in my past and another in my future... Now the immediate past, in so far as it is perceived, is, as we shall see, sensation, since every sensation translates a very long succession of elementary vibrations; and the immediate future, in so far as it is being determined, is action or movement. My present, then, is both sensation and movement; and, since my present forms an undivided whole, then the movement must be linked with the sensation, must prolong it in action. Whence I conclude that my present consists in a joint system of sensations and movements. My present is, in its essence, sensori-motor.” (p.138) Now, the part of us that experiences sensations and executes movements is precisely the body, so “my present consists in the consciousness that I have of my body.” (p.138) This accords quite nicely with the earlier description we gave of the body as a “center of action,” the place where my becoming is enacted, the part of my duration which is growth.

So, my present is sensori-motor. Of my past, however, only that which can make itself useful; i.e. collaborate in action, becomes image and then sensation, so “from the moment that it becomes image, the past leaves the state of pure memory and coincides with a certain part of my present. Memory actualized in an image differs, then, profoundly from pure memory. The image is a present state, and its sole share in the past is the memory whence it arose. Memory, on the contrary, powerless as long as it remains without utility, is pure from all admixture of sensation, is without attachment to the present, and is consequently unextended.” (p.140)

It is just this powerlessness which Bergson will invoke to enable us to understand how memory can be preserved in its latent state. In a very interesting passage, Bergson talks about the bias we have concerning psychic states that they must be conscious; such that they cannot cease to be conscious without ceasing to exist. But, if, as Bergson has been arguing, “…consciousness is but the characteristic note of the *present,* that is to say of the actually lived, in short of the *active,* then that which does not act may cease to belong to consciousness without therefore ceasing to exist in some manner. In other words, in the psychological domain, consciousness may not be the synonym of existence, but only of real action or of immediate efficacy; and, limiting thus the meaning of the term, we shall have less difficulty in representing to ourselves a psychical state which is unconscious, that is to say, ineffective… in a being which has bodily functions, the chief office of consciousness is to preside over action and to enlighten choice. Therefore, it throws light on the immediate antecedents of the decision, and on those past recollections which can usefully combine with it; all else remains in shadow.” (p.141)

Here, Bergson talks about *unconscious representations*. The images currently present to your perception are not the whole of matter. So, there exist currently non-perceived material objects, images currently not imagined. What else could these be other than unconscious mental states? Think about what lies beyond the walls of your room; other rooms, a street, houses, etc. These are all “perceptions absent from your consciousness and yet given outside of it. They are not created as your consciousness receives them; they existed, then, in some manner and since, by hypothesis, your consciousness did not apprehend them, how could they exist in themselves unless in the unconscious state?” (p.142)

So it is then that an existence outside of consciousness in the case of objects is obviously, even trivially, true, and yet the same thing, when speaking of a subject, becomes a mystery. If we imagine our actual and virtual perceptions extending along two lines; one line, AB, representing our perceptions in space, and another one, CI, representing our successive recollections in time, the point I is the only one given to consciousness.

I

B

A

C

Why is it that we readily recognise objects extended in space (AB) as real, even when unperceived, and yet when it comes to those in time (CI), we only accept the point I as possessing a real existence? In essence, Bergson’s answer to this question is that the objects arranged in space (AB) are objects which we are going to perceive, and hence are of use to us, while those on CI are precisely those that have already been perceived, and are no longer of any immediate interest to us. “The unperceived part of the material universe, big with promises and threats, has then for us a reality which the actually unperceived periods of our past existence cannot and should not possess. But this distinction, which is entirely relative to practical utility and to the material needs of life, takes in our minds the more and more marked form of a metaphysical distinction.” (p.144) In short, space appears spread out indefinitely before us, while time appears to have been shut off behind us as it flows.

Regarding objects simultaneously set out in space, we see that “the terms condition each other in a manner which is entirely determined, so that the appearance of each new term may be foreseen. Thus I know, when I leave my room, what other rooms I shall go through. On the contrary, my memories present themselves in an order which is apparently capricious. The order of the representations is then necessary in the one case, contingent in the other; and it is this necessity which I hypostatize, as it were, when I speak of the existence of objects outside of all consciousness.” (p.145) This strictly determined order of objects I perceive “lends to them the appearance of a chain, of which my present perception is only one link” (p.145), making it easy to extend this chain even to those objects I don’t perceive. Bergson’s point is that, despite appearing differently constructed, our “memories form a chain of the same kind, and that our character, always present in all our decisions, is indeed the actual synthesis of all our past states. In this epitomized form our previous psychical life exists for us even more than the external world, of which we never perceive more than a very small part, whereas on the contrary we use the whole of our lived experience.” (p.146)

This brings us to the question of *existence*. To avoid opening a metaphysical can of worms, Bergson proposes to investigate this question only as far as it concerns experience – which is all we are interested in here. Existence implies two conditions: (1) presentation in consciousness, and (2) the logical or causal connection of a thing with what precedes and what follows it. However, while both are necessary, they may not be equally fulfilled. And so it is that with internal states, the connection is less close, while the presentation in consciousness is perfect, “an actual psychical state yielding the whole of its content in the act itself, whereby we perceive it.” (p.147) With external objects, on the contrary, the connection is perfect, while the presentation in consciousness “is never more than partially fulfilled, for the material object, just because of the multitude of unperceived elements by which it is linked with all other objects, appears to enfold within itself and to hide behind it infinitely more than it allows to be seen.” (p.147)

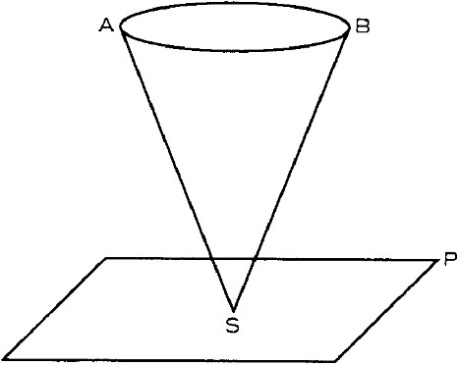
The problem is that our intellect, which prefers clear-cut distinctions; rather than accepting these two elements mixed in varying proportions, simply defines the two classes of objects by the main element in each case. “Then the existence of psychical states is assumed to consist entirely in their apprehension by consciousness, and that of external phenomena, entirely also, in the strict order of their concomitance and their succession. Whence the impossibility of leaving to material objects, existing, but unperceived, the smallest share in consciousness, and to internal unconscious states the smallest share in existence.” (p.148) Thus we see that the “whole of our past psychical life conditions our present state, without being its necessary determinant; whole, also, it reveals itself in our character, although no one of its past states manifests itself explicitly in character. Taken together, these two conditions assure to each one of the past psychological states a real, though an unconscious, existence.” (p.148)

And yet, being so obsessed with images drawn from space, we cannot help asking where memories are stored (forgetting that this question only makes sense when applied to bodies instantaneously perceived in space), and then answering ‘in the brain.’ Bergson has already argued against this thesis, and makes another similar argument here. Even if we allowed that the past survives as memories stored in the brain, the brain itself, as an image extended in space (that is, as matter) never exists outside of the present moment. “Either, then, you must suppose that this universe dies and is born again miraculously at each moment of duration, or you must attribute to it that continuity of existence which you deny to consciousness, and make of its past a reality which endures and is prolonged into its present. So that you have gained nothing by depositing the memories in matter…” (p.149) The fundamental illusion at work here lies in treating duration as space by breaking it up into instantaneous sections we can array side by side.

Still, the question might be asked: if the past has ceased to be, how can it preserve itself? The mistake in this question is in defining “…the present in an arbitrary manner as *that which is*, whereas the present is simply *what is being made.* Nothing is less than the present moment, if you understand by that the indivisible limit which divides the past from the future… If, on the other hand, what you are considering is the concrete present such as it is actually lived by consciousness, we may say that this present consists, in large measure, in the immediate past. In the fraction of a second which covers the briefest possible perception of light, billions of vibrations have taken place, of which the first is separated from the last by an interval which is enormously divided. Your perception, however instantaneous, consists then in an incalculable multitude of remembered elements; and in truth every perception is already memory. *Practically we perceive only the past,* the pure present being the invisible progress of the past gnawing into the future.” (p.150)

So, we have now clearly outlined two forms of memory. The one, more habit than memory, enabling us, through movement and our bodies, to adapt to the present situation; the other, true memory, operating alongside all of our states marking their date and place. We must now investigate how they are connected.

We have already noted that the body is unable to store images precisely because it itself is an image and forms part of the images. We have also noted that this means the body is always present, or, in accordance with what we said above, it is at that moment which is just past. The body then, is “a connecting link between the things which act upon me and the things upon which I act – the seat, in a word, of the sensori-motor phenomena.” (p.151) This leads us into another diagram. If the cone SAB is “the totality of the recollections accumulated in my memory, the base AB, situated in the past, remains motionless, while the summit S, which indicates at all times my present, moves forward unceasingly, and unceasingly also touches the moving plane P of my actual representation of the universe.” (p.152)



The bodily, habit-memory is then located at S, while the true memory is everything else in the cone SAB. Importantly, the two are not separate. “So, on the one hand, the memory of the past offers to the sensori-motor mechanisms all the recollections capable of guiding them in their task and of giving to the motor reaction the direction suggested by the lessons of experience. It is in just this that the associations of contiguity and likeness consist. But, on the other hand, the sensori-motor apparatus furnish to ineffective, that is unconscious, memories, the means of taking on a body, of materializing themselves, in short of becoming present... In other words, it is from the present that comes the appeal to which memory responds, and it is from the sensori-motor elements of present action that a memory borrows the warmth which gives it life.” (pp.152-3)

It is precisely in the harmony of these two kinds of memory that Bergson identifies a well-balanced mind. To live only in the present, responding to a stimulus immediately and without reflection is the way lower animals live and in humans constitutes a person of *impulse*. At the other extreme, over-indulging in the past, and allowing past recollections that bear no advantage on the present situation arise at random qualifies one as a *dreamer*. In between these limit cases, we find what we might call good sense. Bergson summarises these two extremes nicely in the following passage:

A human being who should *dream* his life instead of living it would no doubt thus keep before his eyes at each moment the infinite multitude of the details of his past history. And, on the other hand, the man who should repudiate this memory with all that it begets would be continually acting his life instead of truly representing it to himself: a conscious automaton, he would follow the lead of useful habits which prolong into an appropriate reaction the stimulation received. The first would never rise above the particular, or even above the individual; leaving to each image its date in time and its position in space, he would see wherein it *differs* from others and not how it resembles them. The other, always swayed by habit, would only distinguish in any situation that aspect in which it practically *resembles* former situations… (p.155)

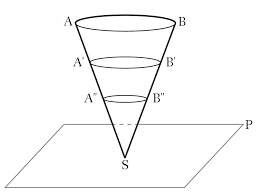
This also serves to explain the often impressive memories of children. Having only lived for a relatively short time they have an underdeveloped habit-memory, but this is compensated for by a prodigious spontaneous memory. “They seem to retain with greater facility only because they remember with less discernment. The apparent diminution of memory, as intellect develops, is then due to the growing organization of recollections with acts. Thus conscious memory loses in range what it gains in force of penetration…” (p.154)

These different types of memory turn out to be related to the problem of *general ideas*, so it is to this that we turn next. The problem is that “to generalize, it is first of all necessary to abstract, but to abstract to any purpose we must already know how to generalize.” (p.156) Nominalism and conceptualism chase each other around this circle. Nominalism holds that we assign a word to a particular thing, and then, through resemblances this thing has with other things, *extend* the word to an unlimited number of other things. This extension sets up the general idea. However, “…in order that the word should extend and yet limit itself to the objects which it designates, it is necessary that these objects should offer us resemblances which, when we compare them, shall distinguish them from all the objects to which the word does not apply. Generalization does not, consequently, occur without our taking into account qualities that have been found to be common and therefore considered in the abstract…” (p.156) Conceptualism, on the other hand, starts by dismantling the individual thing into isolated, abstracted qualities. These qualities are the general ideas, so here we have objects containing a multiplicity of genera, rather than genera containing a multiplicity of objects. However, Bergson questions whether these qualities have truly lost their individuality. “The whiteness of a lily is not the whiteness of a snowfield; they remain, even as isolated from the snow and the lily, snow-white or lily-white. They only forego their individuality if we consider their likeness in order to give them a common name” (p.157) But hasn’t this simply thrust us back into the extension of the nominalists? In general: “Generalization can only be effected by extracting common qualities; but, that qualities should appear common, they must have already been subjected to a process of generalization.” (p.157)

In order to get out of this circle, Bergson starts by pointing out that “we start neither from the perception of the individual nor from the conception of the genus, but from an intermediate knowledge, from a confused sense of the striking quality or of resemblance: this sense, equally remote from generality fully conceived and from individuality clearly perceived, begets both of them by a process of disassociation. Reflective analysis clarifies it into the general idea; discriminative memory solidifies it into a perception of the individual.” (p.158) What does this mean? Recall the purely utilitarian origins of perception. What appears first for us is that which interests us, that which can respond to a need. This discernment of the useful comprises a “background of generality or of resemblance…” (p.159) “We may then suppose perceptions as different as possible in their superficial details: if only they are continued by the same motor reactions, if the organism can extract from them the same useful effects, if they impress upon the body the same attitude, something common will issue from them, and the general idea will have been felt and passively experienced, before being represented.” (p.160) It is on this background of generality that an animal’s memory (assuming this is sufficiently developed) will proceed to highlight contrasts and differences.

Remember the circle was that in order to generalise we needed to abstract similar qualities, but in order to abstract similar qualities we had to know how to generalise. In truth, we have dissolved the circle because we’ve found that the similarities involved in these two movements are different. The similarities we originally identify in individual things (which lets us generalise) are determined not by an intellectual act, but are instead based in action and the reaction of our bodies. The similarities we derive from generalisation, however (genuinely *abstract* similarities), are different. They are similarities that reflective analysis deduces. In other words, the original work of generalisation is not intellectual. Instead, it starts from “a similarity felt and lived, or, if you prefer the expression, a similarity which is automatically acted. That to which it returns is a similarity intelligently perceived, or thought.” (p.160)

So, we have two operations of the mind; one by which we discern individuals, the other by which we construct genera. Both are intellectual processes. The first only requires the intervention of memory because the background of generality has already been established by our utilitarian drives. We come to know ‘fruit’ as a *lived* background of generality first, and only after this do we identify individual kinds of fruit based on differences. The result of this process is the formation of stable images which are stored in memory. The second, on the other hand, can never be completed, and only results in representations that are unstable and evanescent. “The essence of the general idea, in fact, is to be unceasingly going backwards and forwards between the plane of action and that of pure memory.” (p.161) If we refer back to our earlier diagram, “the general idea oscillates continually between the summit S and the base AB. In S it would take the clearly defined form of a bodily attitude or of an uttered word; at AB it would wear the aspect, no less defined, of the thousand individual images into which its fragile unity would break up.” (p.161) Any philosophy which only knows the *already done*; that is, which cannot accommodate *continuity*, will try to fix the general idea at one of the extremities, when, in actuality, it is in the “double current which goes from the one to the other, always ready either to crystallize into uttered words or to evaporate into memories.” (p.162) It is these intermediate positions the general idea belongs to that are represented by the cross-sections A’B’ and A’’B’’, although, of course, the entire cone is full of such cross-sections.



Next, Bergson wants to deduce the laws of association, but first he will show how current theories are insufficient.

First, he doesn’t deny that two ideas can be associated through some *similarity* they share. The problem is that *any* two ideas can be linked in this way. The same can be said for *contiguity*. Imagine a series of contiguous ideas A, B, C, D. A new perception (of A), A’, will automatically find itself in contact with B, then C and D, as long as A’ bears sufficient similarity to A, but as we said above points of similarity will always exist between A’ and A (and any other image). Associationism cannot explain why the particular point of similarity that led to any two images being connected was chosen from among the many options on offer. The reason for this is that associationism “…has made ideas and images into independent entities floating… in an inward space, drawing near to each other when chance brings them within the sphere of mutual attraction… its error is that it overly *intellectualizes* ideas: it attributes to them a purely speculative role, believes that they exist for themselves and not for us, and overlooks the relation which they bear to the activity of the will. If memories move about, indifferent, in a consciousness that is both lifeless and shapeless, there is no reason why the present perception should prefer and attract any one of them…” (p.164)

Starting with these individual entities, associationism tries to understand how connections to other ideas are made, but this, as we’ve seen, is impossible. In fact, what happens is, “…we perceive the resemblance before we perceive the individuals which resemble each other; and, in an aggregate of contiguous parts, we perceive the whole before the parts. We go on from similarity to similar objects, embroidering upon the similarity, as on their common stuff or canvas, the variety of individual differences. And we go on also from the whole to the parts, by a process of decomposition the law of which will appear later, a process which consists in breaking up, for the greater convenience of practical life, the continuity of the real. *Association,* then, is not the primary fact: *dissociation* is what we begin with…” (p.165)

So, the mechanism of association in associationism involves atomistic, independent ideas happening to snag other ideas that bear a similarity to them. But there is another way of conceiving this mechanism, and Bergson has already given it to us with his theory of recognition. “We have supposed that our entire personality, with the totality of our recollections, is present, undivided within our actual perception: Then, if this perception evokes in turn different memories, it is not by a mechanical adjunction of more and more numerous elements which, while it remains itself unmoved, it attracts around it, but rather by an expansion of the entire consciousness which, spreading out over a larger area, discovers the fuller detail of its wealth.” (pp.165-6) Now, what we have to explain in more detail is precisely this “double movement of contraction and expansion by which consciousness narrows or enlarges the development of its content.” (p.166)

If we imagine ourselves reduced to nothing more than sensori-motor functions alone, so placed at point S on our earlier diagram, we see that associations of both similarity and contiguity emerge naturally, precisely because they are “not indeed thought, but acted and lived.” (p.167) Now, imagine yourself in the psychical existence that is “dreamed,” so at AB in the diagram. This type of consciousness, completely detached from action, “…would have no reason to dwell upon one part of this past rather than upon another. In one sense, all its recollections would differ from its present perception, for, if we take them with the multiplicity of their detail, no two memories are ever precisely the same thing. But, in another sense, *any* memory may be set alongside the present situation…” (p.167) In addition, as soon as recollection is linked with perception, we would find many associated, contiguous events limited only by our own desire to stop the process.

However, these states are only extreme limits. We normally oscillate between these; i.e. from S (present perception) to AB (pure memory). What happens here is “…memory, laden with the whole of the past, responds to the appeal of the present state by two simultaneous movements, one of translation, by which it moves in its entirety to meet experience, thus contracting more or less, though without dividing, with a view to action; the other of rotation upon itself, by which it turns towards the situation of the moment, presenting to it that side of itself which may prove to be the most useful. To these varying degrees of contraction correspond the various forms of association by similarity.” (pp.168-9) This is the movement of *contraction*, and it involves movement through different *planes* in that cone (A’B’, A’’B’’, etc.). It explains association by similarity.

Bergson gives an example here of hearing someone speak a word in a foreign language. This may make me think of either that language in general or of a voice which I have heard pronounce the same word. These associations are not random; instead, they “…answer to two different mental *dispositions,* to two distinct degrees of tension of the memory; in the latter case nearer to the pure image, in the former more disposed towards immediate response, that is to say, to action.” (p.169) Bergson also mentions the pathology of “systematised amnesia” in which patients appear to have lost a number of associated recollections. They are actually present, Bergson affirms, but “…probably all bound up with a certain determined tone of intellectual vitality in which the subject can no longer place himself.” (p.170) When the patient is able to recover this “vitality,” or “disposition,” the memories will reappear.

With regard to contiguity, we see that in the plane AB every recollection is linked to the totality of events which precede and follow it. “Whereas, at the point in space where our action is concentrated, contiguity brings back, in the form of movement, only the reaction which immediately followed a former similar perception.” (p.170) But, in what is an interesting idea, Bergson notes that the recollections on these planes aren’t “…laid side by side like so many atoms. There are always some dominant memories, shining points round which the others form a vague nebulosity. These shining points are multiplied in the degree in which our memory expands... The work of localization [finding groups of memories that are contiguous] consists, in reality, in a growing effort of expansion, by which the memory, always present in its entirety to itself, spreads out its recollections over an ever wider surface and so ends by distinguishing, in what was till then a confused mass, the remembrance which could not find its proper place.” (p.171) This is the movement of *expansion*, and explains association by contiguity.

Pathology again serves to instruct; this time in retrogressive amnesia (where patients have forgotten events or things learned in the past). Bergson, again, maintains that “…the recollections which disappear from consciousness are probably preserved in remote planes of memory, and the patient can find them there by an exceptional effort like that which is effected in the hypnotic state. But on the lower planes these memories await, so to speak, the dominant image to which they may be fastened. A sharp shock, a violent emotion, forms the decisive event to which they cling; and if this event, by reason of its sudden character, is cut off from the rest of our history, they follow it into oblivion. We can understand, then, that the oblivion which follows a physical or moral shock should include the events which immediately preceded it – a phenomenon which is very difficult to explain in all other conceptions of memory.” (pp.171-2)

The Delimiting and Fixing of Images

Perception and Matter. Soul and Body

As always, it is nice to start with Bergson’s own summary of the preceding:

One general conclusion follows from the first three chapters of this book: it is that the body, always turned towards action, has for its essential function to limit with a view to action, the life of the spirit. In regard to representations it is an instrument of choice and of choice alone. It can neither beget nor cause an intellectual state. Consider perception, to begin with. The body, by the place which at each moment it occupies in the universe, indicates the parts and the aspects of matter on which we can lay hold: our perception, which exactly measures our virtual action on things, thus limits itself to the objects which actually influence our organs and prepare our movements. Now let us turn to memory. The function of the body is not to store up recollections, but simply to choose, in order to bring back to distinct consciousness, by the real efficacy thus conferred on it, the useful memory, that which may complete and illuminate the present situation with a view to ultimate action. (p.179)

Bergson sees a profound distinction between matter and spirit, and it is to this relation that we now turn. As we have seen, pure perception places us squarely in matter, while memory places us in spirit. The problem in understanding the relation between the two lies in the “double antithesis” we have insisted upon “between the extended [divisible multiplicity of matter] and the unextended [unity of mind] on one side and between quality [heterogeneous quality of our perceptions] and quantity [quantitative homogeneity of the perceived universe] on the other side.” (pp.180-1) Bergson agrees with idealism that “perception overflows infinitely the cerebral state…” (p.181), but agrees with materialism that “matter goes in every direction beyond our representation of it…” (p.181)

Basically, Bergson’s plan here is to take the extreme positions he staked out earlier – pure perception and pure memory – and use these to reconcile the “double antithesis.” Pure perception, because it places our “perception within the things themselves” (p.182), means that material extensity cannot be that which is considered in geometry; rather, it must, in some way, be a blending of the subject and the object. In other words, “the analysis of pure perception allows us to foreshadow in the idea of *extension* the possible approach to each other of the extended and the unextended.” (p.182) Similarly, memory is not an emanation of matter, but rather plays a central role in concrete perception. The question here is: “where is, precisely, the difference between the heterogeneous qualities which succeed each other in our concrete perception and the homogeneous changes which science puts at the back of these perceptions in space?” (p.182) If memory synthesises an infinity of pure perceptions which succeed each other into a concrete perception which occupies a certain duration, then the “heterogeneity in sensible qualities is due to their being contracted in our memory and the relative homogeneity of objective changes to the slackness of their natural tension…” (pp.182-3) This then gives us, through this notion of *tension*, the means of reconciling quantity and quality.

Next, Bergson will outline the method he plans to use to achieve this reconciliation. The things we typically call *facts* are not “reality as it appears to immediate intuition, but an adaptation of the real to the interests of practice and to the exigencies of social life. Pure intuition, external or internal, is that of an undivided continuity. We break up this continuity into elements laid side by side, which correspond in the one case to distinct *words*, in the other to independent *objects…* For the living unity, which was one with internal continuity, we substitute the factitious unity of an empty diagram as lifeless as the parts which it holds together.” (p.183) Basically, Bergson is saying here that we overlay onto lived reality a sterile framework comprised of objects (in the case of perceptions) and words (in the case of language) within which we interpret everything. The method he is proposing will attempt to go beyond this framework “to seek experience at its source, or rather above that decisive *turn* where, taking a bias in the direction of our utility, it becomes properly *human* experience.” (p.184) Followed to its conclusion, the aim is to “restore to intuition its original purity and so recover contact with the real.” (p.185) It is particularly interesting to hear Bergson talk of a *turn*, marking the point where we pass from the immediate to the useful. This, it turns out, is the error of both materialism and idealism; namely, they both start reasoning from after the turn, in effect, too late to catch reality. The only difference is that “dogmatism attaches itself more particularly to the form and empiricism to the matter.” (p.183)

He mentions next that he has already applied this method (in *Time and Freewill*) to consciousness, where “it appeared to us that the utilitarian work of the mind, in what concerns the perception of our inner life, consisted in a sort of refracting of pure duration into space, a refracting which permits us to separate our psychical states, to reduce them to a more and more impersonal form and to impose names upon them – in short, to make them enter the current of social life.” (p.185) Adopting this position leads both determinism and freewill adherents to false positions. Bergson’s method lets us see that we have to “replace ourselves in pure duration, of which the flow is continuous and in which we pass insensibly from one state to another: a continuity which is really lived, but artificially decomposed for the greater convenience of customary knowledge. Then, it seemed to us, we saw the action issue from its antecedents by an evolution sui generis*,* in such a way that we find in this action the antecedents which explain it, while it yet adds to these something entirely new, being an advance upon them such as the fruit is upon the flower. Freedom is not hereby, as has been asserted, reduced to sensible spontaneity… in man, the thinking being, the free act may be termed a synthesis of feelings and ideas, and the evolution which leads to it a reasonable evolution.” (p.186)

The method, then, consists in “distinguishing the point of view of customary or useful knowledge from that of true knowledge. The duration *wherein we see ourselves acting,* and in which it is useful that we should see ourselves, is a duration whose elements are dissociated and juxtaposed. The duration *wherein we act* is a duration wherein our states melt into each other. It is within this that we should try to replace ourselves by thought, in the exceptional and unique case when we speculate on the intimate nature of action, that is to say, when we are discussing human freedom.” (p.186)

It is this method Bergson will try to apply to the problem of matter, and, in doing so, attempt to understand extension before we erect a “homogeneous space to which it is applied and through which we subdivide it…” (p.186) In short, to see “concrete extension, continuous, diversified, and at the same time organized… [prior to its being] bound up with the amorphous and inert space which subtends it – a space which we divide indefinitely, out of which we carve figures arbitrarily, and in which movement itself, as we have said elsewhere, can only appear as a multiplicity of instantaneous positions, since nothing there can ensure the coherence of past with present.” (p.187)

The results that apply to the present study are summarised in four propositions.

Proposition 1: *Every movement, inasmuch as it is a passage from rest to rest, is absolutely indivisible.* (p.188)

We imagine movement to be infinitely divisible only because we mistakenly substitute the movement of the moving thing itself (which is not divisible precisely because it is a *progress*, not a thing) with the imaginary line which the moving thing traces in the space that is traversed by the moving thing (which is divisible precisely because it, as background, is a fixed *thing*). The former, the *movement*, is something we perceive directly, while the latter, the movement recomposed, is an artifice of the mind.

Movement visibly consists in passing from one point to another, and consequently in traversing space. Now the space which is traversed is infinitely divisible; and as the movement is, so to speak, applied to the line along which it passes, it appears to be one with this line and, like it, divisible. Has not the movement itself drawn the line? Has it not traversed in turn the successive and juxtaposed points of that line? Yes, no doubt, but these points have no reality except in a line drawn, that is to say motionless; and by the very fact that you represent the movement to yourself successively in these different points, you necessarily arrest it in each of them; your successive positions are, at bottom, only so many imaginary halts. You substitute the path for the journey, and because the journey is subtended by the path you think that the two coincide. But how should a progress coincide with a *thing,* a movement with an immobility? (pp.189-90)

By ingenious analogy, Bergson applies what we have just seen with movement and trajectory to duration and the instant. Duration, like movement, is an indivisible whole, and the instant, like the stationary points we can decompose movement into, are imaginary. “While the line AB symbolizes the duration already lapsed of the movement from A to B already accomplished, it cannot, motionless, represent the movement in its accomplishment nor duration in its flow. And from the fact that this line is divisible into parts and that it ends in points, we cannot conclude either that the corresponding duration is composed of separate parts or that it is limited by instants.” (p.191) As soon as we break duration or movement into parts, we lose the very essence of both. This single insight is the key to unravelling all of the paradoxes of Zeno of Elea.

Proposition 2: *There are* real *movements.* (p.193)

The mathematician “defines position by the distance from points of reference or from axes, and movement by the variation of the distance. Of movement, then, he only retains changes in length… If, then, movement is nothing but a change of distance, the same object is in motion or motionless according to the points to which it is referred, and there is no absolute movement.” (p.193) However, this is movement considered in the abstract, and is very different from the concrete changes we see taking place in the universe. We are, of course, “free to attribute rest or motion to any material point taken by itself, it is none the less true that the aspect of the material universe changes, that the internal configuration of every real system varies, and that here we have no longer the choice between mobility and rest. Movement, whatever its inner nature, becomes an indisputable reality. We may not be able to say what parts of the whole are in motion; motion there is in the whole, nonetheless.” (p.193)

For the geometer, on the contrary, all movement is relative. For Bergson, this only means that our mathematical symbols are unable to express the fact that a moving body moves. “And this is very natural, because these symbols, always meant for measurement, can express only distances. But that there is real motion no one can seriously deny: if there were not, nothing in the universe would change…” (p.194)

Proposition 3: *All division of matter into independent bodies with absolutely determined outlines is an artificial division.* (p.196)

Here, Bergson is arguing that the material universe is actually a continuous whole, not a collection of independent, separate bodies. Why, he asks, “do we parcel out the continuity of material extensity, given in primary perception, into bodies of which each is supposed to have its substance and individuality? No doubt the aspect of this continuity changes from moment to moment; but why do we not purely and simply realize that the whole has changed, as with the turning of a kaleidoscope? Why, in short, do we seek, in the mobility of the whole, tracks that are supposed to be followed by bodies supposed to be in motion? *A moving continuity is* given to us, in which everything changes and yet remains: whence comes it that we dissociate the two terms, permanence and change, and then represent permanence by *bodies* and change by *homogeneous movements* in space?” (p.197)

The answer to this question is *life*. The necessity of living, that is, of acting, requires that we divide up the totality into distinct material zones; i.e. bodies. “In the humblest living being nutrition demands research, then contact, in short a series of efforts which converge towards a centre: this centre is just what is made into an object – the object which will serve as food. Whatever be the nature of matter, it may be said that life will at once establish in it a primary discontinuity, expressing the duality of the need and of that which must serve to satisfy it. But the need of food is not the only need. Others group themselves round it, all having for object the conservation of the individual or of the species; and each of them leads us to distinguish, besides our own body, bodies independent of it which we must seek or avoid. Our needs are, then, so many search-lights which, directed upon the continuity of sensible qualities, single out in it distinct bodies. They cannot satisfy themselves except upon the condition that they carve out, within this continuity, a body which is to be their own, and then delimit other bodies with which the first can enter into relation, as if with persons. To establish these special relations among portions thus carved out from sensible reality is just what we call *living.*” (p.198)

This subdivision of reality into artificial pieces leads us further from reality, but then to correct this, we attempt to push the division further with science. Turning our analytical eye onto the body we just split off from the whole, we then proceed to break this into pieces, before discovering that there is no end to this process, and the further we turn away from the whole, the less we explain (even as we find ever more useful ways of manipulating these pieces).

In support of this, Bergson notes that science already confirms this continuity underlying the divided world life creates, in gravity, which is a force that extends throughout space, diminishing in its effect proportional to distance, certainly, but never reaching zero. “Something, then, exists between the atoms.” (p.200) We may be told that this is no longer matter, but force. But what we see nowadays (and was even apparent to Bergson at the beginning of the 20th Century) is force and matter drawing nearer together. In other words, we see “force more and more materialized, the atom more and more idealized, the two terms converging towards a common limit and the universe thus recovering its continuity.” (p.200)

Bergson illustrates this with Faraday and Lord Kelvin. “For Faraday the atom is a centre of force. He means by this that the individuality of the atom consists in the mathematical point at which cross, radiating throughout space, the indefinite lines of force which really constitute it: thus each atom occupies the whole space to which gravitation extends and all atoms are interpenetrating. Lord Kelvin, moving in another order of ideas, supposes a perfect, continuous, homogeneous and incompressible fluid, filling space: what we term an atom he makes into a vortex ring, ever whirling in this continuity, and owing its properties to its circular form, its existence and consequently its individuality to its motion.” (pp.200-1) We might talk of the same thing today with the current trend in physics which sees the atom as the excitation of a field which spreads throughout the entire universe.

Proposition 4: *Real movement is rather the transference of a state than of a thing.* (p.202)

Here, we come to the crux of the issue. We have two seemingly irreconcilable realms; qualities, or sensations, and movements. “Qualities are heterogeneous, movements homogeneous. Sensations, essentially indivisible, escape measurement; movements, always divisible, are distinguished by calculable differences of direction and velocity. We are inclined to put qualities, in the form of sensations, in consciousness; while movements are supposed to take place independently of us in space. These movements, compounded together, we confess, will never yield anything but movements; our consciousness, though incapable of coming into touch with them, yet by a mysterious process is said to translate them into sensations, which afterwards project themselves into space and come to overlie, we know not how, the movements they translate. Hence two different worlds, incapable of communicating otherwise than by a miracle – on the one hand that of motion in space, on the other that of consciousness with sensations.” (p.202)

In fact, the difference between quality and quantity *is* irreducible. Bergson illustrated this in *Time and Freewill*. But what he is asking is, “do real movements present merely differences of quantity, or are they not quality itself, vibrating, so to speak, internally, and beating time for its own existence through an often incalculable number of moments.” (p.202) That is what Bergson was getting at with his second proposition. Motion, as studied by physicists, is an abstraction or a symbol, useful for comparing and permitting calculation, but movements *in themselves* “are indivisibles which occupy duration, involve a before and an after, and link together the successive moments of time by a thread of variable quality which cannot be without some likeness to the continuity of our own consciousness.” (pp.202-3)

Consider two colours, red and blue. The sensation of red is completely different from the sensation of blue. Like all sensations, red and blue are completely heterogeneous. However, Bergson argues that this irreducibility is “due mainly to the narrow duration into which are contracted the billions of vibrations which they execute in one of our moments…” (p.203) Differences in colour ultimately come down to electromagnetic radiation vibrating at different frequencies. If we could stretch out our *duration*, live at a slower rhythm, so to speak, we would “see these colours pale and lengthen into successive impressions, still coloured, no doubt, but nearer and nearer to coincidence with pure vibrations…” (p.203); successive impressions which were themselves bound together by an inner continuity. In essence, we would see the quality (colour) melt into movement. This is precisely what we need to bridge the gap between quantity and quality.

The reason we are unable to see this is because we tend to attribute movement to discrete elements that we have artificially carved out of the whole, “which interpose their solidity between the movement itself and the quality into which it contracts.” (p.203) This means we fail to see that movement (and the elements we attach it to) is simply quality, under a different aspect. Moreover, it “renders unintelligible the process by which we grasp, in perception, at one and the same time, a *state* of our consciousness and a *reality* independent of ourselves. This mixed character of our immediate perception, this appearance of a realized contradiction, is the principal theoretical reason that we have for believing in an external world which does not coincide absolutely with our perception.” (pp.203-4) However, if that state (quality) and that reality (quantity) are actually one and the same thing, united in continuity, an indivisible whole, then the problem is dissolved.

The precise relation between quantity and quality then, is that the former is contained within the latter. Sensation appears to refer to objective things external to us, but this covers over the “immense multiplicity of the movements which it executes, so to speak, within itself as a chrysalis. Motionless on the surface, in its very depth it lives and vibrates.” (p.204) These internal vibrations which comprise everything give us the thread we need to connect quality and quantity. In placing movement (internal vibrations) within qualities, we cannot help conceiving of “the vibrations as less homogeneous, and the qualities as less heterogeneous, than they appear, and lastly attributing the difference of aspect in the two terms to the necessity which lies upon what may be called an endless multiplicity of contracting into a duration too narrow to permit of the separation of its moments.” (p.205)

The last part of that previous quote is crucially important. Bergson uses the example of red light, which, in the space of one second, accomplishes 400 billion successive vibrations. From the perspective of conscious experience, we have absolutely no inkling of these separate vibrations. Our duration, by light of the “rhythm” it beats at, condenses these individual vibrations into a single experience. So, can there be durations which beat at different rhythms? The short answer is yes. There are “successions in nature much more rapid than those of our internal states.” (p.207) This duration is not ours, “…but neither is it that homogeneous and impersonal duration, the same for everything and for everyone, which flows onward, indifferent and void, external to all that endures.” (p,207) That impersonal duration, we have seen, is the concoction of an intellect which spatialises duration in order to calculate it. Bergson continues: “In reality there is no one rhythm of duration; it is possible to imagine many different rhythms which, slower or faster, measure the degree of tension or relaxation of different kinds of consciousness, and thereby fix their respective places in the scale of being.” (p.207) That way of describing a different duration (conscious perception) as possessing a different “tension” in consciousness is quite nice, and it leads nicely to the insight that “to perceive consists in condensing enormous periods of an infinitely diluted existence into a few more differentiated moments of an intenser life, and in thus summing up a very long history. To perceive means to immobilize.” (p.208)

So, Bergson is clear that there is duration outside human life, in nature itself: “if you abolish my consciousness, the material universe subsists exactly as it was; only, since you have removed that particular rhythm of duration which was the condition of my action upon things, these things draw back into themselves, mark as many moments in their own existence as science distinguishes in it; and sensible qualities, without vanishing, are spread and diluted in an incomparably more divided duration. Matter thus resolves itself into numberless vibrations, all linked together in uninterrupted continuity, all bound up with each other, and travelling in every direction like shivers through an immense body.” (p.208)

That quote continues with a kind of blueprint for how we ought to think if we want to understand matter (the universe) as it is independent of the exigencies human life adds:

In short, try first to connect together the discontinuous objects of daily experience; then resolve the motionless continuity of their qualities into vibrations on the spot; finally fix your attention on these movements, by abstracting from the divisible space which underlies them and considering only their mobility (that undivided act which our consciousness becomes aware of in our own movements): you will thus obtain a vision of matter, fatiguing perhaps for your imagination, but pure, and freed from all that the exigencies of life compel you to add to it in external perception. (p.208)

Of course, Bergson isn’t denying that the world can, in a real sense, be divided into separate objects. He’s just pointing out that “the separation between a thing and its environment cannot be absolutely definite and clear-cut; there is a passage by insensible gradations from the one to the other…” (p.209), and this separation is carried out by the perceiving mind “following the suggestions of our requirement and the needs of practical life.” (pp.209-10)

How is this separation carried out? It can’t be merely thrust on continuity by brute force, as it were; instead, it requires that we make duration amenable to division, and this is achieved by spreading “…beneath the continuity of sensible qualities, that is to say, beneath concrete extensity, a network, of which the meshes may be altered to any shape whatsoever and become as small as we please: this substratum which is merely conceived, this wholly ideal diagram of arbitrary and infinite divisibility, is homogeneous space.” (p.210) Once this has been done, instantaneous perception (which we have investigated in detail) is free to divide matter up into independent objects, while, at the same time, memory “solidifies into sensible qualities the continuous flow of things.” (p.210)

It is this last addition to the process, that of memory, that opens the door for free action and raises us above lower animals. Being confined to pure perception (hence always in the present), and only able to avail ourselves of habit-memory (which merely prolongs the useful effect of past actions into present ones) ends in *necessity*. Freedom “can only belong to beings able to fix, at long intervals, that becoming to which their own becoming clings, able to solidify it into distinct moments, and so to condense matter and, by assimilating it, to digest it into movements of reaction which will pass through the meshes of natural necessity. The greater or less tension of their duration, which expresses, at bottom, their greater or less intensity of life, thus determines both the degree of the concentrating power of their perception and the measure of their liberty. The independence of their action upon surrounding matter becomes more and more assured in the degree that they free themselves from the particular rhythm which governs the flow of this matter.” (p.210) Freedom, then, requires the artificial constructions, homogeneous space (allowing us to solidify matter) and homogeneous time (allowing the division of duration), “which we effect on the moving continuity of the real in order to obtain there a fulcrum for our action, in order to fix within it starting-points for our operation, in short, to introduce into it real changes.” (p.211)

As a kind of summary of the error that has led idealism and realism to their opposite, and intractable claims, Bergson says the following:

So understood, space is indeed the symbol of fixity and of infinite divisibility. Concrete extensity, that is to say the diversity of sensible qualities, is not within space; rather is it space that we thrust into extensity. Space is not a ground on which real motion is posited; rather is it real motion that deposits space beneath itself. But our imagination, which is preoccupied above all by the convenience of expression and the exigencies of material life, prefers to invert the natural order of the terms. Accustomed to seek its fulcrum in a world of readymade motionless images, of which the apparent fixity is hardly anything else but the outward reflexion of the stability of our lower needs, it cannot help believing that rest is anterior to motion, cannot avoid taking rest as its point of reference and its abiding place, so that it comes to see movement as only a variation of distance, space being thus supposed to precede motion. Then, in a space which is homogeneous and infinitely divisible, we draw, in imagination, a trajectory and fix positions: afterwards, applying the movement to the trajectory, we see it divisible like the line we have drawn, and equally denuded of quality. Can we wonder that our understanding, working thenceforward on this idea, which represents precisely the reverse of the truth, discovers in it nothing but contradictions? Having assimilated movements to space, we find these movements homogeneous like space; and since we no longer see in them anything but calculable differences of direction and velocity, all relation between movement and quality is for us destroyed. So that all we have to do is to shut up motion in space, qualities in consciousness, and to establish between these two parallel series, incapable, by hypothesis, of ever meeting, a mysterious correspondence. Thrown back into consciousness, sensible qualities become incapable of recovering extensity. Relegated to space, and indeed to abstract space, where there is never but a single instant and where everything is always being born anew – movement abandons that solidarity of the present with the past which is its very essence. And as these two aspects of perception, quality and movement, have been made equally obscure, the phenomenon of perception, in which a consciousness, assumed to be shut up in itself and foreign to space, is supposed to translate what occurs in space, becomes a mystery. But let us, on the contrary, banish all preconceived idea of interpreting or measuring, let us place ourselves face to face with immediate reality: at once we find that there is no impassable barrier, no essential difference, no real distinction even, between perception and the thing perceived, between quality and movement. (pp.217-8)

This is essentially what we concluded in the first chapter of the book, where we saw that pure perception is in the things themselves rather than in the mind. However, this idealised perception existed only in theory. “In concrete perception memory intervenes, and the subjectivity of sensible qualities is due precisely to the fact that our consciousness, which begins by being only memory prolongs a plurality of moments into each other, contracting them into a single intuition.” (p.219) This quote seems important. The subjectivity of sensible qualities (what me might call ‘qualia’ these days) is due to memory prolonging a series of moments into each other and contracting them into one intuition. This, it seems to me, is precisely what duration is. So, subjective experience arises from duration, a key component of which, is memory. Although Bergson doesn’t follow this up here, it means that memory, out of which duration and consciousness arise, must somehow be a fundamental part of the universe. This is important because it means panpsychism, in seeing conscious experience as fundamental, is erroneous.

Our earlier conclusion was that consciousness and matter meet each other in concrete perception (duration), and this mirrors what we have seen here, where quality and quantity merge in a continuous whole (duration, again).

This whole discussion, also of course, solves the problem of the union of body and soul. The problem is that we see the former as divisible and extended, and the latter as indivisible and inextensive. With these prejudices in place, there is no way to ever bridge the gap. If, however, “…there is a gradual passage from the idea to the image and from the image to the sensation; if, in the measure in which it evolves towards actuality, that is to say towards action, the mental state draws nearer to extension; if, finally, this extension once attained remains undivided and therefore is not out of harmony with the unity of the soul; we can understand that spirit can rest upon matter and consequently unite with it in the act of pure perception, yet nevertheless be radically distinct from it. It is distinct from matter in that it is, even then, *memory,* that is to say a synthesis of past and present with a view to the future, in that it contracts the moments of this matter in order to use them and to manifest itself by actions which are the final aim of its union with the body. We were right, then, when we said, at the beginning of this book, that the distinction between body and mind must be established in terms not of space but of time.” (p.220)

Starting from space, as all forms of dualism do, can never reconcile body and spirit. Starting from *pure perception*, on the other hand, “…where subject and object coincide, follows the development of the two terms in their respective durations – matter, the further we push its analysis, tending more and more to be only a succession of infinitely rapid moments which may be deduced each from the other and thereby are *equivalent to each other; spirit* being in perception already memory, and declaring itself more and more as a prolonging of the past into the present, a *progress,* a true evolution.” (p.221)

If we take the “humblest function of spirit [which] is to bind together the successive moments of the duration of things…” (p.221), then we can easily “…conceive an infinite number of degrees between matter and fully developed spirit – a spirit capable of action which is not only undetermined, but also reasonable and reflective. Each of these successive degrees, which measures a growing intensity of life, corresponds to a higher tension of duration and is made manifest externally by a greater development of the sensori-motor system.” (p.221) This more complex sensori-motor system doesn’t ‘cause’ the more complex capabilities; it is merely a symbol of them. A symbol of the increasing independence of the organism, an ever-growing freedom: “Thus, between brute matter and the mind most capable of reflection there are all possible intensities of memory or, what comes to the same thing, all the degrees of freedom.” (p.222)

There is, to be sure, still an irreducible distinction between matter and the lowest form of memory (Bergson is a dualist after all), but a union is possible (in the sense of seeing how one can be grafted onto the other) in *pure perception* because this, as the “lowest degree of mind – mind without memory – is really part of matter…” (p.222), which we have seen participates in a duration not exactly like, but not unlike, the one our own conscious states evolve through. Memory, then, simply takes the continuous succession that is already there in nature, and prolongs and contracts it into a lived duration. Viewed in this way, there is no inherent contradiction in the relation between body and soul, mind and matter, or quality and quantity.

Summary and Conclusion

1. The body is an instrument of action. Regarding external perception: the brain simply takes in sensory data and converts this to movement. Regarding memory: the “body retains motor habits capable of acting the past over again…” (p.225) Under no circumstances, does the brain produce representations or store recollections.
2. Dualism will always end up oscillating between a materialism which reduces consciousness to something like an epiphenomenon, and an idealism which strips matter of any qualities I perceive in it. The common error here is that they “regard the elementary operations of the mind, perception and memory, as operations of pure knowledge.” (p.227) In fact, both are directed towards action. Regarding perception: “The growing complexity of the nervous system shunts the excitation received onto an ever larger variety of motor mechanisms and so sketches simultaneously an ever larger number of possible actions.” (p.228) Regarding memory: “…it’s primary function is to evoke all those past perceptions which are analogous to the present perception, to recall to us what preceded and followed them, and so to suggest to us that decision which is the most useful. But this is not all. By allowing us to grasp in a single intuition multiple moments of duration, it frees us from the movement of the flow of things, that is to say, from the rhythm of necessity.” (p.228)
3. Pure perception is in the objects themselves, rather than they in it. It creates nothing. On the contrary, it detaches from objects the possible action of my body upon them according to the needs of my body. Regarding idealism: Bergson concedes that every reality is related to consciousness, as idealism holds, hence his use of the term ‘image.’ However, because of what was just affirmed, there is more in the image than in our perception of it. This means that our consciousness of matter is not subjective (as it is for idealism) because it is in things, rather than in me, nor is it relative (as for Kantian idealism) “because the relation between the 'phenomenon' and the 'thing' is not that of appearance to reality, but merely that of the part to the whole.” (p.230) Regarding realism: this assumes a “composite matter made up of more or less independent parts” (p.230), and a mind which is completely separate. Kantian realism creates a similar gulf, but between the thing-in-itself and the sensuous manifold. Both erect this gulf from homogeneous space; simple realism makes of it a *real* medium, while Kantian realism regards it as an *ideal* medium. If, instead, we assume that “this homogeneous space is not logically anterior, but posterior to material things and to the pure knowledge which we can have of them; suppose that extensity is prior to space; suppose that homogeneous space concerns our action and only our action, being like an infinitely fine network which we stretch beneath material continuity in order to render ourselves masters of it, to decompose it according to the plan of our activities and our needs… we find that concrete extensity is not really divided, any more than immediate perception is in truth unextended.” (pp.231-2)

Regarding brain states: Perception is neither caused by, nor causes, cerebral states. Rather, “perception bears to its physiological counterpart the relation of a virtual action to an action begun…” (p.235)

1. Pure perception, however, is a theoretical construct. We need to include two things; two things that will allow it to “mingle with the perception of other bodies that of its own body, that is to say, its affections… [and] to mingle with its intuition of the actual moment that of other moments, that is to say, its memory.” (p.233) In other words, we need to restore to the body its extensity and to perception its duration.

External bodies are separated from us by space. This distance “measures the remoteness in time of their promise or of their menace…” (p.233) in the form of possible actions. The more this distance diminishes, the more possible action transforms into real action, and when the distance is nil, that is, when the body to be perceived is my own body, the transformation to real action is complete. This is what pain is. Starting from pure perceptions, or images, lets us see sensations as the “impurity” introduced into them, “being that part of our own body which we project into all others.” (p.235)

1. Although “the material universe itself, defined as the totality of images, is a kind of consciousness…” (p.235), we haven’t yet passed from matter to spirit. This transition will only take place when we “…place ourselves at the point where an individual consciousness, continuing and retaining the past in a present enriched by it, thus escapes the law of necessity, the law which ordains that the past shall ever follow itself in a present which merely repeats it in another form, and that all things shall ever be flowing away. When we pass from pure perception to memory, we definitely abandon matter for spirit.” (p.235)
2. Memory is a recollection of an *absent* object, unlike perception, which is the image of a *present* object. As we saw earlier, brain states don’t cause perception; they merely continue it. The same can be said for recollection; the cerebral state “may also prolong and convert into action the recollection of it [a perception] which we summon up, but it cannot give birth to that recollection.” (p236) This means then that: “*Memory is something other than a function of the brain, and there is not merely a difference of degree, but of kind, between perception and recollection.*” (p.236) The study of cerebral lesions revealed that, rather than annihilating memories, conditions like aphasia resulted, in which the “whole faculty of remembering that is more or less diminished in vitality, as if the subject had more or less difficulty in bringing his recollections into contact with the present situation.” (p.237)

This led us to consider the mechanism of this contact; i.e. *recognition*. There were two types of recognition; inattentive (the body responds to a repeated perception with a movement that has become habitual) and attentive (images produced by memory go out to meet the present perception). But this still doesn’t tell us what pure memory and pure recollections are.

1. Since we never confuse the two, memory is clearly not a weak perception. Memory is not a regression from the present into the past, it is progression from the past to the present. We place ourselves in the past “at a stroke.” Starting from the “virtual state,” we move upwards through *planes of consciousness* to the point “where it is materialized in an actual perception; that is to say, up to the point where it becomes a present, active state…” (p.239) Pure memory is just this virtual state.

The mistake usually made here is to treat perception as a disinterested act of pure contemplation, which leads us to define the present as that which is more intense, when we ought to define it as that which acts on us and makes us act; in short, sensori-motor; in other words, the state of our body. “Our past, on the contrary, is that which acts no longer but

which might act, and will act by inserting itself into a present sensation of which it borrows the vitality…” (p.240), at which point, it becomes a perception. The state of the brain then continues the remembrance, giving it a hold on the present, but pure memory belongs to the realm of spirit.

1. “Between the plane of action – the plane in which our body has condensed its past into motor habits – and the plane of pure memory, where our mind retains in all its details the picture of our past life, we believe that we can discover thousands of different planes of consciousness, a thousand integral and yet diverse repetitions of the whole of the experience through which we have lived.” (p.241) To complete a recollection with more details or localise a recollection involves “transporting ourselves to a wider plane of consciousness, in going away from action in the direction of dream.” (p.241) These planes exist virtually, and the intellect moves up and down in the interval between the outermost planes, action and memory, in order to discover in the present situation that which resembles a former situation, before placing the latter within the former so as to profit from past experience. Only now can we understand how the associations between present perceptions and past memories are made. On the plane of action; i.e. concerned only with motor habits, associations are acted or lived, rather than represented. “Here resemblance and contiguity are fused together…” (p.242) On the plane of memory, on the other hand, resemblance and contiguity break apart. So, specific resemblances are chosen, not at random, but depending on “the ever-varying degree of the *tension* of memory, which, according to its tendency to insert itself in the present act or to withdraw from it, transposes itself as a whole from one key into another.” (p.243)

This double movement of memory also explained general ideas – “…motor habits ascending to seek similar images in order to extract resemblances from them, and similar images coming down towards motor habits, to fuse themselves, for instance, in the automatic utterance of the word which makes them one. The nascent generality of the idea consists, then, in a certain activity of the mind, in a *movement* between action and representation.” (p.243)

1. Since pure recollection is spirit and pure perception matter, their meeting place in concrete perception, should clarify the relation between spirit and matter. Dualism breaks down across three fronts; the inextended and the extended, quality and quantity, and freedom and necessity.

First: The real concerning matter is not extension divided up into parts, and the real concerning consciousness does not comprise inextensive sensations. To treat the two in this way renders them impossible to reconcile. Rather, the real is somewhere between the extension and inextension, in what Bergson calls the *extensive*.

Second: The opposition between quality and quantity, or consciousness and movement, can be eliminated by the removal of certain obstacles. The first two we already completed regarding extension and inextension. The next barrier is how to join the heterogeneity of qualities with the homogeneity of movements that are extended. However, this barrier is based on the error of locating movement in thing rather than in the process of movement itself. Instead, “concrete movement, capable, like consciousness, of prolonging its past into its present, capable by repeating, itself, of engendering sensible qualities, already possesses something akin to consciousness, something akin to sensation.” (pp.246-7) Finally, “…how is the contraction effected – the contraction no longer of homogeneous movements into distinct qualities, but of changes that are less heterogeneous into changes that are more heterogeneous?” (p.247) The answer lies in concrete perception, “the living synthesis of pure perception and pure memory… Between sensible qualities, as regarded in our representation of them, and these same qualities treated as calculable changes, there is therefore only a difference in rhythm of duration, a difference of internal tension. Thus, by the idea of *tension* we have striven to overcome the opposition between quality and quantity, as by the idea of *extension* that between the inextended and the extended. Extension and tension admit of degrees, multiple but always determined.” (p.247)

Third: In its more rudimentary forms, consciousness, in extracting from the whole that is real a part that is virtual, chooses and, while this certainly gives the consciousness a degree of freedom, it is still heavily influenced by nature. As living matter develops nervous systems which possess increasing complexity, the number of motor paths it has also increase facilitating greater choice. This is seen, however: “What is not seen is the growing and

accompanying tension of consciousness in time. Not only, by its memory of former experience, does this consciousness retain the past better and better, so as to organize it with the present in a newer and richer decision; but, living with an intenser life, contracting, by its memory of the immediate experience, a growing number of external moments in its present duration, it becomes more capable of creating acts of which the inner indetermination, spread over as large a multiplicity of the moments of matter as you please, will pass the more easily through the meshes of necessity. Thus, whether we consider it in time or in space, freedom always seems to have its roots deep in necessity and to be intimately organized with it. Spirit borrows from matter the perceptions on which it feeds, and restores them to matter in the form of movements which it has stamped with its own

freedom.” (pp.248-9)