

Bergson, the Time of Life, and the Memory of the Universe

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After the New Bergson

We can imagine that even Deleuze, who emphasized the need to read Bergson “in relation to the transformations of life and society, in parallel with the transformations of science,” might agree that the New Bergson he gave us in the 1960s is perhaps not the one we need today.¹

Major transformations have taken place not only since Deleuze published *Bergsonism* in France (1966), but also since the appearance of its English translation (1988) and the publication of *The New Bergson* (1999).² Take for example the impact of high-speed abstraction on our experience. We “understand . . . phenomena via the automated analysis of data”; algorithmic interfaces have become gateways to everyday practices and social exchanges, formatting our knowledge of the world and filtering its transmission.³ Abstraction, we could say, has become the very stuff of experience. Or take the current status of the question of life. In the early twentieth century, the physiologist Hans Driesch buttressed his vitalist perspective with the claim that “the biologist is not able to ‘make’ life as the physicist has made . . . electromagnetism.”⁴ This is no longer true: today “the laboratory has become a kind of factory for the creation of new forms of molecular life.”⁵ Devitalized, construed as code, life is now manufactured, patented, and capitalized on a grand scale.⁶ And finally, even as artificial life has thrown us into confusion about what life is, we have known since 2016 that we belong to a new geological age, one in which the *conditions* of life on our planet have been systematically altered by human

¹ Deleuze, *Bergsonism*, 115. ² Mullarkey, ed., *The New Bergson*.

³ Provost and Fawcett, “Data Science and Its Relationship to Big Data and Data-Driven Decision Making.”

⁴ Driesch, *The Science and Philosophy of the Organism*, 10. ⁵ Rose, *The Politics of Life Itself*, 13.

⁶ See Cooper, *Life as Surplus Value*, as well as my “Emergence of Time/Time of Emergence.”

activity such that the continuation of life can no longer be taken for granted.⁷

Reading Bergson will not change any of this, of course, but reading him with these transformations in mind might inform our attitude toward these developments. In any case they invite us to read Bergson differently. They invite us to appreciate that Bergson's thought consistently challenges abstraction in favor of concrete experience. They invite us to attend to the question of life in his work, as it pertains to time. And finally, they invite us to bring him out of the intellectual isolation that afflicted the New Bergson (the anti-philosopher) and to read him in dialogue with other thinkers, even at the risk of encountering traditions of thought we tend to disapprove of (often for good reason) such as vitalism or spiritualism.⁸ It is more important than ever to read Bergson rigorously (to return to his texts) but I would also recommend reading him a bit recklessly, with less concern for systematic coherence (which tends toward abstraction) or for purifying his thought of objectionable associations, and more attention to what we need to think today and to how features of Bergson's work – his ontology of time, for example – might help us do that.

Deleuze, Einstein, and Bergson

"To continue Bergson's project today," Deleuze wrote, "means . . . to constitute a metaphysical image of thought corresponding to the new . . . openings . . . discovered by a molecular biology of the brain." The "metaphysical image of thought" he proposes is a "logic of multiplicities," a term taken from the mathematician Bernard Riemann, specialist in analytic number theory, whose work contributed to the mathematical foundations of the theory of general relativity. Bergson, Deleuze writes, "intends to give multiplicities the metaphysics which their scientific treatment demands."⁹

⁷ See Hamilton, *Defiant Earth*.

⁸ Lebovic cites Lukacs to the effect that *Lebensphilosophie* was "the dominant ideology of the whole imperialist period in Germany" and that Ludwig Klages, the "founder of modern vitalism," "transformed vitalism into an open combat against reason and culture" (*The Philosophy of Life and Death*, 4); see also his article, "The Beauty and Terror of 'Lebensphilosophie.'" According to Max Horkheimer, however, "life philosophy expressed a legitimate protest against the growing rigidity of abstract rationalism" (cited in Jos de Mul, *The Tragedy of Finitude*, 45). According to Jean-François Braunstein, Georges Canguilhem held that Bergson "was able to make life into a proper metaphysical concept" and defend it against "the assimilation mysticism – romanticism – fascism." Braunstein also notes a "French tradition of indifference but also of hostility and of suspicion toward [the question of] life" ("Canguilhem, lecteur de Bergson," 1 and 4). On vitalism, see also Worms, "Qu'est-ce qui est vital?"

⁹ Deleuze, *Bergsonism*, 116–17.

That Deleuze cast his New Bergson in a scientific light in the 1960s perhaps had to do with the repercussions of Bergson's intellectual contest with Einstein in the 1920s. The highly publicized exchange played out as a gladiatorial combat between two intellectual giants concerning a most fundamental question: the nature of time. Einstein maintained there are a number of different times, which ultimately amount to a fourth dimension of space; Bergson maintained there is one independent time. The consensus was that Bergson lost the debate, a defeat that impugned not only his own intellectual standing but the authority of philosophy itself. When Bergson received a Nobel Prize in *literature* in 1927, it was widely seen as a humiliating consolation prize, one that implicitly affirmed that science had displaced philosophy as the repository of truth – and that the rest was storytelling.

It was widely believed that Bergson had intended to invalidate the theory of relativity but failed to do so because he “could not understand” Einstein's physics.¹⁰ Bergson claimed he had never intended to challenge the science of relativity and had made a *philosophical* argument concerning the nature of time that Einstein failed to grasp.¹¹ From Bergson's point of view, Einstein had made a philosophical error (not a scientific one) by adhering to a classical model of time (one that reduces time to space) when his theory of relativity invited going beyond this.¹² Einstein maintained that there is no such thing as philosophical time, a response that called into question Bergson's life's work, which had been devoted to establishing a philosophy of time against a philosophical tradition that had long suppressed the force of time and reduced it to a dimension of space.

Bergson's very public (perceived) failure in the contest with Einstein precipitated an eclipse of the old Bergson, which enabled (and, perhaps necessitated) a return that yielded a New Bergson in the 1960s. In what follows we will contrast the way Deleuze treated the Bergson–Einstein dispute with the way Bergson presented his argument against Einstein in *Duration and Simultaneity*; a decisive account of his thought, I would

¹⁰ Canales, *The Physicist and the Philosopher*, 58. The issue is whether time is altered according to the velocity of the system (61).

¹¹ “I do not raise any objection against your theory of simultaneity, any more than I do not raise them against the theory of Relativity generally,” Bergson reportedly declared to Einstein (cited in Canales, “Einstein, Bergson, and the Experiment that Failed,” 1170).

¹² Bergson's apparent defeat was not the last word on the question. Theorists of quantum mechanics would go on to challenge “the reduction of time to space performed by relativity theory,” thereby supporting Bergson's perspective (see Murphy, “Beneath Relativity: Bergson and Bohm on Absolute Time,” 70), and Driebe writes that “the flow of time is a real, objective property of our physical world” (“Time, Dynamics and Chaos,” 222).

suggest, given how much was at stake. We will then turn to *Matter and Memory* to examine how Bergson writes the memory of the body and what it might have to do with the elaboration of a “time common to all things,” that is, a duration of the universe or living time (DS 45/32).

In a chapter of *Bergsonism* entitled “Is Duration One or Many?” Deleuze addresses Bergson’s claim that there is one independent time. He tries to make sense of apparent discrepancies between various accounts of duration Bergson has given, reminding us that Bergson initially limited duration to the experience of living beings (*Time and Free Will*) and subsequently affirmed an infinity of specific durations (*Creative Evolution*) before arguing for a single independent time in *Duration and Simultaneity*. Deleuze suggests that Bergson initially posed duration as a psychological phenomenon but then recast it as a “springboard for an ‘installation’ in Being,” a phrase which refers us to Heidegger where “installation” signifies the incorporation into a material medium (as in a work of art) of a “disclosure of disclosure,” or of “being itself.”¹³ Deleuze proposes, in other words, that Bergson abandoned a psychological explanation of duration for one that depends upon an ontology of being. He answers the question “one or many durations?” by appealing to the “logic of multiplicities” already mentioned and reconciles the positions of Bergson and Einstein through it.¹⁴ Both Bergson and Einstein are thinkers of multiplicity, he maintains, but each is committed to a different *type* of multiplicity. Whereas Einstein works from a logic of Actual Multiplicity (concluding that there are multiple times) Bergson’s hypothesis depends upon a logic of Virtual Multiplicity, “a position where division has not yet been carried out” such that “it is obvious that there is only a single time.”¹⁵ Deleuze brings order to Bergson’s thought. “There is only one time (monism),” he concludes, “although there is an infinity of actual fluxes (generalized pluralism) that necessarily participate in the same virtual whole (limited pluralism) . . . Not only do virtual multiplicities imply a single time but duration as virtual multiplicity is this single and same Time.”¹⁶ Problem solved. The question of the one and the many has been redistributed across the divide of the virtual and the actual, which also holds Bergson and Einstein in balance.

In order to make this case, however, Deleuze has to evacuate consciousness from Bergson’s account of universal time. In order to demonstrate that Bergson abandons consciousness in the passage from a psychological

¹³ Deleuze, *Bergsonism*, 76; see also Sheehan, “Heidegger,” 363. ¹⁴ Deleuze, *Bergsonism*, 117.

¹⁵ Deleuze, *Bergsonism*, 81. ¹⁶ Deleuze, *Bergsonism*, 83.

to an ontological argument concerning time, he cites Bergson to the effect that

A single duration will pick up along its route the events of the totality of the material world; and we will then be able to eliminate the human consciousness that we had initially had available, every now and then, as so many relays for the movement of our thought: there will now only be impersonal time in which all things flow.¹⁷

Duration and Simultaneity: The Livable

Readers introduced to Bergson by Deleuze will be surprised, then, to find Bergson insisting on consciousness, observation, perception, and lived experience in *Duration and Simultaneity*. When Bergson asks, “in what measure Einstein’s times are real times,” this is not a trivial question, given that, as Bergson writes, “we require the property of being perceived . . . for everything held up as real” (DS 39/28 and 67/46). The Real implies perception, consciousness and lived experience, and of course duration, “the very stuff of our existence and of all things” (DS 62/43).

Whereas Einstein proposed a scenario that included two observation posts from which the time of an event would be registered, one occupied by a person and the other by a clock, Bergson insists that both positions be occupied by “flesh-and-blood observers, conscious beings” (DS 39–40/28).¹⁸ In the physicist’s scenario, Bergson explains, mathematics requires that one of the two observation posts be designated as frame of reference. The events as they pertain to the other system will be construed in its terms – hence the disparity of times and the challenge to simultaneity. He points out that unlike mathematicians (or physicists who rely on mathematics), philosophers do not have to make this choice. They can alternate the points of view that attach to the two living observers without establishing one or the other as frame of reference for both. If both observers can be considered in relation to their own experienced frame of reference, then one can argue in favor of a single time – the time of the frame of reference.

Bergson’s philosophical challenge to Einstein, then, hinges on the difference between what is livable and what is not, between a “flesh-and-blood observer” and a clock, between what is real and what is abstract. It is

¹⁷ Cited in Deleuze, *Bergsonism*, 82. Note that Einstein had charged that Bergson’s account of time (or duration) was merely psychological.

¹⁸ In this passage, Bergson does not limit these conscious beings to humans; he explicitly mentions the limitations of considering only “a certain entirely human way of perceiving and conceiving things.”

not the truth of the theory, he suggests, that determines the validity of Einstein's demonstration but rather the formal structure of mathematics that abstracts out these differences and in so doing produces a "mirage effect," a conception of time that is not real (DS 76/53). Because it requires abstraction to attain its truth, the theory of relativity is not wrong, but "cannot express all of reality" (DS 65/45). This is why "what matters at the moment," Bergson writes, "is not allotting shares of truth or error but seeing clearly *where experience ends and theory begins*" (DS 43/31, my emphasis). It is "for not having kept close to the passage from the physical to the mathematical that we have been so seriously mistaken about the philosophical meaning of time in the theory of relativity" (DS 40/28). Bergson couldn't be clearer: what is at stake is the difference between the register of mathematics and a concrete register of the real. "A thing," he insists, "remains separate from its measurement" (DS 180/124).

Reality (what he calls "the physical" in the passage just cited) is determined by perception and therefore requires some minimal consciousness. As we learn in *Matter and Memory*, however, consciousness for Bergson is not a cognitive faculty. It designates memory, which assures the survival of the past, defined as "what no longer acts" (MM 216/74).¹⁹ This survival is required for the idea of time, which implies "a *before* and an *after*" (DS 66/45, Bergson's emphasis). Time, in other words, requires memory to happen, and memory implies consciousness. This is the core of Bergson's argument, and it will not change as he passes from individual experience to the level of the universe.

In chapter 3 of *Duration and Simultaneity*, Bergson returns to the figure of melody he introduced in *Time and Free Will* to convey what he called the "confused multiplicity" of individual duration and its heterogeneous continuity (ESSAI 59/87).²⁰ He elaborates it here not to convey individual duration but to introduce what he calls "basic time," a first step away from inner duration in an account that travels analogically to the duration of the universe. He explains basic time by inviting us to imagine hearing a melody without "the distinctive features of sound itself," an experience that would yield an awareness merely of "the continuation of what precedes into what follows." To have such an experience, he affirms, would be to "rediscover basic time," to immediately perceive duration "without which we would have no idea of time" (DS 41–42/30). The *idea* depends upon the *perception*, Bergson maintains, but he has shifted from a notion of perception tied to

¹⁹ Note that all translations from MM and ESSAI are my own.

²⁰ For melody as a figure of confused multiplicity, see my *Thinking in Time*, 66.

action (one where bodies “have been cut out of nature’s cloth by a *perception* whose scissors follow the stippled lines over which *action* would pass” – Bergson here cites himself from *Matter and Memory* where he introduces a notion of “*pure perception*”) to the immediate perception of intuition (DS 35/25 and MM 185/26, Bergson’s emphasis). Bergson takes advantage of this slippage as he passes, analogically, from individual duration to the duration of the universe.

Before our very eyes, then, Bergson is prying duration loose from the framework of individual consciousness (the framework set up in *Time and Free Will* and developed in *Matter and Memory*) without relinquishing the stipulation of consciousness per se. If memory must be involved for there to be time – a before and an after – what is at stake when it comes to the duration of the universe “is memory, but not personal memory.” It is “memory within change itself” that introduces what Bergson calls a “time of things.” Consciousness does not drop away when it comes to this time of the physical world. Instead of abandoning a psychological account of duration to take up an ontological one that depends on a notion of being, Bergson affirms that the physical world and consciousness are inseparable. “This perception of the physical world,” he writes, “appears, rightly or wrongly, to be inside and outside us at one and the same time.” Crucial to his account of inner duration in *Time and Free Will*, the opposition between inside and outside falls away when it comes to the duration of the universe. But consciousness is not elided. Perception of the physical world, Bergson writes, is “in one way . . . a state of consciousness; in another, *a surface film of matter in which perceiver and perceived coincide*.” It is because matter “participate[s] in our conscious duration,” that we “gradually . . . extend this duration to the whole physical world” (DS 42/30–31, my emphasis).

This account of the “time of things” brings us to the “duration of the universe.” And it is in relation to this duration that Bergson proposes the hypothesis of “a physical time that is one and universal.” But this universal time does not amount to what Deleuze calls an “‘instalation’ in Being” that would be independent of consciousness. “Let us put aside the question of a single time,” Bergson insists; “what we wish to establish is that we cannot speak of a reality that endures without inserting consciousness into it” (DS 43–46/31–33). Bergson takes pains to clarify that it is not a question of *human* consciousness, however: “We may perhaps feel averse to the use of the word ‘consciousness,’” he explains, “if an anthropomorphic sense is attached to it. But to imagine a thing that endures, there is no need to take one’s own memory and transport it, even attenuated, into the interior of

the thing . . . It is the opposite course we must follow.” The consciousness that adheres to universal duration implies something like a memory of reality itself; it coincides with transition, with the movement through the interval between a before and an after. “We cannot conceive time without imagining it as perceived and lived” (DS 47/33). Universal time implies consciousness because it involves something like perception, which, as Bergson shifts from the scale of the individual to that of the universe, involves an interaction, or participation, between inside and outside. It is here that Bergson clarifies what he understands by the impersonal consciousness that attaches to the duration of the universe: it is “the link among all individual consciousnesses, as between these consciousnesses and the rest of nature.” This is where Bergson was headed when he spoke of the “impersonal time in which all things flow,” associated with an “elimination of individual consciousness” (DS 43/31), in the passage Deleuze cited to support his view that Bergson abandoned a psychological treatment of duration for one that involved an “‘installation’ in Being.”²¹ What is at stake here is the difference between an ontology of being and an ontology of time, which refers us to life. For it is here that Bergson links the continuity of time, given to (impersonal) consciousness, to a “continuity of life” (DS 49/35). “Is time alive?” we might ask, with Nina Simone. Bergson suggests it is inseparable from livingness.

Other Voices: Schelling

“Duration therefore implies consciousness,” Bergson writes. “[W]e place consciousness at the heart of things for the very reason that we credit them with a time that endures” (DS 47/33). We can follow the analogical movement from individual duration to the duration of the universe, from individual consciousness to universal, or impersonal, consciousness, but, frankly, we don’t quite know how to think it. To a certain extent this is because we have lost touch with the traditions of thought that it carries.²² Notes from a course on nature that Merleau-Ponty taught at the Collège de France beginning in the 1950s suggest the broad lines of a genealogy that includes representatives of German philosophy of nature (Schelling) and of

²¹ Aware, perhaps, that this might seem opaque to readers, Bergson references a number of his most important previous writings: *Time and Free Will*, *Matter and Memory*, *Creative Evolution*, and *Mind-Energy* in a note (42n1/47n1).

²² For filiations between Schelling, Ravaisson, and Bergson see Mark Sinclair’s introduction to *Ravaisson* as well as Dominique Janicaud, *Ravaisson et la métaphysique*. These filiations tended to be effaced in the structuralist and post-structuralist contexts.

French spiritualism (Ravaisson), as well as Bergson, and then continues on to von Uexküll, Whitehead, and, implicitly, Merleau-Ponty himself.²³ Retrospectively, we could project this filiation further forward toward Canguilhem, Simondon, Deleuze, and Brian Massumi.²⁴

Bergson is not thinking alone. When he declares duration to be “the very stuff of our existence and of all things” (DS 62/43), for example, we hear an echo of Schelling who affirmed that First Nature [*erste Natur*] was “the fundamental stuff of all life.”²⁵ For Schelling, this First Nature is the horizon of pre-reflexive experience construed as what Merleau-Ponty characterizes (in strikingly Bergsonian terms) as the “qualitative synthesis in the heterogeneous”²⁶ – which is just what reappears in *Time and Free Will* in the account of “confused multiplicity” that Bergson identifies with the experience of duration (ESSAI 59/87). For Schelling, Merleau-Ponty writes, “*Naturphilosophie* is in no way a theory but rather a *life* within Nature.”²⁷ This perspective lingers in Bergson’s emphasis, already noted, on the importance of “seeing clearly where experience ends and theory begins” (DS 43/31). Schelling would also inform our understanding of Bergson’s emphasis on perception in his response to Einstein, one that Deleuze neglects, most probably, to avoid contamination by the register of phenomenology from which both structuralism and post-structuralism are eager to take their distance in the 1960s. “Quality is not a thing,” Schelling maintained, “but a thing seen.”²⁸ If we are to avoid “dissolv[ing] everything into thought,” he added, we have to trust perception, for “we rediscover nature in our perceptual experience prior to reflection.”²⁹ The risk of dissolving everything into thought is very much at stake in Bergson’s philosophical challenge to Einstein’s mathematical theory of time. The perspective of Schelling helps dislodge the “psychological” label that both Deleuze and Einstein imposed on Bergson’s account of the experience of inner duration and displaces it to a pre-reflexive register of the real, one that matters to thinkers as varied as Merleau-Ponty, Georg Simmel, Gilbert Simondon, and Jean-Paul Sartre and cannot be reduced to subjective experience. What is at stake, then, is the value one gives to the order of

²³ Merleau-Ponty, *Nature*.

²⁴ I am not suggesting direct influence here; Bergson apparently did not read Schelling, but read Ravaisson, who read Schelling. This list is not exhaustive (one could mention William James and Georg Simmel). I do not want to suggest that the more recent philosophers I mention are followers of Bergson; the relation to Bergson’s work was often both intense and ambivalent, notably for Canguilhem, Simondon, and Merleau-Ponty.

²⁵ Schelling, cited by Merleau-Ponty in *Nature*, 38. ²⁶ Merleau-Ponty, *Nature*, 40.

²⁷ Merleau-Ponty, *Nature*, 47, Merleau-Ponty’s emphasis. ²⁸ Merleau-Ponty, *Nature*, 41.

²⁹ Merleau-Ponty, *Nature*, 39.

reason and the place one gives it in the order of things. For Bergson, what is abstract, or rationalized, is less real than what is concretely experienced; for Kant, it constitutes a phenomenal real, which is to say a real as the knowable. So it is that, in response to Kant's evocation, in the "Critique of Teleological Judgment," of an autonomous force of nature that he could not know but could only dream of, Schelling reportedly declared: "What Kant, at the end of his sober discourse, conceived as a dream, I want to live and feel."³⁰ Finally, Bergson's notion of a participation between nature and consciousness, crucial to his expansion of duration toward universal time (and impersonal consciousness), recalls Schelling's position, which Merleau-Ponty characterizes in the following terms: "in one sense all is interior to us, in another sense we are in the Absolute," to which Merleau-Ponty adds, in parentheses and without further commentary, "(cf. Bergson)."³¹

This reciprocity between consciousness and nature, Merleau-Ponty further observes, is possible because, with Schelling, "we are no longer in a philosophy of Being . . . but rather . . . in a philosophy of time."³² Deleuze read Bergson from the perspective of an ontology of being, in which "ontological difference" imposed a limit between the ontic and the ontological. The New Bergson is a philosopher of difference. The appeal to Schelling (as read by Merleau-Ponty) suggests the importance of distinguishing an ontology of being from an ontology of time. For, as Georg Simmel put it in his last work (in which his proximity to Bergson is keenly felt): "Time is real only for life. This temporal existence is what we call life."³³ What Bergson adds – and this is part of his interest for us today – is precisely the expansion from living beings to a universe that lives. An ontology of time implies a certain philosophy of life – a *critical* vitalism – or, as I would prefer to say, a philosophy of livingness.³⁴ As Merleau-Ponty points out, from the vantage point of an ontology of time the positions of the virtual and the actual as Deleuze deployed them in speaking of Bergson and Einstein are reversed: from the perspective of Schelling's Nature Philosophy, what Deleuze calls Virtual Multiplicity would coincide with the actual or the real, grounded in experience, perception, and action, all of which makes possible an intuition of time as passage between before and after.³⁵

³⁰ Cited in Merleau-Ponty, *Nature*, 39. ³¹ Merleau-Ponty, *Nature*, 48.

³² Merleau-Ponty, *Nature*, 48. ³³ Simmel, *The View of Life*, 8.

³⁴ For the notion of "critical vitalism" see Worms, "Pour un vitalisme critique."

³⁵ In his *Nature* lectures, Merleau-Ponty passes from a discussion of Schelling to Bergson. Here he has more to say about the "reciprocal envelopment" in Bergson between perception and Being (55).

Impersonal Memory and the Memory of the Body: Habit and Life (Bergson and Ravaissou)

In *Duration and Simultaneity* Bergson proposes the hypothesis of a universal duration that implies a consciousness, characterized by an impersonal memory, a memory of things. He arrives at this memory of things through an (analogical) extension of individual memory, which conditions our experience of time by linking a before and an after. There is one detail in this account that easily slips by without notice. The interaction between consciousness and nature, which marks the passage from the lived experience of duration to “*physical time*” (or the duration of the universe), passes through the body. “There is no doubt,” Bergson writes, “that our consciousness feels itself enduring . . . and that something of our body and the enviroing matter enters into our consciousness.” More strikingly he affirms:

To each moment of our inner life there corresponds a moment of our body and of all the enviroing matter that is ‘simultaneous’ with it; this matter then seems to participate in our conscious duration. Gradually we extend this duration to the whole physical world . . . The universe seems to us to form a single whole . . . Thus is born the idea of a duration of the universe, that is to say, of an impersonal consciousness that is the link among all individual consciousnesses, as between these consciousnesses and the rest of nature. (DS 42–43/31, my emphases)

I cited part of this passage earlier, in connection with Schelling’s notion of participation between nature and consciousness; what I want to emphasize here is the explicit appeal Bergson makes to the body in relation to consciousness, one that invites us to reconsider his treatment of the memory of the body in *Matter and Memory*. Here it will be Félix Ravaissou, the French spiritualist philosopher and author of the celebrated work *Of Habit*, who will enrich our understanding of Bergson’s argument concerning the relation of the body not only to memory, but also to life.

You will remember that Bergson’s principal task in *Matter and Memory* is to demonstrate that mind cannot be reduced to brain. In chapter 2, he affirms that there are two types of memory, a memory of the mind and a memory of the body. He introduces them according to a traditional dualist perspective: the mind implies spontaneity and freedom, the body mechanism. He then presents a number of events that engage what he calls the “motor mechanism” of the memory of the body to examine them more closely: perception of an external stimulus, the event of memorizing a lesson, and the act of listening to speech in a language one does not

understand. As he moves through these examples, the memory of the body becomes less and less mechanistic. Instead of being opposed to mental memory, it will become its supplement, as Bergson moves closer and closer to the account of mental memory as attentive recognition (the focus of his next chapter of *Matter and Memory*), where memory-images, which are virtual, need the body to come to life or actualize themselves.

When he speaks of learning a lesson by heart, for example, Bergson explains that each act of reading the lesson (which contributes to our memorization) is unique and produces a mental memory – a memory image or *souvenir*. But he adds that the experiences of reading lodge themselves in the body (*se dépose dans le corps*) because of movements the body receives, which create “new dispositions for action” (MM 227/92). He explains that the motor mechanism, which inscribes movement in the body, *supplements* the mental memory or memory image – is *capable de la suppléer* (MM 231/98, my emphasis).³⁶ At the end of this account Bergson rephrases his explanation of two types of memory. The memory of the body, he revises, is not really memory, but rather habit – habit “illuminated by memory [*éclairée par la mémoire*]” (229/95).

But how does Bergson understand habit? We could say he understands it in Ravaissin’s terms, as he construed these, namely as mechanistic. Scholars have noted, however, that Bergson appears to have misread Ravaissin. “Bergson,” one critic writes, “denies habit the character of life, even though Ravaissin’s orientation is just the opposite of this.”³⁷ As we will try to show, Bergson does sound a lot like Ravaissin in chapter 2 of *Matter and Memory*, but not the Ravaissin that Bergson acknowledges. Perhaps Bergson returns to Ravaissin – Ravaissin the philosopher of life – without even knowing it, or perhaps he does so strategically.

In his analysis of the act of perception Bergson suggests that the body undergoes a kind of shock (*ébranlement perceptif*) as it receives impressions from the outside; these transmit movements to the body which it conducts through itself, imprinting in it a certain bodily attitude (*imprime . . . au corps une certaine attitude*, MM 245/119). With repetition, the body produces channels of movement, motor mechanisms that sketch out bodily

³⁶ As we shall see, as his discussion advances, Bergson approaches something similar to what Derrida called the logic of the supplement in *De la grammatologie* (*Of Grammatology*), according to which the supplement both adds to and substitutes for the term it supplements. In chapter 3 of *Matter and Memory*, it will be the body that gives life to, or actualizes, the merely virtual memories of the mind.

³⁷ Janicaud, *Ravaissin*, 43. In what appears to be a classic case of anxiety of influence, Bergson misreads Ravaissin’s theory of habit as mechanistic when it is just the opposite, and then (72) credits Ravaissin with being his own precursor once his own thought had moved closer to that of Ravaissin.

attitudes, generating habits. This is another way of saying that the body becomes imprinted with “new dispositions for action” as the word “attitude” signifies a way of holding one’s body, a kind of bodily tendency, a manner of comportment or disposition for action. This is how the body – through motor mechanisms – stores, or registers, the past through habit. This is how the memory of the body works.

In another example, Bergson discusses aphasia as it pertains to understanding spoken language. Here, since speech occurs in time, attention sustains the operation of the motor mechanism in a continuous perception that draws (*en dessinent*) the “main lines [*grandes lignes*]” of the channels of movement that compose the bodily attitude we encountered in relation to perception of an object (MM 247/123). Attention passes back over the lines inscribed in the body by perception and retraces them through what Bergson calls an effort of synthesis, as if transforming the traces of a passive reception of movement into a quasi-voluntary reinscription of its lines of force.

A final example of the memory of the body (or habit formation) concerns listening to a language one does not know and trying to learn to understand it. This involves parsing the sounds one hears in order to discern syllables, words, and, eventually, significations. When the other speaks, Bergson writes, the sounds the ear hears are converted into a sequence of movements in the body of the listener that Bergson calls a “motor schema [*schème moteur*].” It amounts to a “motor accompaniment” to the received speech that strives to “decompose” and then to “recompose” the sound sequences so as to retrieve (*retrouver*) the total movement of this speech, “the lines that mark its internal structure” (MM 255/136).

The motor schema suggests a more dynamic version of the bodily attitude evoked in relation to perception of an object. Here the body becomes a sort of artist as the motor schema retraces the movement of another’s speech, “marking out its most striking contours,” sketching the movements and articulations of sounds. The motor schema, Bergson writes, is to the speech itself “what the sketch [*croquis*] is to the final work [*tableau achevé*].” The metaphor of the sketch, latent in the term “schema” (which signifies *esquisse*, sketch), becomes interesting when Bergson ties it to what he calls the “intelligence of the body,” adding that a “movement is learned [*appris*] as soon as the body has understood [*compris*]” (MM 257/139 and 256/137, my emphasis).

The attribution of intelligence to the body is shocking from the perspective of Bergson’s initial dualism that spoke of two ways of retaining the

past, one through a memory of the body, which operates through repetition, and the other through a mental memory of images. But it no longer surprises us if we read what Bergson calls an “attitude” of the body through what Ravaissan calls *tendency*, for, as Ravaissan affirms, “every inclination toward a goal implies intelligence.”³⁸ Bergson declares his motor schema to be a tendency in just this sense. It is, he writes: “a *tendency* of the auditory impressions to prolong themselves in movements of articulation, a *tendency* . . . which implies perhaps even a certain rudimentary discernment, and which ordinarily amounts to an inner repetition of the striking features [*traits saillants*] of the speech. Our motor schema is just this [*n’est pas autre chose*]” (MM 258–59/141–42). The movements of “inner repetition” associated with the motor schema “are like the prelude to voluntary attention,” Bergson adds; “they mark the limit between will and automatism.” This is the heart of Ravaissan’s philosophy of habit, which precisely mediates between activity and passivity as between the voluntary and the involuntary (MM 260/145). Here is Ravaissan leading up to the sentence quoted above:

Even in becoming a habit, and in leaving the sphere of the will [*volonté*] and of reflection, the movement does not leave intelligence [*ne sort pas de l’intelligence*]. It does not become the mechanical effect of an external stimulus [*impulsion*], but the effect of a penchant [*penchant*] that takes over from volition [*succède au vouloir*]. This penchant forms itself by degree, and as far as consciousness can follow it, it recognizes in it a tendency toward the end that the will [*la volonté*] proposed to itself. Therefore [*or*] any tendency toward an end implies intelligence. . . . The law of habit can only be explained by the development of a spontaneity that is both passive and active at the same time, equally different from mechanistic inevitability [*la fatalité mécanique*] and from reflexive Freedom.³⁹

Here we hear echoes of Schelling concerning the participation of consciousness and nature, which is not surprising given that Ravaissan studied with Schelling. But we also hear anticipations of Bergson’s argument in *Duration and Simultaneity* for the extension of individual duration to universal duration – a single independent time – when, in the spirit of Schelling, he speaks of the duration of the universe as the “link among all individual consciousnesses as between these and the rest of nature” (DS 42/31).

In *Matter and Memory* Bergson alludes to an obscure intelligence of the body – a “rudimentary discernment” (159/142) – when it comes to the

³⁸ Ravaissan, *Of Habit*, 55. ³⁹ Ravaissan, *Of Habit*, 55.

memory of the body and its motor schema, which draws and redraws the lines of force of the movement it receives upon hearing speech in an unknown language. It is just such an “obscure activity” that comes into play when Ravaissou enters into a debate against mechanism in a quite different context, and does so in the name of life.⁴⁰ Blocked in his academic career by Victor Cousin, whose rationalism he had challenged from the perspective of Schelling’s philosophy of nature, Ravaissou became a civil servant in charge of educational programs and institutions. After the Franco-Prussian war, the Third Republic made learning to draw mandatory; it was hoped that drawing would focus the attention and so strengthen the will of the young, thereby enhancing the nation’s military capability. A debate ensued concerning pedagogical method. The prevailing training was mechanistic; it involved copying images by breaking up the task of representation into geometric elements that, transposed onto a grid, could be mechanically traced so as to practically guarantee successful imitation. Against this Ravaissou advocated an expressive method based on the principles of Michelangelo and of Leonardo, who had famously declared drawing to be a *cosa mentale*. Here it is a question of discerning the *grandes lignes*, or principal lines of force, of masterpieces of art (especially Greek sculpture) felt to transmit the force of living forms and of attempting to freely reenact their tendencies. Ravaissou’s drawing pedagogy substitutes for the spatialized model of mechanical imitation a durational experience of guided improvisation as attunement to lines of force.

The expressive method of drawing was of a piece with Ravaissou’s theory of habit. Habit, for Ravaissou, is a way of coping with change, that is to say with time in its double movement of becoming – its becoming past and becoming future. This is why he theorized habit as a “double law” that includes a moment of repetition, which refers us to the past, and a moment of invention, which breaks with the past and opens to the future, allowing for grace in learned skills or gestures, and new capabilities.⁴¹ His method of drawing harnesses this double law into one practice that simultaneously repeats and invents.⁴² This is why it is important to attend to Bergson’s metaphors of sketching and retracing in his treatment of the memory of the body, which breaks with the mechanistic framework initially set up, moving closer to Ravaissou’s philosophy of habit, one that involves an ontology not of

⁴⁰ Ravaissou, *Of Habit*, 51. ⁴¹ Ravaissou, *Of Habit*, 37.

⁴² Janicaud writes that Bergson “attributed great importance to Ravaissou’s ideas on drawing and its methods”; Janicaud, *Ravaissou et la métaphysique*, 51; Ravaissou, *Of Habit*, 31.

being but of time, and a philosophy of life: “life,” Ravaissou writes, in anticipation of Bergson, “implies a determinate, continuous duration.”⁴³

When we consider the strategy of *Matter and Memory* with this in mind, we realize that Bergson needed both to distance himself from Ravaissou and to come back around to him. We remember that the principal thrust of Bergson’s argument is to demonstrate that memories are not stored in the brain, in order to refute the more general view that would reduce mind to brain. This requires asserting the radical separation between body and mind from a dualist perspective as a first move to block the absorption of the mind into body. But this metaphysical position is useless against new clinical evidence, undertaken in connection with studies of aphasia, of memory impairments that accompany brain lesions – evidence that supports the view that memories are lodged in the brain. Bergson’s strategy is to concede that memory pathologies might indeed be a function of physical damage, without conceding that this is because memories are stored in the body. He will argue that the physical brain lesion destroys not memory-images themselves, but rather the physical infrastructure of the operations of attention or spontaneous memory. By appealing to a nonmechanistic notion of the motor schema (resonant with Ravaissou’s theory of habit), he can argue that it is the bodily attitudes, or motor mechanisms, that are disturbed by the lesion, not the memory-images themselves, even as he demonstrates the importance of these mechanisms in precisely the kind of memory operations that the clinical studies pertain to – operations of speech and reading. Without the complicated interrelations between body and spirit he has theorized as retracings that engender attitudes of the body, he would not have been able to explain how physical damage to the brain could affect mental operations that depend upon the kind of obscure intelligence of the body Ravaissou elaborated in connection with habit. In the end Bergson defends himself best against those who would reduce mind to brain by proposing habit as what Ravaissou called “the shared limit [*commune limite*] or intermediate term between will [*volonté*] and nature” – indeed something like the continuity between the physical world and consciousness that Bergson will propose in *Duration and Simultaneity*.⁴⁴

Conclusion

By giving us a “new” Bergson Deleuze made him readable again. This Bergson, however, tended to become absorbed into the broader reach of Deleuze’s own philosophical project (much as Ravaissou had been

⁴³ Ravaissou, *Of Habit*, 35. ⁴⁴ Ravaissou, *Of Habit*, 59.

absorbed by Bergson) or isolated in its precinct. Bergson's pertinence today is enhanced when we consider the ways in which his thought carries features of minor philosophies, philosophies of nature and of life, which did not survive the push and acceleration of rational abstraction that yielded the geological age in which we now find ourselves. These aspects of Bergson's thought, which depend upon an ontology of time, not of being, support our resistance to the abstractions of algorithmic reason. Instead of adjusting to definitions of life as code and the deployment of it as commodity, they invite us to entertain ideas of life as livingness, which does not require that we choose between human beings and other beings, or even between living beings and nonliving ones. In Bergson, such distinctions cease to matter on the level of the universe. "The concept of the Anthropocene," Clive Hamilton writes, "applies to the . . . new Earth system thinking that emerged fully in the 1990s and 2000s . . . the integrative meta-science of the whole planet understood as a unified, complex, evolving system beyond the sum of its parts."⁴⁵ In *Duration and Simultaneity* Bergson already affirms that "the earth is a system," but the system he proposes is not meta-scientific and does not consist of measurements; it lives concretely in time, that is, in the transition from a before to an after (DS 38/27).

⁴⁵ Hamilton, *Defiant Earth*, 11.