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## Life as Vision: Bergson and the Future of Seeing Differently

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In *Creative Evolution*,<sup>1</sup> Henri Bergson depicts a 'cinematographic illusion' in philosophical thinking that has vision as its basis (EC 306/753). Aiming at utility, vision does not follow the articulations of the real but condenses, solidifies and immobilizes reality in order to better manipulate and act upon it (EC 300–3/749–51). Vision sees neither the moving continuity of the material universe, nor the qualitative heterogeneity of life, rather it projects behind these temporal realities a homogeneous spatializing net that allows their decomposition and reconstruction according to abstract and empty schemas. Vision thus renders the world in terms of objects. More importantly, since visual perception is tied to the teleology of action, this objectification is naturalized as a reductive yet necessary structure of visual relations (EC 306/754). At best, vision could be understood to be adapted to the order of inert materiality, abstractly conceived in terms of artificially isolated systems; at worst, vision would be so structured by the needs of utility as to perpetually overlook what is novel and unpredictable, to misperceive what lives, endures, ages and invents.

The role of vision in Bergson's philosophy of life is, however, at once more complex and more ambivalent than this theory of its 'cinematographic' function allows. For vision arises within the evolutionary movement of life as part of its tendency to act on matter, but vision can also dilate and be transformed within creative endeavors (Bergson uses the example of the painter in 'The Perception of Change').<sup>2</sup> Moreover, though visual perception – in its proximity to matter – tends to objectification, vision can also supply the means for its critical overcoming, moving in the direction of intuition. How are we to understand these adventures and reversals of vision? Since the vision that concerns us here is sensible and bodily, two sides must be held together in the story of vision. On the one hand, there is the potential or power of vision to see more, to go beyond (or beneath) the frame of utility that engendered it. For this, vision must be more than action; it must also be memory and creation. On the other hand, the materiality of vision needs to be acknowledged. In this vein, to see more is not the acquisition

of a spiritual sense, but a transformation and dilation that must also belong to the body and the eyes.

To trace the opening to vision and the formation of eyes within duration requires that we attend to Bergson's philosophy of life in *Creative Evolution*. Starting with the genetic account of the evolution of the eye in that text, I show the ambiguity that haunts vision at once conceived as canalization and organization (section 1). If vision arises for a body as 'zone of indetermination,' as *Matter and Memory* shows, then it is by exploring the phenomenology of indetermination and its temporality that both life and vision can be rethought beyond the initial frame of utility that limits life to action and vision to objectification (section 2).<sup>3</sup> Moreover, uncovering the ontological ground for vision as bodily sense, and for eyes as living matter, requires that we interrogate Bergson's image of *élan vital* in order to explicate the internal relation of life to materiality (section 3). Only in this way can we come to recognize the memory that resides in the eyes and the materialization that is generative of vision, allowing us to imagine other ways of seeing (section 4). Once these unthought aspects of Bergson's philosophy become explicit, other visions at once philosophically and ethically more robust than the cinematographic perception described above – come to view. In sections 3 and 4, I appeal to Merleau-Ponty's phenomenological reading (or misreading) of Bergson to reveal one such vision: intuition or philosophical vision. Hence my question in this chapter: is there within the Bergsonian philosophy of life a phenomenological opening to, and ontological ground for, *seeing differently*?

## 1 Bergson and the evolution of the eye

At the end of the first chapter of *Creative Evolution*, in attempting to defend his hypothesis of an immanent impetus to life, a psychological principle he calls *élan vital*, Bergson introduces a now well-known and controversial example: the example of the genesis of the visual apparatus – the eye – in different lines of animal evolution. This example can be read as exemplary of Bergson's metaphysics of life, though for reasons that go beyond the explicit position it is employed to support. Bergson takes the case of the eye to reveal the subsistence of an original, albeit virtual, unity that must characterize the *élan vital*. In Bergson's hypothesis, the *élan vital* holds a multiplicity of tendencies that, insofar as they are virtual, coexist in complementarity and mutual implication. These tendencies, however, cannot grow beyond a certain point without becoming incompatible (EC 53/540). This means that the unity of the *élan* is retrospective. Its movement is one of dissociation and division whereby tendencies are actualized through continual divergence (EC 89/571). This divergence stems, in part, from the internal multiplicity that characterizes life as tendency and, in part, from its need to work with matter and take material form as it actualizes itself

(EC 99/579). The push of the *élan* is therefore neither serial nor cumulative, so that evolution cannot be understood to aim at a harmonious whole as in the finalist picture (EC 117/595).

Nevertheless, according to Bergson, if there is a virtual unity to the *élan*, then its immanent force must continue to be shared and felt within the ever-forking movement of life, so that resemblances may be found there. In this sense, similar organs would arise by dissimilar means on divergent evolutionary lines (EC 54–5/541). For Bergson, the formation of eyes in mollusks and vertebrates instantiates such resemblance (EC 88/570); for the complexity of material structure and the simplicity of function incarnated in the eye point beyond any resemblance achievable by mechanistic or teleological composition to an immanent principle that diverges into, but continues to be shared among, evolutionary lines (EC 89/571). There are two threads within this argument that need to be disentangled, if we are to retain what is powerful about Bergson's notion of *élan vital*. First is Bergson's claim that convergent evolution along divergent lines of life – as witnessed in the example of the eye – requires the hypothesis of an initial, common *élan*. But second is Bergson's appeal to the image of an immanent *élan* in explaining the correlation between complex form and simple function found in organic bodies (in whichever evolutionary line we consider) so that the structure of the eye proves irreducible to the coordination of parts.

It should be noted that the first thread of Bergson's argument has raised considerable criticism in the literature. This is due not only to its inability to discharge other factors that may explain convergent evolution,<sup>4</sup> but also because of the ambiguous status of the *élan vital* in Bergson's text as both causal evolutionary principle and analogy or metaphor for the duration of evolution.<sup>5</sup> Moreover, the appeal to cases of convergent evolution, and specifically to resemblances between organs, is complicated by the ambivalence that haunts Bergson's description of the process of materialization in *Creative Evolution*. Matter is sometimes presented as expressive of life, sometimes as an external obstacle or accident that life encounters on its way. If material forms are the remainder deposited outside life's movement as it grows – rather than integral components of life's actualization – then it is difficult to understand how resemblances between organs can be reflective of unity within life. These resemblances may speak to the ways in which matter sediments and takes form when it is deposited, but not to the organizational movement of life that issues from the initial *élan*. What is needed is an account of how materialization – especially material organization – stems from the virtual structure of the *élan*. My concern in what follows will be with this question of materialization, which constitutes the second thread in Bergson's story of the formation of the eye.<sup>6</sup>

Beyond the *élan* as cause of convergent evolution, there is the image of *élan*, an image that has its limitations but also its power (EC 257/713). This is the power, as Keith Ansell Pearson notes, to make us think differently

about evolution beyond both mechanism and finalism.<sup>7</sup> It is, paraphrasing Bergson, to think evolution *sub specie durationis* (PM 158/1392). In the context of the story of the eye, Bergson uses the image of *élan* to initiate a temporal reflection on the relation of life and matter – a reflection which, in its ambiguity but also its richness, anticipates the ontological working-out of this relation later in *Creative Evolution*. How does this reflection unfold?

The eye is a solution that life develops in response to the problem of light (EC 70/555); more precisely, it is a way of 'making use [*tirer parti*]' of light (EC 70–1/555). For Bergson, this does not simply mean that eyes are sensitive to light, or have the capacity to see, but rather that the eye is integrated with the movement of a living body, so that seeing must be understood in the verbal and active sense as bringing forth movement (EC 71/556). Life is, then, at once receptive and active in relation to its circumstances. In order to make use of its context, life must passively follow its incline before inflecting it in another direction: 'Life proceeds by insinuation' says Bergson (EC 71/555). It is in this double sense – as two directions or movements – that Bergson understands the *adaptation* that characterizes 'living matter [*la matière vivante*]', distinguishing it from the passivity of inert matter that is merely affected by its surroundings (EC 70/555). The problem of light therefore broaches the question of life's relation to materiality – a problem that is defining of life for Bergson. It asks that we attend both to living and inert matter, as well as to their interrelation. Moreover, recalling the convergence between light and matter elsewhere in Bergson's texts, especially in *Matter and Memory*, it is not only light that can be read as a metonym for matter (MM 36/186), but matter that appears indistinct from light. For once matter is seen as a moving continuity, a network of vibrations (MM 208/343) – and the material universe is understood to have its own duration irreducible to the static schema of space – matter is found to share something of the qualitative heterogeneity of light (MM 41/191), a richness that is contracted and reduced to measurable properties through the vision of the eyes.

In the context of *Creative Evolution*, the problem of light can be understood to symbolize the problem of matter in at least three ways: life is the tendency to act on, to make use of, matter; to do so, life sees matter (contracts and objectifies it, 'cinematographically'); and, for this, life espouses materiality (it becomes living matter, eyes and bodies that make use of light). It is this genetic dimension of Bergson's story of the eye – the insinuation of life into matter – that I will examine in what follows (the other two dimensions will be discussed in section 2). I find within Bergson's account in chapter one of *Creative Evolution* two schemas for the formation of the eye: the image of canalization and the notion of organization. These schemas, which Bergson presents as fitting together, come apart under close reading; for the relation of life and matter appears to shift from one schema to the other, reflecting different ontological commitments.

In order to explain how the materialization of *élan vital* is a simple activity irreducible to the construction of an assemblage – and how vision as a drive cannot be grasped by studying the eye as a composite machine – Bergson resorts to an analogy. The vital effort that forms the eye is compared to the movement of one's hand as it passes through iron filings, a medium that is compressed and resists in proportion as one's hand advances through it (EC 94/575). When the hand will have exhausted its effort, the iron filings will be juxtaposed and coordinated in such a way as to reflect the imprint of the hand that has stopped. The form of the filings is not, then, the result of a work of assemblage (whether mechanistic or teleological), but of resistance to the effort of the hand: it is the negative expression of a positive and simple movement, or *élan* (EC 94/576). This corresponds to the following image of ocular vision: 'it is a vision that is *canalized*, and the visual apparatus simply symbolizes the work of canalizing' (EC 93/575). As with the structure of the canal and the form of iron filings, the materiality of the eye represents 'a sum of obstacles avoided [*obstacles tournés*]: it is a negation rather than a positive reality' (EC 93/575). This reference to canalization points both to the temporal process by which the canal is dug (the effort of the *élan*) and the course, usually considered a negative space, through which the water flows (the *élan* become vision). Bergson wants to show that it is this invisible movement that has positive reality, whereas the visible structure of the canal, its banks and floor, should be seen only as the present sediment of that digging effort and the limits of that canalized flow.

Bergson's aim in this discussion of the canalization of vision appears double. It is to point to the immanent *élan* that divides and materializes within evolution, giving rise to organic forms along divergent evolutionary lines. This echoes the generative, though invisible, movement of duration operative in the digging of the canal and the gesture of the hand. But his aim is also to show how such materialization is not the composition of an aggregate by the addition of pre-given parts, so that an organism could be analyzed or decomposed without remainder. The materialization of life is, rather, the creation of bodies by an immanent (insinuating) process that gives these bodies as organized 'wholes,' not fractionable into parts (EC 95/576). Bergson's images of the canal and of the hand in iron filings belie, however, this aim. This is due, at first view, to the way in which matter, whether living or inert, is relegated to negativity in these images. But since this negativity could be read as a tendency within life, so that materialization would belong to the *élan* itself (as we shall see in section 3), I would claim that the problem is not that of the negative as such but of the way in which the negativity of matter is presented in these images. Two problems converge here. (i) On the analogy with the canal and the imprint in iron filings, organized matter appears as an inert sediment deposited along the trajectory of life's movement, seemingly extraneous to the workings of life. Canalization is, in this vein, the clearing-away of debris rather

than the internal working-over of matter. We seem to be confronted with a dualism of life and matter – without interpenetration or interaction of terms – and Bergson's project of tracing their internal, ontological implication later in the text is undermined. Significantly, the immanence that Bergson claims for the *élan* – and which distinguishes his philosophy from problematic forms of vitalism that evoke a transcendent life-force – becomes questionable. On this account, though the *élan* may be immanent to evolution, it must at least begin by being transcendent to matter, a matter that figures as absolute outside into which this *élan* must canalize and descend.<sup>8</sup> (ii) Correspondingly, since living matter is represented on the model of inert material things (the canal and the iron filings), the activity that defines adaptation is elided.<sup>9</sup> Organized bodies become equivalent to passive imprints. This belies Bergson's insistence on living matter as *responsive*, in unpredictable and creative ways (whether successfully or not), to vital problems. But it also misses the singular form of passivity that must go along with such response: not the passivity of an effect that exactly mirrors its cause, but a sympathetic *receptivity* that embraces its circumstances before inflecting them in a new direction. What is missed, in other words, is insinuation.

There is, however, another schema by means of which Bergson explains the simplicity of the drive to vision and the complexity of structure in the case of the eye. Just before he introduces the image of canalization, Bergson discusses the difference between two forms of vital effort, or work, that can characterize life's relation to matter: organization and fabrication.<sup>10</sup> Organization is the process by which life insinuates itself into materiality, taking material form and at once drawing matter into the creative movement of life. To fabricate, in contrast, is to work on matter from the outside, accumulating and assembling material elements in order to compose an object or machine that can serve as an instrument, even prosthesis, in life's quest for utility (EC 182–3/650). Organization is, then, an effort that moves outward – an effort that Bergson describes as 'explosive' (EC 92/574). It works by differentiation, splintering and propagation within matter. The complexity of organized matter stems from this proliferation of divisions, from the divergences and zigzags by which life makes its way through materiality, a process that leaves its sinuous trace in the complication of organic matter. Fabrication is, in contrast, additive. The components artificially cut out of inert matter are not transformed by the work of assemblage, which remains external to them. The manufactured object is, for Bergson, only the sum of these inert and pre-constituted parts (EC 92/573–4).

In comparison, the organized body or organ – in this case the eye – is *more* than the sum of its parts (EC 91/573). This is not simply because, as with Merleau-Ponty's notion of a *Gestalt* whole, it is a complex structure of internally articulated relations, irreducible to parts. It is rather because the parts are external and static views taken on the eye, whereas the organ is the dynamic

sedimentation or incarnation of a tendency that is becoming differentiated, the movement of life becoming vision (EC 89/571). In this sense, the eye is also *less* than its parts, since the eye is given with the tendency to vision, whereas the parts are retrospectively and reflectively constituted as a result of a supplementary operation – both conceptual and perceptual (Bergson calls this ‘cinematographic’) – that decomposes and recomposes the eye as if it were a fabricated object. It is in terms of organization that we can understand the eye as at once material and living organ of vision, at once complex in form and simple in activity. Here, the *élan* is not separable from its materialization, so that ‘living matter’ is not a badly-posed problem that must be evacuated, but a mixture that defines experience and that the Bergsonian ontology of life must try to account for. It is in terms of this second schema, running through Bergson’s story of the eye, that his hypothesis of *élan vital* appears productive.

## 2 A phenomenology of indetermination: vision between action and the need to create

Bergson’s use of the example of the eye should not be read as arbitrary. This owes not only to the convergence between the problem of light and that of matter, but correspondingly to the way in which the very sense of life calls forth visual perception for Bergson. In a highly suggestive passage that closes his account of the eye, Bergson notes that:

life is, more than anything else, a tendency to act on inert matter. The direction of this action is not predetermined; hence the unforeseeable variety of forms which life, in evolving, sows along its path. But this action always presents to some extent, the character of contingency; it implies at least a rudiment of choice. Now a choice involves the anticipatory [representation] of several possible actions. Possibilities of action must therefore be marked out for the living being before the action itself. Visual perception is nothing else: the visible outlines of bodies are the design of our eventual action on them.

(EC 96/577; translation corrected)

Here, Bergson connects life as action to the structure of visual perception as it was discussed in the first chapter of *Matter and Memory*. The relation of vision to life is more than an analogy; they are not only parallel movements or tendencies, but enjoy a relation of part to whole. Bergson finds within the movement of *élan vital* itself the need for vision. This ‘march to vision [*une marche à la vision*],’ as Bergson calls it, is not a renewed finalism (EC 96/577). Vision is not the end intended by life but the structure through which life works out its relation to matter, its attempt to act with and upon matter. This structure hinges on a key feature of life’s relation to matter, implicit in

the reference to contingency in the above passage. If life is to act in response to the world, rather than simply be affected by the world, then its relation to the world must include indetermination. As Bergson notes elsewhere in *Creative Evolution*, ‘the role of life is to insert some indetermination into matter’ (EC 126/602). I find in Bergson’s text two senses in which this indetermination is deployed by, and within, life – permitting us to see how the drive to vision and the organization of eyes, the moving, seeing, living body, are two sides of the same movement of life.

On the one hand, and drawing on the above passage, there is an ‘outer’ indetermination whereby the world appears to the living body as articulated in terms of different virtual actions among which that body can choose. This is visual perception: the things surrounding my body present to me the sketch of my possible actions upon them (MM 22/172). Indetermination becomes, in this sense, visible within the material universe. Since my (pure) perception is part of that universe, this indetermination is not simply a projection or construction, but belongs to the structure of the material world as it includes living bodies (MM 43/192). In this sense, although it is through the perceiving and acting body that indetermination finds its way into the world, indetermination is neither limited to the body, nor alien to the world. The determinate tissue of materiality is not fully woven (EC 10/503); for the material universe has its own duration, Bergson insists, albeit infinitely faster and more repetitive than the rhythms of life (MM 207/342). This makes it possible for life to take matter in different directions: to unravel its quasi-repetitive and deterministic thread, propelling it in an inverse direction toward indetermination, or to fabricate machines and divide matter into objects that weave the mesh of causality more tightly, pushing matter further down the incline of necessity.

This latter tendency requires some explanation. The paradox is that the push of life to insert indetermination into matter can become a tendency to objectify – one that represents and treats its material surroundings in more and more determinate and predictable terms. Bergson appeals here to the intentional teleology of action. In acting, intelligence is concerned not with the process or means employed, which remain implicit or unconscious, but with the goal to be accomplished (EC 299/748). Action is prospective rather than being reflective; what it projects on the world is the fulfillment of its interests and needs.<sup>11</sup> The way the world appears is therefore a function of the discontinuous (kaleidoscopic) projection of ends upon it (EC 306/754). It is in this sense that the world is cut up according to our needs, contracted and immobilized according to our attention, and solidified for the sake of utility.<sup>12</sup> By means of this ‘cinematographic’ structure of concrete perception, the fluidity of the material universe is rendered as objects (EC 306/753). Between this representation (which is more than pure perception, for it arises from the work of mind on matter) and the action that motivates it, there remains a crucial difference. For while materiality

comes closer to this representation – the more it is seen, acted upon, and fabricated into objects – action itself (whether organization or fabrication) is an interval of duration, a concrete movement or passage that introduces indetermination into the material world. Thus objectification should not be understood to be absolute, despite the dominance of the ‘cinematographic illusion’ for Bergson, since the very movement that grounds this representation contains the possibility for its interruption and critique.

On the other hand, ‘outer’ indetermination mirrors an ‘inner’ indetermination that exists within the material structure of the organized body.<sup>13</sup> This material indetermination corresponds to the complexity of organized matter, permitting a different temporality to take place. In this vein, Bergson notes that the complexity of the animal nervous system represents a ‘reservoir of indetermination’ (EC 126/602), and he describes the brain in higher vertebrates as a ‘central telephonic exchange’ (MM 30/180). What Bergson means to show in appealing to the complexity of the sensory-motor system is the way in which a complication of material structure can proliferate the routes by which an excitation may develop, at once delaying the immediate reaction and permitting a different motor response. By means of this delay, immediate activity is not only suspended, it is at once symbolized and differentially displaced. The mechanism of reaction is replaced with a feeling or sensation that prefigures the reaction without necessitating it (affect), while divergent lines of action appear as virtual articulations of the world for the living body (perception) (MM 32/182–3).

For Bergson, the complication of living matter does not cause indetermination, rather it is indetermination in bodily form. Such complication is not simply measurable in terms of degrees; it is experienced as difference in kind between living materiality (which tries to delay the tendency to determinism) and inert materiality (which follows the incline to necessity).<sup>14</sup> What counts here is the delay, the hesitation, that is affectively experienced by the organism and visually perceived by it in terms of a world of virtual action. It is through this delay that a different temporality is opened up, irreducible to the (quasi-)repetition of the same that defines inert matter for Bergson. Specifically, it is no longer the immediate past that determines the present, but the past as a whole that pushes on each present, directing it to actualizations ‘incommensurable with its antecedents’ (EC 27/517). Bergson describes this past as ‘tendency’ in *Creative Evolution*, for it is memory whose weight is felt without being conscious and whose dynamic sense need not be recollected in order to make a difference (EC 5/498–9).<sup>15</sup> To delay immediate reaction is to interrupt the seamless continuity of past-present actuality in favor of a virtualization of the past that allows it to ‘act’ differently in the present – to suggest and create rather than simply play out and repeat. This subjectless power of the past is more akin to an *élan* than an act. Though it can be traced to the past as an interpenetrating whole, an inextricable web, its actualization is neither linear progress nor seamless

intentionality. To take seriously the image of *élan* as requiring both effort and resistance against which this effort sets itself in motion, the past as tendency can be understood as both taking its *élan* in the moment of hesitation that the complication of living matter opens up and as grounding this moment. Material indetermination functions, in other words, as pivot rather than cause. It is the point of support, or resistance, from which the past as unconscious latency and weight lances itself through matter and becomes (vital) *élan*.<sup>16</sup>

This reflection on the meaning of indetermination for Bergson should allow us to deepen the sense of life with which we began: life as a tendency to act on matter. Bergson often resorts to the teleological framework of utility – of survival, vital interest, and the satisfaction of need – as shorthand for this tendency of life to act. This framework, I would argue, unnecessarily narrows the scope of what life – and its indetermination – mean in Bergsonism.<sup>17</sup> More precisely, how should ‘need’ as a guiding principle for action be interpreted in Bergson’s texts? On the one hand, ‘need’ can be read as a preformed lack aiming at fulfillment. In this sense, to see the world in terms of need would be to see it as a world of possible actions that could satisfy those needs. Since action, however, is represented not as an interval of duration but by the accomplishment of a goal, what would be seen is a world of objects projected as the fulfillment of needs. Here, the future designates a field of actions and objects circumscribed by the present (or immediate past). But it is unclear that the time that inscribes living bodies – bodies that desire, want and act (EC 5/498) – could have such predictability and closure.

Such a reading of ‘need’ seems to imply two interrelated illusions. First, that vital activity is modeled on the realization of a plan – ‘[a] plan is a term assigned to a labor: it closes the future whose form it indicates’ (EC 104/584). Here, the future appears to mirror the present and, in this sense, is given along with it. But such futurity can only (and then only abstractly and approximately) be found in the artificial systems of inert matter for Bergson; the futurity of life is both open and unpredictable in a radical sense. For it is not only that, as Merleau-Ponty notes, ‘life ..., beneath us, always solves problems in a different way than we would have solved them,’<sup>18</sup> so that the ‘dialectic’ of life would be one of problem and response rather than predefined lack and circumscribed fulfillment.<sup>19</sup> It is also that life creates both the solutions and the terms of the problem in the course of its evolution; a vital problem cannot be understood to be fully defined in advance (EC 103/582). This is the radical sense of newness that Bergson attributes to life: ‘its future overflows its present, and can not be sketched out therein in an idea’ (EC 103/582).

But from the point of view of the actualized present, we are confronted with a second illusion that touches on the nature of ‘need’ itself. To be conceived as a pre-given need of the organic body, the past must be seen, at once negatively and retrospectively, as that which the organic body lacked



but has come to possess (in the objectified form of a quality, state or thing). It is from the experience of present useful action that this demarcated need is projected back into the past as possibility; the past is reconstructed on the image of utility in the present. Here, we encounter a version of what Bergson calls the 'retrospective illusion' (PM 22/1263-4). Accordingly, the present would be a positive fullness (the possession of something) and the past a negative cliché of that fullness (both the possibility and lack of that something) projected backwards. Bergson would criticize this illusion both for its retrograde movement and for its construction of a negative. But the problem should be understood to lie deeper in the way in which the true 'negativity' or power of the past is elided, to be replaced by an emaciated representation of the past as need. The past is not a thing or a representation (even in negative form), but a virtual tendency calling forth actualizations. As tendency, the past both creates activities that may succeed or fail and provides the context within which those activities become useful. It is life that creates utility and that can redefine it. Need, then, is neither pre-given nor determined in itself, but should be understood within the context of life as the creative movement of problem and response.

Though this reading extends Bergson's notion of need almost to its breaking point – since 'need' seems to connote pre-formation rather than tendency in many places in his texts – my purpose is to indicate another direction in which need can be understood, a direction opened up by the temporal structure of indetermination discussed above.<sup>20</sup> Indeed, it is as tendencies that the 'needs' of life – to accumulate, store and discharge energy, to individuate and reproduce, to conserve and create – are read by Bergson in *Creative Evolution*. What I wish to suggest is that the needs, perceptions and actions of organic bodies be read in a similar light. Bergson envisages just such open transformations in what utility means when he sees life fabricating prostheses that make possible new uses hitherto unforeseen; so it is with language that can become the medium for reflection and interiority, or with intelligence whose resources intuition both relies on and subverts. Beyond (or beneath) life as action in view of utility and need, there is a second sense of life in *Creative Evolution*: 'The impetus of life [*l'élán de vie*], of which we are speaking, consists in a need of creation [*une exigence de création*]' (EC 251/708). This need to create provides the ground for the definition of life as action, which appears in this sense to have been preliminary. What allows us to understand life in this more fundamental way is the structure of time that indetermination reveals.

This is a time of hesitation and delay, a temporalization that is indeterminateness itself: 'time is what hinders everything from being given at once. It retards, or rather it is retardation [*retardement*]' (PM 93/1333). But, in hesitating, time is also creation and invention (EC 341/784). For hesitation is searching, elaboration and choice; it opens up routes for acting differently or not at all. Most importantly, hesitation feels its way tentatively and receptively;

it is '*tâtonnement*' says Bergson, that is, a search without finality or teleology, a hesitant experimentation that does not dictate the future it will find (PM 93/1332-3). Such a search neither takes the form of linear progression, nor is its success guaranteed; it forks and diverges continually, so that the futures it encounters were not those initially anticipated, being incommensurable with and irreducible to the representations of the past. This time of hesitation and invention describes the temporality of life for Bergson. It is in this way that the adaptation Bergson attributes to living beings can be understood as creative response rather than mechanistic effect; organization cannot be predicted or modeled on the given, but presents solutions to problems in ways that intelligence cannot imagine or grasp in advance. Significantly, this structure of time makes visible aspects of Bergson's *élán vital* hitherto implicit, reconnecting it with the need to create.

As we have seen, the image of *élán* expresses the weight of the past as tendency. If time is invention, then this tendency cannot be understood to be given once and for all as a completed reality (EC 13/505).<sup>21</sup> Though it is the past as a virtual whole that pushes on each present, actualizing itself there, this past is not a self-same idea, but is reconfigured through the passage and virtualization of events – so that the past is always an 'original history' (EC 6/499). This is the import of Bergson's image of the past snowballing on itself (EC 4/498): not the accumulation of events in a container, enlarging the past as thing, but the continuous immanent transformation of directionality and force that is the past as tendency. From this follows the irreversibility of the *élán* (EC 6/499); for the past not only makes a difference in each present as actualization, it also makes a difference for itself virtually. It is in this sense that the unity of the *élán* lies behind us for Bergson (EC 53/540). As duration, tendencies do not simply repeat (EC 46/533), they change as they age and grow, diverging to give different actualizations and evolutionary lines (EC 99/579).<sup>22</sup> Since the *élán* is, to a certain extent, what it does (EC 7/500), this differential creation is not exterior to the *élán* but modifies it internally. This means, I would argue, that the effort of creation, which is *élán vital*, must be understood as at once material and memorial, at once actual and virtual creation. As Bergson notes, 'in duration, considered as a creative evolution, there is perpetual creation of possibility and not only of reality' (EC 21/1262). I believe that this follows from the way in which Bergson identifies pastness and *élán* with tendency (indeed with multiple tendencies). Tendency connotes not simply directionality, but '*nascent change of direction*' (PM 188/1420). It implies, in Deleuze's formula, that the whole is not given, that there is no completion or closure for an enduring reality.<sup>23</sup> This applies both to the future in Bergson's philosophy (EC 339/782) and, I argue, to the past and to life as such. Life makes or unmakes itself, to use Bergson's terms, but cannot be posited or grasped once and for all. It is this nature of tendency that is central to understanding evolutionary movement for Bergson.

But in order to be invention, time is also hesitation. Is Bergson's *élan vital* a hesitating, stuttering, zigzag movement or a continuous, direct and fluid flow?<sup>24</sup> Moreover, if there is hesitation (and finitude) in the *élan*, is this a result of its own temporal and tendentious structure or, as Bergson sometimes implies, due to its encounter with materiality? Before turning to the ontological implications of this question, we must re-examine the phenomenology of indetermination presented above. Bergson makes clear that, in its need to create, life proceeds by introducing indetermination into the material universe (EC 251/708). We have seen that this indetermination takes hold both in terms of the perception and fabrication of things and through the organization of bodies. Significantly, these two senses of indetermination are intertwined for Bergson; though the second is the material and structural condition for the first, it would remain blind without the first. While the first sense of indetermination contracts the creativity of life to that of action upon matter, and vision to objectification, the second sense of indetermination implies that life, in its need to create, proceeds by insinuation into matter – through a form of materialization that is also self-creation (EC 264/719). As insinuation, to live is not only to act upon matter, but also to see and create within and through matter and to be transformed by this materialization. Vision is, in this sense, inseparable from the seeing and moving body to which the eye belongs. Life may be vision in view of useful action, but it is, in a deeper sense, vision as insinuation and creation. Though Bergson sometimes presents this insinuation as accidental or regrettable, as a detour or zigzag in what could have been a direct route, I would claim that taking seriously the temporality of creation as hesitation means that the need to create must be understood as a tendency to indetermination and as a need to materialize that is not simply reducible to objectification. Inscripting vision in this sense of life as creation makes it possible to imagine ways of seeing beyond, or beneath, the turn to utility.

### 3 An ontology of life and matter

I have argued that life, and hence vision, take place within matter. If life is to act upon matter from within, then it must initially, at least, espouse the direction of materiality. Insinuation requires that we question the external duality between life and matter, which Bergson's work initially seems to present, in favor of an internal and ontological relationality. It is thus important to ask not only how life insinuates itself into matter, but also how the tendency to materiality may already be virtually inscribed within life.

The account of indetermination developed above suggests one route to this question. Although from a phenomenological point of view indetermination may be viewed as a negative experience, one of hesitation and delay, Bergson will insist that ontologically it should be seen to be a positive movement. It is in this sense that Bergson's philosophy cannot be seamlessly

assimilated to phenomenology. This points to two directions in which Bergson can be read (both of which are to be found in Merleau-Ponty's texts). On the one hand, in Merleau-Ponty's *Nature* lectures, Bergsonism is read as a positivist metaphysics that overlooks the phenomenology of lived experience. In particular, Bergsonism elides the negativity that structures and is felt in experience by translating this negativity into positive terms (Nature 64/94). As a texture of positivity without fissure, the very possibility of lived experience (perception, temporality, thought) is belied. Further, it becomes difficult to account for the experiences of affectivity, sociality and action that Bergson locates at the root of the illusory mechanisms of thought at play in the idea of nothingness and in the cinematographic illusion (EC 295/744). Are these negative experiences, which serve to naturalize such illusions, not themselves temporal articulations that at once destabilize the positivity of the world and make a difference in the texture of the real?

A different reading is thus called for, one more generous to the nuances of Bergson's critique of negative ideas. In 'Bergson in the Making,' Merleau-Ponty points to a temporal form of the phenomenological reduction at stake in Bergson's work: to learn to see *sub specie durationis* (Signs 184/232, citing PM 158/1392). What is bracketed by this reduction is the idea of nothingness that metaphysical speculation projects beneath being – as the ground against which that being must subsist (EC 298/747). It is according to this conceptual schema that the metaphysical demand for full and positive, atemporal essence is formulated.<sup>25</sup> What changes and hesitates, what is never completely given, cannot count as being in this picture; duration is hence systematically overlooked (EC 298/747). Within the frame of this Bergsonian reduction, the import of the phenomenology of indetermination becomes evident. Indetermination is not simply the interruption of a pre-given and self-sufficient order of determination – abstractly identified with materiality – rather it appears as a positive power on its own terms, the power of duration as tendency to create.<sup>26</sup> Only when it is perceived within a conceptual schema that defines being as unchanging and fully given positivity (a deterministic being without interval or passage) does indetermination appear privative. Were we to bracket these conceptual blinders, the primacy of indetermination would become visible, and it is determination that would need to be understood as lacking such openness, as tending to closure. There is in Bergsonism an ontological reversal of the terms according to which positive and negative are defined,<sup>27</sup> a reversal with phenomenological repercussions for vision. It is important to ask after the form that this Bergsonian phenomenology takes. Bergson is not simply proposing a phenomenological description of experience, but a phenomenological conversion (or destabilization) that would reconfigure that experience, would allow us to see and feel it anew. His reduction is a method not only for thinking and perceiving differently, but also for living differently

(PM 157/1392). Bergson takes what he proposes to be a philosophy of joy that renews our contact with the creative effort of life (PM 105/1344) and hence is a 'true evolutionism' (EC 370/807). His ontology is thus central to his ethics.

What does this ontological vision involve? In line with his critique of positivism, Merleau-Ponty describes the Bergsonian appeal to joy as a form of 'tranquility' or 'quietism,' since it implies an elision of the tension and 'non-coincidence' constitutive of living (Signs 191/241 and 189/238). To this criticism, we can respond by drawing on Vladimir Jankélévitch's reading of Bergson.<sup>28</sup> Bergson's philosophy is neither positivism, nor lacks a dialectic (as Gaston Bachelard claimed).<sup>29</sup> It performs, rather, a reversal of metaphysical polarities, for it is materiality that takes on the role of the negative. Negativity is not phenomenologically erased, but ontologically reassigned. There is more, however, to this metaphysical reversal than meets the eye. For simply inverting metaphysical categories does not necessarily destabilize them, and if Bergson remained at that level of analysis, then Merleau-Ponty's accusation of positivism would become applicable. It is not the valence attributed to life or to materiality that Merleau-Ponty finds problematic, but the mutual exclusion of terms – of being and nothingness, life and matter – that makes their internal relation impossible to conceive (Nature 70/101).<sup>30</sup> What is elided, in other words, is the mixture – living matter or material life – in which the two leaves of positive and negative interpenetrate (Bergson's term) or intertwine (Merleau-Ponty's).<sup>31</sup> Although Merleau-Ponty is right to see a certain Bergsonian ambivalence in this regard (we witnessed such ambivalence, above, in the two schemas by which the formation of the eye was explained), I believe that Merleau-Ponty ultimately misses the way in which the mixture is constituted in Bergsonism by means of tendency.<sup>32</sup>

For Bergson, insofar as the mixture is viewed as a composite thing, its nature will be misperceived. To follow its 'natural articulations,'<sup>33</sup> the mixture must be seen *sub specie durationis*; it must be seen as movement, rhythm, tendency (in a plurality or multiplicity that does not exclude interpenetration). The ontological movement of life as need to create provides a positive point of departure: life is a tendency to 'make itself,' an effort to become, encapsulated in the French verb '*se faire*' (EC 248/705). From this dynamic understanding of life, Bergson derives a genetic (and equally dynamic) theory of materiality. The difficulty and originality of Bergson's solution stems from his attempt to articulate the internal relation and difference between life and matter while avoiding two theoretical extremes: that of reducing materiality to an epiphenomenon of life and that of positing matter as an external and independent substance.<sup>34</sup>

How does Bergson understand the genesis of materiality? In the difficult third chapter of *Creative Evolution*,<sup>35</sup> Bergson sets out to show how materiality – and, in parallel, intelligence as the way in which mind sees,

conceives and acts on materiality – are generated from the creative temporalizing movement of life. Central to Bergson's genetic account is the insight that materialization is not a simple continuation of life, but arises through interruption of its movement. Despite the image of the movement of the hand through iron filings coming to rest, the interruption in life should not be understood as inertia or stoppage; rather, it takes the form of an inversion in directionality or movement (EC 210/674). As movement, materiality belongs to duration and hence partakes of life (EC 186/653). But as inversion, materiality must be a different kind of movement from life – a movement that unmakes or undoes itself (in the sense of '*se défaire*' (EC 245/703)). Interruption, or inversion, thus functions as a difference that connects.<sup>36</sup> It is significant, as Jankélévitch has pointed out, that the vital reality so interrupted is a tendency and not a substance or thing;<sup>37</sup> for tendencies or movements may reverse one another while continuing to interpenetrate and imply one another, whereas opposed substances mutually exclude one another. The difference in kind between tendencies is, in other words, non-oppositional difference. Although tendencies divide as they are actualized, becoming incompatible in becoming things, they continue to carry the memory or trace of other tendencies in virtual coexistence (EC 119/596).

Materiality is hence tendency. But it is, paradoxically, a tendency to become *something* – thus a tendency that elides its own movement and change as tendency, that *undoes* itself, giving an image of itself as static object. The operation of this material tendency is twofold according to Bergson: matter tends toward extended existence, while intelligence is itself a tendency to immobilize, solidify and spatialize, which extends the tendency of materiality farther down the incline of objectification (EC 201/665–6). As tendency, however, materialization is neither completely given, nor is it identical with the formation of objects; the perception of static bodies or things is a representation that covers over inverse tendencies which coexist in partial equilibrium or tension.<sup>38</sup> Moreover, materiality cannot simply be understood as an obstacle external to life. Genetically, materiality finds its seed within duration as tendency, while virtually it coexists and interpenetrates with vital tendencies in a tension that can be seen as leading to their actualization, to their division into evolutionary lines and their individuation into material forms. As John Mullarkey notes, it is in this actualized form that matter appears external to life, while in virtual form materiality is implicated within the *élan vital* which must hence also be an '*élan matériel*.'<sup>39</sup> What appeared as ambiguity in Bergson's account of matter – an ambiguity that Merleau-Ponty criticizes in his *Nature* lectures (58–64/86–94) – begins to be dispelled if materiality is understood in this way. Is materiality necessary for the evolution and actualization of life (EC 239/698), or is it an accidental detour with whose sinuosities life must contend but without which it would have been pure and direct creation (EC 245/703)? The latter option recalls Bergson's image of the route winding through the mountains to the next



town, a route that would have wanted to be a straight line (EC 102/582). Central to addressing this ambiguity is the question: whence does the interruption or inversion of life, which forms material tendency, arise?

I would claim that materialization, as interruption, is a nascent directionality implied within life as tendency (not preformed possibility but virtuality). This is what Bergson's thought experiment in chapter three of *Creative Evolution* conveys: to feel oneself to be duration whose effort is winding down – a duration that relaxes so that its moments spread out in mutual exteriority – is an experience that allows us to imagine the ex-tension of matter analogously to the dis-tended and scattered structure of dream (EC 200–1/665–6). Though *Matter and Memory* imagined the structure of matter in much the same vein – as a more relaxed rhythm of duration (MM 208/343) – *Creative Evolution* endows this dis-tension with an additional sense, that of interruption and inversion. This introduces a dynamic and internal relation between life and matter, while inflecting materiality with a negative direction or sense.<sup>40</sup> This negativity is not, however, a hole or pre-defined lack, but a counter-tendency that resides within and weighs down the movement of life, neither being assimilated to it nor canceling it out. It is in this way that life can be understood as a duality of interpenetrating tendencies (or 'polarities' as Jankélévitch says)<sup>41</sup> – a mixture in dynamic tension that makes itself or undoes itself but is never fully given (EC 272/725). Notably, materiality may be 'negative tendency' (EC 218/680), but it is not, for all that, nothingness or disorder. It is felt and makes a difference within life, albeit as diminution of effort, winding down or dis-tension (EC 210/674).<sup>42</sup>

To read Bergson's ontology in this vein is to ask how material tendency is not an external impurity with which an otherwise pure and infinite creativity is infected, but a negativity that stems from the very structure of life as *élan*. I find two senses of interruption in the *élan vital*. First, interruption is implied by the finitude that Bergson attributes to the *élan* in *Creative Evolution* (EC 142/615, 254/710) and which, as Florence Caeymaex has noted, attaches to the very sense of an *élan*.<sup>43</sup> As finite effort, the activity of the *élan* can be seen to be discontinuous in several ways: its activity is not only divided along different evolutionary lines, diverging as tendencies grow (EC 99/579), but also distracted from its creative effort, along any given line, by its fixation on what has just passed (EC 129/604). Finitude should not therefore be read as a mere quantitative limitation on the momentum of the *élan*. Rather finitude belongs to the structure of tendency as splitting between creative effort (in an open, futural directionality) and the need to create and act from somewhere (from the present and immediate past). The structure of time as jet, moving into the future while falling back into the past, can be seen to prefigure this fission (EC 247/705). What is noteworthy here is that Bergson points to two different, yet interrelated, structural tendencies within life, two temporal ways of being that coexist in tension: one

winding toward novelty (*se faire*) and the other unfolding as materialization (*se défaire*). The link that Bergson makes between finitude and distraction is significant in this regard (EC 127/603, 129/604 and 218/679). For the distraction of the vital impetus means not only that it becomes scattered into individuated material forms, but also that this materialization corresponds to the diminution in the intensity with which the past pushes upon the present. Instead of the open and unpredictable futurity that arises from the push of the whole past on the present, life focuses on the trajectory it has traversed and the actions it is accomplishing (the immediate past). Its effort becomes absorbed into this narcissistic and self-objectifying circle of the present, deviated from creation into continuation of the same, into quasi-repetition and closure (EC 128/603–4).

What is interrupted, then, is the nascent change of direction that characterizes life (and pastness) as tendency. Though the movement of the *élan* does not cease, its transformative plasticity and constant divergence are suspended in favor of the relative uniformity of movement and stability of form that can be extrapolated from the immediate past. Tendency, in other words, becomes habit; its differential curvature becomes tangent or line. The *élan* is no longer an impetus that renews and makes itself at every turn, but the momentum that remains along a single and foreseeable direction.<sup>44</sup> It is in this sense that Bergson describes the interrupted tendency as 'a creative action which unmakes itself [*un geste créateur qui se défait*]' (EC 247/705). This highlights a form of passivity that is movement rather than rest, a passivity that follows from the very effort of the *élan* as momentum that automatically unwinds when its impetus has been interrupted. This bears on the sense of inversion that belongs to materialization for Bergson. For despite his images of change in direction, of a falling weight or a backwards glance (EC 11/503), what I believe is at stake is not spatial inversion but temporal interruption – specifically, an inversion in the structure of time as hesitation and invention.

Thus materialization should not be understood to give rise to hesitation, but follows in a sense from its suspension: the effort of hesitation is interrupted, giving rise to a movement of elaboration through which a particular trajectory unfolds, through which something materializes. Instead of virtual futures that vary according to the non-linear tendency of the past, the future is projected as that which *will have been* should elaboration continue in the direction inflected by the immediate past (an inverted version of Bergson's retrospective illusion). Significantly, it is the structural discontinuity and intermittent effort, which characterize hesitation, which make elaboration and materialization possible. Rather than equating hesitation with a visible halt, hesitation should be seen as an effort to delay future elaboration, to keep open the indetermination of the present, and to allow as much of the past as possible to inform that present. This effort tries to hold within an interval of duration (contraction) the weight of the past as tendency (dilation); it is structured by an internal tension that imposes on it a staccato

form. As such, hesitation falters. It becomes distracted from its effort to generate indetermination by the material forms this indetermination takes; it forgets itself and unravels as materiality.

Second, once materialization has occurred, another sense of interruption becomes visible in the *élan vital*. For effort implies working against resistance. Materiality offers the resistance from which the *élan* can spring forward, the pivot or support for its force (EC 256–7/713). In this sense, the image of *élan* is indissociable from materiality; it is ‘in its contact with matter [that] life is comparable to an impulsion or an impetus’ (EC 258/714). Indeed, the resistance of materiality is twofold. On the one hand, as the inverse movement against which life applies itself, materialization is that which the vital effort to make and create attempts to delay – that into which life attempts to insinuate hesitation and indetermination. Thus material tendency can be understood as the resistance within *élan vital* that makes possible its undoing and actualization.<sup>45</sup> On the other hand, actualized matter can be read as an obstacle that acts as concrete pivot or foil for the work of the *élan* (EC 98/579), just as the mountains at once deviate and provide the ground needed for the route. Matter is hence an outside that is constitutive of life as *élan*, an outside whose trace as tendency and difference in kind lies within life. It is because it already carries this material trace that life can insinuate itself into the habits of matter and exert its effort to wind up that which is being undone, inflecting materiality in the direction of life (EC 99/579).

What is at times insufficiently emphasized in Bergson’s account is the way in which materiality, in its tendency toward relatively stable forms and uniform movements, is not just a distraction or resistance to life but an anchorage that allows life a ground from which to leap forward. Materiality, in other words, is needed for life to become *élan* – as the jumper in Bergson’s analogy needs to look back at herself as she is clearing the obstacle and moving ahead (EC 129/604), and as the eyes are needed for vision. Whether virtual or actualized, materiality is more than diversion or ‘debris’ (EC 100/580). It must be understood to make a difference not only in the course that life takes, but in how life makes itself – a becoming that is life itself. For ‘a real evolution, if ever it is accelerated or retarded, is entirely modified within ... Its content and its duration are one and the same thing’ (PM 20/1261). It is in this sense that materialization is more than actualization, in my view, since materialization as differentiation within and interruption of vital tendency makes a difference for the virtuality of life. Materialization is part of the history of life as tendency, a history of sinuosities and windings that are the irreversible trace of a movement which is inseparably activity and passivity, which unceasingly makes and undoes itself, ‘a reality which is making itself in a reality which is unmaking itself [*une réalité qui se fait à travers celle qui se défait*]’ (EC 248/705). This mix-turism, which constitutes living matter as a *modus vivendi* of organization (EC 250/707), is life as duration and aging.

#### 4 Vision that makes and undoes itself: the eyes of intuition

What routes does this ontological account of the materiality of life offer for rereading the Bergsonian theory of vision? And what possibilities does it open for eyes to see differently? We can map the theoretical extremes of which eyes are capable in Bergsonism through two readings offered by Merleau-Ponty. In his *Nature* lectures, Merleau-Ponty offers a critical reading of Bergson’s image of the canalization of vision through the eye: such canalized vision is a reduction in life’s power [*puissance*] to see; the eye is a compromise of adaptation without which vision would have been a seamless ‘I can,’ capable of infinite reach (Nature 62/92). In this sense, the materialization of vision in the eye is not creation but limitation. Yet this limitation is needed to make vision efficacious for Bergson (EC 93/575). More importantly, this is the vision that belongs to life both as action and as finite and creative *élan*. Bergson notes that an infinite vision would not be the concrete seeing of a living being, but the vision of a ghost (EC 93/575). This can be read in two directions. As a purely spiritual vision, a vision from nowhere, such seeing would have no hold or interest in the material present; it would be a vision of nothing. But in the context of *Matter and Memory*, such infinite vision would be the vision that Bergson imagines to belong to an ‘unconscious material point,’ a vibrating ‘image’ of light (MM 38/188). This purely material vision would be a ‘vision’ of everything, since it ‘gathers and transmits the influences of all the points of the material universe’ (MM 38/188). Such extension, however, comes at the cost of indifference, so that this ‘vision’ does not see anything in particular; it lacks the ‘discernment’ that would make it perception (MM 38/188).<sup>46</sup>

It is not by coinciding with spirit, or with matter, that vision becomes more expansive for Bergson, for we would lose thereby that which makes it vision. As the point of contact where life insinuates itself into and works on matter, concrete vision is at once spiritual and material, memory and body.<sup>47</sup> I would claim that a Bergsonian vision that could come to see more, or see differently, must already be a living and moving vision. This is the concrete seeing that has passed through the turn of experience (MM 184/321) and which, only by already being the vision of bodies and eyes, can be the basis for the effort of reversal and dilation that is intuition. Thus, a second description of Bergsonian vision can be found in *The Visible and the Invisible* and in ‘Bergson in the Making.’ In contrast with the ideal of immaterial vision that Merleau-Ponty criticizes in *Nature*, here Merleau-Ponty finds a way of seeing that is at once bodily and intuitive, material and temporal. For Merleau-Ponty, this is an ontological vision that sees *sub specie durationis* (Signs 184/232, citing PM 158/1392). It is a vision that sees for the sake of seeing, neither immobilizing the visible between the forceps of utility, nor grasping it as a collection of objects, but rejoining, from within, its temporal rhythms.<sup>48</sup>

The roots of this ontological vision, or intuition, can be traced to life as the site of split vision. Life, we saw, is at once action and the need to create. It is an activity that contains its structural undoing, for the stability of form and predictability of movement, which action desires, prescribe an intentionality that disregards processes and aims at objects. Life is distracted from its open futurity by a tendency to closure that is at once materiality and objectifying vision (intelligence). Since materialization is tendency, however, and not acquisition, a trace of the vital tendency continues within it, winding up what is being undone, insinuating openness and indetermination into closure, and holding on to the memory of what has been forgotten. Materialization is hence not only fabrication, but organizational structuring; vision is not only objectification but has the indetermination of living bodies as its ground, permitting its transformation. The eye, the body, live in this tension of inverse tendencies – without resolution or nullification – so that their structure reflects a becoming that is *being* unwound, and an undoing through which creation takes place. Such winding and unrolling do not, however, result in a reversibility whereby the effects of duration can be effaced (PM 164/1397). These are, rather, irreducible tendencies that coexist and interpenetrate in a dynamic structure of activity-passivity. Indeed, both tendencies are felt within the temporal passage, the interval of duration, that defines a living being.

It is in this sense that 'living consists in aging [*vivre consiste à vieillir*]' according to Bergson (PM 164/1397; translation my own). To age is to experience time in at least two ways. The weight of time is felt as material trace, so that the tendency that is the past becomes visible in its very dis-tension and tangential elaboration. Aging registers the passivity and unwinding of duration. In this vein, and to the degree to which 'materiality begets oblivion,' to age is to forget (MM 177/316; citing Ravaisson). But if this forgetting were absolute erasure, then material bodies would simply repeat the present (or immediate past), replay it *as it was*, without alteration. That living bodies mature and age (EC 15/507), however, means that their materiality is a forgetting, or unconsciousness, that holds at once an 'organic memory' (EC 19/510). Aging, then, is also memory. This memory does not only, or primarily, take the form of a conscious recollection of the past as image (PM 179/1411), but expresses the way in which 'all the past of the organism ... its heredity – in fact, the whole of a very long history' pushes into and makes a difference for its present (EC 20/511). In this context, 'the life of the body [should be seen] just where it really is, on the road that leads to the life of the spirit' (EC 269/723). The body does not simply receive the impetus of the past, which unfurls as material form and winds as organic memory; the life of the body – its movement, affectivity and aging – also makes a difference for the tendentious and winding movement of time. The living body is inscribed within time just as duration is registered in the body (EC 16/508).

Thus the eye should be read neither as object nor deposit (recalling the image of the canal or the imprint in iron filings), but as 'hyphen [*trait d'union*]' of duration (EC 22/513). If the formation of the eye is understood as the organic trace of memory, then it becomes possible to see how the eye is part of a dynamic and material history *that is not finished* – a history in which the response to the problem of light, the work of organization, but also social and individual habituation, action and expression all play a role. The eye is an organ that lives, that makes itself as it unfurls; this is the ontological sense that can be attributed to the eye as 'zone of indetermination.' The eye is the cinematograph through which life as vision may objectify and immobilize in view of utility, forgetting its inscription in duration. But since this forgetting is also an unconscious and organic memory that punctures the seeming closure of the present – since the interval of duration is never instantaneous – the eye also offers the means for imagination and creation (hence the importance of artistic vision for Bergson, EC 90/572 and PM 135/1370). The objectifying function of the eye may therefore be 'natural' without being inevitable or ahistorical. More importantly, it is on the basis of the temporality of this nature, because of their roots in the split vision of life, that eyes can come to see differently. Although the eye as organ of intelligence sees the world in terms of a teleology of fabrication – decomposing and reconstituting it into objects – the eye can, like language and other prostheses of intelligence, diverge from this objectifying tendency. As tendency, divergence and reversal are virtually implied within vision. Indeed, intuition is just such a 'conversion' or 'torsion' of vision upon itself, as Bergson makes clear at several points in his work (PM 138/1373–4, EC 237/696, see also EC 250/707–8).

In conclusion, I find three senses in which Bergsonian intuition carries through a reversal in vision as tendency. The first sense of reversal refers us back to the Bergsonian reduction – to see *sub specie durationis* – which in bracketing the exigencies of action and need allows us to see for the sake of seeing (EC 298/747). The potential for this reversal is based on the figure of the artist, whose vision Bergson describes as 'detached' from the attention to life, from habit and utility (PM 138/1373). Such inactive vision Bergson takes to be the model for philosophical seeing. But how are we to understand this detachment? For it is not a detachment from life, as need to create, that Bergson intends, but a detachment from life in the narrow sense of utility, and thus from the material tendency within life that inverts its vital movement. This detachment is not adequately understood if it is posited as disinterest or removal from life; it is rather a return to life and, as Bergson also says, a 'revivification of our faculty of perceiving' (PM 142/1377). This revivification evokes a second sense of reversal, that of effort. Intuition, Bergson notes, is difficult (PM 87/1328), since it goes against those habits of seeing that have become natural to us (PM 142/1377). It requires a violent and 'painful effort' (EC 237/696), an effort that can only be intermittent

and fragmentary, that begins to unwind as soon as it has taken place. The effort of intuition is hence necessarily hesitant. This difficulty and hesitancy reside, however, not simply in the resistance and recalcitrance of habit to intuition, but in the reality that intuition seeks to make visible. For the effort of intuition reattaches to the effort of *élan vital*, to the time of invention and hesitation that makes itself, as life, within an unwinding reality. In this vein, intuition can be read as performative.<sup>49</sup> Intuition is the very reality it seeks to recall, the reality of living being as effort and hesitation (PM 93/1333). Hesitation is not only the suspension of action, but also the reinstitution of the duration of life.

If the tendency of vision to objectify corresponds to, while extending, the material tendency within life, then its reversal not only puts vision into contact with life as creation, or the *élan vital*, it also reconfigures vision's relation to the past. In this third sense of reversal, intuition becomes dilated vision (PM 134/1369). Should we understand intuition as a faculty that sees more, as Bergson often describes it (PM 135/1370)? Such a quantifier is insufficient, I believe, to explain the torsion that intuition implies. Rather, the dilation that characterizes intuition points to a difference in kind, for dilation is reversal in at least two ways. On the one hand, intuition is the reversal of the tendency of objectifying vision to condense the enduring reality before its eyes into qualities and states, to immobilize movements into objects. A dilated vision sees according to temporalities other than its own, resisting the tendency to reduce and contract reality to its own rhythm. On the other hand, such a dilation cannot be obtained without a deeper connection to the past as a whole – the past as tendency. To see other rhythms and durations is to allow vision to go beyond the perceptual present and to avoid the reduction of the past to the immediate past that takes place in objectification. In this sense, intuition is a temporally dilated vision; we could even say that it is a memorial vision. For if, as Bergson maintains in 'The Perception of Change,' the field of the present varies with our interest and attention, then intuition will be the effort to dilate this aperture so that the present itself appears as tendency, as movement rather than punctuality, making visible the force of the past (PM 152/1386). To see in this way, however, cannot be to see more of the same, to make the past into a representation or objectified presence. Rather, it is to feel the power of an unconscious memory (PM 32/1273), or creative *élan*, that makes and undoes itself in us, and that is revealed in those moments of hesitation. To see more must therefore be to see and to live differently.

## Notes

1. Henri Bergson, *Creative Evolution*, trans. Arthur Mitchell (Mineola: Dover Publications, 1998). Hereafter cited parenthetically as EC. All page references to Bergson's work are to the English translation followed by the pagination of Henri

Bergson, *Œuvres*, Édition du Centenaire (Paris: Presses Universitaires de France, 1959).

2. In Henri Bergson, *The Creative Mind: an Introduction to Metaphysics*, trans. Mabelle L. Andison (New York: Carol Publishing Group, 1992), translation of *La pensée et le mouvant*. Hereafter cited as PM.
3. Henri Bergson, *Matter and Memory*, trans. Nancy Margaret Paul and W. Scott Palmer (New York: Zone Books, 1991). Hereafter parenthetically cited as MM.
4. Keith Ansell Pearson, *Philosophy and the Adventure of the Virtual: Bergson and the Time of Life* (London: Routledge, 2002), 91–3.
5. Frédéric Worms, *Bergson ou les deux sens de la vie* (Paris: Presses Universitaires de France, 2004), 181.
6. Although this second thread can be read as a response to the deficiencies of the first, there is not room to explore the first thread further in this chapter.
7. Ansell Pearson, *Philosophy and the Adventure of the Virtual*, 137–8. See also Elizabeth Grosz, *The Nick of Time* (Durham: Duke University Press, 2004), 201–3.
8. Maurice Merleau-Ponty offers such a critical assessment in *Nature: Course Notes from the Collège de France*, comp. Dominique Ségard, trans. Robert Vallier (Evanston: Northwestern University Press, 2003), 62–3; *La Nature: Notes, Cours du Collège de France*, établi et annoté par Dominique Ségard (Paris: Éditions du Seuil, 1995), 92. (Hereafter cited as 'Nature' with English pagination followed by French.)
9. The magnetism of the iron filings should evoke this spontaneous power (EC 99/579). However, this remains a mechanical and predictable, repeatable, reaction to the movement of the hand and not a vital response.
10. Although the image of canalization is supposed to deepen the 'superficial differences' initially presented between organization and fabrication (EC 92/574), it represents a shift: it is one thing to recognize the surplus of organized matter to fabricated machine, another to identify that surplus as invisible movement, separable in principle from matter. Bergson's sense of 'canalization' should thus also be distinguished from the biological use of the term, introduced by C. H. Waddington later in the century.
11. This utilitarian teleology includes a 'retrospective illusion' (see below), so that action goes from one represented state to another without attending to the interval of duration in between.
12. Bergson speaks of the condensation of qualitative movement into qualities, the solidification of evolutionary movement into forms, and the translation of extensive movement into immobile schemas or discontinuous acts (EC 300–3/749–51).
13. 'Inner' and 'outer' indeterminations should not be read as a return to the subject-object dichotomy. Rather, both forms of indeterminations take place within the material universe: by insinuation *into* material structures, or projection *onto* matter in the form of possible action.
14. Even plant life has a kind of consciousness for Bergson, albeit nullified or asleep (PM 92/1332).
15. Recalling 'pure memory' in *Matter and Memory*.
16. And ultimately consciousness.
17. Renaud Barbaras, *Introduction à une phénoménologie de la vie* (Paris: Librairie Philosophique J. Vrin, 2008), criticizes Bergson for holding a double concept of life that fails to think the intransitivity of survival together with the transitivity of creation; life is either a transcendent principle adverse to matter, or a utilitarian adaptation to matter (145–56). I aim to show how this tension can be reconciled in Bergson.

18. Maurice Merleau-Ponty, 'Bergson in the Making,' in *Signs*, trans. R. McCleary (Evanston: Northwestern University Press, 1964), 187; *Signes* (Paris: Librairie Gallimard, 1960), 235. Hereafter cited as 'Signs' with English pagination followed by French. Merleau-Ponty is drawing on EC 105/584.
19. Despite Bergson's rejection of dialectic, both Jankélévitch and Merleau-Ponty find an implicit dialectic, without synthesis, in Bergsonism. See Vladimir Jankélévitch, *Henri Bergson* (Paris: Presses Universitaires de France, 1959), 170.
20. These two senses of need are reflected in Bergson's terminology. In *Matter and Memory*, Bergson describes the futurity in terms of which perception sees the world as 'possible' or 'virtual' action, taking these as equivalent. The critique of the idea of the possible, as retrospective illusion, comes in the later 'Le possible et le réel' (PM). The question of which term applies in the context of Bergson's theory of visual perception is significant: do we see the world in terms of 'possible' actions, which mirror past situations and habitual schemas, or 'virtual' actions that would create new openings for conduct, hitherto unforeseen, where the past makes a difference for the future?
21. See Ansell Pearson, *Philosophy and the Adventure of the Virtual*, 80, 95–6.
22. There exists a subtle ambiguity in Bergson's account: is life a multiplicity of tendencies (EC 53/540) or a tendency that multiplies, creating divergent directions (EC 99/579)? The answer must be both. This is due not only to the difficulty of applying a numerical framework of unity and multiplicity to life (EC 258/713–14), but also to the nature of tendency (and pastness) as virtual difference within itself and actual divergence from itself, as developing 'in the form of a sheaf [*gerbe*]' (EC 99/579).
23. Gilles Deleuze, *Le bergsonisme* (Paris: Presses Universitaires de France, 1966), 108.
24. This question recalls Bachelard's famous critique of Bergson's philosophy as continuism. See Gaston Bachelard, *La dialectique de la durée* (Paris: Presses Universitaires de France, 1950), 7, 24–5. It is Jankélévitch who describes Bergsonian creation as 'stuttering [*bégaiement*]' (Bergson, 176).
25. Renaud Barbaras has shown the importance of the Bergsonian critique of the idea of nothingness for the later Merleau-Ponty. See *Le tournant de l'expérience: Recherches sur la philosophie de Merleau-Ponty* (Paris: Librairie Philosophique J. Vrin, 1998), 49.
26. See Florence Caeymaex, 'Négarité et finitude de l'élan vital. La lecture de Bergson par Jankélévitch,' in *Annales bergsoniennes IV: L'Évolution créatrice 1907–2007: épistémologie et métaphysique*, ed. Anne Fagot-Largeault and Frédéric Worms with Arnaud François and Vincent Gullin (Paris: Presses Universitaires de France, 2008), 630.
27. See Jankélévitch, *Bergson*, 173–4; Caeymaex, 'Négarité et finitude,' 634.
28. With which Merleau-Ponty was familiar (Nature 62–3/92–3), though he draws from it a more critical reading of Bergson than I find there. See Jankélévitch, *Bergson*, 166–81.
29. Bachelard, *La dialectique de la durée*, 23.
30. Thus the same critique applies to Sartre's negativism as to Bergson's positivism, according to Merleau-Ponty (Nature 70/101–2).
31. For the importance of 'mixturism' in Merleau-Ponty, see Leonard Lawlor, *The Implications of Immanence: Toward a New Concept of Life* (New York: Fordham University Press, 2006), 71–9. While the Merleau-Pontian mixture is based on nondifference or indivision, as Lawlor shows, I find the Bergsonian mixture to be based on the immanent movement of tendency, generative of difference.

32. The notion of 'tendency' is surprisingly underdeveloped in Merleau-Ponty's reading of Bergson.
33. See Bergson's reference to Plato's *Phaedrus*, EC 156/627. Deleuze makes this into a central methodological principle of Bergsonian intuition (*Le bergsonisme*, 11).
34. To avoid the dichotomy of spiritualism or materialism – and that of vital monism without outside or dualism of substances without interaction – Bergson proposes a monism of duration with a duality or multiplicity of tendencies (as both Deleuze and Jankélévitch have shown).
35. This chapter has given rise to a number of famous commentaries. In addition to Jankélévitch and Merleau-Ponty, see Deleuze, 'Cours sur le chapitre III de *L'évolution créatrice* de Bergson,' présenté par Anne Sauvagnargues, in *Annales bergsoniennes II: Bergson, Deleuze, la phénoménologie*, ed. Frédéric Worms (Paris: Presses Universitaires de France, 2004), 167–88.
36. To borrow a phrase from Merleau-Ponty.
37. Jankélévitch, *Bergson*, 173–4.
38. Thus Bergson replaces the image of the hand in iron filings, from chapter one of *Creative Evolution*, with two images in chapter three: jets of steam from a pressure cooker condensing and falling, while some droplets remain partially suspended, and the creative gesture of a raised arm, coming undone (EC 247/705).
39. John Mullarkey, *Bergson and Philosophy* (Notre Dame: University of Notre Dame Press, 1999), 80–1.
40. See Jankélévitch, *Bergson*, 175.
41. *Ibid.*, 174.
42. This follows from Bergson's argument, in the same chapter, that the interruption of order leads not to disorder but to another kind of order. Although Bergson's argument also states that the two orders are mutually exclusive, this should be understood to apply to actualized orders not tendencies.
43. Caeymaex, 'Négarité et finitude,' 635–8.
44. To recall the sense of the French word *élan* as both impetus and momentum.
45. If materiality is also tendency, then we can reconcile two causes that Bergson provides for the division of life into evolutionary lines: the resistance of matter and the unstable multiplicity of tendencies (EC 98–100/578–80, 259/714).
46. In 'Bergson in the Making,' Merleau-Ponty calls this 'that imminent or eminent vision Bergson glimpsed in things' (Signs 187/235), equating it with perceived being or phenomenality. Unclear, however, is whether Bergson meant the vision of an 'unconscious material point' to be more than a thought experiment, revealing precisely the non-indifference of perception.
47. Distinguishing concrete perception from the theory of pure perception in *Matter and Memory*.
48. Maurice Merleau-Ponty, *The Visible and the Invisible*, ed. C. Lefort, trans. A. Lingis (Evanston: Northwestern University Press, 1968), 128; *Le visible et l'invisible, suivi de notes de travail*, établi par C. Lefort (Paris: Éditions Gallimard, 1964), 170. (See also Signs 184/231 and EC 298/747.)
49. See John Mullarkey, 'Breaking the Circle: Élan Vital as Performative Metaphysics,' in *Annales bergsoniennes IV*, 596.