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*The first synthesis of time*

*THE LIVING PRESENT*

You've been back in the old village a week now. The scars on your knuckles from the old water pump are beginning to heal. The rubber seals on its valves are perished. Early on, each attempt to draw water led to a finger-crushing blow, little usable water and curses of frustration.

Now, your body has learnt to use a short, staccato pumping action. It preserves your hand and yields a reliable if acrid flow of water, as your arm stops short of the rusted metal on each down stroke. The body and brain have absorbed the earlier injuries and later experiments into a trained and automatic action. Failure and pain at the beginning of the week, muscle ache and cautious practice in the middle, have contracted into an unthinking movement, resistant even to your haste in thirst and sickness. Like the sips on water with closed nasal passages warding off gagging on the metallic taste, a smooth and self-enclosed gesture pulls together a series of past processes, some deliberate and others unconscious, such that the current motion is a *passive synthesis* of earlier events.

Habitual gestures such as these support Deleuze's claims about contraction in his account of the first synthesis of time in chapter II of *Difference and Repetition*. Following Hume's account of habit and the role of imagination in drawing together different impressions, he insists on excluding understanding and memory from the contraction of the past in the present: 'It is above all not a memory, nor an operation of the understanding: the contraction is not a reflection' (DRf, 97). In conscious reflection we pull images from

memory and analyse them with the understanding. In the experimental moments around the pump, memory of the blows, rapidity of stroke and record of scarred tissue were articulated with the concept of what the safe stroke might be. Memory and understanding worked together as reflection. You essayed the results of the combination of these faculties in slow motion, gradually speeding it up, until satisfied that water could be produced free of bloodletting. For Deleuze, there may well be reflection in the preparation of habitual movements, but it is thanks to the imagination that those preparatory movements are finally contracted together into a movement going beyond each instant of reflection and practice.

How though can Deleuze claim that the past is not synthesised by memory and understanding, since there can indeed be reflection preparing for a trained movement or a novel act? Like engineers designing a water pump, you drew on memories or records of the past, allied them to a current state of understanding and designed a novel movement or apparatus. Does it matter that this can then lead, perhaps only in rare cases, to an automatic and unthinking passivity? This unconscious movement still rests on conscious activity and on records of memory just as much as a new pump design rests on the blueprints of earlier models and on textbooks on the forging of metal, water flow, elasticity of chemical compounds and mechanics of valve action. Why is contraction not found in conscious memories or concepts, but rather in a passive movement guided by imagination?

To answer the question, let us turn to the problem outlined in the opening passages of chapter II of *Difference and Repetition* and to the topic indicated by its title. First, Deleuze has set his account of the syntheses of time within a defence of 'repetition for itself', that is repetition understood not as the repetition of some thing the repetition is 'of', but rather the condition for repetition prior to any consideration of a repeated thing. Under what conditions can we say that there is repetition? The obvious answer seems to be 'when we recognise that a thing has been repeated'. Yet this is the answer Deleuze's opening premise works against. The opening paragraphs of the second chapter raise a paradox for the answer: *there is no repetition until a connection has been drawn between two things*. When two things merely follow one another and no connection is made between them, they remain independent. But repeated instances must be independent, 'by right' Deleuze says, meaning analytically, since each thing could by definition just as well not be repeated. There is nothing in the thing that makes it necessary for it to be

repeated or be repeated in a particular way or series. Given any thing, we can conceive of a course of events where the thing ceases to be and is not open to repetition. Many times we have expected a repetition and been disappointed when a part fails or resource runs dry.<sup>1</sup>

So repetition must take place for – or thanks to – something outside the repeated things. This raises another problem. From the outside there must be a difference between the repeated things for repetition to be registered, for without such a difference, there is only one and the same thing and not a repetition. This is a case of Deleuze's reliance on Leibniz's law or the principle of the indiscernibility of identicals: '... no two substances are entirely alike and differ only in number' (Leibniz, 1998: 60).<sup>2</sup> Despite the strangeness and novelty of Deleuze's philosophy of time, or perhaps because of it, he is often able to bypass or transform famous paradoxes from the history of philosophy while relying on their premises. *The paradox of repetition is then that although it is defined as the repetition of something that is the same, it can only be the repetition of a difference for something that is not the repeated thing.*

A downstroke of the pump followed by another is not a repetition, until the two are drawn together as in some way different from one another yet repeating nonetheless. Perhaps you notice a slightly increased flow of water, perhaps a little less resistance in the valve, perhaps you are counting the strokes: either way a difference underpins the repetition and that difference is not for one stroke or the other, but rather between the two and for you in the increase in flow or resistance. So if you repeat the movement a third time, this is a repetition of the first two thanks to your expectation of a difference in the coursing of water, or the effort in your arm muscles, or the sequence of numbers, all registered in your mind:

Repetition (but, exactly, we cannot yet talk of repetition) changes nothing in the object, in the state of things AB. On the other hand, a change takes place in the mind that contemplates: a difference, something new in the mind. When A appears, I now expect the appearance of B.

(DRf, 96)

This raises new questions. In our example, the difference could be seen as primarily in the increased flow, not in the mind, or only in the mind because it is also really in the flow. But Deleuze and Hume's point is that this increase is itself independent of earlier and later moments until it is registered externally. It is insufficient

for a conception of repetition until it is connected to the earlier moments in the contemplating mind.<sup>3</sup> Why, though, is a third external term necessary between two things for there to be a repetition? Another question is also raised by our example: could we not include the mind in things repeated, thereby returning repetition to the repetition of repeated things? The answer to this second objection is easier to detect than the first. The inclusion of the mind in things repeated would merely lead to a regress and to the problem of what unites repeated instances in the mind, a problem Hume and Deleuze respond to through reference to the imagination and, as we shall see, Deleuze also responds to through the idea of the living present.

Two remarks allow for an understanding of the relevance of this work on repetition to Deleuze's philosophy of time. First, time is the formal case of the paradox of repetition. Any repetition is also a repetition of the instants identified with it. What draws repeated instants together such that we can speak of time as the synthesis of those instants, if these are in fact logically independent, if there is no necessary internal connection between them, or if, more properly, the very notion of repeated instants implies their independence? *Thus Deleuze is attempting to explain the relation of instants in time, without having to rest on an answer claiming that instants either somehow imply one another or are somehow contained in a larger entity that they are a subset of.* The former possibility would be unsatisfactory for the reason given earlier about repetition: there is no analytical reason why any particular instant should necessarily be connected to any other. The latter fails because we would then have to explain how a property is shared by all instants such that they belong to this wider set, once again setting up a connection between them where there is none to be observed. The second remark is that Hume's reference to the contemplating mind is only a special case of any contraction, rather than the original condition for any repetition. *Repetition does not require a mind, it requires a contraction. Repetition does not take place in time, but rather time – or one of the syntheses of time, the first one – is a contraction: 'Properly speaking, [contraction] forms a synthesis of time' (DRf, 97).*<sup>4</sup> So when we questioned the necessity of mind as a third external term witness to repetition, that was not quite the right problem, or rather Deleuze's treatment moves beyond it by insisting that we do not require a mind as such but a process connecting repeated things. This process is contraction. In the counter-example presented earlier, the response would therefore be that he is demonstrating the necessary contraction between

one flow and another such that there can be a subsequent judgement of 'increase' between the two.

For Deleuze, if we are to have an account of time resistant to the problem of the independence of the instants of time, that is, to the problem of what allows for the connection of those instants, then we must explain how they are brought together in repetition. He calls this contraction an 'originary' synthesis. It is important to distinguish this from an original synthesis. The contraction is not a ground for something else, or a first, or prior, or essential synthesis. Rather it is originary in the sense of giving rise to time; time is made by contraction, it neither pre-exists it nor stands as a condition or container for it. In stating that contraction forms a synthesis, Deleuze is setting time as something formed by a process: a contraction. The distinction drawn between original and originary will be important when we turn to the question of the relations of the three syntheses of time to each other. The first synthesis is originary in that it gives rise to a certain facet of time, but this does not imply that this facet is original or a first foundation for the other syntheses. What, though, guarantees that this originary process cannot be an operation of the understanding and memory? Why in principle could we not give a formal account of all contractions as collections of memories, computed thanks to a given understanding, then leading to a particular action? Why describe contraction as passive and the process of time as a passive synthesis?

A further answer to these questions lies in Deleuze's description of this first synthesis of time as the living present. The contraction of repetitions is a process that gives rise to the living present. Time unfolds thanks to this present, that is, past and future events meet in it, rather than remaining separate entities with no interdependence. In this living present, the past is constituted through a process of retention whereby past events are retained together in the lived present, for instance in the way a stroke at the water pump retains all the earlier attempts it has learnt from. The future is constituted through anticipation. Future events are synthesised by being anticipated, looked forward to or awaited in the living present, for instance, in the way a learning stroke in the present anticipates future strokes and improvements by driving towards them. This leads Deleuze to make the claim that past and future are only dimensions of the living present with no existence distinct from their contraction in it. The future and past as living present become conditions for the past and future conceived as separate from the present, because without the living present they are not synthesised

and have no existence as a time that unfolds and coheres. By stretching the present into syntheses of past and future events, Deleuze thus goes beyond the traditional idea that past and future have to be thought from a present instant, the 'now'.<sup>5</sup> The living present passes from past to future, as its dimensions, by synthesising them in retention and anticipation: retention leads into and feeds an anticipation; anticipation rests on and drives off from retention. It is here that we can detect a reason why the synthesis must be passive, since even if some aspects of the processes where the past and future are made can be traced to acts in the living present, these acts themselves depend on passive syntheses far exceeding what could be contained in any one calculation, understanding and set of memories set as conditions for them: '[The synthesis] is not made by the mind, but is made in the contemplating mind, preceding all memories and all reflections' (DRf, 97).

Deleuze's argument for passive synthesis in the living present is therefore an argument about the conditions for synthesis. More precisely it is a deduction of the conditions for particular properties of past and future events in the living present as contraction involving a past and future dimension. An activity, the tensing of a muscle, say, must synthesise earlier movements and later ones. However, Deleuze is interested in a further question about the genesis of that act itself as retention and expectation. The conscious activity and its relation to memory do not contain all the movements, past and future, that it contracts:

The living present therefore goes from past to future that it constitutes in time, that is as much from the particular to the general, from the particulars that it envelops in contraction, to the general that it develops in the field of its expectation (difference produced in the mind its generality itself, insofar as it forms a living rule of the future).

(DRf, 97)

The particulars referred to in this passage are actual events in the past as contracted through retention. They are particular because they actually occur, as contracted in the living present. Thus, for instance, we could trace back a series of past movements leading to a given gesture. The future events though are not actualised. They are general possibilities (not potentials). Moreover, as passive, they are general possibilities as yet not even conceived of in a mind, but rather set as a general condition for any forward momentum. The important step in the argument is then that any activity, defined as an action with a set of past memories enacted towards a set of

future possibilities, cannot include all the particulars and generalities that it retains and expects. Along with Paul Patton's excellent translation, I have kept the French term '*attente*' as expectation here, but there are risks in this from the point of view of a restricted meaning of the term as 'expecting this or that' in the sense of 'conceiving and intending this or that outcome'. It could be better to use 'awaits' rather than 'expects' to give a sense of waiting free of restricted and particular conscious content. As we shall see shortly, this option is supported by Deleuze's use of 'contemplation' in the same paragraph.

Many more particulars and generalities constitute a movement than its definition as an action can account for. Contemplation is therefore not a form of conscious consideration or aiming towards, but rather a form of unconscious receptivity. The active mind makes decisions upon actions, and though this action transfers from a set of past particulars to a set of future generalities, the mind is itself operated on by greater retentions and generalities. As such, *even in activity the present is contemplation, that is, passive absorption and transformation of retained particulars beyond the set considered in an action.* The argument here has many implications. Deleuze's point is that passive contemplation is presupposed by action, since the particular and general selections made by action not only presuppose wider sets they are cut out from, but, more significantly, they are also effects of those sets. What this means is that any action is also a passive retention and expectation, for instance, in terms of conscious action, through unconscious and unconsidered effects, as well as possible yet non-conceived general outcomes.

Conscious activity is only a case of action in Deleuze's argument and definitions. Although his study is framed around the human mind given its context in Hume's work on the imagination, the distinction between activity and passivity does not turn on a distinction drawn between human activity and passivity. On the contrary, passivity and activity are distinguished as processes where passivity is a form of retention and of expectation that is not related through a process selecting particular past events and associating them with a restricted number of general outcomes. This latter process is activity, but passivity is the wider condition for any active process. Passivity cannot itself be an active process, that is, it cannot be determined as a restricted operation from past to future. Conscious calculation is a sub-case of activity. Human passive contemplation is a sub-case of contemplation. A mechanical computation of the best pump design from a group of designs for a particular flow of water

given a particular power source is thereby also a form of activity. Perhaps more surprisingly, it also presupposes and is the effect of a form of passivity, whose many types include malfunction under certain conditions, non-computed variations in flows, wear, faulty interaction with other machines and so on. This explains Deleuze's distinction drawn between a passive synthesis and an active one in the mind. A passive synthesis happens in the mind, in the sense that retention and expectation as determined according to paths through particulars and generalities meet in the mind and transfer from past to future. Active synthesis is operated by the mind, made by the mind, in the sense where a property of the mind fully determines the selection of particular parts of the past and possible outcomes. Note, though, that this determination could equally be a property of an algorithm, chemical genetic process or computer program and these count perfectly well as active, rather than passive.

This puts us in a position to think again about the definition and role of the living present in Deleuze's work. We now know that it determines time as a contraction of the past and of the present, but in different ways. Particular past events are contracted into an individual contemplation that is passive rather than active. General future possibilities are prefigured according to this contemplation and an expectation or 'awaiting'. The living present is therefore a process ascribing an arrow to time, from past to future, through the asymmetric nature of the two processes. Why does the arrow move in this direction? Why can't it go from future to past? It is because once the future is defined as the process of expectation, there is no general series of possibilities until we have a process of retention of particulars that then allow for generalisation. The passage is from particular to general and not the reverse: 'Passive synthesis, or contraction, is essentially asymmetrical: it goes from past to future in the present, thus from the particular to the general, and thus orientates the arrow of time' (DRf, 97). Without the prior process of retention we would have no general outcomes for a waiting to tend towards. Given general outcomes do not move towards given retained particulars because then there would be no expectation, notion of the possible, or fan of probabilities, but instead a fixed, though open set of past particulars. Asymmetry, a key term in *Difference and Repetition*, therefore here refers to the essential difference between particulars and generalities, where the former are actual and retained and transformed in the present and the latter are possible and expected in the present. There is no symmetry between the two because any

set of particulars determines a much wider set of generalities, yet also, any given set of generalities neither determines nor includes a set of particulars.<sup>6</sup>

This in turn allows us to discount two interpretations of the living present. It is not a psychological term in Deleuze, as in a psychological state of retention and one of expectation. Instead, both are general and base processes that can take place in many different entities (human, animal, vegetable and mineral, mind, computer, biological system). The first synthesis of time is therefore a very pure definition of the present as process, distinct from the present as present instant for consciousness and from the present as one of three distinct parts of time (past, present and future). Instead, the synthesis draws past and future into the present as two different processes related together in the living present, that is, a process that passes from the retention of the past into the expectation of the future, not as psychological, nor as phenomenological (in the sense of qualities of intention), but as formal processes bearing on different things (particular and general) and setting them into relation. Thus, in the living present, we find Deleuze coining a new usage of the term 'subject', where the subject is no longer the subject of an action, nor therefore the human subject, but rather a passive subject, that is, the subject of a determination that is itself not the active decider or self-sufficient principle for this determination but rather the transformer between past particulars and future generalities explaining this determination through processes exceeding it and that it is passive to: 'Time is subjective, but it is essentially the subjectivity of a passive subject' (DRf, 97). In other words, time is a determination of wider sets and is therefore subjective in relation to an individual determination, but no final explanation or principle of that determination can be found in a particular actor in that process; instead, the central actor – the living present – is itself a passivity and effect of wider processes.

To sum up the argument for the necessity of the living present: it is necessary because in any repetition the repeated terms have no connection until they are synthesised. This synthesis takes place as the first synthesis of time, that is, as the way past particular events reciprocally determine future general ones asymmetrically, or determine each other in fundamentally different ways. Here, 'to determine' means to establish relations through a selection. For instance, when we select a given gesture as the right way to avoid crushing our knuckles on a broken pump we select a path through earlier gestures, which ones are to be repeated, which not, and we

select a set of possibilities in terms of expected outcomes, what we expect to happen, what we do not. *Determination is therefore a relating and bringing of order and priority: out of a chaos of unrelated particulars, paths are selected.* These paths then allow for the setting of an order and existence of possible general expected outcomes, while the expected outcomes allow for the setting of the path *but not the existence of the particulars* – hence the asymmetry and the arrow of time. Put very starkly, there is no repetition, no relation between actual events and possible events, and no relation between instants, without the living present. This is a very strong condition in Deleuze's philosophy, to the point where when we spoke of synthesis being external to its terms, this was a question built on a presupposition that Deleuze's philosophy only allows for hypothetically: that repeated things exist outside their synthesis. In fact, empirically we only encounter relations and speculatively we assume that this will always be the case.

#### SYNTHESIS AND METHOD IN THE FIRST SYNTHESIS OF TIME

There are broader questions raised by Deleuze's introduction of the living present in the opening paragraphs of chapter II of *Difference and Repetition*. These are questions of philosophical method. They can be traced in the closing remarks set out above through the appeal to empirical observation and to an as yet ill-defined term: synthesis. Deleuze's argument is explicitly empirical for the description of the processes of retention and expectation 'When A appears, we expect B with a force corresponding to the qualitative impression of all contracted ABs' (DRf, 97). That processes of synthesis are required is not empirical. It is a logical deduction from the independence of instants. That the processes are conditions for one another in relations of asymmetrical determination is not empirical. It is transcendental, in the sense of the deduction of necessary conditions across different realms (in this case, from actual events to possibilities). However, that there are actual syntheses, rather than just hypothetical ones, is a matter of observation and, here, Deleuze's argument is open to difficult questions. Why depend on Hume's distant observation, rather than contemporary scientific observations (either psychological or in neurology)? Why not turn to the resources of phenomenology, for instance, in Merleau-Ponty's work on perception?<sup>7</sup>

A first clue to an answer can be found in the distinction drawn between empirical and formal in terms of Deleuze's discussion of

types of processes. He passes rapidly from empirical remarks to speculative ones about the formal properties of processes and it is this passage that distinguishes his work from more thoroughly scientific empirical observation or phenomenological transcendental work. In the first case, Deleuze is setting out a speculative formal frame on the basis of a sketchy empirical observation. This means that his empiricism combines this observation with the creative construction of a speculative philosophy (with logical and transcendental moves, as we have seen). This partly explains the difficulty of setting down a label for his philosophy: it is empirical, speculative and transcendental. It also invites a deep worry, since there is a danger of failing in each of these moves and standing as poor (unscientific) empiricism, (non-rigorous) phenomenology and (logically deficient) speculative philosophy. There is though a more hopeful counter to this worry. The best philosophy, that is, one that is not stuck with mistaken presuppositions about thought's legitimate status as pure empiricism, phenomenology or speculation, might well be one that uses the resources of all three, on the basis of careful research on them through the history of philosophy, to avoid each one's tendency to impose a view of reality and of thought that is erroneous exactly because it excludes input from the others.

This combination of work on the history of philosophy, empirical observation, speculation, logical analysis and transcendental deduction can be followed in the third paragraph of chapter II of *Difference and Repetition*. There, having established the priority of passive synthesis and the living present, Deleuze works back through his arguments in a reading of Hume in order to show how the separation of instants and of particular past events and general possibilities cannot be conditions for the synthesis. The synthesis is not a synthesis of separate things. On the contrary, synthesis is a condition for the conception of such separation but also for the demonstration of its incompleteness and secondary nature. That is why he starts the paragraph with this difficult statement: 'In considering repetition in the object, we remained short of the conditions that render an idea of repetition possible. But in considering change in the subject, we are already beyond them, in the general form of difference' (DRf, 97). What this means is that repetition cannot be thought of as either the repetition of objects, which explains why Deleuze presented such an approach as leading to a paradox, or as repetition in the subject, which explains why it would be a mistake to associate his reading of Hume with an interpretation of both philosophers as setting down the human mind

as the condition for repetition. The Patton translation of these two sentences is therefore somewhat misleading by giving 'en-deça' as 'within', rather than 'short of', and by eliding the past tense that makes it clearer that Deleuze is commenting on his own opening paragraph and method.

The thesis that repetition escapes both objective and subjective study shows why Deleuze can appeal neither to brute empiricism, nor to simple phenomenology. This is because both involve presuppositions setting aside repetition and time for themselves. Yet this causes immense methodological problems, since how can we start a philosophical investigation without doing so either on objective or subjective grounds?<sup>8</sup> Deleuze's solution can be found in his combination of methods and, in particular, in its speculative side. As we have seen, Deleuze begins with a reflection on the object but only in order to demonstrate that it leads to a paradoxical dead end when taken purely on its own terms: the object cannot be the ground for a definition of repetition because there is no necessity for repetition in the object alone. For instance, even in an object defined apparently as requiring necessity, in a mass-produced circuit board where the mode of production seems to imply repetition, say, it is possible to envisage that the first real suchlike object off the assembly line could also be the last when the quality inspection notices a fatal imperfection. Deleuze's speculative approach allied to his deduction of transcendental conditions is designed to take such paradoxes as productive for his philosophical thought. As we have seen, he therefore proceeds from an observation of the failure of a grounding of repetition to the speculative explanation of such a failure in a prior synthesis in retention and expectation in the living present. This renders the appeal to the object itself speculative and justifies its cursory nature. There is no need for anything more than a passing study of the object here because what counts is the formal deduction of the paradox, itself inherited from Hume.

The sentence after the statements on objects and subjects testifies to the difficulty of Deleuze's approach, but also to its inherent philosophical values of careful and tentative self-critical enquiry: 'And the ideal constitution of repetition implies a sort of retroactive movement between these two limits' (DRf, 97). Repetition is not objective nor subjective but ideal, where ideal does not mean 'of an idea in the human mind' but rather 'of ideal relations as condition for actual differences' (as described in chapter IV of *Difference and Repetition*, 'The ideal synthesis of difference'). At this stage though, Deleuze is only able to indicate indirectly and metaphorically what

this synthesis might be as a 'sort' of movement and 'weave'. It is only four pages later in the French edition of the book that, as we shall see, Deleuze deduces this weave as two-fold relations of difference and of repetition as conditions for integrations and differentiations, as moves to the integral object and to a multiplicity of passive selves. First, though, he proceeds to trace the oscillation between object and subject more precisely, this time not through a study of repetition in relation to the object, but rather in the subject. We have already seen how the subject involved is not the subject of an action. Now, he will show how synthesis as contraction cannot be identified, even after the fact, in memory or understanding in a subject. *Time and synthesis, as well as the living present, cannot be subjective in the sense of properties of the understanding or memory of a thinking subject.*

His demonstration of this focuses on Hume's work on the imagination and draws out a number of key remarks and terms. These are significant because they expand on an earlier puzzle. Deleuze's argument depends on the claim that grounding repetition on the subject involves presuppositions about the form of repetition, but unlike the work on the paradox in the objective approach, we have not seen how exactly. That is what Deleuze will now show. According to his reading of Hume, memory, as represented conceptually, contains particular memories or represented events in their own distinct times and spaces; for example, 'my crushed hand on the pump two days ago' as distinct from 'my healing hand on the pump yesterday'. This memorised past can be distinguished from the past in retention in the living present because in the latter a series of events is synthesised such that they are inseparable. As we saw earlier, the past is concentrated in the living present and does not have a distinct existence. What is more, this concentration in retention must draw past events together because their reality is only through their retention as a series, which is itself a prior condition for any later separation of the series in memory. The same is true for anticipation, where the movement towards a concentrated series of fused general abstract events is separated by the understanding into a set of weighted distinct possibilities. This weighting is done through a scale of probability based on frequency of earlier separate events in memory where, in line with Hume's work on probability as a solution to the problem of induction, something that is recorded many times in memory is given a higher probability.<sup>9</sup>

Deleuze draws two far-reaching conclusions on time and repetition from these remarks. First, repetition implies three moments: a passing away of objective instants due to their unrepeatable

nature (a passing leading to the paradox of unrepeatable things); passive synthesis in contraction; and reflexive representation in active memory and understanding. Note that repetition implies all three such that it would be an error to say that it is only passive synthesis: a temptation that must be avoided because it dismembers Deleuze's model and locks it into a focus on a transcendental realm separated from an actual one of passing instants and incomplete represented objects and subjects. Note also, though, that the status of each is different according to an order of priority set according to conditions and determinations (as was also the case earlier in terms of the arrow of time, determined through the relations of particular and general, and past and future). If we insist on one or other of the implied moments at the expense of the others, we miss their relations of reciprocal determination and cut up a philosophy at one of the points where it is insisting on the fateful misrepresentation implied by such distinctions. Second, Hume's study feeds into Bergson's work on memory and on the problem of separate things (each stroke of four bell rings) also being one thing (four o'clock ringing out). The relation between them lies in layers of syntheses and distinctions, all related through conditioning determinations.<sup>10</sup> Orphaned events or the passing instants are the condition for a passive synthesis, which is also the condition for their repetition. This synthesis is itself the condition for a later separation according to representations in memory and understanding, separation which is itself the condition for reproduction and reflection of those syntheses. Each one of these is necessary in Deleuze's speculative presentation which therefore has many methodological facets: *expression* of individuation in the living present (duration in Bergson and imagination in Hume), *representation* of identity in memory and understanding, *creation* of syntheses in a thinking of the relations of the other two and all presupposed ideal relations.

The power of Deleuze's speculative model is set to work straight away and is therefore also tested by him in a comparison of Hume's and Bergson's examples.<sup>11</sup> There are two types of dissimilarity. First, Bergson's example is of a closed repetition (four strikes only) whereas Hume's is open-ended (a series of AB couples without end). Second, Hume's involves cases of AB couples whereas Bergson has repeated undivided elements or strikes. A case involves an internal difference. An element is supposed to be whole. What Deleuze is now able to do, though, is reflect on the significance of these differences on the basis of his model. He concludes that the

two examples imply one another. This is because the four strikes also constitute cases, because as four o'clock strikes or unfolds, the first two strikes are an AB couple, then so are the second and third, and then the third and fourth. It is only when the four strikes are over that they can be conceived as a set of four separate elements. The strikes are also open, because the four strikes can be opposed to five, and therefore another AB couple, and so on through all the dimensions of time that include the four strokes. Equally, though, the cases are also elements when they are repeated, when we pass from an AB case to the repetition of two ABs for instance. This latter two-fold AB is itself closed and implied by the open series that exists only in the abstract.

What matters, though, is that Deleuze can explain these relations of openness and closure, and element and case, through his work on time and passive synthesis. The three sides of time – passing instant, synthesised contraction in the living present, and represented instants – are presented in the example of the elements and couples. The element can only become part of the striking of an hour through a passage from instant to contraction, but the synthesised cases imply that each case is a passing instant, and synthesised case and instant can only be represented as closed rather than open series:

The two forms of repetition always refer to one another in passive synthesis: the form of the case presupposes that of the elements, but the one of the elements necessarily overtakes itself into the one of cases (whence the natural tendency of passive synthesis to experience tick-tick and tick-tock).

(DRf, 98; DRe, 98)

This sentence is instructive for understanding the role of method in Deleuze's philosophy of time. It combines empirical observation ('natural tendency') with Deleuze's transcendental work ('passive synthesis' in the living present as condition for the tendency), with a bold speculative move ('always' and 'necessarily'). His philosophy combines all three methods to provide an explanatory model going beyond the limits of simple empiricism and its difficulties with the Humean problem of induction, while still maintaining an empirical aspect as test and observation. However, it is important to note that the claims of necessity are speculative and open to empirical counters and tests, while the transcendental moves are themselves experimental and grounded in empirical observation. Like his methodology, Deleuze's philosophy is singular and universal, or



more precisely, it speculatively oscillates between the two, unable to settle on either one.

Deleuze develops the remarks on elements and cases into a brief study of sensibility and sensation. The empirical natural starting point is in organic sensibility and receptivity, but this is made wider through a series of methodological moves building on the element and case relation. First, he remarks that the relation is different depending on what level it operates on, where level refers to the three sides listed above: passing away of instants, contraction and representation. It will work differently on different levels. When taken at the level of contractions a quality such as the tone of a ringing bell is fused with the contraction of 'elementary excitations' with no subjective input and no conceptualisation. When taken at the level of representation a contracted perception is represented and thereby twinned with an objective quality as 'intentional part', that is as a quality that can be intended by the subject independent of this or that contraction of elements. Thus, on one level, our sensibility is just a contraction of organic syntheses, a series of sensations of warmth, say, prior to and independent of any representation or concept: '[. . .] a primary sensibility that we *are*' (DRf, 99). On another level, though, we are intending beings who can intend towards an object and ascribe a given quality to it, for instance, when we reach out and ask the question, 'Is it warm?' From this point of view, contraction is prior to even that sensation, if sensation is defined as a conscious faculty. This is because we cannot have the sensation in that form until there has been a series of passive organic contractions: 'Every organism is, in its receptive and perceptive elements, but also in its viscera, a sum of contractions, of retentions and expectations' (DRf, 99). The living present and the first synthesis of time determine any conscious representation as necessarily presupposing prior contractions. The definition of the human as rational animal is therefore necessarily non-Deleuzian, not because the human is not rational, but rather because even if the human is rational it must also be a series of non-rational contractions in such a way that reason cannot take the upper hand or fully determine those contractions.

Every existent therefore presupposes passive syntheses. Every existent therefore also presupposes the living presents of each of the syntheses drawn together in it. Since each of these living presents has a past and future dimension, every existent is made of many passive retentions and expectations. Each of these syntheses is a level for it; but also, in a very important term for *Difference and*

*Repetition* that grows out of Deleuze's work on Proust, *Proust and Signs*, each level is also a sign; that is, a passage from retention to anticipation driving the determination of an existent and its becoming.<sup>12</sup> An organic thing is determined by its syntheses such that they are signs for its future comportment. These signs can be interpreted, but only at the level of representation which must necessarily miss something of the prior syntheses it attempts to read and that constitute it. This forms a productive problem for Deleuze. Given the importance of signs for understanding how we are becoming what we are, and given the impossibility of giving a full representation or interpretation of those signs, what is the right way of living with and living up to the passive syntheses constituting and driving us forward?

We live as time makers – anything exists as a maker of time. This means that the passive syntheses drawn together in any changing thing are processes making time as a living present through that thing. There are therefore many and multiple living presents. There are also many ways of interacting with these living presents and, problematically, whenever we associate them with active representation we capture a side of them and lose another. Following Hume, Deleuze calls this the problem of habit. However, he then notes how habit is often misunderstood due to an illusion coming out of psychology. It is mistake to define habit in terms of our conscious activities, in the sense where we would say, for instance, that I have deliberately acquired the bad habit of using the term 'that is' throughout my text. Instead, for Deleuze, habits are acquired through contemplation, that is, through the passive acquisition of a pattern of syntheses conditioning or determining later activities (where there is a lot at stake in definitions of 'determining', in particular in opposition to 'causing'). My habit of using a particular term to excess can certainly be traced to actions; however, these are not a sufficient explanation of a habit because they fail to explain its relation to unconscious repetitions, retentions and expectations conditioning the habit. This means that learning and unlearning habits must not be seen in terms of the conscious repetition of movement, for instance, but instead must be seen as an interaction with processes that we cannot directly represent or act upon. Here we can see the consistency of Deleuze's philosophy and the role played by his philosophy of time. The first synthesis of time leads to an understanding of the part played by signs in conscious and unconscious habit acquisition. The combination of this oblique form of contraction in relation to signs then guides Deleuze's

understanding of learning and teaching, of life as an apprenticeship to signs, for instance as he has absorbed it from his reading of Proust.

#### OF PEBBLES AND THEIR HABITS

On the east flank of the headland an abrupt and eroded path leads down to a tiny pebble beach. A sickle-shaped indent among sharpened rocks, its smooth stones have been turned to a rare and much prized shape, neither too small to stick to the skin like coarse mud, nor too big to bend soles painfully. Each pebble contemplates the sea and the tides, the currents and the storms, the mass of sister pebbles, flotsam and broken shells. It is a passive synthesis of these events, a contemplating soul ground from repeated washes, like the limpet stuck to its side contemplating it in return: 'What organism is not made of repeated elements and cases, of contemplated and contracted water, nitrogen, carbon, chlorides, sulphates, thereby interweaving all the habits composing it?' (DRf, 102).

Do pebbles really have habits? Do they contemplate the tides? Does a limpet or an oyster have habits? Can they too contemplate grains of sand shaping their shells and, infrequently, the pearls forming in them? These objections to Deleuze's work on the first synthesis of time, and on contraction in the living present, come from at least two opposed directions. First, why speak of habit and contemplation where we have other scientific accounts of the relations between entities, such the concept of cause? Second, if we are to speak of habits and contemplations, should we not reserve these for beings capable of action? The pebble does not synthesise the tides into its rounded shape, but rather the shape is caused by friction, itself caused by tides and currents. The oyster and the pearl are not contemplating the intruders entering the shell. The oyster is caused to react by the foreign body in a way that leads to the pearl. It secretes calcium carbonate and conchiolin protein which over time form a pearl. What need is there for mystical and misleading terms such as habit and contemplation? Why call an effect a habit and thereby hide the cause and effect relation and the many causal laws of nature governing, for example, organic compounds?

Even if we wish to criticise the concept of cause and replace it with laws and probability, with uncertainty and chaotic processes, these too need no unscientific concepts such as habit and contemplation; what would these add to scientific equations and calculations, if not a surplus and inhibiting metaphorical layer, ripe for

religious and political mystifications? Would it help a pearl farmer to say that the oyster contemplates the water it bathes in? Farmers require accounts of how the pearl is formed and which environmental states are the most propitious for this growth; they do not need redundant philosophical concepts such as the first synthesis of time and the living present. Or, when sand is shipped in to save a failing tourist destination, should the village mayor read a treatise on the habits of pebbles or a scientific article on the complex science of tides and currents? As a counter to Deleuze's position comes the statement that the habits we acquire unconsciously are better explained as caused or as explained through scientific laws and probabilities rather than by the loose term of habit. For instance, when we learn to walk on the pebbles with the balls of our feet rather than the arches, avoidance of pain gradually causes a change in gait and more supple movements. The painless walk is allowed by a hardening of skin that depends on friction and the layering of dead cells. If something is unconscious, it is not a habit; it is an effect or at the very least an observable pattern. If it is conscious, it might be a habit, but even then only if we think consciousness itself is not an effect.

Deleuze's argument is driven by these objections and he gives voice to them directly: 'This is no barbaric or mystical hypothesis [...] ' (DRf, 101). However, he does not explicitly address them critically at this point of *Difference and Repetition* (this comes later, in the third, fourth and fifth chapters of the book). Instead, his concern is to articulate his own position in such a way as to make it immune from these critical questions. The core of his response rests on this statement: 'Habit *draws* something new from repetition: difference (first posited as generality)' (DRf, 101). Deleuze usually turns to italics in *Difference and Repetition* to highlight a key term used in a novel sense (for instance, the term highlighted before this one in the book is 'sign', in its novel meaning in relation to habit and learning indirectly or obliquely). We need, therefore, to decide on the meaning of the term and, perhaps more importantly, on its status. Is it metaphorical? Or is it literal? If literal, is it taken from scientific usage, as terms sometimes are in the book, or is it taken from a philosophical source (such as the use of habit taken from Hume, here)?

A first step in deciding on an interpretation of Deleuze's use of the verb '*soutirer*' (to draw) is that it is not metaphorical. The verb does not stand for another process it is meant to allude to or represent, but rather habit is a process drawing on repetition.

What, though, does 'to draw from', or 'to draw out' mean here? In a preliminary sense, it is to draw out difference from a repetition. We know this not only from the statement, but also because habit has been defined in relation to repetition which we know from the preceding paragraphs must involve a difference. We also know that this difference lies in a synthesis or contraction of a series. So habit is about the creation of a difference but where the difference itself cannot be a represented identity. Instead, following Deleuze's work in the previous chapter of *Difference and Repetition*, 'Difference in itself', this difference must be a varying relation, rather than a fixed quantity or quality, or an identified and limited body. Habit draws a differential variation from a repetition. It does not do the same thing, as the commonsense understanding might lead us to assume, but on the contrary creates a change or becoming in the series.

'*Soutirer*' is a technical term with a chemical basis from winemaking. It is one of many taken from chemistry and biology used by Deleuze when he wants to point to this differential variation (at other times he uses examples such as ebullition, at DRf, 296, for example). The term means to draw wine from one barrel into another, for instance, in order to remove sediment. It is important, however, not to identify the concept with the casks, or the wines in their apparently fixed states in each one. The process Deleuze wants to map his philosophical concept on is not the passage from one state to another. Instead, Deleuze is interested in the process itself and, more precisely, in the introduction of a difference in intensity, a differential variation, in the process synthesised as time. So habit is a contraction, not in the sense of a passage from a dilated to a contracted state, as Deleuze says about heartbeats, but rather a synthesis of events (contraction and dilation) as a differential, an ongoing variation of intensity or a becoming – and not a difference between two states. So we can now better understand what habit is as retention and expectation: it is the synthesis of a variation in intensity over events, where retention is the absorption of past variations and expectation the impulse to future ones.

However, is not this appeal to a term from winemaking and other processes of drawing metaphorical in exactly the way denied earlier? It is here that we need to return to Deleuze's method. He is not using the verb '*soutirer*' to represent something else, but rather taking an observation of the process of drawing and constructing a novel philosophical concept from it. 'Drawing from' means the synthesis of a series in a novel manner, such that differences in intensity appear within the series and contract it differently in relation

to other series. The new barrel changes the relations in intensity to earlier ones and later ones. It changes the relations to our noses and palates, the relations to the crushing of the grapes, the soil where the vines grew, sunshine and rain, pruning and training. This explains the importance of the living present as synthesis: the novel reaction is the living present as a contraction of all the series around it into something new where they are retained differently and lead to different expectations or forward momentum.

Deleuze's answer to the critique based on cause and effect is therefore that the process he is defining and describing is not about associating identified causes and effects repeating in the same way over time. Instead it is about a novel variation continuing to vary, thereby constituting time as the synthesis of the variation. The synthesis covers or includes elements we would usually associate with the cause and the effect, so instead of a cause associated with an effect, we have a novel synthesis that changes all the elements and cases of a series. If we draw a wine from one barrel to another, we can identify a causal relation between tannins and astringency in the wine and explain that wine will always be less astringent or tannic if an amount of sediment is left in the first barrel. Deleuze, though, wants to explain something different and that is the way in which a variation in intensity changes past and future relations through all series stretching out from the living present. For instance, when a wine creates a singular delight or disgust, this novel intensity carries through all the series coming together in the present singularity expressed on the palate of the taster. The contrast can be thought of as the distinction between an explanation of why things remain the same over time and an explanation of why they vary. A causal explanation, for instance in terms of a law applying to particular instances, accounts for a high probability for a specific outcome (or certainty in some versions of causal explanations). An explanation in terms of the first synthesis of time accounts for a novel state of a series through all its elements, not in terms of an invariant such as a law, but rather in terms of a difference, a novel intensity or variation. The contrast can therefore also be thought of as the difference between the conditions for similarity within a structure and variations in a system.<sup>13</sup>

This allows us to consider another important question about the relation of the two explanatory structures. Should we think of them as 'either, or' options, where we either have an account consistent with philosophical naturalism and hence one that follows the latest science, or one based on Deleuze's work on the conditions for

difference in repetition? The answer to this question is that Deleuze's work combines both positions. It does so for the important reason that without sameness, for instance as captured in reliable relations of cause and effect, Deleuze would have no actual events to refer to and he would fall into the trap of a world of pure becoming and the paradox that if all is becoming then there is nothing to ensure continuity of reference through time. In *Difference and Repetition* Deleuze considers this paradox through a study of Plato's *Theaetetus*, from a philosophical point of view, and through an analysis of the concept of disparity, from the point of view of the sciences (in chapter V of *Difference and Repetition*). From both angles, he does not seek to deny scientific evidence and theories, but instead seeks to complement them with an account of the role of difference as taking a primary but never complete role in relations of determination between actual identities and ideal differentiations. We can and should consider an event as the referent of scientific accounts. However, these accounts are incomplete unless taken with a more speculative model explaining the intensive difference making each event different.

Deleuze's use of the concept of soul is consistent with Hume's use of the term in relation to the imagination and the effects of distance and contiguity: 'Since the imagination, therefore, in running from low to high, finds an opposition in its internal qualities and principles, and since the soul, when elevated with joy and courage, in a manner seeks opposition [. . .]' (Hume, 2009: 278). This adoption of an outmoded term must not be interpreted as a return to a theological or philosophically obscure set of ideas. Instead, 'soul' has a precise meaning in his metaphysics. The soul is the intensive difference contracted by a habit. It is the difference allowing a series of events to be synthesised in a living present, as different from identifications and representations of sameness to other events. The soul of any thing is therefore the singular way in which it contracts past and future series. This does not mean that the thing does not also have an identity that can be referred to and treated according to causality, reliable scientific laws and probabilities. It is rather that the soul explains why a thing is not only such an identity. It is also why Deleuze insists on the singularity of each thing, where no two grains of wheat or of sand are the same. Thus the soul is to be associated with a process of individuation and any thing has a soul, because as we have seen in Deleuze's study of repetition, any thing must be a repetition of difference (of difference in itself or intensive difference).<sup>14</sup> Yet, since this synthesis is passive, we must

also say that the soul is contemplation rather than action: 'We must attribute a soul to the heart, to the muscles, the nerves, the cells, but it is a contemplative soul whose role is to contract habit' (DRf, 101).

This last claim with respect to the soul is interesting for two reasons. First, it stresses the multiplicity and lack of hierarchy of Deleuze's philosophy. Deleuze's world is radically multiple: it is constructed from multiple and irreducibly different syntheses forming many different perspectives on one another (where perspective is a way of describing different syntheses and contractions). A beach is not a totality of beings. It is a multiplicity of contractions which cannot be organised into a final order, logic or pattern without imposing an illusory sense of the real. However, the second reason the earlier claim is interesting demonstrates a more difficult aspect of this multiplicity. It leads to a problem of selection with respect to perspective: which one should we select? Which soul matters in relation to a given task, that is, which one are we going to take as primary or the one where we begin an enquiry? Where are we to assign value in a given series of events, with the human heart, the stones on a beach, singular and incomparable grains of wheat ('There is a contraction of the earth and of humidity called wheat, and that contraction is a contemplation, and the auto-satisfaction of that contemplation' (DRf, 102))?

The multiplicity of contractions and contemplations is the basis for Deleuze's redefinition of the self away from the self as subject of actions and towards a multiplicity of passive selves underlying and constituting the active self. Instead of thinking of the self as a single self for each individual, traceable back from the subject of actions and open to reflection and self-representation, we have many selves that are all different syntheses of one another. We are a multiplicity of passive contemplations as conditions for the active self we subsequently ascribe to ourselves: 'Under the acting self there are little selves which contemplate and render possible action and the active subject. We only say "me" through those thousand witnesses contemplating in us; it is always a third party who says "me"' (DRf, 103). However, in the same way as identity and repetition of the same still play roles in the complete process, action is still necessary and primary in integrating those multiple selves. Without reference to an identified acting self we would not have a principle for associating the prior multiplicity. There are therefore two types of contractions: there is contraction in relation to generality where the act takes particulars and integrates them into generalities, for instance, when we decide to pursue a given course of action against

a background of multiple desires and pressures, or when a severe storm alters the capacity of a beach to support particular types of organic life forms; and there is a contraction in relation to contemplation and passivity where identities are differentiated into a multiplicity of syntheses or selves. These processes of integration and differentiation, of passivity and activity, are necessary in relation to one another. Integration brings individuation to a multiple chaos, but differentiation is the condition for individuation in two ways. It is what is integrated and the condition for any integration, in the sense where any integration itself depends on prior differentiations.

This puts us in a position to interpret another stressed statement from *Difference and Repetition*: 'Difference is between two repetitions' (DRf, 104). The Patton translation renders this as 'Difference lies between two repetitions' (DRe, 76). But there is a risk in introducing a verb of position ('to lie') since it prejudges the question of whether difference is situated between two repetitions, or whether it is the repetitions that create difference between them. This is important since in the first instance difference can be thought of as a substance, or a zone, or a realm, an entity of some sort (even if multiple) independent of repetition. However, in the second, difference is in the relations of the processes of repetition themselves.

This second option is the better one not only on textual grounds, since Deleuze has described difference as 'inhabiting' repetition, but also on philosophical grounds, since it allows us to explain how the two repetitions – integration and differentiation – relate to one another. They both introduce difference into the other. Integration goes from a chaos of passing instants to activity and representation, itself dependent on passive syntheses. So it goes from the paradoxical multiplicity of instants that was presented earlier in the chapter to two differences: difference as opposition between represented identities, but also and primarily, difference as passive synthesis. This second difference is differentiation, where any integral thing is undone into a multiplicity of passive selves or syntheses in time. The living present is both repetitions and both these repetitions are also 'between two differences' (DRf, 104) since the repetitions are nothing but the relations of two processes of difference, or where difference is created. The first synthesis of time is therefore a differentiation and an integration, a contraction allowing for action, and a passive synthesis undoing that contraction and opening up to novel differences: 'And already originally, the generality formed by the contraction of the "tick" is redistributed in particularities in the more complex repetition of the "tick tocks"' (DRf, 104). The primary rep-

etition in the first synthesis of time is hence in passive synthesis, in the renewal afforded by a differentiating synthesis that means that no process of integration is final, determining of a complete entity, or free of internal differences and differential intensities.

#### THE PASSING PRESENT

The injured pigeon flutters for a while in ill-shaped curves; then it falls to the ground. Even there its beating heart and reflex movements drum on the earth. Once all living signs cease, other syntheses come to the fore, parasites and microbes dismember the carcass. A rat drags some of the flesh away. Leaves cover the remaining traces and the bird becomes only a minute variation in the mulch, until the living present, the multiple syntheses integrated through the pigeon's actions and the multiple disjunctive lines made through its passivity (the parasites, the rat, the land fertilised by its droppings, the small variations in currents interacting with its wings) all pass away. The integrated bird is gone and with it, not only all the events working through its passions, but all those events in their interaction with its acts, its actual integrity.

After his explanation of the interaction of differences and repetitions in time, in the first synthesis of time, Deleuze then proceeds to another bold speculative move. He has shown how the past and the future are dimensions of the present, because they are concentrated in its syntheses. He has also shown therefore how 'only the present exists' because it does not itself take place in another time, but rather time is made in the living present (DRf, 105). However, the existence takes a special form presenting great difficulties for the argument as it stands at the point in *Difference and Repetition*. Here is Deleuze's statement of this difficulty: 'Nonetheless, this synthesis is intra-temporal, which means that the present passes' (DRf, 105). The Latin prefix is crucial here. It cannot mean that the present passes in another time, since this would be a direct contradiction of one of the opening premises of Deleuze's paragraph (only the present exists). But if it does not mean in another, it must mean – more correctly – within time and hence within itself.

Yet if it means within itself, it can either mean that the present passes into the present, a dull contradiction, or it can mean that the present passes into one of its dimensions, an interesting but technically very challenging idea. It is challenging because it raises awkward paradoxes. If the present passes into the past that it synthesises, there seems to be a problem of succession: the present

passes into that which it has first synthesised and therefore transformed. The synthesised past is no longer there to pass away into. If the present passes into the future that it awaits, there seems to be a similar problem of reversed succession: the present passes into a future that cannot be yet, since it is anticipated or awaited. The paradox turns on a previous aspect of Deleuze's philosophy of time that we studied in earlier sections. Time has an arrow passing from past to future. If the present passes into one of the dimensions produced from its syntheses as living present, it either goes against the arrow back down the synthesis, or it goes before the arrow, prior to the synthesis of anticipation. The metaphors of back down and go before are not intrinsic to the paradox here. More formally it can be described as a problem generated by the asymmetry of time. If the present passes into its past dimension, it must change the particulars it has already synthesised.<sup>15</sup> If the present passes into its future dimension, it carries actual particulars into the generality of the future, thereby contradicting its definition as only generality. In the first case the arrow of time must be reversed. In the second, it is denied.

Deleuze's arguments for the necessity of the passing present, against these paradoxes, marshal nearly all of the prior concepts and principles of the first synthesis of time. He sets them against a counter-position, but also adds new concepts and principles. The counter-position that appears to bypass the paradoxes of the passing present is to consider the present as perpetual: 'We can without doubt conceive of a perpetual present, a present coextensive to time; it is sufficient to apply contemplation to the infinite of the succession of instants' (DRf, 105). A present would not pass, if it synthesised all instants in one go, if the synthesis was therefore not a stretch or duration but rather an instantaneous contemplation, once again reminiscent of Augustine's arguments on human and divine time in the confessions, where divine time does not pass. The present that does not pass would be the present of a god, contemplating all in one.<sup>16</sup> However, Deleuze's argument is different. It turns again on empirical beginnings, since he claims that infinite contemplation is not a physical possibility. This basis is very thin at this point, since it moves straight away into a series of deductions and speculations about necessity that go back to the discussion of elements and cases in repetition (following Hume and Bergson, as discussed earlier on in this chapter). Synthesised elements must necessarily pass and each case that is synthesised is already a passing between its components. Four o'clock strikes because each blow has

passed. Tick-tock implies the passing of tick and the arrival of tock. Physical duration is therefore the stretch that it takes for a contraction to pass. Durations are therefore multiple and overlapping: 'An organism has a present duration, diverse present durations, following the natural scope of contraction of its contemplating souls' (DRf, 105).<sup>17</sup>

The multiplicity of syntheses in the living present is therefore matched by a multiplicity of durations, themselves defined as passing away. This allows Deleuze to introduce new terms that we would usually associate with either physics, or psychology or phenomenology. He, though, combines quite minimal observation with careful deductions and bold speculative moves. Exhaustion and fatigue are necessary aspects of the first synthesis of time as passing present. Both are deep concerns in Deleuze's work and mark his readings of Beckett and his broad understanding of life. They are not, though, simply empirical physical properties such as the metal fatigue occurring probabilistically over a series of cycles of loading of a weight-supporting beam, for instance. They also are not simply psychological states, whether shown behaviourally, through introspection or through more objective observations of muscle or neural activity. Finally, they are not phenomenological states associated with the conditions for intentionality, such as boredom. Instead, fatigue follows from the passing present. It is the fading of contemplation and synthesis as earlier events in a contracted series pass away. As a principle essential to time, fatigue cannot be denied and resistance to it must take account of its necessity and temporal form.

Once again, is Deleuze giving us a dangerously superfluous speculative and metaphysical account here? When an engineer seeks to calculate the gauge of a rail, given metal fatigue, is reference to the passing present necessary? Or when we try to find ways of living with mental or physical exhaustion, should we pay attention to the first synthesis of time? When we try to design sustainable farming techniques, are the contractions implied by the living presents and passing presents of the soil required reference points? The answer is yes, but only in careful interaction with the natural sciences and with the arts and humanities. Deleuze's work on time provides a critical and creative set of principles to add to and contrast with other approaches. He shows this critical side in a discussion of the relation between need and fatigue, immediately after his discussion of the lasting present:

That's why a phenomenon such as need can be understood as 'lack', from the point of view of the action and active syntheses it determines, but from the point of view of passive syntheses conditioning it, it must on the contrary be understood as an extreme 'satiety' or 'fatigue'.

(DRf, 105)

When thinking about need we must view it in terms of the integrations it involves, how actions draw together and synthesise wider series and therefore lead to a general expectation. The synthesis and the integrated subject of actions in a process of becoming determine a need that can be mapped on the passage from a series of contracted events and a general expectation (*I need coffee in the morning*). But this is not a complete picture. The much broader, and in principle unlimited, passive syntheses determining the action and the thing as becoming something different according to multiple contractions cannot be understood as determining lacks, but rather satieties, that is, syntheses passing away and becoming redundant (*Too tired even for coffee*).

So there are precise principles that can be taken from Deleuze's work on the living present and the passing present. It is not enough to think of action in relation to a set of needs, the requirements of a material, of a body, of a mind. Each one of these is not only needful but also necessarily tiring, not in the sense of requiring the same replenishment, but rather an awareness of how some of its needs have become satiated and fatigued in the sense of lost and past. On a human scale, Deleuze develops this in relation to signs and fatigue.<sup>18</sup> We have to act in relation to the multiple active and passive syntheses, the contemplations, associated with our living present: 'All our rhythms, reserves, reaction times, the thousands of weaves, of presents and fatigues we are composed of, are defined from our contemplations' (DRf, 106). Any act seeking to move without taking account of these, or by 'moving faster than them' is making a mistake. This is also true of signs, which lead to a wisdom Deleuze ascribes to the Stoics, such that a wound is not the sign of a past wound, but of a present series of passive syntheses.

We misunderstand a sign when we think of it as referring to a past event or to a future one.<sup>19</sup> A sign is always a present event and has to be read in its present syntheses, contemplations and concentrations (*How is my coffee habit retention of past events and waiting on future ones?*) So, again in response to objections around the redundancy of Deleuze's philosophy of time, we find him making an important practical distinction with respect to signs and how to read and act upon them. We must distinguish natural signs from artificial ones.

A natural sign relates to a present, to the work of present passive syntheses in a living present and in relation to the passing present. An artificial sign refers to the past and to the future as distinct from the present (*Imagine your life free of your coffee addiction*), for instance when we ask ourselves abstractly what we want to be, before we seek out the signs of what we are becoming in the present, before attempting to learn our present signs. Artificial signs stop us from learning and turn us away from the natural signs that can help us live with our wounds, fatigues and multiple becoming, because they draw us to a past severed from its work on present wounds and to a future cut away from its pull on present expectations.

Deleuze develops these practical remarks further in two areas: the relation between need, habit and questioning, and the passage from passive selves to larval subjects, emerging singularities determining a novel becoming, in relation to fatigue and passion.<sup>20</sup> When need is conceived as lack, and hence in a structure of negativity (*Coffee is what I need and do not have*), it is misunderstood as a relation to passive syntheses which are transforming the need through its passing away and many forms of fatigue (*Coffee just does not have the same effect any more*). There is no questioning in a structure of negativity, because we presume to know what we need and hence the sole difficulty is how to get it. In the complete sense of our presents, as becoming and falling away, need is more than this negativity, because it is a sign of the wearing away of lacks and the appearance of novel expectations. Yet, since this passing away and moving forward in the living present are passive syntheses, we cannot directly represent or know them. They are therefore sources of questions, defined in terms of deep-seated problems rather than simple and readily available answers:

Is it not proper to the question 'draw on' an answer? The question presents at once the stubbornness and obstinacy, and that lassitude, that fatigue, which corresponds to need. What difference is there . . . ? Thus is the question the contemplating soul asks of repetition, and that it draws from repetition.

(DRf, 106)

Here, Deleuze returns to two ideas developed a few pages earlier and studied here. A question draws on ('*soutire*') an answer, that is, it refines and selects within it, sets it within a series of repetitions. More importantly, it does so by experimentally searching for a novel difference that has passively appeared within the series; this novel difference is a larval subject driving towards a further synthesis of

the series. It is not an active subject, or one with a set identity; it is rather the emergence of novel singularities against a background of multiple passive syntheses and series.

There is therefore no pre-set answer to a question when it is defined in relation to a problem and to need. On the contrary, the commonsense answer, set in categories by a good sense, must be transformed and drawn on in order to allow difference to emerge. Against the obvious answer, and exactly because it is not an agreed and categorised answer, the question searches for a way to follow on in the wake of multiple passive syntheses, living with fatigue and expectation, transforming those series again. That is why the question must be situated in relation to habit, signs and learning. It works within habits, responds to signs and experiments with ways of learning with them, an apprenticeship to one's own signs. All of these rest on Deleuze's philosophy of the first synthesis of time: 'A first question-problem complex, as it appears in the living present (the urgency of life), corresponds to the first synthesis of time. This living present rests on habit, and with it so does all of organic and psychic life' (DRf, 107). Habit as defined on the basis of Deleuze's work on the first synthesis of time is itself the process where the syntheses of the passive self, 'the world of the passive syntheses constituting the system of the self', are also larval subjects, that is, the multiple subjects of actions prior to reflection, representation and understanding. Deleuze's philosophy of time allows him to turn philosophy away from the opposition of passivity and activity, to an understanding of life – of all things that become – as activity drawn from passivity.