The topic of this paper is a theory of the organism as subject. It is an ascription of subjectivity to organic bodies. I restrict my analysis, in this presentation, to the question of temporality; particularly, to the way individual bodies produce out of their own metabolic activity the temporal field with which they interact. I structure this discussion by way of an elucidation of Gilles Deleuze’s concept of the larval subject as it emerges out of his Difference and Repetition. I begin with the nature of repetition and time, move into an explication of organic rhythm, and unify these reflections in a reflection on the nature of organismic temporality. In terms more properly Deleuzian, I claim that out of the passive temporal syntheses constitutive of the present emerge the rhythmic contractions of the larval self and the polyrhythmic network of the organismic subject. In drawing on Deleuze in this way, I hope to achieve a novel and fruitful perspective on the individual nature of bodily time that makes credible an ascription of subjectivity, a concept traditionally afforded only to the human, to all living bodies.

Isn’t this the answer to the question “what are we?” We are habits, nothing but habits—the habit of saying “I.” Perhaps there is no more striking answer to the problem of the Self.
— Gilles Deleuze, Introduction to Empiricism and Subjectivity.
ever, only with the first synthesis of the present, the synthetic production of a living now as it figures into the organismic subject. This first synthesis is worthwhile not only as the temporal structure of larval subjectivity, but also because it is, in the words of Jay Lampert, “not as well known” as one of Deleuze’s conceptions of time; and when it is discussed, it “is generally treated as a false or superficial notion of time that [the second synthesis of] co-existence is meant to replace.” On such an account, Deleuze’s second synthesis of time is intended to supplant the first, and his third synthesis is intended to supplant the second. He is, in other words, delineating the synthesis of the present only in order to subsequently prove it inadequate. The consequence of this kind of reading is, however, a lack in the secondary literature of thoroughgoing analyses of Deleuze’s first synthesis. Indeed, as John Protevi noted recently, the major commentators on Difference and Repetition pay no special attention at all to this synthesis and the organic syntheses that underlie it—especially not in their relevance for the organismic subject. In drawing upon this relatively underdeveloped material, I present the temporal nature of the networks of larval selves that together constitute the organismic subject in time: the now of subjectivity.

1. Repetition

The transition from an exteriority of atomic instants to their contraction in habit is the central problematic of Deleuze’s analysis of the first synthesis of time. He begins not, as one might expect, with a description of temporal experience, not with an analysis of lived continuity, but rather with precisely the opposite: the repetition of discrete elements or atomic parts. “Repetition,” for Hume, “changes

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1 Jay Lampert, Deleuze and Guattari’s Philosophy of History (London: Continuum, 2006), 12. Hereafter referred to parenthetically in the text as PH.
2 This is to say that if Deleuze is, after all, really aiming at the kind of theory found in his second and third syntheses of time, then commentators are better off looking there, and ignoring the first.
3 John Protevi, “Deleuze, Jonas, and Thompson: Toward a New Transcendental Aesthetic and a New Question of Panpsychism” (paper presented at Society for Phenomenology and Existential Philosophy, Montreal, Quebec, 2010).
4 I will rely, incidentally, rather heavily upon Jay Lampert’s treatment of the synthesis of the present, a treatment provided toward the development of a robust philosophy of history, not, as will be the case in the present work, the development of a robust philosophy of organism.
5 “We start with atomic parts, but these atomic parts have transitions, passages, ‘tendencies,’ which circulate from one to another. These tendencies give rise to
nothing in the object repeated, but does change something in the mind which contemplates it.” 6 It changes nothing in the object, because no single element in a series is the cause of an element that follows it: the clock’s tick is not the cause of its subsequent tock. Considered independently, there is no way of connecting the two or establishing a relation between them. If Hume takes the case as an example of repetition—as opposed to the instant—then it is for this reason: once there is a case, a conjunction of elements or instants, the way the second element refers to the first becomes intelligible. (DR, 70) They are no longer irreducibly discrete (as instant); they are part of one and the same occasion or impression (a case). Given a succession of double-impressions (AB, AB, AB), I learn to expect the second (B), when confronted with the first (A). But nothing is changed in the object or case, for the impression (AB) is indifferent to the way it is contemplated. And yet, given A, I learn to expect B. I draw a difference: “something new in the mind,” as opposed to the object. (DR, 70) Expectation is the character of this difference; this difference is the advent of repetition. It is not, in other words, until a succession of cases—themselves multiple—are related one to the next by means of anticipation or expectation that we can speak of repetition. Repetition is, then, a relentlessly circular affair: I draw a difference from repetition, but it is only in drawing this difference that I speak of repetition.

The ground of this circularity is, for Hume, the imagination, “defined here as a contractile power: like a sensitive plate, it retains one case when the other appears.” (DR, 70) To speak of the imagination as a power of contraction is to say that the force of anticipation effected by the appearance of the first element in a repetition of cases corresponds to a retention of cases past. To anticipate B when A appears is to refer backward to a retention of ABs. I anticipate because I retain. But this is imprecise, for the imagination does not hold in reserve a distinct series of past impressions. Contraction is not quantitative, but qualitative: “it contracts cases, elements, agitations or homogeneous instants and grounds these in an internal qualitative impression endowed with a certain weight.” (DR, 70) One might imagine a piece of foam pressed inward by a repetition of indentations: there is only one imprint, but the longer the series of

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impressions, the more significant the indentation. The longer the 
series of elements contracted, the “heavier” the impression.

If it is misguided to speak of a quantitative retention, then it is 
equally misguided to speak of contraction as an operation of the 
understanding. To contract is neither to reflect nor to remember. It is 
not yet a temporal act—a reflection or remembrance carried out in 
time—for it is itself the very constitution of time as such. Indeed, 
before the movement of contraction, there can be no relation at all 
among separate elements. “A succession of instants does not consti-
tute time any more than it causes it to disappear; it indicates only its 
constantly aborted moment of birth.” (DR, 70) Time is the result, 
then, of a synthesis, just as repetition is the result of a difference. In 
the synthetic contraction of discrete impressions, time is constituted 
as a living present to which past and future also belong. This is, in 
 Essence, a temporalization of repetition: if the present is the now of 
repetition, then the past is the retention or contraction of preceding 
elements, and the future is the anticipation or expectation that the 
 pattern will continue. I live the present as a relative contraction of 
instants; it seems to have a duration, no matter how brief. As such, it 
is not wholly atomic or instantaneous, but rather synthetic: “each 
time is a contraction of several times.” (PH, 22) Each case is double, 
each impression itself a contraction or synthesis from which a differ-
ence is drawn. But if synthesis underlies the sensation of every 
impression, then sensibility is itself synthetic. For even when it 
seems as if I perceive an element distinctly, a present moment or 
single impression, synthesis is at work. The perception of an instant 
in time is, in other words, a contraction of several. The present is 
multiple, extending outward both backward into the past and for-
ward into the future. The past belongs to the present not as a set of 
precedent presents, but rather as the qualitative impression of the 
present’s contractions of cases past. The imprint in the foam is, to 
return to the example, both a present impression as well as the trace 
of a preceding series of indentations. It is in precisely this sense that 
the living present retains the past. To understand how it is that the 
living present is oriented toward a future in time, James Williams

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7 Although Deleuze does eventually situate what he calls here an “originary 
synthesis” in another temporal series—the pure past—we need not take up this 
secondary analysis, concerned as we are with subjectivity, and not with the 
nature of time as such.

8 “Time,” Deleuze writes, “is constituted only in the originary synthesis which 
operates on the repetition of instants.” (DR, 70) This synthesis is the double-
movement of retention and anticipation.
Organismic Temporality offers the case of a horse, disoriented as it walks for the first time on frozen ground. The point applies, however, just as well to a man encountering an icy path for the first time. He contracts his past steps on soft soil, endowing the impression with a weight so formidable that he is at a mystifying loss when he comes across the hard and icy path. He might stumble or fall, but in any case, it takes him a moment to realize what is happening. This is because part of what it means to contract and retain the past is to anticipate that the future will continue to follow the same pattern.

To live through the present is to retain the past in contraction and orient oneself toward the future in anticipation. The move from past to future is also the move from particular to general. In the synthesis of the present, a series of past particulars are synthesized into a general rule for the future. (DR, 71) The man synthesizes his past encounters with soft earth into the general rule for what is underneath it: that it is soft and dry—not that it has been, but that it is. It is, however, worth noting that particulars are simple givens no more than universals are just constructions. “Particulars,” Lampert writes, “are just as much products of synthesis whereby a temporal field is contracted into a present moment.” (PH, 16) In terms of subjective temporality, in terms of the way the temporal field is organized as a condition of experience, it is synthesis all the way up and down. In order to draw a difference from repetition, one must contract a number of impressions. In order to envelop a series of past particulars in a future generality, one must synthesize these contractions.

This movement from the contracted past through the living present into an anticipatory future constitutes the triple-structure of the synthesis of the present in time. It also constitutes the direction of what Deleuze refers to as “the arrow of time.” (DR, 71) But even if it is constitutive of time, “it is not, for all that, active. It is not carried out by the mind, but occurs in the mind...prior to all memory and all reflection.” (DR, 71) The synthesis of the present is not, in other words, an active or conscious operation effected by a willing subject. I do not one day decide to contract a repetition of past instants into a living present. I do not choose to orient myself toward the future, as if it were a matter of belief whether or not breathing might continue to fill my lungs with oxygen. And yet, I do carry out these contractions; I do orient myself toward the future. This is not a ready-made temporal structure into which I am placed as a subject. “Time,” in Deleuze's words, “is subjective, but in relation to the subjectivity of a

passive subject.” (DR, 71) Before I am active, before the advent of activity, I am already oriented toward the future through a contraction of the past. This synthesis is unconscious, and it is in this sense that we can speak of its passivity.

It is out of this passive foundation that the active syntheses of memory, reflection, and prediction are developed. Indeed, when I think of the past, I remember it. To say, then, that the past as unconscious contraction is passive is to say that it is the condition for the genesis of memory, that it is out of unconscious contraction that the activity of memory develops. When I remember the past, I recall some distinct set of experiences. Contraction, however, gives me only a quality, a weight adequate to the number of repetitions contracted.10 It does not give me a numerical series. It is, then, “on the basis of the qualitative impression in the imagination [that] memory reconstitutes the particular cases as distinct.” (DR, 71) This is a reflection or representation from passivity into activity. Qualitative impression is reflected in memory as a reconstitution of particular cases, an undoing or relaxation of the originary contraction. This is the active synthesis of the past as it develops out of passivity. Similarly, the generality of anticipation is reflected in activity as a prediction based upon the reconstructed past of memory. The syntheses work the same way: out of the reconstituted past emerges the capacity to weigh the significance of particular cases and make, on the basis of their significance, a prediction for the future. I am, in activity, oriented toward the past in recalling it, and toward the future in predicting what will happen. Of course, the separation between passivity and activity is nowhere near so neat: doubtless, the two levels constantly interfere with and relate to each other in complicated ways.11 The force of this distinction lies, however, in the foundation of what we typically consider to be subjective temporality in a more originary, passive, unconscious synthesis of time.

The foregoing analysis of repetition liberates the lived present from the activity of a conscious subject. Far from a foundational experience, the lived present is now the result of an unconscious synthesis, an originary contraction on the basis of which time be-

10 It is worth noting, however, that there are exceptions: in cases, most significantly, of trauma, as well as in significant experiences more generally, single occurrences can be very intensely remembered.
11 One might imagine making predictions without recalling individually past events, but only by referring back to the force of a contraction of past experience. Similarly, one might imagine reconstructing the past inaccurately based on the way one is actively oriented toward the future.
Organismic Temporality

comes thinkable. And yet, this analysis continues to remain at the level of the human subject.\(^{12}\) I speak of temporal experience as if it is mine, as if it belongs to me. Indeed, this approach “leaves us at the level of sensible and perceptual syntheses,” unable to grasp the true “mystery of habit.” (DR, 72, 73) We are left at the level of sensible synthesis because we continue to speak of the subject’s temporal contraction. We continue to speak of the way time is synthesized for a subject, in relation to her past and future. Even if subjectivity is no longer active or conscious, contraction is still, as it were, the subject’s own doing. We can, however, proceed even further. If locating temporal contraction in the subject prevents us from comprehending the mystery of habit, it is because it obscures a more foundational mode of synthesis—not of what we perceive, but of what we are. It is to this more fundamental level that I now turn.

2. The Organic

In order to grasp the foundational nature of contraction, synthesis, and habit, we have to move from a discussion of repetition to a discussion of the organic.\(^{13}\) Just as the active syntheses of thought refer back to the passive syntheses of perception, these passive syntheses themselves refer back to the organic syntheses of which we are constituted.\(^{14}\) “We are made,” writes Deleuze, “of contracted water, earth, light and air—not merely prior to the recognition or representation of these, but prior to their being sensed.” (DR, 73)

Recognition, representation: these are the active syntheses beneath which work the passive syntheses of sensation, the syntheses that produce sensibility itself, the primary material required for representation. Beneath the syntheses of perception—the case-synthetic impressions of which I earlier spoke—lie the contractions and syn-

\(^{12}\) Although the concept of temporal synthesis has been rid of its conscious, active overtones, the passive subject in question is still ostensibly a human one.

\(^{13}\) On the necessity of the foregoing analysis of non-organic contraction, Protevi writes that “Deleuze cannot go directly to his key notion of organic synthesis because he must first free a notion of habit from the illusions of psychology, which fetishizes activity. For Deleuze, psychology, through fear of introspection, misses the element of passive ‘contemplation.’” John Protevi, “Deleuze and Life,” in *The Cambridge Companion to Deleuze*, (ed.) D. W. Smith and H. Somers-Hall (New York: Cambridge University Press, 2012), 262 n.8.

\(^{14}\) The primary contraction that gives us a temporal instant. In Lampert’s terms, “it is first of all a conjunction that allows data to ‘count as one’ (to use Badiou’s phrase).” (PH, 13) See also Protevi, “Deleuze and Life,” 268.
theses that constitute the perceiver. The subject is, in other words, a series of differences drawn from repetition. If this seems self-reflexive, this is because it is so, relentlessly: the subject is simultaneously that which draws a difference from repetition as well as a series of precisely these sorts of differences. “The subject is defined,” Deleuze writes in his study of Hume, “by the movement through which it is developed.” It is both a series of habits, as well as the contemplative power that underlies their contraction. “We are used to thinking of habit,” Lampert writes, “as an activity we learn as a result of our own endeavours rather than a synthesis that takes place for us in the objects [and subjects] themselves.” (PH, 20) As a consequence, the domain of contraction or habit expands outward: thought is synthetic, perception is synthetic, and we, too, are products of synthesis. The organism is triply contractile: actively (representation), passively (perception), and viscerally (organically). And each contraction is itself triple, for every lived present retains a past and anticipates a future.

If active contraction recalls and predicts, and passive contraction retains and anticipates, then what is the nature of organic contraction? “Need,” writes Deleuze, “is the manner in which this future appears, as the organic form of expectation. The retained past appears in the form of cellular heredity.” (DR, 73) Unfortunately, this is basically all Deleuze has to say of organic synthesis. He is content merely to point to its existence, and to briefly scrape the surface of its nature. Thus, there is extrapolative work that needs to be done, beginning with the claim that we are a series of organic syntheses. The “we” in question is the organism, a body made up of parts that

15 Deleuze, Empiricism and Subjectivity, 85.
16 See ibid., x: “We are habits, nothing but habits—the habit of saying ‘I.’ Perhaps, there is no more striking answer to the problem of the Self.”
17 In material, objectile terms, one might think here of the way matter self-organizes, or of the symmetry-breaking bifurcations that push dynamical systems into different phase states. But, concerned as I am with subjectivity, I will limit the present study to the organic register.
18 On the equation of habit with contraction, Deleuze writes that “habit draws something new from repetition.... In essence, habit is contraction.” (DR, 73)
19 “Every organism, in its receptive and perceptual elements, but also in its viscera, is a sum of contractions, of retentions and expectations.” (DR, 73)
20 I will bracket for now a consideration of cellular heredity, for it seems to be the most extreme form of a retention of the past. As such, it does not necessarily mark the limit of organic synthesis. Briefly, one might, however, understand cellular synthesis as the qualitative retention of a quantity of bits of information.
stand in a particular relation to each other as functioning organs. The organism is a structure, an organization. It is an organic system. To say, then, that we are a sum of contractions is to say that, in addition to the mind, the organ too is habitual and synthetic. Recall the starting point for our discussion of repetition and synthesis: that contraction “changes nothing in the object repeated, but does change something in the mind which contemplates it.” (DR, 70) If the organ is also the locus of a contraction, then one must speak of its movements, not as involuntary impulses, but as contemplations. But if organs perform contractions in the same way the mind does, then the question is, of course, one of what they contract. Consider, as an example, Deleuze’s claim that we are made, among other things, of a contraction of air. (DR, 73) The contractile power that corresponds to an intake of air is, of course, embodied in the lungs. In terms of their respiratory function, the lungs remove carbon dioxide from the bloodstream, supplying it, in turn, with oxygen. They oscillate between exhaling the former and inhaling the latter. The tempo of this oscillation is their respiratory rhythm, the rate at which each phase—inhalation, exhalation—recurs in a series. (Inhale-exhale, inhale-exhale, inhale...). To transpose onto this repetition the terms delineated above is to claim that the lungs expect to exhale after they inhale. Given the first, they learn to expect the second. The lungs retain an impression of the past and project that impression into the future in the form of expectation, thereby drawing a difference from repetition. But this is imprecise, for it seems strange to attribute to the lungs the capacity to anticipate anything. It is, on the other hand, need that constitutes their synthetic futurity. After inhalation, the lungs need to exhale. After exhalation, they need to inhale. Indeed, “the present extends,” for Deleuze, “between two eruptions of need.” (DR, 77) But it is only with the introduction of the concept of fatigue that we can begin to make sense of an organic contraction, for need marks only what Lampert calls “the futural dimension of the present.” (PH, 24) Need is expectation; fatigue is retention.

If the organ’s future expresses itself as need, then its past is marked in terms of fatigue. “Fatigue,” Deleuze writes, “marks the

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21 By “organ,” I mean a structurally distinct collection of tissue capable of performing a function in the organism. On this definition, the liver and lungs are organs, but nerves and blood are not. See E. Widmaier, H. Raff and K. Strang, eds., *Vander’s Human Physiology: The Mechanisms of Body Function* (Boston: McGraw-Hill, 2006).

22 I will bracket for now the implications of treating organic activity as contemplative.
point at which the soul can no longer contract what it contemplates, the moment at which contemplation and contraction come apart."

(DR, 77) Need is an urge to hurry forward, as in the case of an accelerated heart rate or a quickening of one’s respiratory rhythm in an effort to take in more oxygen. Fatigue is precisely the opposite: a slackening or deceleration born of a satisfied contraction. When I have enough oxygen, my respiratory rhythm slows. This is fatigue. I can attempt to inhale more, but if I do not need it, then contemplation and contraction come apart: I can take larger and larger breaths, but to no avail. It is satisfaction that ties fatigue to the past, for if I have enough air, then it is only because of a past series of satisfied contractions. As such, it is not two eruptions of need that mark the duration of the organic present, but the interplay between need and its satisfaction, between the urge to increase the momentum of contraction, to contract and retain more and more, and the satisfaction of these contractions, the fatigue that pulls respiratory rhythm in the opposite direction. “Need and fatigue,” in Lampert’s words, “come into focus when the momentum of satisfaction (when contraction accelerates, it is need) alternates with loss of momentum (when it decelerates, it is fatigue).” (PH, 24) If one can speak of the organ’s living present, it is in terms of the oscillation between need and fatigue that constitutes its rhythm of contraction.

To identify the organ with a contractile power is to attribute to it what Deleuze calls a “contemplative soul.” (DR, 74) This phrase comes from Plotinus, who construes the soul’s contemplative capacity as a productive principle. (PH, 21) However, while Plotinus retains the traditional connotations carried by the term, Deleuze is content to invoke it in a wholly alien context, effacing these overtones in the name of provocation. As such, the term “soul” will serve here as one more name for the self or subject. If habit draws a difference from repetition, a difference present not in the series repeated, but in the mind which contemplates it, then to every habit must be attributed a contemplative mind or soul in which it is to occur. Indeed, “a soul must be attributed to the heart, to the muscles, nerves and cells, but a contemplative soul whose entire function is to contract a habit.” (DR, 74) Recall here the way Hume defines the imagination as a power of contraction. There is, then, in the contemplative soul, an extension of the domain of contraction—pace Hume, from strictly mental to organic life—embodied in a conceptual equivocation: mind, soul, imagination. All denote, for Deleuze, a contraction of
Indeed, in locating beneath the passive-synthetic register an organic one, habit finally “manifests its full generality: it concerns not only the sensory-motor habits that we have...but also, before these, the primary habits that we are; the thousands of passive syntheses of which we are organically composed.” (DR, 74) This is no terminological provocation, “no mystical or barbarous hypothesis,” for the constitution of the subject is illegitimately effaced in confining habit to the domain of an active, conscious self. Beneath the self who acts and speaks, who learns and remembers, beneath the self to whom one might have otherwise ascribed the sole capacity to contract a habit swarms a multitude of contractile powers, a whole field of contemplative selves. “We speak of our ‘self’ only in virtue of these thousands of little witnesses which contemplate within us.” (DR, 75)

If contraction necessitates contemplation, and if the organ is, no less than the mind, capable of drawing a difference from repetition, then it must be afforded its own temporal synthesis, its own living present. The organ pulses to a rhythm of contraction, defined by the intersection of anticipation and retention, need and fatigue. The duration between the two—between its contraction of a future instance of repetition and its retention of a past one—constitutes the organ’s living present. With every contraction, with every satisfaction of need, a present moment passes. And “the content of each moment of time functions,” in Lampert’s terms, “as a point of view, contemplating the content of other moments.” (PH, 23)

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23 Protevi construes this move in much the same way: “In order to isolate,” he writes, “organic syntheses as prior to perceptual syntheses (themselves prior to active intellectualist syntheses), Deleuze radicalizes Hume and Bergson—who ‘leave us,’ in Deleuze’s own words, ‘at the level of sensible and perceptive syntheses;’ John Protevi, “Larval Subjects, Autonomous Systems and E. Coli Chemotaxis,” in Deleuze and the Body, (ed.) Laura Guillaume and Joe Hughes (Edinburgh: Edinburgh University Press, 2011), 33. Hereafter referred to parenthetically in the text as EC. See also DR, 72.

24 These “witnesses” are interchangeably selves, souls, minds, imaginations, contemplations, contractions, satisfactions, and so on. These are so many ways of speaking of passive and organic contraction, synthesis, habit.

25 It is worth noting that Lampert sets his construal against the one found in Keith Ansell-Pearson, Germinal Life: The Difference Engineer (London: Routledge, 1999), 101. On Ansell-Pearson’s account, need is a given from which one can deduce duration, while on Lampert’s, it is duration that demonstrates the existence of need. The difference between the two is negligible. Indeed, Lampert concedes that it is difficult to know which is the better construal. Suffice it to say that need marks the limit of a living present, regardless of which one takes as
organic present is marked at one end by need, and at the other by fatigue, it is constituted as a lived present inasmuch as it orients itself in both directions. It contemplates its own fatigue, its retention of the past in the form of satisfaction, as well as its need in the form of an anticipation that it will be fulfilled. As such, the present is, quite literally, a point of view on the past and future. “Repetition and need are,” to borrow Ansell-Pearson’s words, “inextricably linked since it is only through the repetition of an instant that need can express itself as the for-itself of a certain duration.”26 Put otherwise, it is in its orientation toward other instants (fatigue: the retained past; need: the anticipated future) that the present can be for-itself, a point of view, a perspective. Further, need, fatigue, and the rhythm that emerges out of their intersection vary relative to the organ in question. “It is the difference that is rhythmic,” in the words of A Thousand Plateaus, “not the repetition, which nevertheless produces it.”27 And it is difficult to imagine any two organs drawing a difference at the same rate, even when oriented toward one and the same flow of repetition. Take, for example, the suprachiasmatic nucleus, or “biological clock,” in organisms with sufficiently sophisticated central nervous systems. The biological clock functions by synchronizing the body’s systems (endocrinal, nervous, biochemical, and so on) with the time of day, harmonizing them in accordance with a circadian rhythm.28 But it goes without saying that far from a creation of harmony, identical frequencies are capable only of the reiteration of a single self-same tone. Harmony consists, conversely, in a coordination of divergent frequencies, a rhythmic coherence composed of varying tempos. Even in cases of inter-systemic synchrony, each system pulses at its own rate, drawing its own difference, contracting its own habit. Indeed, the neuronal activity responsible for transmitting circadian signals occurs at a rate far higher than the corresponding circulation of glucose or cortisol. (Ibid., 17) Respirato-

given and which as deduction. Since I have moved from an analysis of need to one of the living present, I side here with Ansell-Pearson.

26 Ibid.


28 R. M. Buijs et al., “Circadian and Seasonal Rhythms: Timing by Hormones and the Autonomic Nervous System,” Journal of Endocrinology, vol. 177, no. 1 (2003): 17–26, here 17. It is also worth noting that even the simplest forms of algae and fungi have evolved clock mechanisms to coordinate cellular activity with sunlight, making them, too, a series of contemplations, contractions, retentions, satisfactions, and habits.
ry rhythm seldom matches heart rate. And as such, “each individual organism, indeed each part of each organism, has its own measurement of time.” (PH, 23)

John Protevi takes as an example of organic temporality Dennis Bray’s work on the computational cellular chemistry of *E. coli.*

Protevi notes the way “Bray stresses the retentive aspect of *E. coli,* who ‘continually reassess their situation’ by means of ‘a sort of short-term memory.’” (EC, 45) *E. coli*’s bacterial memory is tested by measuring its response to an incremental adjustment in the concentration of an attractant like aspartate. *E. coli* responds to change. It stops responding once the concentration of attractant has settled into an equilibrium. In Bray’s words, “by measuring the rate of change in the signal [the aspartate], the receptor cluster [the bacteria] has in effect performed calculus!” In its incremental adaptation, the bacterium performs a differentiation: it has, as Protevi nicely puts it, “repeated its measurement of aspartate and drawn a difference from that repetition.” (EC, 45) In terms more properly Deleuzian, the bacteria contemplates the attractant and synthesizes it in adapting to fluctuations in its concentration. And every synthesis implies a duration, a present defined by the intersection of retention and protention, need and fatigue. Indeed, the case is no different with bacterial contraction: in navigating a field of concentrations of attractant, the bacterium preserves its past in the form of an adaptive pattern, and integrates this retention as it continues to follow a projective, anticipatory trajectory. The interval between its past and future, between adaptive retention and futural projection, is approximately 10 seconds. In a similar study, Howard Berg writes

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32 *Ibid.,* 94.

33 Mention of cellular retention and protention can rather easily be translated into talk of need and fatigue—the two work, in this case, in the same way. The cell drifts off course as its contraction of the attractant is satisfied; it is fatigued. Similarly, it is propelled onward by a need to continue contracting that which attracts it.
that “this [interval] sets an upper limit on the time available for a cell to decide whether life is getting better or worse. If it cannot decide within about 10 seconds, it is too late.”

Navigation becomes a rhythmic affair: the cell must repeatedly draw differences from its environment if it is to negotiate it successfully. Every contraction is implicated in a relative duration, and every duration is articulated rhythmically.

Wherever there is a difference drawn from repetition, there is a lived present. Wherever there is a lived present, there is a point of view, a perspective on past and future—whether in terms of retention and anticipation, recollection and prediction, or fatigue and need. And wherever there is such a perspective there is a contemplative soul, a contractile power: a larval subject. (DR, 78) Larval subjectivity is temporal synthesis. “There is a self,” for Deleuze, “wherever a furtive contemplation has been established, whenever a contracting machine capable of drawing a difference from repetition functions somewhere.” (DR, 78–79) The “Self,” the conscious subject, turns out to be a unity, therefore, only in a word. Subjectivity is systemically unconscious, a field or network—of larval selves, of passive contemplations and contractions, of habits and syntheses.

3. The Organismic

To speak of the self as a network of contemplative larvae seems at first to involve a total deconstruction or dissolution of its unity. Is the self, in other words, nothing but a series of syntheses? Is the organism nothing beyond an array of organic contractions? If beneath the lived present of every organism swarms a plurality of variable organic presents, then the organismic problematic is one of consistency and coherence. If every larval or organic subject pulses to its own rhythm of duration, then the “rule” of organismic subjectivity is, in Deleuze’s words, “that one cannot go faster than one’s own present—or rather, one’s presents.” (DR, 77) At stake in the equivocation between one’s present and one’s presents is precisely the consistency of the subject: either it is an inconsistent, chaotic collection

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35 A Nietzschean move, to be sure. Beneath the illusory unity of the will, Nietzsche locates a multiplicity of conflicting drives; beneath the unity of the subject, Deleuze locates a plurality of larval selves. Like Nietzsche, Deleuze does not dissolve the former into the latter, but rather complicates the boundary between the two. See Friedrich Nietzsche, *Beyond Good and Evil: Prelude to a Philosophy of the Future*, (tr.) W. Kaufmann (New York: Vintage, 1989), §19.
of variable presents, or, above these, it is capable of living its own present in time—a present constituted by, but irreducible to, the larval contractions that underlie it. The organism is indeed a series of habits and presents. It is not something above or beyond them. “The self does not undergo modifications, it is itself a modification.” (DR, 79) But one modificatory level must be distinguished from another. As a matter of explanatory convenience, the preceding sections moved from perceptual to organic syntheses. Now, with these analyses of organic contraction in mind, I will turn back toward the perceptual, the organismic.

Habits, nothing but habits. The organism is a complicated network of habits, of contemplations and contractions, but it is not an illusion. Perceptual syntheses do indeed refer back to—rely upon, emerge out of, traverse and intersect with—the organic syntheses of which the organism is composed, but they do not for this reason collapse back into them, as if powerless to add anything of their own. I take my cue here from Protevi’s claim that the “unity of the organism is always an achievement, a unification of many little selves.” (EC, 38) If organic unity is an achievement, if it is not simply given in advance, then this is because it is both real as well as genetic, fragile, and temporally, processually continuous. It must be supported incessantly; its consistency and unity must be maintained lest it fragment back into the thousands of variable contractions out of which it emerges. And indeed, one cannot just posit whole selves all the way down the organic scale, as if subjectivity was, in the last analysis, the transcendental condition for itself. (EC, 35) Identity cannot underlie identity. Subjectivity is genetic, its conditions larval and differential. It is for this reason that Deleuze locates a series of organic contractions beneath the organismic whole. Before perception comes contraction, before the organism, a network of contemplative souls. The organism does indeed have its own singular present in time, but this is a perceptual present (or self) the unity of which consists in a multiplicity of larval, organic selves (and their corresponding presents). This is, however, by no means a simple answer, for we are now in the midst of a series of pressing questions: we must negotiate the relation between organic and perceptual synthesis, the variable consistency of this relation on the organic level, the implications of this variability on the organismic level, and,

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36 In Deleuze’s terms, “this self, therefore, is by no means simple: it is not enough to relativize or pluralize the self, all the while retaining for it a simple attenuated form.” (DR, 78)
finally—given such a variably consistent organically temporal relation—the nature of the organism’s own living present.

To speak of organismic temporality is to speak of the organism’s perceptual syntheses: the animal’s capacity to sense the relevant features of its environment in time. Perceptual syntheses refer back to the organic syntheses that underlie them. Consider the chicken. It perceives the grain it requires for nourishment, sensing and contracting it in a rhythmic sequence of pecks. But before it can peck for grain, the chicken passively nods its head in accordance with an internal, organic rhythm. This model is Deleuze’s. “The nods of the chicken’s head,” he claims, “accompany its cardiac pulsations in an organic synthesis before they serve as pecks in the perceptual syntheses with grain.” (DR, 76) This is, however, a strictly logical priority: organisms are not first organically synthetic, and only afterward capable of perception; the two are, in reality, always imbricated in complicated ways. The organism is not, in other words, first a collection of organs and only afterward a unified whole; it is both simultaneously. If Deleuze speaks of the priority of organic syntheses, then it is because they are the transcendental conditions for the possibility of perceptual ones. Perception appropriates, in other words, its contractile structure from syntheses found already at the level of the organism’s viscera. The chicken’s perceptual syntheses take up a capacity deployed first by its organic ones—its ability to nod its head rhythmically—and redirect it outwards. The chicken senses the grain, but the rhythm of this sensation does not emerge out of the chicken’s engagement with the grain on the level of perception. It is adopted from a visceral, pre-perceptual synthesis—of blood and oxygen, in accordance with a cardiac rhythm—and redeployed at the perceptual level.

Deleuze calls this the domain of signs. Contractions are solutions to the questions and problems posed by the contemplations that motivate them. “To contemplate is to question.” (DR, 78) To contract is to venture a response, a satisfaction for the need ex-

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37 “The priority of organic syntheses is merely logical, for all organisms, even the most simple, have both metabolism and sensibility.” (EC, 36)

38 “All of this [the intersection between passive and active levels of synthesis] forms a rich domain of signs which always envelop heterogeneous elements and animate behaviour.” (DR, 73) The sign that animates the organic contraction of oxygen, the repetition contemplated in its synthesis, does not resemble the sign that animates the organism’s ability to sense the air it needs.
pressed in contemplation. The questions posed to the habits that attempt to satisfy them designate a domain or series of signs. The "content" of the contemplated question is a sign. Understood in this way, every habit forms a sign that can be taken up at a different level, in a different way. And if perceptual syntheses refer to structures found already at the organic level, then every sensation is the redeployment of a more fundamental sign. One must retain in order to recollect; one must need or anticipate in order to calculate and predict. "Each contraction, each passive [organic] synthesis, constitutes a sign which is interpreted or deployed in active [perceptual] syntheses." (DR, 73) The chicken redeploys a convulsive, organic structure at the perceptual level when it pecks for grain. But this is a relatively primitive example. Deleuze offers one other. "The signs by which an animal 'senses' the presence of water do not," he writes, "resemble the elements which its thirsty organism lacks." (DR, 73) The elements lacked by a thirsty animal constitute the questions contemplated by its viscera at the level of organic synthesis. This is simple enough: thirsty animals need to metabolize $\text{H}_2\text{O}$. But the content of the animal's perception of water, the sign of water, does not resemble the elements metabolized. This is because the animal metabolizes $\text{H}_2\text{O}$, but senses a combination of colour, taste, and the expectation and effect of hydration. The animal must therefore first be capable of viscerally contracting the elements of which water is made before it can be capable of sensing its presence. Visceral contemplation must precede perceptual contraction.

Consider the tick, an organism capable of no more than a few simple sensations. It survives on the blood of other animals. Every-

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39 "What difference is there...?" This is the question the contemplative soul puts to repetition, and to which it draws a response [a contractile answer] from repetition." (DR, 78)

40 At the risk of digressing, one might think here of Spinoza's claim that "the object of the idea constituting the human mind is the body." Baruch Spinoza, "Ethics," in A Spinoza Reader: The Ethics and Other Works, (tr.) E. Curley (Princeton: Princeton University Press, 1994), Book II, Prop. 13. Mental content is, in the terms of the present study, a redeployment at the mental level of signs found already at the level of the body. Perceptual and organic syntheses venture solutions to the same questions and problems, albeit in different ways; but no perceptual synthesis is capable of contracting a contemplation wholly alien to its organic viscera. The mind and body are, to translate Deleuze's terms back into Spinoza's, not only parallel, but irreconcilably intersectional—perhaps even identical.

41 I take this example from Giorgio Agamben, The Open: Man and Animal (Stanford: Stanford University Press, 2004), Chapter 10. The inspiration for this chapter is Jakob von Uexküll's concept of the Umwelt.
thing it senses is, in the terms delineated above, a redeployment at the perceptual level of this basic organic need. It is capable of sensing, among few other things, butyric acid (sweat): a sign the referent of which is a worthy host, a warm-blooded mammal. Butyric acid is, in this sense, a sign sensed by the tick as an indication of blood; it is the metabolic contemplation of blood interpreted at the level of perception. The aroma of coffee, on the other hand, so potent a smell for organisms capable of metabolizing its effects, holds no relevant relation—at least not for the tick—to the proximity of a warm-blooded host. Consequently, it is not a sign for the tick. The tick cannot metabolize ground coffee, and therefore there is no organic contemplation to be redeployed at the perceptual level; the tick cannot sense its aroma. The organism’s perceptual syntheses rest upon structures instantiated first at the organic level. Without this foundation, you may as well have an organism without organs.

There is now some indication of the relation between a series of organic presents and the unity of an organismic one. The preceding section investigated the nature and harmony of these presents, as well as the way they constitute signs redeployed by the organism’s perceptual syntheses. But what does all of this mean for the organism’s own living present? Deleuze writes that “the duration of an organism’s present, or of its various presents, will vary according to the natural contractile range of its contemplative souls.” (DR, 77) It is worth stressing—although it should, at this point, go without saying—that perception is itself wholly organic. It is by means of its organs that the organism perceives the world outside it. Consider, for example, human vision—which is, of course, radically embodied. It is only by means of our eyes that we see the world. And eyes are themselves incredibly sophisticated organs, a set of structured, dynamical networks of membranes, muscles, cells, fluids, chemicals, vessels and glands. This network is dynamical because it works processually: without constantly receiving, focusing, transmitting, and converting light through its various layers and structures, the eye cannot send the requisite electrical impulses to the brain for there to be vision. This process is not open-ended. It is recurrent, its repetition rhythmic. Rhodopsin, the chemical compound responsible for the initial reception of light and the inception of the visual process, needs constantly to be regenerated. The mechanism of this reformation operates at the rate of chemical reaction and cellular integration.\footnote{Rhodopsin is composed of scotopsin, a protein, and 11-cis-retinal, a vitamin A derivative. Exposure to light decomposes rhodopsin, converting its 11-cis-retinal}
ism, for the eye is an organ like any other, its rhythmic temporality a pulsing organic contraction and integration of elements—in this case, of wavelengths.

Just as organs must be linked functionally one to the other in an intricately dynamic and harmonious network, so too must they be linked temporally in the same terms. The two are, of course, inseparable, but while we speak often of the requisite relations an organ must hold with others in a functioning whole, we rarely think its rhythm so necessarily relative. To reiterate: every organ lives its own present duration, defined by the rhythm of its contractions. These rhythms not only mesh one with another, they not only refer to each other in a harmonious whole; the rhythm of one organ actually depends upon, and varies relative to, the rhythmic contractions of the others. Perception is organic, and as such, its duration meshes with the durations of the body’s other organs. But it is also organismic, for while it varies relative to the meshwork of presents that underlie it, it also supersedes them, emerging out of them and containing them within itself. In organic terms, the eyes contemplate and contract at a rhythm like any other organ. But in perceptual

(an angulated molecule) into all-trans retinal (a straight one). Unstable, the chemical decomposes again, forming several intermediate compounds, metarhodopsin II among them. This latter chemical is responsible for the creation of the electrical impulses interpreted by the brain as light. The whole process takes less than a second—the first reaction, under a trillionth of a second. In order for it to recur, the all-trans retinal must be converted back into 11-cis-retinal, which will, in turn, recombine with scotopsin in order to reform the necessary rhodopsin. See T. H. Goldsmith, “Optimization, Constraint, and History in the Evolution of Eyes,” The Quarterly Review of Biology, vol. 65, no. 3 (1990): 281–322.

43 Heart rate varies relative to metabolic activity, respiratory rhythm, neuronal patterns, environmental influences, and so on. Physiologic systems all pulse at their own rates, whether neural, cellular, muscular, or otherwise. The rhythm of one system refers to the rhythm of others. It may also contain them, coiled within itself. The rhythm of the muscular system is, for instance, constituted in part by the rhythm of the endocrinal, nervous, and skeletal systems that underlie it. Organic temporality is never self-contained; it is relative, a meshwork of references to, and relations with, other rhythms of temporality.

44 Visual activity necessitates the working of ocular muscles, ligaments and tendons, the conjunctiva (a thin membrane beneath the eyelid), and the lacrimal apparatus (the system of glands, sacs, ducts, nerves, and fluids responsible for tear supply and drainage). The brain’s visual cortex is also responsible for the interpretation of visual signals. The nervous system transmits these signals. The vascular system supplies the eye with the requisite blood and nutrients, and so on. Each system contracts at its own rate—in a relative harmony with the others.
terms, they are particularly significant.\textsuperscript{45} The organismic present unifies the organic presents that constitute it. It is the consistency, synchronization, harmony, or coherence of these organic contractions that makes possible the unity of the organism's perceptual present. The organismic present is, in this respect, reminiscent of Deleuze's characterization, in \textit{Logic of Sense}, of Chronos: "an encasement, a coiling up of relative presents."\textsuperscript{46}

If Chronos is the envelopment of relative durations, then perception is Chronoic.\textsuperscript{47} The range of the perceptual present corresponds to the rhythmic contractions encased within it. The perceptual present emerges out of these contractions and is sustained by them. Vision requires the consistency of a process that spans multiple organic registers and physiologic systems—from lids, brows and lashes to the tarsal glands, lacrimal apparatus, the visual cortex and the relative rhythm of synthesis that animates each. Every organic synthesis is, in Protevi's words, "a contemplative soul, each has its own rhythm, and it is the consistency of those rhythms that allows the cell [organ, organism, species, society, and so on] to live." (EC, 37) Defects in the process may either alter the nature or duration of the perceptual present, or otherwise abolish it altogether. When rhythms clash with sufficient intensity, when organic consistency comes completely apart, the organism dies. "Death, we can speculate, occurs when the rhythms of the processes no longer mesh. Shifting musical terms, we can say that life is harmonious music; death is disharmony." (EC, 37) Subjective temporality requires a consistency

\begin{itemize}
\item \textsuperscript{45} Particularly significant with reference to the non-perceptual organs, of course—and still no less relational. The living present of the perceptual system still varies in accordance with the temporal rhythms of other organic systems, but this is now a relation of the organism with its organs, not of the organs with each other.
\item \textsuperscript{46} Gilles Deleuze, \textit{The Logic of Sense}, (tr.) M. Lester, (ed.) C. V. Boundas (New York: Columbia University Press, 1990), 162. On the nested, "Chronoic" nature of organismic temporality, see note 47. Protevi affirms that "there are thousands of such rhythmic periods between need and fatigue, periods that compose the organic being of humans: from the long periods of childhood, puberty, adulthood, and menopause to monthly hormonal cycles to daily cycles, all the way down to neural firing patterns." (Protevi, "Deleuze and Life," 242)
\item \textsuperscript{47} I retain the second "o" from Chronos to distinguish "Chronoic" from the more familiar "chronic." While the latter refers to long-lasting effects, the former is meant to designate the organismic instantiation of Chronos. Whereas Chronos is understood to be a theory of objective temporality more generally—a present so vast as to contain every other one inside of it—I use it here to designate the organismic present, a present that belongs to the organism in question and contains within it only the organism's own organic presents.
\end{itemize}
of larval selves, just as the life of an organism requires the ongoing operation of the organs that constitute it.

Before taking up the variable relationship between larval and Chronoic temporality, the nature of the latter, the lived or living present, ought to be delineated precisely. It is clear that the organism’s living present refers, quite literally, to the present it lives through: its present. Equally clear is the fact that the present is constituted by a duration spanning the interval between the organism’s past and future. The question of the living present is therefore one of what the organism is capable of perceiving as present, and what will exceed this capacity, bleeding into its past and extending into its future. Given that every present moment is a synthesis or contraction of multiple instants, I refer to the organism’s living present as its frequency profile—a term denotative both of the fact that perceptual systems operate in terms of temporal frequencies, and that these frequencies can span either more or less than one unit of measurement. Visual temporal frequency is, for example, measured per second with reference to the flicker fusion of a given cyclical repetition. Flicker fusion occurs when separate instances no longer appear distinctly, when they fuse or are contracted together continuously. It therefore constitutes the limit of perceptual contraction, designating the number of repeated instants the system in question is capable of apprehending distinctly. For humans, flicker fusion occurs at 60 Hz. The visual system of the human organism is therefore capable of perceiving just under 60 elements in a second. This means that electronic displays with refresh-rates of more than

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48 I have already provided a sufficient analysis of the former: organs pulse at contractile rhythms defined by the interplay of a relative need, pushing them into the future, and a fatigued retention of the past. While it is adequate to define the organic present by this intersection, the organismic or Chronoic present requires a more thoroughgoing analysis, for it concerns more than the rhythms that define the organism’s body; it concerns the organism’s ability to perceive in time, and the relation its perceptual present holds to its organic rhythms.

49 Frequencies are gaged in Hertz (Hz), a unit of which measures the number of repetitions per second. Since a single second may constitute either only a fragment of the lived present (in the case of the human organism), or span multiple presents (in the case of certain insects), I refer to the perceptual present as a profile of frequencies.

60 times a second appear smoothly, while displays that refresh or flicker at lower frequencies appear discontinuous and jittery. This is, then, the contractile limit, per second, of the human visual system. But what of the duration of its present? Doubtless, this is the harder question—in part because the organism’s present will vary in accordance with the rhythms of its organs and influences from its environment, but also because it is more difficult to fix experimentally.

Neurophysiological research dating back to the early twentieth century suggests that the human experience of the present spans a duration of approximately 2–3 seconds. Ernst Pöppel’s more recent studies propose that humans experience these temporal intervals as units, and that this unitary perception of a present consisting of several seconds is expressed in the rhythmic iteration of everyday motor abilities. There has since been a proliferation of such studies, locating beneath both repetitive and non-repetitive movements in humans, as well as in other mammals, the same unified 2–3 second interval. For the purposes of the present study—more theoretical than it is experimental—I will take as given the claim that the human perceptual present consists approximately of a 3 second duration. If we refer back to the contractile limit of the perceptual second (60 Hz), we now have an image of the human organism’s frequency profile. By contracting roughly 60 elements in a second, and unifying approximately 3 seconds in a living present, the human organism’s frequency profile is 180 Hz over 3 seconds. The human perceives at a rate of 60 Hz in a unified present that spans 3 seconds. It is the unity of these frequencies that the organism lives as present. This is the temporal now of human subjectivity.

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51 A similar effect is often observed in fluorescent light bulbs.
56 The temporal ‘now’ of subjectivity is constituted by a contraction of elements in a second, and by a number of seconds in a present. And of course, both variables vary in accordance with the fluctuation of other factors. The numbers
The Chronoic, organismic or perceptual present is composed of a polyrhythmic network of organic presents. To claim that perception is Chronoic is also to claim that the perceptual present varies in accordance with the larval rhythms that constitute it. In *Intensive Science and Virtual Philosophy*, Manuel Delanda expresses this point with reference to the relativity of temporal oscillation.57 “What is,” in his terms, “immediate past and future for [a biological oscillator] would still be part of the ‘lived’ present of an oscillator operating at longer time scales, at the level of geological or stellar dynamics, for example.”58 At the same time, this biological present “already includes many past and future events for oscillators operating at atomic and sub-atomic scales.”59 Different systems perceive at different rates. Their perceptual syntheses contract relative presents; the present of one, if long enough, may include events already perceived as past by another. These rates of synthesis vary, in general terms, according to what Delanda calls the scale of oscillation: biological phenomena typically operate at rates higher than do geological rhythms. But the concern of the present study is specifically with the biological register and the organisms that populate it. As such, Delanda’s claim is encouraging, but it does not go far enough. Temporal oscillation is relative, on the one hand, to scale, but—more to the point—also to the frequency profile of the organism in question. Indeed, organisms whose systems pulse at higher rates tend to perceive the world at higher frequencies: this is part of what it means to ascribe Chronoic time to the organismic present.

Taking the human profile as a point of reference, the perceptual capacities of human vision can be compared with the capacities of other organisms. Research on the subject suggests that the ocelli of dragonflies have a flicker fusion threshold of 220 Hz.60 This means, to

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57 Oscillation refers to the rhythmic pulse of a recurring temporal cycle: the ticks of a clock, for example. For human temporal oscillation, see Treisman et. al, “The Internal Clock: Evidence for a Temporal Oscillator Underlying Time Perception with Some Estimates of its Characteristic Frequency,” *Perception*, vol. 19, no. 6 (1990): 705–43.
59 Ibid.
reiterate, that their ocellar nerves are capable of perceiving distinctly just under 220 flickers in a second. Beyond this threshold, they blur and are contracted continuously. Unfortunately, I know of no existing research on the temporal perceptive capacities of the dragonfly, nor of any experimental models by which we might acquire such information. We know not, therefore, how many seconds—or how many fragments of a second—are traversed in the span of the dragonfly’s present; we know not how many get to “count as one,” to borrow Badiou’s phrase. As such, we cannot reasonably compare the frequency profiles of dragonflies with those of humans. But we can, I think, infer from the difference in flicker fusion thresholds a higher rate of perception in dragonflies. And predictably, the dragonfly’s organic systems beat at rates far higher than do human ones.61 Dragonflies pulse at higher organic rhythms; it is only natural that they perceive at a higher organismic rate.

“Each level of temporal scale defines,” for Delanda, “what oscillators at that level ‘perceive’ as relevant change: certain cycles are simply too slow for them to appear as changing or moving relative to a faster level, and vice versa.”62 In the terms developed above, the synchronized rate of its organic syntheses defines what the organism is capable of perceiving in its environment. The dragonfly is therefore capable of perceiving changes or contracting elements that elude the human, changes that occur at a rate beyond the threshold of unaided human perception. It is a faster specimen; it perceives the world at a higher rate. This might be why we have such a hard time swatting at insects. Our most agile attempts appear to them lumbering and sluggish, for we perceive each other at different rates of synthesis. The higher the frequency profile, the more changes one is capable of perceiving in the same timespan, the more elements one is capable of synthesizing in the same movement of contraction. Such is the nature of organismic temporality: the organism’s perceptual syntheses determine the duration and frequency of its living present. And these syntheses are determined, in turn, by the organism’s rhythmic network of organic contractions.

Everything perceives the world at its own rate. The world is made perceptually meaningful to the organism within a certain range of frequencies. Anything that exceeds the thresholds of its perceptual capacity escapes the organism’s living present and is consequently either a part of its past (and future) or is otherwise invisible. The

61 The dragonfly’s heart rate is a typical 180 beats per minute, while that of a resting human is typically around 70.
lived present therefore designates the temporal field with which we interact as organisms. It also designates the temporal dimension of subjectivity, a dimension that emerges genetically out of the larval selves whose rhythmic syntheses serve as the conditions for the possibility of organismic time. This is, therefore, the contribution of Deleuze’s first synthesis of time to biological temporality: first, the analysis of repetition and its corresponding contraction; second, the deployment of this concept of contraction in the realm of organic function and the processual rhythms found therein; and, third, the movement from organic rhythm to organismic perception. Far from a dispensable step within a larger temporal metaphysic, I have argued that Deleuze’s first synthesis provides a robust theory of the temporal dimension of organismic subjectivity.

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