

Rhizomes and Bodies With(out) Organs: Biological Metaphors in Deleuze and Badiou

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In a conversation with Deleuze, Foucault quoted a Maoist who had once told him that Deleuze had always remained an enigma for him. This Maoist could have been Alain Badiou, because Badiou still seems to be at a loss when he is confronted with Deleuze. He is critical in his *Deleuze: La clameur de l'Être* of 1997. One point of critique is that Deleuze, despite his outspoken criticism of metaphoric use of concepts, recurrently seems to resort to metaphors, especially to biological metaphors. The recent conceptualization of bodies and organs in Badiou's *Logiques des Mondes* (2006) could leave Badiou guilty of the same recourse to organic metaphors. It also opens the up the possibility of a comparison between Deleuze and Badiou's ontological projects. I will present here a first exploration of this line of enquiry.

Allow me shortly to consider the history of the 'body politic'. The body politic is the metaphor which identifies the analogies between organic and social bodies from classical times until today. Plato, repeatedly draws an analogy between states and human bodies in the context of health and sickness.¹ Aristotle, Xenophon and other writers also used the metaphor in a way to suggest the organic nature of the state. The state is seen as a natural phenomenon, not a human invention. A healthy society is a peaceful and harmonious society in which the various parts and factions are interdependent.

Several medieval writers revive and elaborate this classical metaphor. John of Salisbury in the 12th century devises a substantial comparison between the human body and a kingdom. The soul is linked to the clergy, the head to the prince, whose power is upheld by 'loyal shoulders'. The heart is the senate, the hands are soldiers, the feet peasants and craftsmen, and the stomach is the treasury, which needs continual feeding to keep the whole organic unity running. Until the 17th century the Metaphor persists only to wane after its most famous reiteration by Thomas Hobbes Leviathan, after which it resurfaces now and again at several point in the 19th and 20th century.

Recently Badiou appropriated the metaphor of the body in his *Logiques des Mondes*. In the introduction he says: 'Today, natural belief can be summarized in a single statement: *There are only bodies and languages.*' This statement, or its anthropological variation 'there are only individuals and communities' is, according to Badiou, 'the axiom of our contemporary conviction'. Badiou proposes to name this conviction *democratic materialism*.² Later he also calls it a materialism of life, a bio-materialism. Badiou then proposes to counter this kind of

materialism with what he calls a 'materialistic dialectic' which he summarizes as follows: 'There are only bodies and languages, except that there are truths.'³ In this sense *Logics of Worlds* takes its cue from his 1988 *Being and Event* which, in Badiou's own words, 'undermine[s] the linguistic, relativist and neo-sceptical parenthesis' of contemporary academic philosophy by its conclusion that truths are generic multiplicities and that the local existence of the process that unfolds these generic multiplicities can legitimately be called a 'subject'. Again in his own words: 'a subject is a *point* of truth'.⁴

In *Logics of Worlds* he aims to extend these purely ontological conclusions on the level of pure being and the abstract form of the subject. He wants to extend them towards more concrete forms of being-there, of the subject at the level of embodied points of truth or of the world.⁵ He develops the concept of the point that we saw before as the point of truth. The point is a node contained within some but not all worlds that is forced into an either/or choice between mutually exclusive alternatives.⁶ This is a rare event, he concedes, equally rare as an event, but at that extraordinary moment the point can concentrate and condense the apparently chaotic world into a binary choice. Badiou remarks that we are all familiar with such points of inescapable decisions, a decision without prior exemplars.⁷ The point is a node in a worldly network, but cannot fall back on this structure to make its decision.

At this point Badiou introduces his concept of the body: in running into and going through points the abstract subjects-of-events 'construct' post-evental bodies of truth.⁸ What does he exactly mean with this recourse to the body? It is a concrete, materialized version of the subject which was in *Being and Event*, as we saw, a local, abstract, instance which unfolds generic truths. The body, thus, is what Badiou calls a 'multiple-being' which 'under the condition of an event [...] enters into a relation with a present.'⁹ Or in other words, bodies are 'material bearers of trans-world truths made immanent to worlds.'¹⁰ Or yet in other words, using a military metaphor: 'the body is the ensemble of everything mobilized by the trace of the event.'¹¹

But where John of Salisbury's or Hobbes's bodies are static metaphors, with fixed functions for the various organs, Badiou's bodies are more fluent. He speaks of political parties as bodies, and almost invoking the ancient imagery of sick and healthy bodies, he implies that the axioms of democratic materialism affect these bodies' capacity for action.¹² In order to tackle the problems and choices encountered at the aleatory points of the truth-path, the Badiouian body has 'organs' fashioned to deal with these problems and choices.¹³ These organs are extremely flexible. We can think of the swelling of lymph-nodes when you are infected by a virus. Or, more dramatically, we could envision, as Adrian Johnston does, evolving bodies which sprouts new organs whenever they are needed.

Clearly, this concept of the Body With Organs is related to both the long tradition of the body politic and, at the same time, to Deleuze and Guattari's critical engagement with this tradition

through their Body Without Organs. What's more, I would suggest, Badiou's appropriation points towards a blending or should I say a folding together of Deleuze and Guattari's Body Without Organs with their concept of the rhizome, which is, as you all undoubtedly know, a horizontal network-like root structure which they propose as an alternative to more hierarchical tree-roots. The rhizome is generally taken to be a spatial metaphor and this is also true of the traditional body politic which is usually envisioned as a naturally bounded, unified, and bordered space, as the organic body itself and as the territory over which the sovereign rules.¹⁴ In Badiou's appropriation, however, the dynamic, evolving body has both spatial and temporal characteristics, as we have seen. His body conjoins the eternal and non-local truth to the chrono-logic historical and situated world.¹⁵

This is in line with the direction the traditional spatial body politic took in the wake of Darwin's theory of evolution and Hegel's and Marx dialectic. (We can clearly see this change for instance in the work of the economists Albert Schäffle and Thorstein Veblen.¹⁶) It is also in line with the fact that one of Badiou's main focuses, if not his prime focus, could be characterized as an investigation in the ontological nature of change. It is this feature that he shares with Deleuze whose ontology is arguably also an ontology of change, of the radically new, yet-to-come.

Let me shortly sketch the Deleuze-Badiou dynamic. This dynamic starts rather acrimoniously in the early 1970s. Badiou wrote a particularly vile critique of *Anti-Oedipus*. Deleuze, in his turn, signed a petition in which Badiou is accused of Bolhevist methods in trying to gain control of the philosophy department at the university of Vincennes where they both taught. As is often the case, their relationship became somewhat more civilized as they grew older. In *What is Philosophy?* Deleuze and Guattari wrote a rather positive evaluation about what they describe as a 'particularly interesting undertaking', that is Badiou's *Being and Event*. Their conclusion, however, is rather critical.¹⁷ Similarly, later treatments of Deleuze's work by Badiou are more sympathetic, although certainly not uncritical. In a short text, reflecting on his book on Deleuze Badiou writes that he 'considers Deleuze's work to be of exceptional importance'.¹⁸ Deleuze's books, he says, are courageous, discerning and bold. Their metaphysical programmes are very similar, he writes, but Deleuze, he says, gives it an inflection which led it in a direction opposite of the one he (Badiou) thinks it should take.¹⁹ So as much as there is mutual admiration, there is also antagonism.

This strange relationship is exemplified in the introduction to *Logics of Worlds* in which on the one hand Deleuze is clearly the inspiration for democratic materialism, and on the other hand he is said to stubbornly resist the 'devastating gains made by democratic materialism' and is thus headed under the materialist dialectic.²⁰ In earlier works Badiou has clearly distinguished himself from the tradition of Nietzsche, Bergson and Deleuze, which he described as the organicist paradigm that is opposed to his own mathematical paradigm, In

Logics of Worlds, however, he enlists this what he calls ‘vitalist mysticism’ in his fight against democratic materialism, despite Deleuze’s vehement criticism of the dialectic in any form.

In its simplest terms, the dispute between Deleuze and Badiou is about how the radically new can come to be. For Badiou the new cannot be truly new if it does not break radically with the past. For Deleuze on the other hand, the new cannot be conceived outside of the continuous and immanent multiplicity of the virtual or what Bergson has called, ‘duration’, or ‘creative evolution’. Doing so runs the risk of reintroducing transcendence into philosophy.²¹ An event is for Badiou a radical break with what came before the event. Thus conceiving the event within a continuity as Deleuze does, is a bridge too far for Badiou. Furthermore, Badiou talks of events as exceptional happening while Deleuze sees the world as a continuous stream of events, affirming, Badiou would say, the One chaotic Event of life.²² Badiou thus concludes that Deleuze’s immanent virtuality is a return of the metaphysical One, or the Whole or Substance if you will.

Deleuze exclaims that ‘everything is ordinary’ but also that ‘everything is unique’.²³ The Deleuzian event is at once structural and unprecedented.²⁴ These seemingly opposite positions require a radically inclusive and extremely dynamic materialism. Peter Hallward makes the following observation:

Deleuze delights in describing mechanisms of transformation between the most varied levels of ontological intensity and the most disparate registers of being (chemical, cosmic, animal, mechanical, molecular, and so on. His is a univocity that aligns these very different sorts of reality on the same ‘plane of consistency’. Badiou’s univocity operates, on the contrary, by disregarding the particularity of beings in favor of the abstract homogeneity of their being as being. When push comes to shove [...] his ontology cannot itself then describe the steps whereby univocity is maintained over the expansion of its field of inquiry to include the various concrete situations that compose material or historical existence. [...] In order to match Deleuze’s comprehensive embrace, Badiou will need to develop a logic of material or organic situations that demonstrates how their structurings are indeed consistent with the basic axioms of set theory.²⁵

Is this what we are witnessing in *Logics of Worlds*? Are we witnessing the development of the logic of affective-concrete, material or organic ‘bodies’ consistent with the abstract punctualism of Badiou’s mathematizing idealism.²⁶ The apparent re-evaluation of the organicist tradition in the introduction might point to at least a partial reappraisal of his stance on biology, that ‘wild empiricism disguised as a science’, as he has called it.²⁷ At several points he speaks positively of the vast Darwinian innovation. He also positively appraises those who identify themselves with this anticonsensual insight and continue the unfolding of the as yet not completely explored paths that originate in the event of the Beagle’s voyage.²⁸

The organicist tradition of Nietzsche, Bergson, and Deleuze engages with biology in a way that exceeds simple metaphorical explanation—if such a thing would exist. But where Nietzsche playfully deconstructs stereotypical metaphors attaching totally new figures to traditional images²⁹, Deleuze says it is ‘quite wrong’ for philosophers or writers to use notions from the sciences ‘only metaphorically’.³⁰ Yet, as Badiou (amongst others), as I said before, has pointed out, Deleuze’s work seems to resort to metaphors all the time. Manuel Delanda proposes to resolve this apparent opposition by taking Deleuze’s images as literal as possible. Delanda himself develops this method by connecting Deleuzian concepts such as multiplicities and individuation to the scientific field of non-linear dynamics.³¹ I will try to do something similar. I will try to map structural connections between Deleuze’s image of the rhizome and the field of modern biology, that is molecular biology and its backbone, evolutionary theory. This, I will argue, will strengthen Deleuze’s dynamic ontology.

Deleuze and Guattari themselves propose the connection between the rhizome and evolution in *A Thousand Plateaus*. If Deleuze’s ontology is, as I have contended, principally an ontology of change, then evolution is obviously a very suitable analogy. It explains, as Bergson pointed out, how to think the radically new as arising from a virtual continuity, from, to use another biological metaphor the ‘prebiotic broth,’ or ‘primordial soup’ that Badiou would call the One. But how to reconcile the old, vertical models of the evolutionary tree and descent that comes to mind when we think of evolution with the horizontal, a-centered, non-hierarchical and heterogeneous rhizomatic networks? Or how to account for remarks such as the following by Claire Parnet in a dialogue with Deleuze:

But the embryo, the evolution, are no good. Becoming doesn't go through that. Becomings have no past or future, even no present, there is no history. Becoming is about involution: neither regress nor progress.

To be able to see the parallels between the rhizome and evolutionary theory, we will have to update ourselves on current biological theories. Deleuze and Guattari certainly have done so. They indeed write that ‘becoming is not an evolution,’ as Parnet notes, but they crucially add ‘at least not an evolution by descent and filiation.’³² In order to distinguish their use of evolution from that classical image of descent and filiation they use the term ‘involution’. This should not be confused with regression, just as evolution should not be confused with progress. Evolution is pure chance. The phrase ‘survival of the fittest,’ (which has gained some dubious connotations as a result of social Darwinism) does not infer that ‘newer’ evolutionary species are better or more complex than older species. It simply denotes the process of natural selection that realizes the most perfect fit between a species and its environment.

We should not assume that the postulation of the term involution is, as Parnet seems to think, an alternative to evolutionary theory. It rather denotes, as Deleuze and Guattari describe it, the richness and complexity of causal relations in contemporary biology. This field, they say, is far ahead of the 'inadequate conception of causality' in the social sciences, with their 'materialist, evolutionary, and even dialectical schemas.'³³ Obviously with this criticism they do not mean to invalidate the whole field of materialism in which they themselves occupy a position, so similarly they do not invalidate Darwin's 'Copernican revolution'.

Although Darwin's postulates still stand strong, the old models of gradually bifurcating trees do no longer visualize how we might think of evolution. This is why a comparison between evolutionary processes and rhizomes is particularly apt. Today we recognize several mechanisms of evolutionary change. Natural selection is still the central mechanism, but it is complemented by mechanisms such as genetic drift, gene flow, and non-random mating, which can cause great variations and chance mutations that seriously disrupt the slow and careful process of natural selection. In addition to this the theory of punctuated equilibrium has shaken up the idea of gradual change. This theory holds that there are differential speeds of change. Deleuze and Guattari describe involution as 'zigzag movements, stages skipped here and there, irreducible overall breaks.' Their own example when they propose the connection between the rhizome and evolution is an example of what they call side-communication or transversal communication:

Under certain conditions, a virus can connect to germ cells and transmit itself as the cellular gene of a complex species; moreover, it can take flight, move into the cells of a completely different species, but not without bringing with it 'genetic information' from the first host.

Thus evolutionary schemas are more like transversal networks than tree-roots. This is not due to a Deleuzoguattarian intervention; it is simply an existing correspondence.

Deleuze and Guattari, however, do challenge a tendency of modern evolutionary thought, that is the reductionist tendency that has grown out of what has come to be known as the central dogma of molecular biology. This dogma was developed in the wake of the discovery of DNA by Watson and Crick in 1953. Central to this dogma is the claim that genetic information flows only in one direction, that is from DNA to RNA to protein. This has promoted the view that the lowest order components, can completely explain developments of the whole organism.³⁴

We know now that the central dogma of molecular biology was incorrect and that reverse transcription is possible in at least a number of viruses, collectively known as retroviruses of which HIV is the most well known. This complicates the strict reductionist view and gives at least some credit to Lamarck's dismissed theory of evolution. However, Deleuze and Guattari

do not challenge the reductionist tendency on this ground. For lack of time I will not describe Deleuze and Guattari's criticism of reductionist microbiology in detail. In general terms it can be said that they focus on what the French biologist Jacques Monod has described as 'self-ordering, cognitive properties of specific enzymes'.³⁵ They also zoom in on the phenomenon of 'integration' as described by the biologist François Jacob. 'Integration' holds that specific relational processes within different levels or strata of organic development (from genes to cells to organs etc) changes the quality of the matter involved (the cell, the tissue, the organ etc.). As Jacob writes 'An organization often possesses properties that do not exist at the level below. These properties can be *explained* by the properties of the components; they can not be *deduced* from them.'³⁶ What we see here, again, is that Deleuze and Guattari's concept of the rhizome can be linked to actual biological concepts. On the different levels or strata we see the formation of 'self-organizing' functional networks.

What can we take home from the above exposition about evolution? For one thing it shows us that the rhizome is not merely a metaphor. The first image that comes to mind in most of us when we think of the rhizome is that of couchgrass or crabgrass. As a weed that survives and even expands in hostile or barren environments, it is a striking image. It lacks however transversality, and we tend thus to reject it as 'mere' metaphorical exposition. In drawing out the connections with evolution, we establish it as a powerful multidimensional concept in itself. At the same time, it strengthens Deleuze's dynamic ontology in that shows how to think the new from within a continuous multiplicity.

A metaphor, thus, when it not only illustrates but also inspires new thought (I am tempted to say transversally), can be a powerful tool to conceptualize the world. This is exemplified in rhizome, because these days networks seem to be omnipresent, to the point that even Badiou incorporates it in his theories. Metaphors can however not only be creative and inspiring, they can also inhibit our thought. Modern evolutionary theory agrees on the centrality of natural selection. It does however acknowledge that the relative importance of the various mechanisms of evolution (such as genetic drift and gene flow) might be different at different levels of evolution, such as at the levels of populations, the species or macroevolution. There is no consensus as to how much the 'mix' of mechanisms differs at these different levels. Everyone agrees at the level of populations 'natural selection' is the dominant mechanism, at the level of speciation it is probably far less dominant.³⁷ In a similar vein we should acknowledge that there are different ways to conceptualize our social world. While the self-organizing network might, at least at this moment, be a particularly useful way of analyzing social dynamics, we should always be aware that different levels of analysis might require different mixes of analytical and conceptual tools to bring out the best approximation of what we some time ago used to call the truth.

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- ¹ 'Plato begins the Republic by establishing analogy as a mode of inquiry: if justice in a state can be defined, then justice in an individual can also be determined. He then contrasts a simple, "healthy" society and a "feverish" one corrupted by luxury. By an extension of the analogy, the cure for a "festering" society is not the multiplication of petty laws, but a rigorous transformation of the state and the individual so that both will exhibit a centralized, rational control and an appropriate division of labor. In the later Laws (628c ff.) Plato characterizes the highest good as a peaceful, friendly state, like a healthy body that does not require medical attention.' *The Dictionary of the History of Ideas: Studies of Selected Pivotal Ideas*, ed. by Philip P. Wiener, (New York: Charles Scribner's Sons, New York, 1973) v. 1, p. 68.
- ² Cf. Badiou, 'Democratic Materialism and the Materialist Dialectic', *Radical Philosophy* 130 (2005), pp. 20–24 (p. 20). (the communities quote is from p. 24).
- ³ Ibid., p. 22.
- ⁴ Ibid., p. 23.
- ⁵ Ibid., p. 24.
- ⁶ Cf. Adrian Johnston, 'Courage Before the Event: The Force of Affects', p. 14. [<http://www.bbk.ac.uk/bih/activities/Johnston>] <accessed July 20th, 2007>
- ⁷ Ibid., pp. 14–5.
- ⁸ Ibid., pp. 15–6.
- ⁹ Badiou quoted in Johnston, p. 16.
- ¹⁰ Johnston, p. 17.
- ¹¹ Badiou quoted in Johnston, p. 18.
- ¹² Cf. Johnston, p. 18.
- ¹³ Ibid., p. 18–19.
- ¹⁴ Rasmussen & Brown, 'The Body Politic as Spatial Metaphor', *Citizenship Studies* 9.5 (2005), pp. 469–484 (pp. 471–2.)
- ¹⁵ Cf. Johnston, p. 16.
- ¹⁶ Cf. Sophus A. Reinert, *Darwin and the Body Politic*. [<http://hum.ttu.ee/wp/paper8.pdf>] <accessed July 8, 2007>
- ¹⁷ *What is philosophy?* (London: Verso, 1994), p. 151.
- ¹⁸ *Theoretical Writings* (London: Continuum, 2004), p. 67.
- ¹⁹ Ibid.
- ²⁰ 'Democratic Materialism', p. 23.
- ²¹ Keith Ansell Pearson, *Philosophy and the Adventure of the Virtual* (London: Routledge, 2002), p. 71.
- ²² Hallward, *Badiou: A Subject to Truth* (Minneapolis: University of Minnesota Press, 2003), p. 176.
- ²³ Ibid.
- ²⁴ Ibid.
- ²⁵ Ibid., p. 180.
- ²⁶ Cf. Hallward, p. 175 and Johnston pp. 19–20.
- ²⁷ Cf. *Collapse* 1 (2006), p. 13.
- ²⁸ Ibid., p. 13 and Hallward, pp. 113–4.
- ²⁹ Cf. Kofman, *Nietzsche and Metaphor* (London: The Athlone Press, 1993) p. 60.
- ³⁰ Deleuze, quoted in Marks, 'introduction', *Paragraph* 29:2 (1006), 1–18 (p. 2).
- ³¹ Ibid., p. 13.
- ³² *A Thousand Plateaus* (London: The Athlone Press, 1988), p. 238.
- ³³ *ATP*, p. 431.

³⁴ Marks, 'Molecular Biology in the Work of Deleuze and Guattari', *Paragraph* 29:2 (2006), 81–97 (p. 85).

³⁵ *Ibid.*, p. 90.

³⁶ *Ibid.*, pp. 90–1.

³⁷ Campbell, et al. *Biology* (Menlo Park, CA: Benjamins/Cummings, fourth ed. 1996), p. 479.