

ON DELEUZE'S ASSEMBLAGE ONTOLOGY: DE LANDA'S *DELEUZE: HISTORY AND SCIENCE*

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D*e*leuze: *History and Science* is a collection of seven essays written by the Mexican-American philosopher, media artist and software designer Manuel De Landa (*1952). The book was published in 2010 by Atropos Press, which is supported by the European Graduate School (Switzerland), where De Landa holds the Gilles Deleuze Chair of Contemporary Philosophy and Science. He is also Professor at the University of Pennsylvania (USA).

The book is a comprehensive synthesis of the results of the research work that the author has been conducting over more than two decades. Above all,

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Deleuze: History and Science provides a balance of a mature theoretical reflection. Scrutinizing Deleuze's philosophy, but also knowingly crossing different sciences, from mathematics to linguistics, from chemistry to astrophysics, from biology to sociology, to psychology, politics, history, economics, urbanism, and so on, De Landa proposes a new account of metaphysics, a materialist one, whose fundamental notion is *assemblage* (Deleuze & Guattari's *agencement* in French). However, the argumentation style is closer from the analytic tradition than from the mainstream post-structuralist literature. This certainly makes it possible to reconstruct Deleuze's ideas in a surprisingly clear and consistent way. But, that is also the question: isn't it all too clear for Deleuze?

The first essay "Assemblage Theory and Human History" summarizes the theoretical framework of De Landa's conception of metaphysics as well as relates it to social theory. The author assumes that any entity populating the world is an assemblage. In contrast to substances or essences, assemblages are never simple, but always complex and composed. Assemblages are wholes whose parts are heterogeneous and independent from each other. These parts establish relations of exteriority with each other, affecting and being affected, but they also remaining capable to establish other relations and to enter in other wholes. When the parts of a whole get together, they express properties qualitatively distinguished from the properties that its component parts have when isolated. Those are emergent properties that permit to recognize the identity of a whole (or an entity). The event of this encounter (interaction) of the parts, that is, the event of assembly that constitutes the transitory identity of assemblage is the only kind of entities that populate the world. Besides, every assemblage is, at the same time, part ("molecule") of a larger whole and a whole ("mole") for its own parts. Whence, the ontological proposition that the totality of reality is an assemblage of assemblages.

For example, society is an assemblage of subjects who, on their turn, are, at least cognitively, assemblages of perceptions and conceptions. At the same time, every society is part of the human species that is a larger assemblage including societies. Translated in the terms of molar and molecular, the distinction between macro and micro is relativized, blocking any kind of reductionism. Neither a one-sided micropolitic approach nor a one-sided macropolitic approach may provide an adequate view of society and politics. Going back and forth through the scales, De Landa not only relinks macro and micro, but also considers the "meso-levels", that is, the "spaces" between macro and micro - in relation to States (macro-level) and inhabitants (micro-level), cities are the "meso-level".

Assemblages present three main features: first, all of them are singular entities with contingent identities; second, any of them is a population of interacting entities that composes wholes; third, assemblages are conditions of

possibility for its component parts, in the sense that they, at the same time, constrain and enable them. Furthermore, two parameters quantify assemblages. On the one hand: the degree of territorialization and deterritorialization, that is, the degree of integration or dispersion of the component parts in an assemblage. On the other: the degree of coding and decoding, that is, the degree of fixation of the communication code within an assemblage, which is decisive for definition of its identity. Giving the credits to the French historian Fernand Braudel, De Landa concludes that, if the only acceptable entities are assemblages as presented above, entities as “the Market” or “the State” or “the Capitalism” should be excluded from the analysis, because they are no more than reified generalities, they are ghosts. Indeed such transcendental entities cannot belong to a materialist analysis that claims immanence as one of its advantages. This is what De Landa is calling a “materialist metaphysics”, that is, a materialist theory of the whole.

Nevertheless, the use of transcendental entities is very common even among theorists that are allegedly thinking in terms of immanence. This is the “conservative turn” of contemporary philosophy: a coming back from materialism to idealism, as De Landa qualifies it in the essay “Materialism and Politics”. One of his examples here is a widespread reading of Foucault that reduces non-discursive practices to discursive practices and concludes that there is nothing else than discourse. To this line of interpretation, practices as torture, confinement, drilling, monitoring are ultimately discursive practices. Based on this understanding is the (in general unconscious) idealistic assumption that the world is product of our minds. Ironically, the author denounces that this position disguises its political conservatism, its lack of clue about what is reality, with a “radical-chic” progressive mask. To be sure, addressing deconstructionism, De Landa is also returning the debate between realism and anti-realism that animated the analytical tradition in the last decade to the old dispute between materialism and idealism; and he is taking position for a reconstruction of the former. Therefore, for De Landa, philosophers as Foucault or Deleuze are materialist or realist allies, in the sense that they conceived an external non-subjective reality and provided an analysis that respects its movements.

The following essay, “Assemblage Theory and Linguistic Evolution”, is an application of the notion of assemblage and its conceptual apparatus to linguistics. Introducing Deleuzian notions such as order-word and collective assemblage of enunciation in the pragmatic theory of speech acts originally formulated by John Austin, De Landa analyzes language through territorialization/deterritorialization and coding/decoding parameters. Thus, language becomes an assemblage of speech acts of power or a collective assemblage of enunciation where order-words circulate. These assemblages may be more territorialized and their enunciations may be more codified,

constituting major languages, as classical Latin. However, they may also be more deterritorialized and characterized by decodified enunciations that constitute minor languages, as Neo-Latin dialects. Definitely, the analysis is efficient in unearthing a dimension of language that remains obscure for the most of the pragmatic linguistic analysis: political one.

In the essay “Metallic Assemblages”, the concept of assemblage is used to model war. For example, the whole composed of a man, a horse and a weapon is an assemblage of heterogeneous (anthropological, animal and technological) elements that, once assembled, acquires an independent identity. That particular assemblage may compose larger assemblages, mobile cavalries, which on their turn compose the nomad armies, known since Antiquity. A nomad army distinguishes itself for its high degree of deterritorialization. In contrast, sedentary armies are highly territorialized for they are composed by inflexible blocks of infantry, military assemblages known as phalanxes, whose soldiers carry sword and shield but are pedestrians. In addition, the author warns that these distinctions should not be taken as the models for all possible armies. Rather, they correspond to different degrees of territorialization or deterritorialization that vary throughout history introducing important changes in the way that war is battled. It is clear that Deleuzian notions as State apparatus and war machine should not be considered as entities, but as states or phases that the assemblages present at a specific intensity of territorialization or deterritorialization. Therefore war machine is the state that an assemblage gets when it becomes more and more deterritorialized. On its turn State apparatus is the phase of an assemblage while it is being increasingly territorialized. Beyond that, Deleuze & Guattari also use the terms war machine and State apparatus to refer to other assemblages, including formations of knowledge that constitutes nomad sciences, when they obey to a regime of minority, and Royal sciences, when they are rule by a regime of majority. Hard sciences, such as mathematics or physics, obviously exemplify the latter. Examples to the former are harder to find, but metallurgy is doubtlessly one of those. And it is a special science to a materialist metaphysics because it shows that inorganic matter, metal in the case, is somehow alive.

After discarding idealism (or anti-realism) as the idea that the entities that populate the world have no extra-linguistic existence, the essay “Materialist Metaphysics” compares the Aristotelian transcendental realism with the Deleuzian immanent realism (or materialism). The author indicates two major distinctions. First, while to Aristotle the identity of an entity is generated by its essence (substance or nature) which is its purely formal cause (transcendent), to Deleuze the identity of an entity emerges from the historical process of assembly of elements which are always material (immanent). Second, the Aristotelian world is populated by three categories of entities: genus, species – both essentially subsisting – and individual – that subsists only accidentally. On

the other hand, the Deleuzian ontology considers real only two categories of entities: individual singularities – equivalent to Aristotle’s lowest level – and universal singularities – that play the role of the two highest levels in Aristotle’s metaphysics. However, in the Deleuzian ontology, there is neither place to transcendent generalities nor to formal causes entirely disconnected from matter. Everything is accidental, singular, immanent and real (or material). But the whole of reality is not restricted to what is actually present. To explain it the author introduces another pair of Deleuzian concepts that replace the Aristotelian notions of actuality and potentiality: the actual and the virtual. Thus besides the actual, there is the virtual, that is, what is real and not actual but possible. In other words, every entity has an actual part that constitutes its individual singularity. But every entity is also related to a universal singularity, that is, its associated space of possibilities, its virtualities, its diagram (which by the way can be mathematically calculated). After that, De Landa tests the capacities of both ontologies in modeling the objects of different sciences, starting with chemistry, then astrophysics, passing by mathematics, and finishing with biology, and concludes for the advantages of a Deleuzian inspired materialist metaphysics based on the key notion of assemblage.

The subsequent essay, “Intensive and Extensive Cartography”, is dedicated to another nomad science, namely, the science of maps, cartography, which De Landa intends to adapt to the metaphysics of assemblages. The starting point here is the distinction between extensive and intensive spaces. As basic thermodynamics shows, extensive spaces may be mapped by the means of simply divisible parameters as length, surface, and volume. In contrast, intensive spaces may not be so simply divided because their properties are intensities as speed, temperature, and pressure. Thus, extensive and intensive maps are decisively different.

That cartographical distinction attains its metaphysical relevance when it is linked to two Deleuzian conceptual pairs: actual/virtual, on the one hand, and molar/molecular, on the other. While actuality may be sketched with an extensive map, that is, a map of actualized possibilities, virtuality requires a map of intensity, that is, a map of the space of possibilities or the diagram of what may be alternatively actualized by determined entity. As far as it is immanent, virtuality leads to conceive possibility without assuming transcendent entities or essences, as modal logics and its theory of possible worlds must do: all possibilities, even the most virtual one is considered matter related. Beyond that, extensive maps are constructed with two kinds of lines that Deleuze & Guattari designate as molar and molecular. The term “molar” refers to the rigid segments of an assemblage or its macro dimension. On its turn, the term “molecular” corresponds to the supple segments as well as to the micro dimension of an assemblage. We may note that molar and molecular are not absolute categories but bound to parts-whole relations. Thus, what is a

molecule or a part – for example, a city in its relation to a State-nation –in an assemblage may be the mole or the whole in another one – for example, a city in relation to its neighborhoods. On the other hand, both molar and molecular lines describe the actual (or extensive) phase of an assemblage. However, there is also another kind of lines that are not segmented and therefore are harder to conceptualize: the lines of flight. This last kind of line is crucial because it connects the actual lines to the virtual space of possibilities of an assemblage. Moreover, lines of flight may only be mapped in terms of intensity: absolute lines of flight, that depart from segmentarity to ultimately get lost in chaos, and relative lines of flight, that turn back after reaching certain threshold to set up new molecular or even molar segments. In short the complete metaphysical map of an assemblage constitutes its plan of immanence (or consistency), which includes its conditions (segmented lines) along with its degree of freedom (lines of flight), that is, its capacity to differently actualize its possibilities.

Nevertheless, the most audacious essay in this book is probably the last one, “Deleuze in Phase Space”, in which De Landa finds an unusual convergence between Deleuze and the work of the empiricist analytical philosopher Bas Van Fraassen. Both are disillusioned with the linguistic (or anti-realist or even idealist) approach in philosophy of science. For the linguistic approach, scientific theories may be modeled in terms of a set of self-evident axioms from which all the theorems are deductively derived. It is a top-down approach that only needs to touch material entities in the end of the day. This approach neglects the results that hard scientist are actually attaining using mathematical tools like the differential calculus, that does not follow from axioms but from the multiplicity itself, in a bottom-up movement. Such nonlinguistic instruments allow the construction of inductive mathematical models of the spaces of possibilities of entities. It is mathematically possible to draw a map of set of the ways that an entity may change, this map representing the state or phase space of that particular entity. Those models are nonlinear, may describe random movements and traces points of singularity. Although the effects of mathematical tools as the differential calculus are still far away to be systematized, a shift in philosophy of science from the analysis of the linguistic structure of the concepts to the analysis of its mathematical structure is already identifiable. Van Fraassen is the most important advocate of this shift in analytical philosophy. Deleuze, as we have already mentioned, was also very sensitive to the transformations in mathematical thought. And, of course, De Landa wants to see here a materialist turning point in philosophy of science.

Nevertheless, the author is well aware for the discrepancies between Deleuze and Van Fraassen, the most important of which may be formulated as follows. As empiricist, Van Fraassen must espouse a modal skepticism that denies the existence of possibilities (or at least an agnosticism that suspends the judgment about it), because possible events are obviously not directly

observable. Indeed this denial derives from the attachment of Van Fraassen to the old dichotomy that reduces all modalities to the opposites necessity and possibility. In order to go beyond that, Deleuze introduces another modality, the virtuality, that is, the ontological status of something that is real but not actual. For example, in contrast to the properties of assemblages that are always actual or actually exist, the capacities of assemblages are virtual or virtually exist. One would not say that the capacity of a knife to cut is not real even if this knife has never cut anything, because the capacity to cut does not need to be actualized in order to exist. On the contrary, it may exist only virtually but really existing. That is just one example of how Deleuze's ideas may signify a renewed breath to analytic philosophy.

Audacity does not lack in De Landa's project. To translate Deleuzian concepts into analytic philosophy's terminology and then try to solve analytic philosophy's problems with Deleuzian concepts is not an easy task at all. The enterprise risks to become dumb for both implied traditions. Nevertheless, with open mind, we must recognize the excellence of the author in doing it.

Much more complicated is his rescue of metaphysics. Why metaphysics? What is the point in bringing metaphysics back to life on the same ground where it was buried? What meaning does it remain for the prefix "meta" in a philosophy of immanence, that is, in a radically detranscendentalized philosophy? It would be more appropriate to talk about an ontology, a theory of totality, but in Deleuze's case this totality "is" not, it "becomes". The role played by the notion of becoming in Deleuze's thought is decisive, since it is the structure of the difference. Thus, we deal much more with a kind of "becoming-logy", a theory of the totality as difference, than with an ontology or a metaphysics. Nevertheless, the revival of metaphysics by the means of an eccentric marriage of Deleuze's thought and analytic philosophy has already its label: it is the "speculative turn", a movement where De Landa may find heavyweight comrades as Žyžek, Badiou and Meillassoux.

Oddly, De Landa seems to be more inclined to emphasize the problem of identity than notions like becoming or difference. The claim for a priority of the independent identity of the entities is questionable, at least. The author seems to forget that the relations are prior to their terms, that is, the relation or assemblage constitutes, at the same time, the identity and the difference of the entities.

Another critical point is the reduction of what has been known in the analytic tradition as anti-realism to idealism. Anti-realism does not imply the belief that the world is a creation of our minds or language. It only implies that our concepts do not exist as entities, independently of language. In contrast, realism in general as the belief that concepts exist on its own, independently of language, as entities that populate a "conceptual" or metaphysical world.

Therefore, one does not need to be materialist to be realist. On the contrary, Plato, just to take an example, could perfectly be idealist and realist at the same time – a metaphysical realist. This is precisely the position that anti-realism in analytic philosophy criticizes. The skepticism of anti-realism concerns the reality of our concepts, that is, our concepts do not exist independently of language. Philosophically, that is the result of a process of generalization of the doubt about the human cognitive capacity. To the question “is there a world outside language”, an anti-realist would answer with a suspension of the judgment, he would say “we cannot know it for sure”. Thus, as epistemological position, anti-realism is closer from agnosticism than from atheism (or nihilism).

Translated into regular American philosophical vocabulary, whose expansion can be fairly credited to analytic philosophy, the French post-structuralist theory of discourse became a subspecies of anti-realism. Although valid, these translations require caution. If we take, for example, Foucault, we can see that his “anti-realism” is an entirely strategic. Foucault adopts a basic nominalism that excludes from the analysis any kind of historic universal or transcendental. Thus, madness, delinquency, and ultimately the subjectivity as such do not exist as entities in the world. They are categorical grids that objectify part of an amorphous reality, specifically the human reality, according to given regime of power, in order to exercise power over it. In fact, this means that Foucault is an anti-realist in what concerns transcendentals. For him, subjectivity is no more than the result of historical processes of “subjectivation”. Nevertheless, he can only refuse metaphysical realism because his analysis of history is based on empiricities or positivities: the “becoming-mad” or the “becoming-delinquent” or, in general, the “becoming-subject”. Now, it is hard to see how such an “anti-realist” move could be hold as “conservative”. Anyway, it is not the first time that Foucault is mislabeled as reactionary.

Above all, it seems that De Landa’s analytical Deleuze has been made all too clear, too uncomplicated, too unfolded – that is the general atmosphere. It lacks some trace of blur in De Landa’s reading and it seems that, for Deleuze, blur constitutively integrates reality. Thus, his philosophy may be perhaps well grasped as response to Nietzsche’s enigma of understandability: “One not only wants to be understood when one writes, but also quite as certainly not to be understood.”

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