ABSTRACT: This essay offers a reading of Deleuze and Guattari's concept of the plane of nature, as presented in *A Thousand Plateaus*. It uses their definition of this plane as an abstract machine of an infinity of particles and their infinity of interconnected relations to address the challenge of the machine thesis identified by Arjen Kleinherenbrink: of how to think world consisting only of machines yet allowing for interaction and change. Referencing Spinoza and the calculus inherent in Deleuze's earlier work, it offers an interpretation of a discontinuous virtual.

KEYWORDS: Deleuze; Guattari; Kleinherenbrink; Machine; Continuity; Virtual; Plane of nature

INTRODUCTION

What strikes one when reading Arjen Kleinherenbrink's recent book, *Against Continuity*, is the central 'selfishness' of his thesis. According to Kleinherenbrink's interpretation of Deleuze's machine ontology, things are machines and everything
is a machine.\(^1\) While these machines interact with each other in a myriad of different and ever-changing ways, there is no other connection between them, no realm in which they are one. They all stand alone, each little selfish entity, one foot in, one foot out of the virtual.

Such a selfishness is, philosophically speaking, nothing new. Indeed, many speculative realist positions characterise being in this way, with Graham Harman and his withdrawn and inaccessible objects in particular coming to mind.\(^2\) And looking at the things around us, it also seems reasonable to characterise them in this way. Things are and they are distinct, separate, individual. Consider the list of things given by Kleinherenbrink in his introduction:

- A song, a novel, a bird’s nest, fictional character, hallucination, rock, orchid,
  - wound, brain, battle, chemical, painting, love, sickness, toy, movie, person, crowd,
  - house, play and river (AC 1).

There seems nothing that links all these things other than the fact that they are all ontologically equal, each and everyone of them a machine.

But that nothing links all these discrete entities constituting our world is precisely what makes Deleuze’s machine ontology so challenging. For if the entities in our world of things are discontinuous and separate individuals, how can we account for these things ability to change, to relate to each other and to interact? To produce and create? To have this life we all share in, to struggle, die and end? To make it brief, what makes things stop being selfish and begin to learn to care?

As Kleinherenbrink argues, for many Deleuze scholars the answer is the same. Most, if not all, ontological accounts of his work, posit the concept of a single, continuous virtual realm (AC 31). Of course, what this realm might consist of differs in each case. Depending on who you read, the virtual might be of dynamic processes underlying the discontinuity of concrete entities. Or it may consist of a virtuality that is characterised as the one true real and casual agent of only an apparent existence. Or indeed it might be a single intensive force accounting for all change (AC 31-7). Whatever the case, things would then be the

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manifestation of this one creative force, in actuality seemingly discontinuous, but
in virtuality having a continuity, entities being mere intersections in something
much more vast and powerful than themselves. The example Kleinherenbrink
gives is of a tablecloth. The fabric may fold and twist so that it seems that things
are there, hidden somewhere beneath, but in reality, in these interpretations,
there is nothing but cloth, as he puts it, ‘all the way down’ (AC 32).

For Kleinherenbrink, any interpretation that posits such a continuous, active,
virtual realm is fundamentally flawed. And he is most vehement about this: no
such interpretation can be adequately reconciled with Deleuze’s machine thesis.
As he notes, ‘Everything is a machine’ for Deleuze, but everything is not a
machine, if there is something other than the machine, of which the machine is
an expression. In these flawed ontologies of the virtual, the being of machine
entities is dissolved into something non-optic, which is nevertheless presented as
a realm in which things really and truly ‘are’ (AC 32). As a consequence
Kleinherenbrink proposes an ‘externality.’ Whatever relations things might have
between them, whether these things are tablecloths or bird’s nests or feelings of
love, these relations have no bearing on the thing’s ‘thisness’ (AC 56). For
Kleinherenbrink relations are to be external to terms, meaning that entities are
bestowed a private reality, which no relation to another entity, no encounter,
transformation, destruction can exhaust. There is no continuous realm, only
separate, individual entities, each shying away, hiding away from one another.

This is not to say that Kleinherenbrink gets rid of the virtual altogether.
Things still have a virtual and actual aspect, but this virtual is confined to the
thing itself, a private virtual, all things marked, divided through a difference in
kind between the virtual and the actual (AC 36). So with every single thing, every
machine as it were, there is an aspect we encounter and another that remains
hidden to us, which is non-relational. Furthermore, Kleinherenbrink divides both
the virtual and actual aspect of the thing into the ‘one’ and the ‘multiple’ (AC 37-9).
For now I only wish to concentrate on the diagrams Kleinherenbrink borrows
from Deleuze to illustrate his arguments.

1 Kleinherenbrink, Against Continuity, p. 2. See also Deleuze, Gilles and Guattari, Felix, Anti-Oedipus: Capitalism
Kleinherenbrink’s diagrams are so beautifully self-contained. Relations are there, but not within: they stand outside the central frame.

At this point my question would be: if we find Kleinherenbrink’s argument compelling, how can this be reconciled with this description of the abstract machine given by Deleuze and Guattari in *A Thousand Plateaus*?5

The plane of consistency of Nature is like an immense Abstract Machine, abstract yet real and individual; its pieces are the various assemblages and individuals, each of which groups together an infinity of particles entering into an infinity of more or less interconnected relations.5

In the above, Deleuze and Guattari present the immense abstract machine as the plane of nature, of which relations seem to be very much a part. They clearly describe an infinity of particles with an infinity of interconnected relations. There is a plane of consistency of nature, this plane consists of pieces, these pieces are in turn the various assemblages and individuals, and these group together particles entering an infinity of interconnected relations. Furthermore, this plane constitutes a unity, one could say, its own realm. As Deleuze and Guattari argue,

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this unity may not belong to ‘form or function,’ neither is it a ‘ground buried deep within things,’ ‘an end’ nor ‘a project in the mind of God’ (TP 254). But Deleuze and Guattari do describe it as a plane on which ‘everything is laid out’ and ‘which is an intersection of all forms, the machine of all functions’ (TP 254).

The Deleuzian machine seems to be then, on the one hand if Kleinherenbrink is to be believed, a selfish entity, with a private reality that no relation with any other entity can exhaust. Indeed, to posit a realm in which these entities all relate to each other in the one interconnected virtual is to deny machines their fully autonomous, self-sufficient status. On the other hand, Deleuze and Guattari define the abstract machine as a plane of nature with an infinite number of particles and their infinite number of interconnected relations. How is this not the posting of a virtual realm? But the question - and the task - is not really one of reconciling the two, seemingly opposed interpretations. This Kleinherenbrink does already, arguing that the plane of consistency has simply been ‘read in the wrong key’ (AC 37). Rather, the plane of consistency is to act as a means of addressing the challenge of Deleuze’s mechanic thesis, that is, how to think a world consisting only of machines, which nevertheless is a world of interaction, transformation and change. How can we think relations without, as it were, relations - without the need for connectivity. It is a response to the question inherent Kleinherenbrink’s critique of the virtual, namely, of how to think machines as connected when machines are all that there is.

MEMORIES OF A NATURALIST

That in A Thousand Plateaus Deleuze with Guattari relates the ‘Abstract Machine’ to a ‘plane of consistency’ associated with nature, is not accidental. Indeed it can be said that Deleuze and Guattari’s machine ontology is in part a response to how we conceive nature in general. For according to Deleuze and Guattari, we do so in a very specific way. In A Thousand Plateaus, they argue that this is dictated by the way we conceive the relationship between natural beings, specifically the way we understand the relationships between animals. What we do, they argue, is that we tend to adopt the approach of natural history. We encounter a world of

6 My essay is in fact a close reading of several sections of chapter 10 of a Thousand Plateaus. I begin here with ‘Memories of a Spinozist’ pp. 233-7.
individual beings, all different from each other, all changing, growing, developing, and like the 18th century naturalist, we look for resemblances. We first look at the outward resemblances between individual beings and use these as a principle to organise them into series, according to the ‘analogy of proportionality’ (TP 234). Or, we look more inwardly and analytically at structural resemblances between beings and organise them that way, according to the ‘analogy of proportion’ (TP 234). In Kantian terms, either we use the faculty of our imagination or we use the faculty of our understanding. Whatever way is chosen, nature is conceived as an ‘enormous mimesis,’ beings always imitating each other, whether serially or structurally (TP 234). Deleuze and Guattari argue that so pervasive is this mimetic approach to nature, that it spread to the human sciences (especially the study of myth or dreams), to art and poetry, and more generally, to everyday life (TP 235).

This series-structure viewpoint is not however Deleuze and Guattari’s way of doing things. For as they argue, it fails to account for at least the one specific phenomenon. This is what they call ‘becoming-animal,’ a moment in which they claim, the human becomes an animal, and in a reciprocal process, the animal also becomes human. The examples they give to illustrate this kind of becoming are the most strange: vampires are one, sorcerers another, and very aptly in our corona defined times, viruses are also mentioned. Interestingly in respect to Kleinherenbrink’s argument, Deleuze and Guattari see this process of becoming in non-relational terms. There is also something selfish about it. As they write, ‘a correspondence of relations does not add up to a becoming’ (TP 237) And again, ‘A becoming is not a correspondence between relations’ (TP 237).

For Deleuze and Guattari, becoming is not a correspondence between relations, because it does not operate by establishing resemblances. When we talk about the becoming-animal of vampires or sorcerers, it is not that we become like a vampire or like a sorcerer. We do not try to look for similarities, whether outwardly or inwardly, between us and these other beings. For we are not in the position of a naturalist here, who in assessing differences between beings, comparing the degree to which they ever more perfectly conform to the single term, uses this term as an organising principle of a progressing series. Despite its

7 Deleuze and Guattari introduce the idea of becoming animal in the sections ‘Memories of a Bergsonian’ and ‘Memories of a Sorcerer’ of A Thousand Plateaus, pp. 237-43.
fictitious status, the becoming-animal of vampires or sorcerers has nothing to do with appearances or the imaginary. Instead, Deleuze and Guattari insist that becoming-animal has its own reality, its own real, even if the animal we become is not.

Deleuze and Guattari describe the reality of becoming-animal, this relation without correspondence forged between man and animal, as a ‘block’ with no individual terms (TP 238). For them, it differs radically from the filial relations of natural history, because it is non-productive. Nothing evolves from this union that could then be inherited as a trait. Rather, its domain is that of symbiosis and the examples Deleuze and Guattari give are of the wasp and the orchid, and the alliance between the cat and the baboon affected by the C virus (TP 238). They describe this block as a creative ‘involution’ between heterogenous terms, running its own line both between the terms in play and their assignable relations (TP 238).

Central to this idea of becoming, this block of non-corresponding relations constituting the alliance between human and animal, is the idea of the ‘pack’ or ‘multiplicity’ (TP 239). Again, this idea will have bearing on Kleinherenbrink’s argument, as machines also constitute this kind of multiplicity. We can perhaps phrase it so: the selfishness of things is already multiple, or a ‘more’. Things are and are separately and individually, with no other interconnecting realm, but they are, not as one, but as many. Or as Deleuze and Guattari argue, when sorcerers are fascinated with the animal to form an alliance with it, they do not treat the animal as a being with certain characteristics that can then be classified either in series or according to their structural components. Instead they participate in being with no such distinctions, or even, all such distinctions, a population.

The example I want to focus on is the one Deleuze and Guattari take from the short story of Randolph Carter, ‘Through the Gates of the Silver Key’ by H.P. Lovecraft and E. Hoffmann Price. In the story, Randolph Carter disappears and a group of interested parties decides to investigate, turning to the Swami Chandraputra for help. The Swami describes how Carter used the silver key to

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enter a different, higher dimensionality. Going through the ‘Ultimate Gate’ Carter experiences a fear, a loss, not just of stability, but of his own unity. What consumes him with fright is that he is not one person, but many. And as Deleuze and Guattari quote, these Carters are both ‘human and non-human, vertebrate and invertebrate, conscious and mindless, animal and vegetable.’ More so, these Carters are one with the entire cosmos, moving across planetary systems (TP 240). This is not however a merging with ‘nothingness’ but an awareness that one is not a definite being, distinct from other definite beings (TP 240).

This I would argue, is precisely where our problem of relations without interconnectivity lies: how to think being as itself being many, without the need for mimesis, without comparing one being with another.

**MEMORIES OF A SORCERER**

Thus, it can be said that the plane of nature is where these heterogenous alliances between human and animal are formed. If we look back now at the initial description of the abstract machine while bearing in mind the need for avoiding comparison and mimesis, the assemblages and individuals grouping the infinity of particles, could be understood as blocks of becoming. Theirs are non-productive unions between heterogenous terms. In these blocks, the animal must be considered as a pack or heterogenous multiplicity.

Now while Deleuze and Guattari take pains to emphasise the unique nature of the block of becoming, so different to the mimesis of series and structure that characterises the naturalist’s approach, their concept of the plane of nature still appears to harbour something of the virtual realm. For even though their interest lies in the ‘unnatural nuptials’ of symbiosis (TP 241), with the orchid so resembling a female wasp that it attracts the male to pollinate, Deleuze and Guattari seem present the plane of nature as a plain of sorts, conjuring up a vision of a prairie or savannah on which different animals swarm. It is a plane of multiplicities, populations with no distinctions, the many Carters both human and non-human, where everything seems to stands on a flat surface with clearly defined dimensions. One could draw a set of axis and carefully plot the coordinates if each becoming. They describe it as a plane ‘on which everything is laid out' (TP

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To think in this way however, would fail to take into account the selfish nature of the non-corresponding alliance, by falling back on the naturalist predisposition to catalogue and classify. For such a plane would not be a plane of nature, but rather a plane of organisation and development, precisely what Deleuze and Guattari in their concept of becoming-animal wish to avoid. The question they ask is the following,

How can we conceive of a peopling, a propagation, a becoming that is without filiation or hereditary production? A multiplicity without the unity of an ancestor?

It is quite simple; everybody knows it, but it is discussed only in secret (TP 241).

The challenge is to think the multiplicity of the relation - in other words, the pack involved in the block of becoming, the heterogeneous terms of the wasp and orchid - without the need for a common ancestor. Ontologically speaking, it is the challenge of thinking things in their relation with one another, without the positing of an underlying virtual realm. Which means we need to think of the plane on which the unnatural nuptials of symbiosis takes place, as less of a ‘plain’ and more like ‘plan,’ a direction, a path to follow. For Deleuze and Guattari this would be the plan(e) of the consistency of nature.

The path Deleuze and Guattari have in mind as the replacement for the hereditary unity of the common ancestor is that of the pandemic. In the sections ‘Memories of a Sorcerer’ they describe how becoming-animal, the strange alliance without the correspondence of relations, takes place through what they call ‘contagion’ (TP 241-7). This is what everybody knows but only discusses in secret: the opposition between the epidemic and filiation, contagion and heredity. Multiplicities of heterogeneous terms are the consequence of the process of a term infecting the other, illness brought about the virus spreading in the body of the animal or human being. According to Deleuze and Guattari, this process proceeds through what they call the ‘anomalous’ (TP 243-9). In order to become animal one has to make an alliance, not as it would seem, with multiplicity but with the exceptional individual, what they call the demon. And it is true especially of this current pandemic that it requires just one mutation for the virus to spread through the population. When the alliance is made in this way, through this initial infection, it spreads quickly through the population, changing the nature of the pack.
A number of things need to be said here. First of all while Deleuze and Guattari state that all packs or multiplicities have their anomalous, the anomalous is not the same as the anomaly or the abnormal. The abnormal is something that stands against the rule, some kind of unique individual. It therefore is still defined through certain characteristics, making it a species belonging to a series or structure, a single specimen, a perfect type. The anomaly on the other hand, is a ‘position or set of positions in relation to a multiplicity’ and has more to do with the defining of a border (TP 244). Only through the anomalous we know what the pack is, what qualities it has.

Which brings me to the second point, that contagion proceeding through the anomalous is a matter of change. Let us remember that our terms are heterogeneous, that selfish world of things Kleinherenbrink so vividly describes, in which one individual thing has nothing to do with another, and yet is capable of interaction and change. For Deleuze and Guattari the positing of a common ancestor - what would in Kleinherenbrink's terms be the underlying virtual realm - does not bring about real change, only the production and reproduction of the same traits and characteristics. To think how heterogenous terms relate is to think how they initiate change and transform into something else. This is what the anomalous of contagion allows. What we are dealing with here is not the elements of multiplicity that ‘compose it in extension’ but ‘the lines and dimensions it encompasses in “intension”’(TP 245). In this semiotic language, our concern is not the comprehension of what the sign refers to, what constitutes it as the physical thing, but what gives the sign its meaning, what is its signified. In the alliance with the anomalous, this meaning, what could also be understood as the thing’s dimension, changes. So when in the heterogenous alliance of becoming, we become infected with the exceptional animal, the multiplicity we enter changes dimension.

Once again the story of Carter offers a good way of thinking this plane of different dimensions. As Deleuze and Guattari quote,

Then the waves increased in strength and sought to improve his understanding, reconciling him to the multiform entity of which his present fragment was an infinitesimal part. They told him that every figure of space is but the result of the intersection by a plane of some corresponding figure of one more dimension—as a square is cut from a cube, or a circle from a sphere. The cube and sphere, of three dimensions, are thus cut from corresponding forms of four dimensions, which men
know only through guesses and dreams; and these in turn are cut from forms of five
dimensions, and so on up to the dizzy and reachless heights of archetypal infinity.10

When Carter enters through the Ultimate Gate and becomes disembodied, a
small part of a multiform entity, he also gains understanding of how the cosmos
works. The waves of this entity explain to him that the cosmos is not just three
dimensional, with directions going up and down, forward-back, and left and
right, but consists of an infinity of dimensions, inconceivable to the human mind.
And we can imagine something of the inconceivable scale of this dimensionality,
when we think a square is cut from a cube, a cube in turn cut from a four
dimensional form, and so on infinitely. Deleuze and Guattari’s plan(e) of nature
is where these different dimensions are laid out, and the heterogenous alliance of
contagion is what allows us to step across the threshold of one multiplicity of
dimensions to the next.

MEMORIES OF A SPINOZIST

The difficulty of thinking the plane of nature in this way, as a ‘plan’ encompassing
the ever-changing multi-dimensional array of multiplicities, forging its own
unique path and running ‘its own line’ (TP 239) is that there is an end in sight.
After all, the idea of a ‘plan’ of nature seems to indicate that there is a point
towards which all this becoming heads. For one, Deleuze and Guattari present
becoming as successive. The becoming-animal, this heterogenous alliance which
we have with the pack, occupies for them a median position, with other types of
becoming framing it on either side. We encounter ‘becoming-woman’ (with its
‘special introductory power), first, on the ‘near side’ (TP 248). Whereas on the
‘far side’ there is the ‘becoming-molecular’ (TP 248). Deleuze and Guattari
introduce this concept of the molecule or the molecular as constitutive of all
becomings (TP 275, 277). Whether this is our block without corresponding
relations, the alliance of heterogeneous terms as seen in symbiosis, the multiplicity
harbouring the anomalous that in contagion allows for change of dimensions,
these are all presented as molecular becomings. All becomings lead to the
molecular, so much so that all becomings can be described as already being
molecular (TP 272). In terms of sorcery, the witches broom always leads to the
void (TP 248). Even Carter, who after entering the Ultimate Gate, is multiple

10 Lovecraft as cited in Deleuze and Guattari, A Thousand Plateaus, p. 251.
but also disembodied, ends up being one with the entire cosmos. The plan of nature seems to end up as a plane of molecules, or as Deleuze and Guattari write,

> Here, there are no longer any forms or developments of forms; nor are there subjects or the formation of subjects. There is no structure, any more than there is genesis. There are only relations of movement and rest, speed and slowness between unformed elements, or at least between elements that are relatively unformed, molecules and particles of all kinds (TP 266).

The plane of nature is one consisting of relations of movement and rest between unformed elements and these elements are molecules.

For Deleuze and Guattari the molecular plane of nature has less to do with science (although there are references to science made throughout) than with theology. Deleuze and Guattari’s concept of the molecular has as its historical precedent the work of Baruch Spinoza and therefore ought to be understood in a broader theological context. For the theological approach (of the kind that has roots in the Inquisition) much like the naturalist perspective, struggles to recognise the unique reality of becoming-animal, this heterogenous block of infected populations (TP 252). If in natural history, the problem lies in its ordering and classifying of resemblances, in theology, it is one of essential forms. Essentially, in theology a human cannot become animal, as one form or essence cannot transform into another. In our terms, it is not that we enter a path upon which we slowly transform into an animal or indeed, a molecule. Nevertheless theology allows for the ‘demonic reality’ of becoming-animal of the human being. It is more a question of what Deleuze and Guattari call ‘accidental forms’ which they defines as ‘the degree,’ the ‘more or less’ of a quality, which although individuated is distinct from the substance on which it has an effect (TP 253). They describe a demonic world between essential forms of ‘local transports,’ of one individual degree combining with another to form individuations, different from and yet received by essential forms.

This strange demonic world is to be Spinozian. As they write,

> Substantial or essential forms have been critiqued in many different ways. Spinoza’s approach is radical: Arrange at elements that no longer have either form or function, that are abstract in this sense even though they are perfectly real. They are distinguished solely by movement and rest, slowness and speed. They are not atoms, in other words, finite elements still endowed with form. Nor are they indefinitely divisible. They are infinitely small, ultimate parts of an actual infinity, laid out on the same plane of consistency or composition (TP 253-4).
In this world there are no forms or subjects, because it consists of formless and functionless elements it consist of are distinguished only by ‘movement and rest, slowness and speed’ (TP 253, 266), relations of varying levels of activity between molecules, much like the ‘more or less’ (TP 253) of a degree. This is what the Spinozian molecular is for Deleuze and Guattari: not the round, globular atoms with their different chemical bonds, but infinitely small, minuscule parts of a much larger infinity of movements.

Nevertheless, it is this debt to Spinoza which renders the idea of the plane of nature most problematic. Despite Deleuze and Guattari presenting Spinoza’s philosophy as a critique of a theology, for Arjen Kleinherenbrink, Spinoza’s thought suffers from its faith in God. That Spinoza does not reject the concept of God entirely, leads Kleinherenbrink to once again make the claim of externality. As he writes,

... it is externality that forces Deleuze to break with his philosophical hero Spinoza. For Spinoza, relations are internal to one term, as individual modes cannot account for the full individuality of things, which is precisely what Deleuze aims to accomplish (AC 53).

I have been speaking of a molecular world of degrees, consisting not so much of a multitude of elements but a multiplicity of ever-shifting degrees of activity. Such a world has room for the concept of becoming-animal, a world to which the path of becoming leads and this path would constitute the plane of nature. For Deleuze and Guattari this world is not theological, because it is not of essential forms. But neither is Spinoza’s world free from such forms. There are finite things in Spinoza’s universe, individual modes of being: a song, a novel, a bird’s nest. These however, as all entities, are for Spinoza the expression of the one Being, God or Substance. Thus one can argued that in contrast to the Deleuzian machine they seem to rely on something other than themselves to account for their individual being. When Kleinherenbrink says ‘relations are internal to one term’ this is precisely what he means. For Spinoza individual modes rely on God for their individual being as God is ultimately the cause of all things. It is not that things constitute God, the way beads make up a necklace. God exists prior to things and is the cause of their existence. God in Spinoza’s universe us the archetypal tablecloth covering all things.

How should we then make sense of the molecular within this Spinozian context? Does it participate in the seeming internality of his thesis? And if so,
how? Or are the molecular’s compositions of speeds constituting the block of becoming not only fundamentally different to theological essential forms, but also outside of the naturalist logic of resemblance, and therefore also outside of the logic of those kind of relations making up internality? This is not to say, that Kleinherenbrink is unjustified in his critique. How Spinoza understands being does not support an externality thesis of a world of selfish machines. But perhaps Kleinherenbrinks’s rejection is also a little too precipitate.

FACE OF GOD

Kleinherenbrink’s critique of Spinoza is one relating to his concept of causality - the way in which God’s causality works in order to produce Spinoza’s universe. However, as Beth Lord notes in her guide to *Spinoza’s Ethics*, this is one of the most difficult and obscure passages of Spinoza’s *Ethics*, a fact already acknowledged by Spinoza’s contemporaries. She describes an exchange of letters between Spinoza and Georg Hermann Schuller, writing on behalf Ehrenfried Walther von Tschirnhaus, in which already then Schuller requests clarification. Regarding causality, Schuller questions a distinction Spinoza makes between immediacy and mediation, asking for further examples of ‘those things which are produced immediately by God, and those which are produced by the mediation of some infinite modification.’

To this Spinoza replies,

> The examples you ask for of the first kind are: in the case of thought, absolutely infinite intellect; in the case of extension, motion and rest. An example of the second kind is the face of the whole universe, which, although varying in infinite ways, yet remains always the same. (Letter 64, CW 919)

We immediately learn that there is no one concept of causality in Spinoza, but at least two: things produced immediately and things produced by mediation. In the more precise language of Spinoza’s ethics, there are things which, follow God’s attribute immediately and these like God are infinite and eternal, and things, which follow from a modification of God’s attributes, in other words, from

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whatever is caused by the immediate infinite mode in the same attribute. These are also infinite but simultaneously mediated. Of the first kind, Spinoza identifies infinite intellect and infinite motion; of the second kind, the infinitely variable face of the universe. What I find intriguing, is this mention of ‘motion and rest,’ which occurs also later in the Ethics when Spinoza’s discusses parallelism and the individual body. It is the same phrase used by Deleuze and Guattari to describe the elements of the plane of nature, the elements being distinguished on the plane of nature only through such motion and rest.

There is certainly a lot to unpack here. First of all we need to understand that the extension to which the motion and rest belongs, is our physical world of things together with the space that these physical things occupy. Spinoza identifies two infinite attributes of God that are known to us. Attributes are the ways in which Substance or God, is perceived and in his infinite attribute, we perceive God as either intellect or extension. So in the case of extension, God is perceived as an extended being. This extended being with physicality produces - is the immediate cause of - all the motion and rest in the universe. We can say, the extended being of God expresses itself as an infinite dynamism of all possible dynamic relations (SE 42). For Lord, this has a scientific dimension (SE 42). She describes infinite motion and rest as an infinite set of variations of motion, all the different possible ways in which mobility can vary, expressing all the different possible ways physical beings can exist (SE 42). And this does not necessary mean all the different ways that a physical being might move. For Lord, the single continuum of laws of motions encompasses all the chemical, microbiological and quantum-mechanical laws which determine how physical bodies are constituted (SE42).

On the other hand, the face of the whole universe as an example of a thing produced by the mediation of some infinite modification, is a matter of how these dynamic laws become manifest in things. It is what follows from the immediate expression of extended being. To gain a sense of what this face might consist of, Lord refers to a a later passage of the Ethics - III.7S - in which Spinoza describes

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14 See Lord, _Spinoza’s Ethics_, p.39. for an excellent summary, especially regarding how his definition of the attribute is very different from the Cartesian one, pp. 17-18, 21-22.
how each individual is composed of other individuals, forming an increasingly complex series (SE 40). For Spinoza all bodies as individuals are distinguished in respect of their motion or rest, their speed or slowness. This is also how bodies relate to each other, the motion or rest of one body determining the motion or rest of another. When bodies move together in a certain fixed relation, their union composes another compound body. And a compound body can relate in this way to another compound individual. In this way, the whole of nature can be considered as one infinite individual, composed of an infinite number of individuals, each of which in turn is composed of an infinite series of individuals (SE 40). This idea I also find noteworthy as it seems to recall Deleuze and Guattari’s description of the whole of nature as one multiplicity of individuated multiplicities. If we recall, they write,

Thus each individual is an infinite multiplicity, and the whole of Nature is a multiplicity of perfectly individuated multiplicities. The plane of consistency of Nature is like an immense Abstract Machine, abstract yet real and individual; its pieces are the various assemblages and individuals, each of which groups together an infinity of particles entering into an infinity of more or less interconnected relations (TP 254).

Lord calls the one infinite individual of nature caused by infinite motion and rest, the infinite continuum of physicality. I would liken it to, and claim it is the precedent of, Deleuze and Guattari’s molecular world of degrees, consisting as it does, of ever shifting levels of activity. So the same way Spinoza’s face of the universe would be the plane of nature’s abstract machine, this machine is constituted through the motion and rest of the becoming-molecular. All becoming operates, not through the analogy of imitation or proportionality, but by establishing these relations of movement and rest, speed and slowness.

And just as there is no place for fixed entities in this molecular universe, Lord distinguishes the infinite continuum of physicality from all the discrete, discontinuous individual things that make up our world. These, she argues are only ‘surface features’ of this infinite continuity (SE 40). They are finite modes of extension, temporary and changeable ways in which the continuum of physicality is expressed. We have encountered a number of metaphors here. Deleuze and Guattari use the term ‘becoming-molecular’; Spinoza’s reference is to the face of

15 See the *Spinoza Reader*, II L–L7S.
universe. Lord likes to use the analogy of the ocean (SE 41-2). The finite mediated modes are the waves coming and going, while the infinite mediated mode, the continuum of physicality, is the surface of this ocean. Underlying both is the infinite immediate mode, the ocean’s depth, which determines both individual waves and the ocean’s surface.

There is therefore a complexity to the workings of Spinoza’s universe which does not have quite the same causal logic that Kleinherenbrink seems to critique. When Kleinherenbrink argues that Deleuze rejects Spinoza because of the externality of his thesis, individual modes not being able to account for individual things, he leaves out the distinction made so well by Lord, between modes in their immediacy and their mediation, their infinity and their finiteness. The finite mediated mode of individual things is accounted by the infinite mediate mode of physical continuity. God as an extended being accounts for the infinite immediate mode of motion and rest. There are at least two steps in the production of our world, rather than the one, and when we are dealing with motion, the ocean and its waves, that single break between tablecloth and the thing it conceals is less easy to ascertain. But where does this leave Deleuze and Guattari’s plane of nature?

**THE MATHEMATICAL FOURFOLD**

To be fair, Kleinherenbrink’s argument is also more more complex than I have lead to believe. As mentioned briefly in the introduction, in Kleinherenbrink’s mechanic ontology of a private virtual, an internal difference in kind divides each machine into an actual side that one can encounter and a virtual side that one cannot. It is because machines have this withdrawn aspect, that they can accommodate any number of relations, and therefore also be subject to development and change. Thus he retains the concept of the virtual but refuses a virtual realm of interconnectivity underlying all of the actual. In addition he also however divides both the virtual and actual aspect of the thing into the ‘one’ and the ‘multiple’ (AC 38-9). Referring to Deleuze’s reading of Leibniz, he argues each entity has to be first of all ontologically both one and multiple in its virtual aspect. As he states, ‘one to be this, but multiple to distinguish this from that’ (AC 39). Similarly each entity is also one and multiple on the actual side of the machine. ‘One is this encounter ‘that we relate to, but this same encounter is also ‘multiple in the sense of having qualities distinguishing this from that’ (AC 39).
Consequently what he is describing is not so much a virtual realm but a kind of fourfold, already present in his most simple of diagrams of the machine.

Figure 2. Kleinherenbrink’s illustration of Deleuze’s concept of the fourfold with my additional division into the virtual and actual.

A more elaborate diagram of the machine follows (AC 41).

Figure 3. Kleinherenbrink’s illustration of Deleuze’s concept of the machine.
In this much more complex elaboration of the fourfold, Kleinherenbrink draws on a number of Deleuze’s texts, each with its own idiosyncratic vocabulary. We can find all the familiar Deleuzian concepts of the ‘body without organs,’ the ‘problem,’ the ‘event,’ or ‘intensive matter,’ including our ‘plane of consistency’ listed under the heading ‘body’ in the bottom left corner. I want to leave these aside for now to argue that at this early stage of his argument Kleinherenbrink’s thinking owes most to an early 1967 discussion at the French Society of Philosophy, a transcript of which has been republished in Deleuze’s *Desert Islands* in 2002 as ‘The Method of Dramatisation.’\(^{16}\) Under debate during this discussion are the parameters of what Deleuze calls the idea, or rather, more accurately, of the thing of the idea. This for Deleuze does not consist of a ‘what’ but of a multitude of determinations: ‘how,’ ‘how much,’ ‘where and when’ and ‘what case’ (MD 94-5). Significantly to us however, is that already then, the fourfold is at play, as identified by the moderator of the discussion and president of the society, Jean Wahl (MD 103).

Deleuze begins the discussion by identify the thing through its two distinguishing traits. The first concerns the qualities that specify it as a thing, the second, the extension that the thing occupies, an organisation of internal and external parts (MD 96). Already here we can see that this would be thing as it presents itself to the naturalist, physical, occupying a certain space, organised, ready to be compared. For us to have this sense of a classifiable thing, we need, on the one hand, the synthesis of qualification and specification, on the other hand, the synthesis of partition and organisation. Again, we look at either the qualities or the organisational structures according to their resemblances. In this earlier text however, Deleuze argues that the one depends on the other, there being no qualities without extension, no species without parts (MD 96). He then uses mathematics to offer an explanation. The relation between qualities and extension, species and parts, is of differentiation, with two correlative aspects. It is as if these aspects of the thing could be charted on a graph, the the vertical marking the difference in y, the horizontal, the difference in x, together representing the rate of change. These are for Deleuze the conditions of the

representation of things.

Continuing in this mathematical vein, Deleuze argues that underlying specification and organisation are ‘spatio-temporal dynamisms’ and ‘the intensive spatium’ in which they are produced (MS 96-7). For us to be able to differentiate the qualities and organisation of the thing, first there must be a dynamic world of change that produces these differentiations. Already in this earlier text Deleuze makes the reference to nature and biology in order to explain: before the first cell divides to become an organism, a number of different, much less obvious, much more minute, bio-chemical processes have to take place (MD 96). Thus the differentiation of the thing with its qualities and extension, presupposes dynamic relations varying in intensity. We can see how this concept of relates to both Deleuze and Guattari’s later definition of the abstract machine as well as notions of the virtual. In our mathematical language however, the spatio-temporal dynamism of this virtual would be the differential, the rate of change at any one single point. Interestingly, here we enter a world without ‘sensible form or function’ (MD 99), where the only thing that matters is the reciprocal determination of differential relations and the singular point at which these take place. This is worth noting: in the virtual twofold, the reciprocal determination of differential relations correspond to distributions of singularities. Deleuze is not so much positing an interconnected world here as much as sets of anomalies, moments of uniqueness. As in his later work with Guattari in a Thousand Plateaus, the key idea is of heterogenous blocks of becoming, indeterminable, concerned only with differences in speed or in motion, operating through the anomalous.

Taken together, Jean Wahl identifies Deleuze’s thing as a fourfold because Deleuze shows that the dynamisms controlling differentiation — the specification and partition that actualise the thing of the idea — are derived from these two aspects of the differential — differential relations and their concomitant points (MD 99-100). The thing of the idea is only ever actualised when differential relations are incarnated in species or qualities, and concomitant points in the extension corresponding to these qualities. Or as my diagram shows:
Kleinherenbrink builds his ontological thesis on the mathematical roots Deleuze describes in this early text. In Desert islands, there is the twofold of the virtual depth (the differential and its concomitant point) and the twofold of the actual surface (the differentiation of, on the one hand, quality and species, on the other, extension). Processes of, again one the one hand, qualification and specification, on the other, organisation and partition, make the virtual actual. For Kleinherenbrink, who takes into account the many different names Deleuze uses for the universal structure of the fourfold, there is the virtual twofold of the machine in itself, consisting of the ‘body’ and the ‘idea’, and the actual twofold of the machine we encounter, split into ‘sense’ and experienced qualities or ‘flow’ (AC 41).

Nonetheless what matters is not so much the formal structure of Kleinherenbrinks’s machine, but the implication this has for the understanding of Deleuze and Guattari’s plane of nature, and the extent to which it harbours a virtual realm. I have been paying especially close attention to the workings of extension or physicality, and if we now look at the diagram of the fourfold, we can see that according to Kleinherenbrink, the plane of the consistency of nature would be another term for the virtual body, the machine in itself, in extension. The actual
aspect of the same body of the machine would be the ‘surface’ of sense. Or mathematically, the plane of consistency corresponds to Deleuze's earlier thinking of the differential. The multiplicities of the plane of nature composed only by the relations of movement and rest of unformed and functionless molecular elements can be understood as the reciprocally determinable differential. The plane of nature is the mathematical intensive spatium of spatio-temporal dynamisms. This differential is then what supports the process of differentiation of quality and extension, the actualisation of the virtual body as the surface of the machine.

A SPINOZIAN CALCULUS

If Kleinherenbrink shows the machine's fourfold structure having roots in calculus, what then of Beth Lord's interpretation, and of the plane of nature having a Spinozian ground? To what extent is the virtual aspect of the machine calculable as the reciprocal determinations of the differential at its concommitant point, and to what the immediate and infinite manifestation of God in the attribute of extension? How are we to negotiate these two models in the quest of tackling the virtual, and the accompanying externality thesis that rejects any virtual realm?

In this earlier discussion of Desert Islands, Deleuze makes no direct reference to Spinoza. Nevertheless the similarities between its intensive spatium of the differential and the later Spinozian ‘relations of movement and rest, speed and slowness’ characterising the becoming-molecular of a Thousand Plateaus, are immediately apparent. Especially the earlier description of the intensive spatium of the differential as spatio-temporal dynamisms underlying specification and organisation of extension sounds very similar to how Lord characterises Spinoza's immediate infinite mode as an infinite dynamism of motion and rest, from which mediated modes in their infinite and finite forms follow. Without form, both the concept of intensive spatium and the concept of motion and rest, have this sense of movement; both represent an infinite set of relations. In both models combinations between individuals occur that are not productive unions, when two or more individuals travel with the same speed in a heterogeneous block, the differences in their rate of change determination only reciprocally. Indeed, this is what the mathematical differential representing the rate of change does so well. It can express all the different ways in which mobility varies, the myriad of
different ways all things exist.

Therefore there is a noticeable closeness between the two models: Kleinherenbrink's mathematical model of Deleuze's fourfold, and the Spinozian model of Deleuze's becoming-molecular, at least in Lord's reading of Spinoza. In Kleinherenbrink's fourfold, things have two aspects, virtual and actual, and in the case of extension, the virtual body - which I have shown as answering Deleuze's earlier description of the intensive spatium as a spatio-temporal dynamism - underlies the actual surface of the individual machine. In the Spinozian universe in which the becoming-molecular participates in, again when looking from the perspective of extension, the immediate infinite mode of motion and rest causes and is expressed in the mediated modes of infinite physical continuum and the finite temporal changeability of all things. When placed side by side in this manner, we can see that the machine virtual of the fourfold corresponds to Spinoza's immediate infinite mode, the machine as it is encountered in the actual, to the mediated mode of physicality and things. The mechanics of the shift from the virtual differential to the actual differentiation, and from immediate dynamic modification of extended being to the mediated physical world, are also comparable.

To me it would seem that the plane of nature as described by Deleuze and Guattari owes a debt to both models. Let us recall what plane of nature of is: Deleuze and Guattari describe it as an 'abstract machine,' consisting of various assemblages and individuals, each grouping an infinity of particles in an infinity of relations. It belongs to the becoming-molecular, a heterogenous multiplicity all becoming participates in, which is not a collection of elements but a process of transformation defined in terms of movement. It is about how a thing can change, from one dimension to the next following the path of contagion of the anomalous. What does this definition borrow from Spinoza? The abstract machine could be understood as the infinitely variable face of Spinoza's universe, in which each individual is composed of other individuals, each a multiplicity of other individuated multiplicities. The elements of this universe have neither form nor function, because they are not elements per se, but different speeds of activity, expressing an infinite variability of motion. Thus Deleuze and Guattari's definition of the plane of nature is closest to how Spinoza describes the mediated infinite mode in which God as substance is expressed in the attribute of extension.
The question is, how can this Spinozian aspect be reconciled with Kleinherenbrink’s more mathematical interpretation of Deleuze’s ontology, especially as this rejects any sense of continuity? I would say, that Deleuze and Guattari’s concept of the plane of nature also borrows from the calculus model so important to the earlier Deleuze text. I do not think it is mere coincidence that in *A Thousand Plateaus* Deleuze and Guattari use the example of Carter and his travels, in which the universe is explained terms of the cube and sphere. If we recall, for Carter the universe is presented as a multiform entity, in which every figure and space is a result of the intersection by a plane of some corresponding figure of one more dimension. In the same way, square roots and critical points solve the cubic equation in which the differential plays a part - as it were, the cube has a square root.

If we consider the molecular as that towards which Carter heads, a ‘mechanosphere’ (TP 252) of n-dimensions, a machine of endless multiplicities, then the differential acts here as a kind of plan or guide, lending this plan(e) its consistency. In the language of Deleuze’s earlier text used by Kleinherenbrink, the differential is the intensive spatium of spatio-temporal dynamisms underlying every quality and extension. It consists of the differential relation and its concomitant point, the reciprocal determination and its singularity. Together they make up the virtual of the machine and are responsible for the process of its actualisation, the process of differentiation that gives the thing of the idea its specificity and quality, that gives it extension - that gives the machine its surface. Differentiation is how a multiple Carter manages to move across different dimensions. Therefore, if the plane of nature on which the abstract machine reigns is the ‘intersection of all forms’ where all multiplicities co-exist, then ‘all becomings are written like sorcerers’ drawings on this plane of consistency, which is the ultimate Door providing a way out for them’ (TP 251). Our sorcerer is mathematically inclined. His drawings are calculations.

**CONCLUSION**

What the thesis of the selfishness of things rejects, is not such much the concept of the virtual, but something mistakenly attributed to the virtual: its continuity. The virtual is there, present in every machine, but it does not constitute a separate realm of virtual in which all machines would be connected, as if by one giant
web. For then, as Kleinherenbrink rightly argues, not everything would be a machine - there would be the need for something else other than the machine to connect them. Deleuze and Guattari's plane of nature, as described in a *Thousand Plateaus*, may seem to espouse such continuity, to weave the tablecloth on which machines would rest. This plane does consist of individual multiplicities and their infinite relations. But the analogy we should be using is rather that of Lord's Spinozian ocean, where both its depth and its surface are made of the same water molecules.

At this point of their argument, Deleuze and Guattari use Spinoza to give a better sense of this molecularity towards which all things in their becoming head. Becoming-molecular is closest to how Spinoza describes the face of the universe, which is also the face of God. It is the mediated infinite mode of Substance, following from the immediate infinite mode, the infinite dynamisms of motion and rest, activity and its lack, the only distinction allowed on the plane of nature. Infinite motion and rest may seem continuous - and Lord does in fact describe the mode that follows as the 'infinite continuum of physicality' - but this is where I think the rejection of Spinoza might be too precipitous. Here come in the mathematics of differentiation, because to read Spinoza it is indeed difficult to understand how one moves from God as substance, to its immediate infinite mode in motion and rest, to its mediate infinite mode of continuous physicality, to finally the finite mode of life. The move from immediacy to mediation, infinite to finitude, seems like one almost impossible giant step. This is exactly the point where Kleinherenbrink steps in, with Deleuze's earlier mathematical model, whose echoes are still detectible in *A Thousand Plateaus* later text. The process of differentiation constituting a fourfold shows us how such a move from immediate infinity to mediated finitude might be accomplished: through the establishing of differential relations and their corresponding points, the maximums and minimums where the curve levels and the differential tends to zero. Calculus is the guide to the plane of nature, helping lay things out in the individuality, in their multiplicity.

Thus in Deleuze's ontology, everything is a machine, in that everything is a mathematical function, with its own individual differential. But this does not mean that there is a separate realm of the differential, somehow different from the functions these differentials differentiate. Actual things are selfish, each its own little entity, but the differentiated virtual is just as much so. The
discontinuous virtual is the millions and millions of little individual rates of change, each with their separate speeds and stops, molecules adrift in a vast ocean.

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