## Univerzita Karlova

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# Diplomová práce

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Deleuze: Virtual Differential Fields and their Actualization

Deleuze: Virtuální diferenciální pole a jejich aktualizace

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#### Klíčová slova:

diference, virtuálno, aktuálno, intensita, multiplicita, diferenciální pole, diferenciace, diferentiace, individuace

## **Key Words:**

difference, virtual, actual, intensity, multiplicity, differential field, differenciation, differentiation, individuation

#### **Abstrakt**

Tato práce je rozdělena do dvou částí, z nichž každá odpovídá specifické linii tázání. První se zabývá obecným charakterem Deleuzovy filosofie. Jaký typ filosofa je Deleuze? Jaké jsou hlavní definiční rysy jeho filosofie? Jak zapadá jeho práce do širšího kontextu historie idejí? Postupujeme tak, že vykládáme Deleuzovy vztahy k některých z jeho hlavních vlivů, konkrétně k Platónovi, Nietzschemu, Kantovi, ale také k jistým oblastem matematiky, a při tom postupně zpřesňujeme naše chápání Deleuzových vlastních postojů. Ve druhé části pak využíváme tohoto obecného shrnutí k výkladu konkrétní podoby Deleuzovy ontologie. Jak deleuzovský svět vypadá? Jaké jsou jeho konstitutivní momenty? Jaké jsou vztahy mezi těmito momenty? Začínáme od hrubého náčrtu, který pak postupně komplikujeme přidáváním dalších pojmů Deleuzovy terminologie. Obzvlášť nás v této druhé části bude zajímat Deleuzův koncept virtuálna a jeho mechanismus imanentní geneze skrz kterou jsou psychické, biologické, sociální, materiální, stejně jako všechny další formy konstituovány, tedy proces indi-diferent/ciace. K těmto účelům spoléháme na matematiku k uzemnění našeho tázání, a také na Deleuzův vztah ke Kantovi, který nám dovoluje zarámovat Deleuzův ontologický projekt. Práce končí krátkým uvážením vlivu těchto ontologických úvah na etické otázky, tedy mody jednání a myšlení, které jsou vhodné pro deleuzovký svět.

Pro tyto účely čerpáme především z Deleuzova díla *Diference a opakování* (1968) a z kratšího textu *Metoda dramatizace* (1967). Tyto texty jsou doplňovány množstvím dalších primárních i sekundárních zdrojů.

#### **Abstract**

This thesis is divided into two parts, each of which corresponds to a particular line of inquiry. The first asks about the general character of Deleuze's philosophy. What kind of philosopher is he? What are the chief defining features of his philosophy? How does his work fit into the larger context of the history of ideas? We proceed by discussing Deleuze's relation to some of his main influences, namely Plato, Nietzsche, and Kant, but also certain areas of mathematics, gradually sharpening our understanding of Deleuze's own views in the process. The second part then asks, against the background of this general characterization, after the specific form of Deleuze's ontology. What is the Deleuzian world like? What are its constitutive moments? What are the relations between these moments? We begin with the most general outline and gradually complicate it by introducing more of Deleuze's terminology. In particular, what interests us in this second part is Deleuze's concept of the virtual and his mechanism of immanent genesis through which psychical, biological, social, material, as well as all other forms come to be constituted, that is, the process of indi-different/ciation. In order to do this, we use Deleuze's relation to Kant to frame his ontological project, and rely on mathematics to ground the enquiry. The thesis ends with a brief consideration of how these ontological constructions impact ethical concerns, that is, we ask what modes of action and thought are proper to the Deleuzian world.

For these purposes, we draw primarily on Deleuze's magnum opus: *Difference and Repetition* (1968), as well as on a shorter text titled *The Method of Dramatisation* (1967), which we then supplement by a variety of other works and secondary sources.

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#### Foreword

This thesis has two chief aims: to identify and lay out the main defining features of Deleuze's philosophy taken as a whole, and to explore the various constitutive moments as well as the overall character of his complicated ontological system. The analysis is in both these points strictly restricted the texts written prior to Deleuze's meeting with Guattari, mainly to *Difference and Repetition* (1968) and *The Method of Dramatisation* (1967), and only utilizes the 'guattarized' works to the extend that they can help us understand or illustrate points from these earlier texts.

The reasoning behind this limitation is that Deleuze's meeting with Guattari resulted in a definite change in his way of thinking, and we simply don't have the space needed to make sense of this transformation. The reasons for the choices in literature are that *Difference and Repetition*, besides being Deleuze's best and most important work which functions as the cornerstone of his entire oeuvre (a bold sounding claim, maybe, but it seems that majority of interpreters share this assessment)<sup>1</sup>, it is also the place where he outlines his ontology in its most complete and explicit form. *The Method of Dramatization* covers the same ground as certain sections of *Difference and Repetition* (mostly end of 4<sup>th</sup> and part of 5<sup>th</sup> chapter) without significantly deviating in any way as far as content is concerned. Deleuze is saying the same thing, but some things are articulated more forcefully, some connections are made more overtly, etc. It can be very helpful to read the same thing twice, put slightly differently. As for the secondary sources, the thesis draws on wide variety of material. We would like to lift the works of Aden Evens, John Protevi, Dan Smith and James Williams as particularly helpful and we wholeheartedly recommend them to any aspiring student of Deleuze.

Concerning the structure of the text, our inquiry proceeds along two lines in accordance with the two abovementioned overarching concerns, and the text is correspondingly divided into two parts. The first part, occupied with general characterization of Deleuze's philosophy, starts off by grounding the discussion with the basic biographical and bibliographical data of Deleuze's life and work. It then proceeds by investigating some of Deleuze's chief influences and gradually profiles his own philosophy against these influences. Beginning with Plato, through Nietzsche and Kant, ending with a discussion

<sup>&</sup>lt;sup>1</sup> In his *Guide*, James Williams calls it "nothing less than a revolution in philosophy"; Stanford Encyclopedia of *Philosophy* talks about it as Deleuze's "Magnum Opus"; etc.

about the role of mathematics in Deleuze's system. In the second part, we then use the results of our general inquiry as a backdrop for an investigation of Deleuze's ontological system. We start with the roughest outline of the Deleuzian world, articulating it in terms of interplay of his two registers, the virtual and the actual, and gradually increase the complexity by introducing additional concepts from Deleuze's difficult terminology. We pay particular attention to the issues connected with the notion of virtuality and the mechanism of immanent morphogenesis. The thesis concludes with a brief consideration of how Deleuze's ontology bears on ethical concerns.

This thesis makes no claim of making new discoveries, besides a humble observation here and there. It merely takes the existing material, rearranges it, amplifies certain aspects while allowing others to recede into the background, thus, hopefully, allowing for Deleuze's system to present itself in a new and refreshing light. The chapters of *Difference and Repetition* can be viewed as a series of repetitions, each in essence contracting in itself the entire book, allowing some of its concepts to shine against others which are present only obscurely. Our text then might be best read simply as another repetition in the series. So, which are the aspects of Deleuze's thought we chose to bring into prominence at the expense of others?

Firstly, the mathematical elements of Deleuze's writings are given greater importance than is customary. The reason for this is that, as we see it, the approach to the texts with the mathematical angle in mind offers a unique set of advantages the other possible approaches lack. Most importantly, mathematics might be the best way of securing the initial foothold within Deleuze's exceedingly difficult ontology. It can be used to ground the questioning and serve as a safety net which allows the reader to regain his balance any time he gets lost in the text. It can function as a powerful visualizing tool which enables the reader to anchor Deleuze's passages in something concrete and prevent them from floating away into nebulous abstractions and mystifications. This comes particularly handy any time the virtual or connected notions are at stake, which, as we said, are of particular interest to us.

Secondly, we emphasize Deleuze's relation to Kant and use it to and circumscribe his ontological system in order to frame our own project and make it more manageable. In practice, this means that we understand Deleuze's search for the mechanism of immanent morphogenesis as a continuation and broadening of Kant's project from the first *Critique*.

We also emphasize the notions of difference, problems and solutions, Ideas, differential fields, constitutive reciprocal relations, spatio-temporal dynamisms, and

intensities. In order to lay out these aspects of Deleuze's work properly, we had to largely deflate or even entirely omit the concepts like repetition, good and common sense, depth (as the original dimension), passive syntheses of time (habit, memory and eternal return), and the three forms of determination (determinability, reciprocal determination and complete determination). All these notions certainly play an important role in Deleuze's system, in accordance with Deleuze's own philosophy, in order for some elements to be presented distinctly, others have to be left in obscurity.

Similarly, if the reader ever gets the impression that the linkages between some chapters seem a bit tenuous or that the flow of the text contains some jump-like transitions, he may be justified in that assessment. The thesis is not result of some carefully laid out masterplan, it grew rhizomatically from the middle. In certain contexts, this manner of proceeding could maybe seem somewhat objectionable, but in the present case it is, we would like to argue, entirely appropriate. The form of the text simply serves as an exemplification of its content.

## **ABBREVIATIONS**

DR Difference and Repetition

MD The Method of Dramatisation

TP A Thousand Plateaus

Difference and Repetition and A Thousand Plateaus will always be given both in the English translation (first page number in the brackets) as well as the French original (second page number in the brackets). Editions are specified in bibliography.

### Part I: Deleuze and Philosophy

#### 1.1 Introduction

#### 1.1.1 Life and Career

The life of Gilles Deleuze was in many regards exceptionally average. He was born in 1925 in Paris to a conservative bourgeois family and lived his whole life in the same district, rarely traveling abroad or partaking in "the disgusting practice of conferences". The most dramatic event of his life took place during the occupation when his older brother was arrested for partaking in resistance activities and died in transport to Auschwitz. While the war was still raging, Deleuze entered Sorbonne where he studied history of philosophy under big names like Jean Hippolyte, Ferdinand Alquié, Georges Canguilheim and Maurice de Gandillac.

After graduating, he first taught at Lycées and then took up a number of assistant teaching posts at universities. At 1969, he was invited, at the recommendation of Foucault, then still his friend<sup>3</sup>, to teach at Paris 8 University Vincennes-Saint-Denis, an experimental institution which managed to draw in a great number of well-known figures (Guattari, Badiou, Rancière, Lyotard, Negri, Balibar, Lacan, Žižek, Miller, ...) and where Foucault served as the head of the philosophy department. Here Deleuze became very popular, acquiring a reputation of a talented if somewhat eccentric lecturer. His lectures swarmed with people from all walks of life, not just philosophy students, but "young painters, people under psychiatric treatment, musicians, drug addicts, young architects, [CIA operatives,]<sup>4</sup> all from different countries, with waves of visitors that varied from one year

<sup>&</sup>lt;sup>2</sup> A snippet from *L'Abécédaire*, a series of interviews of Deleuze by his friend, student and co-author Claire Parnet, conducted in 1988 for French television. Collectively they have a runtime of about 8 hours and reveal great deal about Deleuze as a person. Deleuze hated interviews and refused all invitations to appear on television and agreed to the project on the condition that it would only appear posthumously.

<sup>&</sup>lt;sup>3</sup> Public breakups are something of a theme when it comes to post second world war French philosophers. In this case, the cause for the falling out was the question of Palestine – Deleuze was advancing a completely pro stance while Foucault harbored some Zionist sympathies.

<sup>&</sup>lt;sup>4</sup> CIA was keeping tabs on radical French intellectuals, many of whom were situated at Vincennes. In 1985 it internally produced a document titled *France: Defection of the Leftist Intellectuals* ("sanitized copy" was

to the next [...] what an amazing collection and a fantastic audience!".<sup>5</sup> Some would become recurring characters in the tapes of Deleuze's lectures. They would occasionally seize the floor, heckle Deleuze, and make all kinds of wild interventions. None of this bothered him, on the contrary, it is clear that he adored this new kind of audience. He would remain at Vincennes until his retirement in 1987.

A crucial moment in his life took place in May 1968 when he first met Felix Guattari, a radical psychoanalyst associated with anti-psychiatric movement and a political militant. They would organize seminars together over the course of seven years (some of which were filmed and are now available on YouTube) and even form a literary partnership, producing some of the most famous works connected with Deleuze's name.

Deleuze's health was always fragile. Shortly after finishing *Difference and Repetition* in 1968, he was hospitalized with severe case of tuberculosis. At first, the illness didn't cause too much discomfort, but his condition kept progressively getting worse and during the 90s the act of writing required considerable effort. In 1995, the adversities finally proved too great and Deleuze either threw himself out of a window of his apartment, or fell out trying to catch a breath of air.<sup>6</sup>

#### 1.1.2 Literary Output

As for Deleuze's literary career, we can, it seems to us, segment it into three periods. The initial phase was spent writing short monographs on classical philosophers and select literary figures. First of these, titled *Empiricism and Subjectivity* (1953), was devoted to Hume. It was his next work, *Nietzsche and Philosophy* (1962), which really established his academic reputation. This was followed with *Kant's Critical Philosophy* (1963), *Proust* 

declassified in 2011 under the Freedom of Information Act). It reaches the conclusion that not only is the "New Left" not a threat, "it will probably increase voter defection from both Socialist and Communist camps" (which it did). Deleuze, unlike Foucault, isn't mentioned by name, but given the agency's notorious thoroughness, it seems a safe assumption that his classes had at some point been also visited by its operatives.

<sup>&</sup>lt;sup>5</sup> L'Abécédaire.

<sup>&</sup>lt;sup>6</sup> In L'Abécédaire, Deleuze shares his Nietzschean outlook on living with illness: "Illness is not an enemy, not something that gives a sense of death, but rather something that sharpens a feeling for life [...] life in all its force, in all its beauty."

and Signs (1964), Bergsonism (1966), and Masochism: Coldness and Cruelty (1967). Deleuze did not consider these to be merely historical works, but philosophical books in true sense of the word. Just like a portrait is still a painting, history of philosophy is still philosophy. They are all comparatively accessible, highly insightful, highly idiosyncratic, delightful little works. Each time, Deleuze takes up a thinker who dealt with a problem that happened to occupy him at the time, engages him not in the dry, sterile academic fashion, but really assimilates whatever he finds valuable into his own life and world-view. He latches onto a handful of concepts and works them through, not content with simply repeating what the thinker had said, but letting the concepts develop according to their own inclinations, like a novelist would follow his characters. A specialist might often have some reservations about the accuracy of Deleuze's distillations, but there is no denying that these books are remarkably fruitful and personal engagements, as well as prime examples of good philosophy.<sup>7</sup>

With the benefit of hindsight, we can say, as Deleuze himself did, that these short monographs served as preparatory (yet self-sufficient) works for what would come next. So far, Deleuze had been gathering and thinking through valuable concepts he found in works of classical figures. With them, he had been "serving his apprenticeship"<sup>8</sup>, and once he felt worthy, he would take them, transform them and reconnect them in his own metaphysical system. This crucial step takes place in his magnum opus, *Difference and Repetition* (1968).<sup>9</sup> Here, all of Deleuze's previous work is cashed out. His system has the curious property of being at the same time deeply indebted to classical thinkers and highly original, not just a reconfiguration of existing elements, but something truly novel. The concepts worked out in *Difference and Repetition* will stand in the background of all of Deleuze's later works (his collaborative efforts with Guattari included). *Difference and Repetition* thus serves as a sort of central node in Deleuze's oeuvre. It is the nexus where all lines meet and from which they radiate out again. A year later, Deleuze would follow

<sup>&</sup>lt;sup>7</sup> Deleuze's monographs can also serve as a good entry point into his thinking: just pick up a book on a figure that interests you, watch  $L'Ab\acute{e}c\acute{e}daire$ , and go on from there.

<sup>&</sup>lt;sup>8</sup> Like Gaugin and Van Gogh, two of the greatest colorists, started off with subdued earthen shades and used color only with fearful hesitation before they felt worthy of it and took years to finally engage with it. Philosophy (inventing concepts) is like color. (Deleuze's own analogy from *L'Abécédaire*)

<sup>&</sup>lt;sup>9</sup> Which also functioned as the primary thesis for his doctorat d'Etat, with *Spinoza and the Problem of Expression* as the secondary thesis.

up with another work in his own name, *The Logic of Sense* (1969), which is a masterpiece in its own right.

The third and final period in Deleuze's life is marked by his meeting with Guattari in 1968. This encounter clearly had a deep effect on him since his books, his solo projects included, read differently than those written prior to the meeting. It seems unsatisfactory to describe Deleuze's and Guattari's dynamic simply as collaboration or co-authorship. They formed something of an assemblage, a single rhizomatic machine where it is impossible, and even misguided, to try to parse out which one is speaking when (as the authors themselves make clear at the beginning of *A Thousand Plateaus*)<sup>10</sup>. Their most notable outputs include the two-volume opus *Capitalism and Schizophrenia*, composed of *Anti-Oedipus* (1972) and *A Thousand Plateaus* (1980), *Kafka: Toward a Minor Literature* (1975), and their final collaboration *What is Philosophy?* (1991). Deleuze would also continue to write in his own name, notably two volumes on cinema: *Cinema 1: The Movement Image* (1983) and *Cinema 2: The Time-Image* (1985), as well as a few more monographies dedicated to various thinkers and artists: *Francis Bacon: The Logic of Sensation* (1981), *Foucault* (1986), and *The Fold: Leibniz and the Baroque* (1988), just to name the most important ones.

#### 1.2 Sketching out Deleuze's Philosophy

Deleuze was one of the young, highly promising thinkers emerging out of French universities after the second world war. This generation tends to share certain characteristics and many of these describe Deleuze as well. For instance, given his refusal of any form of universal logos or shared faculty of reason, we can confidently plant Deleuze into the postmodernist camp. We might also group him with the thinkers who decided to center their thought around the concept of difference (Derrida, Heidegger, the structuralists, ...). Like many of his peers, he embraced Nietzsche (and turned against Hegel), rejected Sartre's radically free subject, reevaluated (that is to say, deflated) the role and status of the classical notions of subject and agency, criticized the concept of

<sup>&</sup>lt;sup>10</sup> "The two of us wrote Anti-Oedipus together. Since each of us was several, there was already quite a crowd. [...] We are no longer ourselves. [...] We have been aided, inspired, multiplied." (TP 1-2; 9)

<sup>&</sup>lt;sup>11</sup> Although Deleuze himself rather thought of his work in continuation with the historical thinkers of difference like Salomon Maimon, Hoene Wronski, and Jean Bordas-Demoulin.

representation, took interest in social and political issues (especially after his meeting with Guattari), refused to make compromises in order to make his books more accessible to the general public, and so on.

There is no doubt that in many respects Deleuze was a product of his environment. But more interesting than the points in which Deleuze embodies the popular trends, are the points in which he goes against them. First and foremost, in the time when speculations about the underlying nature of reality were generally taken to be a thing of the past (impossibility of overarching meta-narratives means also the end of metaphysics), and when the customary, almost expected thing to do for an upcoming thinker would be to develop his own original brew of Marxism, structuralism and psychoanalysis sprinkled with a dose of anti-establishment activism, Deleuze instead labeled himself "a pure metaphysician"<sup>12</sup>. This signaled a radical departure from the mainstream intellectual flow (and, to be sure, Deleuze's love of provocation).

Deleuze also liked to emphasize his debts and affinities with the classical figures of western thought and engaged them more so than the figures fashionable in his day (like Marx or Reich), even declaring himself as a "classical" philosopher at one point. In practice, this meant that he posed problems and created concepts in relation to the problems and concepts posed by the classics. That's what philosophy was for Deleuze – positing problems and creating concepts in response to those problems. This preference might also offer some insight as to why Deleuze, as pretty much the only one in his circle of friends, never associated himself with any of the highly popular communist movements.

Deleuze also stood out in terms of his vast knowledge not only of his home field of philosophy, but across vast array of domains (which is why Lyotard called him 'the library of Babel'). He was an autodidact in many fields and an astute reader of various scientific journals (particularly those having to do with neurobiology). His books are amazingly eclectic, teaming with obscure literary figures, mathematicians, physicists, biologists, and so on.<sup>13</sup> He was particularly interested in the "minor" scientists, philosophers and artists

<sup>&</sup>lt;sup>12</sup> The quote continues: "Bergson says that modern science hasn't found its metaphysics, the metaphysics it would need. It is this metaphysics that interests me" (taken from an interview in Collapse Volume III: Unknown Deleuze).

<sup>&</sup>lt;sup>13</sup> However, it ought to be mentioned that Deleuze wasn't drawing just on his own knowledge, but also on the collective knowledge of the amazingly diverse public that used to gather at his seminars every Thursday. Seminar discussions occupied a central position in of his work-process, especially when it comes to his later books.

excluded from the orthodoxies of their fields, but who nevertheless might have brushed against something important to which the "major" streams remain blind.

In the following chapters, we are going to consider more closely Deleuze's relation to some of his influences and inspirations, with the aim of obtaining an accurate sense for the contours and topology of his thinking. Such an inquiry is important and interesting for its own sake, but it will also provide guardrails for the following exposition of his ontology.

Also, in order to forestall any confusion around the terms of 'metaphysics' and 'ontology', it seems to us that in Deleuze's case they pretty much amount to the same thing and we are going to be using them more or less interchangeably.

#### 1.2.1 Image of thought and the Reversal of Platonism

In the first chapter of *Difference and Repetition*, Deleuze characterizes his project as a *reversal (renversement) of Platonism* (DR 59; 82).<sup>14</sup> This reversal is centered around Plato's familiar distinction between true and false images from book 10 of the *Republic*. True images are copies of transcendent originals subsisting in the eternal realm of Ideas to which they stand in a relation of (greater or lesser) resemblance. False images, or simulacra (*le simulacre*), pose as copies but in actuality unfold outside of the original-copy relation. That is to say, they pretend to reflect the true, eternal order of things, but they do not. They are the images employed by poets and sophists that conceal truth and being, deceive citizens, subvert order and threaten the city with anarchy (which is, you might recall, why Plato wanted to expel poets and sophists out of his city). Thus, according to Deleuze's reading, Plato introduced the concept of Idea into philosophy, and with it transcendence, as a mechanism of deciding between competing claims, of weeding out the pretenders, of discerning legitimate from illegitimate. The problem to which is the concept of the Idea a solution is: how do we avoid a situation in which "*anyone could lay claim to anything, and could carry the day by the force of rhetoric*". <sup>15</sup> The raison d'être of Ideas is to select, to

<sup>&</sup>lt;sup>14</sup> The phrase originates from an early draft of Nietzsche's *The Birth of Tragedy* (available in the *Großoktavausgabe* edition): "my philosophy an inverted Platonism: the further removed from true being, the purer, the more beautiful, the better it is. Living in semblance as goal".

<sup>&</sup>lt;sup>15</sup> Smith, D. W. et al. (2013) *The Cambridge Companion to Deleuze*. Cambridge: Cambridge University Press. p.57.

sanction authority, and to exclude and eliminate anything which doesn't fit within the paradigm, and it is up to the philosopher to uphold their order. That is to say, Plato's motivations for introducing transcendence into philosophy were at core moral. "With Platonism, philosophy becomes a police operation". Since then, philosophical thought has managed to forget its moral roots, but they have never left it. Even today, they work sinisterly in the background, all the more powerful because they are invisible, influencing what and how can be thought.

Having uncovered the hidden motivations behind the poisoned gift of transcendence, Deleuze rejects it entirely. Without transcendence, all that remains is the world of the sensible, the empirical realm. In order to make sense of its workings, we have no recourse to some transcendent dimension – the world must be explained from within itself. Thus, Deleuze's philosophy, just like philosophies of Nietzsche and Spinoza, is a philosophy of pure immanence. This expulsion of transcendence from philosophy that constitutes the core of Deleuze's reversal has far reaching consequences.

In the first place, with the transcendent realm disappears also the true/false image distinction. Since there are no models, there are no copies. The copy is abolished together with the original. All there is, are simulacra. So, where there used to be more or less imperfect instantiations of the eternal Ideas, now there are only series of continuous free variations. Every thing, material or mental, must be understood as a member in an unfolding series of repetitions without a beginning or even the possibility of saying what is being repeated. And since everything shares this way of being, since everything *is* in the same way, we can say that Deleuze's ontology is univocal. Without the eternal realm, there is also no possibility of hierarchizing things by degrees of resemblance to their transcendent models. Everything is, so to say, located on the same plane.

With the purge of transcendence, the center of gravity shifts and the philosophical ur-question now becomes, as it did for Spinoza and Nietzsche: how do we live in a world, that is purely sensible? Immanence thus frames not only Deleuze's philosophical project, but also his everyday conduct and closely binds the two. The answer to "how should I live

<sup>&</sup>lt;sup>16</sup> Smith, D. W. et al. (2013) *The Cambridge Companion to Deleuze*. Cambridge: Cambridge University Press. p.59.

<sup>&</sup>lt;sup>17</sup> In Deleuze's usage morality stands in opposition to ethics. The former is connected with rigid universal rules and laws, typically negative in form, and is in practice always entangled with resentment and lifedenying attitudes, while the latter empowers the various modes of becoming and cultivates joyful affirmative life.

and think" directly and naturally flows from the question of "how is the world structured" - again, just like in the case of Spinoza and Nietzsche. We will return to this collusion of ontology and ethics in the final chapter.

There is another issue closely connected with Deleuze's rejection of transcendence we need to discuss. Plato's ontological commitments carry with them as a corollary a certain *image* of what thought is and how it proceeds. We already mentioned how the forgotten moral motivations behind transcendence secretly influence though. The implicit assumption that thought bears natural affinity with truth and the good likewise shapes our thinking today, even if we don't share it. But most importantly for Deleuze, the Platonic Idea, the very figure of sameness, imposes on being the form of self-identity. To think a being is to think something that remain the same across time, a selfsame substratum on which properties come and go. Furthermore, the guiding principle of the Idea compels us to think beings in terms of resemblance, both to its Ideal model and to each other. As a consequence of the invention of the Idea, thought comes to be structured by the fourfold principle of the same, the similar, the analogous, and the opposed. There are no other legitimate relations. That is why simulacra are so dangerous – they don't fit into this paradigm and thus threaten it.

We see that thought, far from being some neutral medium or tool, carries within itself a set of unreflected presuppositions which dictate what forms it can take. Any one thought takes place within this set of boundaries, within this "image of thought" (*l'image de la pensée*) that works unperceived in the background. "It is in terms of this image that everybody knows and is presumed to know what it means to think. [...] We may call this image of thought a dogmatic, orthodox or moral image" (DR 131; 172).<sup>18</sup>

Deleuze shares Descartes' view that in philosophy "beginning means eliminating all presuppositions" (DR 147; 169). But the aim of this elimination must not be to put in its place a better set of presuppositions, one constructed by means of controlled decisions which would correct thought and make it into the neutral medium or tool it was always meant to be, capable of reflecting reality as it really is. In our postmodern world, these

<sup>&</sup>lt;sup>18</sup> The quote continues: "[the dogmatic image] certainly has variant forms: 'rationalists' and 'empiricists' do not presume its construction in the same fashion. Moreover [...] philosophers often have second thought and do not accept this implicit image without adding further traits drawn from explicit reflection on conceptual thought which react against it and tend to overturn it."

dreams must be finally abandoned. The best we can do is to free ourselves from this totalizing, tyranizing illusion that such universal logos is possible in the first place. We need to liberate ourselves not just from the dogmatic image, but from any image which would want to replace it, and thus also open ourselves to the possibility of genuine creativity.

The aim is "a thought without Image" (DR 132; 173 & DR 176; 217). <sup>19</sup> Of course, one has to assume a place from which he does his thinking and writing. The trick is not to get stuck within one territory, to live like a nomad, crossing freely between territories (to imitate the form or movement of schizophrenic delirium, as Deleuze and Guattari will later put it in Anti-Oedipus; or to plug the arboreal roots back into the rhizome, as they will put it in A Thousand Plateaus). When you feel like you're getting bogged down in one place for too long, when passive habits are starting to contract and life starts to become stale, you take up a line of flight, follow it, and land in a different space (deteritorialize yourself). Getting stuck is a constant danger. The trick to living in a world that is purely sensible is to make one's life a perpetual experiment, constantly leaving old patterns behind and allowing new ones to take shape, never staying too long in one place. We can see these principles put into practice in A Thousand Plateaus.

Thus, for Deleuze, thought isn't a universally shared capacity, one and same in all. There is no natural affinity of thought with truth and the good. In fact, there is no THE truth and THE good. The dogmatic image of though produces enunciations like: "everyone knows that ...", "no one can fail to recognize that ...", "if you're approaching the discussion in good faith, you must grant that ...". A philosopher then is someone "with the necessary modesty not managing to know what everybody knows, and modestly denying what everybody is supposed to recognise. [...] Only such an individual is without presuppositions" (DR 130; 170-1).

According to Deleuze, the first step toward the reversal of Platonism takes place in Platonism itself, specifically in the *Sophist*, in the concept of non-being where the 'non' "expresses something other than the negative" (DR 63; 88), and possibly also in in the blurring of boundaries between Socrates and the sophists. Here Plato brushes against the limits of his own philosophy, "we glimpse the possibility of the triumph of the simulacra"

<sup>&</sup>lt;sup>19</sup> "The theory of thought is like painting: it needs that revolution which took art from representation to abstraction. This is the aim of a theory of thought without image." (DR 276; 354)

(DR 128; 168), but ultimately he shies away back into his comfortable territory and thus fails to realize the full potential of his philosophy. Deleuze then in a sense only pushes Plato's philosophy in the direction in which it was already pointed and makes the decisive step with which the thinker only cautiously flirted. This taking of a line of flight tacitly implied in the thinker's own system is something of a fixed pattern when it comes to the way Deleuze engages his philosophical predecessors (with the possible exception of Nietzsche who has without help managed to push his philosophy as far as it could go).

#### 1.2.2 Nietzsche, Affirmation and Difference in Itself

After the introductory remarks, *Difference and Repetition* starts off with a critique of the way philosophy traditionally understands the concept of difference. We already saw that for Plato difference referred either to a deviation of a copy from its model or to a relation between two copies. Aristotle conceived it primarily as contrariety within genus, that is, as a specific difference. Hegel located it between two stages of the dialectical process. The common thread between these conceptions is that they all take difference as something secondary, as a product of comparison between preestablished identities which are themselves ontologically primary.

According to Deleuze, this understanding of difference covers over its deeper, more originary meaning: the meaning of difference as a positive phenomenon. That is to say, what Deleuze is after is a conception of difference that does not relegate it to a relation between identities, but grants it the status of an ontologically primary reality as a difference in itself (*la différence en elle-même*). To articulate such an understanding of difference is one of the chief tasks of *Difference and Repetition*. But what would a positive conception of difference even look like? How can we think difference without presupposing identities? To understand how Deleuze envisions difference in itself, let's take a short detour through another closely connected concept: negation.

There are two ways of thinking negation: the Hegelian sense in which negation is the primary reality, that which drives the historical process, and the Nietzschean sense in which negation is a secondary artificial construction, a mere epiphenomenon thrown off by the primary happening, or, perhaps better, an illusion resulting from the repudiation of this primary happening. What is the primary happening? A process of continuous creation, perpetual becoming, an unceasing movement of evolution into new shapes and

constellations which flair up once and disappear forever. Negation then is a product of reflection, a denial of this creative process at the heart of existence, a life-adverse parody of the joyous process of creation, which it fails to affirm.

Difference in itself is the principle behind this perpetual movement of creation. It is the hidden interiority of things which causes them to be out of step with themselves (to borrow Simondon's expression) and continuously become different than they are - a transcendental condition of change, dissolvement of identities and possibility of the radically new (as opposed to a mere permutation of the same). Rather than relation between identities, difference is primarily a principle of genesis and generation, a continuous variation of relations, always in the process of becoming and therefore resistant to identification and representation. It is difference and difference alone which, according to Deleuze's interpretation of Nietzsche's famous doctrine, keeps coming back eternally to generate new forms, the only thing that passes the test of the eternal return. "Only difference returns and never the same."<sup>20</sup> Difference is the being of everything that exists – this is the meaning of Deleuze's univocity.

We will, in accordance with Deleuze's own usage, employ the term 'difference' in two ways. Firstly, as THE difference, as the metaphysicum at the core of existence that is the joyous process of creation. And secondly, we will call 'difference' anything which has the character of perpetual self-differentiation, continuous variation, or of the "unequal in itself" (DR 90; 121, for example). All of the sub-representational elements which we will gradually introduce into the ontological exposition (differential elements of Ideas, intensities, and spatio-temporal dynamisms), as well as the various relations they assume to one another have the ontological status of 'pure differences'.

From Deleuze's description of the world in terms of difference follows that negation and opposition, as well as identity, must be understood as artificial products of reflection. They are what we end up with when we cut ourselves off from the difference at the heart of existence. Not even emergent phenomena, more like phantoms, illusions which distorts the primary process of becoming, failures of affirmation. The error lies not just in imposing staticity on a process, but also in forcing unity upon a multiplicity. Any unity, under a close inspection, fragments into a myriad of relations. All there is are interpenetrating assemblages of processes, each of which fragments into further

<sup>&</sup>lt;sup>20</sup> William James' apt summary of Deleuze's reading of the eternal return (p.39 of *The Cambridge* Companion, and elsewhere).

assemblages, and so on, all the way down (and all the way up).

We will treat these points concerning multiplicities later in detail. For now, let's content ourselves with the observation that Deleuze is not a metaphysician of substance à la Aristotle, but rather a metaphysician of process in the spirit of Heraclitus, or, closer to his thinking, Whitehead or Bergson, who puts a strong emphasis on creativity and openness to genuine novelty. Among all the thinkers of process, he might be the one who takes it the furthest.

#### 1.2.3 Immanent Genesis and the Empirical Reversal of Kant

Among Deleuze's chief philosophical influences, Kant might at first glance seem the odd man out. He stands at the center of philosophical orthodoxy, the very personification of the established order, dry academician, prototypical moralist, and seemingly in discord with Deleuze about the issues which occupied him the most.<sup>21</sup> So why did he hold Kant in such a high regard?

In the first place, Deleuze regarded the problems posed by Kant as valid and important, even though he failed to formulate and subsequently solve them in an adequate manner. In his criticisms of the project of the first *Critique*, Deleuze repeats the points raised by Solomon Maimon, an early critic of Kant and an important influence on *Difference and Repetition*. We can formulate Kant's project roughly thus: to provide an explanation of how experience comes to be constituted. The reason why his solution is unsatisfactory, according to Deleuze and Maimon, is that he only provides a mechanism of external conditioning. Raw sense data are received via intuition and categories are then applied to them, from outside so to say, and this is how experience takes form. This is not enough. What the problem calls for is a mechanism of immanent genesis of experience, an explanation in terms of how the experience organizes itself from the inside, to put it somewhat crudely, a genesis of experience from within experience (this is what is meant by the programmatic slogan: "to replace conditions of possible experience with a genetic

texts left on his table when he died, very esoteric and understudied, radicalization of his philosophy) – here we start to see clear parallels.

<sup>&</sup>lt;sup>21</sup> Although this impression somewhat alters when we move away from the Kant of the first two critiques to the Kant of *The Critique of Judgement* (where he arrives at the very Deleuzian idea that faculties must have discordant relations between themselves), and even more so, to the Kant of *Opus Postumum* (collection of

account of real experience", that sometimes appears in secondary literature)<sup>22</sup>.

The reason why Kant's solution is inadequate is that the entities he presupposes to explain the constitution of experience, that is to say, the subject, the pure forms of intuition (time and space), the pure concepts of understanding (categories), as well as the (Kantian) Ideas, do not explain but are themselves in need of explanation. For example, Kant explains empirical subject by placing it within the transcendental subject, but the transcendental subject itself is then treated as obvious and unproblematic. This only moves the problem one step back. A satisfactory account can't presuppose the subject, it must explain how it comes to be constituted in experience – it must take a form of immanent genesis. Kant is merely smuggling what is to be explained back into the explanation, he's tracing the empirical synthesis back into the transcendental field, as is indicated by the suspicious similarity of the conditioned to its supposed condition.<sup>23</sup> In a genuine explanation, one which does not presuppose what it's supposed to explain, the ground cannot resemble that which it grounds. This "absolute condition of non-resemblance" (DR 279; 357 & MD 98) will become the fundamental axiom of Deleuze's ontology.

Thus, what is needed is a kind of empirical reversal of Kant, one which, paradoxically, had already taken place before the first *Critique* was written, in the philosophy of Hume. While Kant asks how can the given be given to a subject, the question he ought to be asking, like Hume does, is how is the subject constituted within the given. In the same way, we need to ask after the constitution of time, space, categories, and Ideas: instead of taking them as unproblematic and using them to explain how experience is constituted, we need to show their immanent genesis within the given. In this manner, following Maimon's criticisms, Deleuze empiricizes Kant's transcendental idealism, hence the oxymoronic label he sometimes uses to refer to his own philosophy: transcendental empiricism (*l'empirisme transcendental*).

The Stanford Encyclopedia of Philosophy summarizes transcendental empiricism in two points. Firstly, the abstract doesn't explain, but must itself be explained. This is the essence of Deleuze's empirical reversal of Kant. We saw how this works in the case of the

<sup>&</sup>lt;sup>22</sup> I.e. in Stanford Encyclopedia of Philosophy, in the Cambridge Companion, and elsewhere.

<sup>&</sup>lt;sup>23</sup> "Kant traces the so-called transcendental structures from the empirical acts of a psychological consciousness: the transcendental synthesis of apprehension is directly induced from an empirical apprehension, and so on. In order to hide this all too obvious procedure, Kant suppressed this text in the second edition [of the first Critique]. Although it is better hidden, the tracing method, with all its 'psychologism', nevertheless subsists." (DR 135; 176-7)

subject, space, time, categories, and Ideas, but this is a general point which touches all abstract unities. We tend to overlook their origins, regard them as obvious and use them as source of explanation. Deleuze intreats us to avoid this reification of abstract unities and always remain in touch with the concrete. For instance, only morons (Deleuze's expression) talk about human rights in abstract, all there is are concrete evolving situations. Life unfolds case by case. "It has nothing to do with enforcing human rights but with inventing forms of jurisprudence, so that for each case [the situation where injustice happens] could never come up again."<sup>24</sup> Philosophy has gone astray when it starts dealing with abstractions. Concepts are created in response to concrete problems which they are solving, as we saw in the case of Plato's Ideas. We must always look under the concepts to uncover the problems to which they correspond and thus drag philosophy from the heights of abstraction back into the empirical world. One cannot understand philosophy while it remains abstract. "My point of honor is that whatever the kind of concept I tried to create, I can state what problem the concept corresponded to, otherwise it would all have been empty chatter."<sup>25</sup>

The second defining feature of transcendental idealism is its understanding of the end of philosophy as the *discovery the conditions of creative production*. We already saw that, for Deleuze, these conditions have to do with difference in itself. We'll get into the gritty details of Deleuze's genetic account in the second part of this thesis.

Connected with the transcendental reversal, Deleuze transforms Kant's project from the first Critique in another important way. While Kant's mechanism of external conditioning only concerns the constitution of experience, Deleuze's immanent genesis is absolutely universal - every form in every realm of existence comes about through it. Psychic forms, social forms, biological (phylogenetic and ontogenetic) forms, meteorological and geological forms, ... all are generated through the same process. Deleuze's explanation of how a particular feeling, perception or concept emerges within experience will not differ from his explanation of how a rock, a planet, or an animal emerge within their respective environments.<sup>26</sup> Matter itself, as Deleuze sees it, is endowed with immanent power of

<sup>&</sup>lt;sup>24</sup> L'Abécédaire.

<sup>&</sup>lt;sup>25</sup> L'abécédaire.

<sup>&</sup>lt;sup>26</sup> We ought to clarify that these environments out of which forms arise should not be regarded as some separate domains of existence. There are no such discontinuities in the Deleuzian world. Strata interpenetrate

morphogenesis. This explains why he can move so fluently between the various domains, giving examples now from one, now from another – a feature of *Difference and Repetition* which can be very disorienting for a new reader. Is Deleuze doing phenomenology, embryogenesis, or explaining the structure of the physical world? All of the above and more, and at the same time.

There are two other points about Deleuze's relation to Kant we ought to bring up. Firstly, Deleuze makes rich use of Kant's transcendental method. Deleuze's version of the method nevertheless differs in an important respect from Kant's. While Kant simply asks: given this phenomenon, what needs to be in place in order for it to arise? Deleuze adds an additional question: how does our understanding of the conditions retroactively modify our understanding of the phenomenon? Williams articulates this point very clearly: Deleuze adds a "move from the condition back to the given, in order to undermine and alter it [...] what was taken as well determined is reviewed and extended in light of the conditions".<sup>27</sup>

Secondly, according to Deleuze's reading, Kant almost discovered pure difference when, while pondering the mystery of thought that thinks its own being, he stumbled upon the internal difference of thought. By this we mean the differing of though from its own being, the difference between the two moments of cogito, "I think" and "I am". "[F]or a brief moment we enter into that schizophrenia in principle which characterizes the highest power of thought, and opens Being directly on to difference [...]" (DR 58; 82). But, in the end, like Plato before him, Kant failed to follow the direction in which was his thinking pointed and fell back into his comfortable territory when, instead of affirming the pure, productive difference, he covered it over with the identity of the transcendental subject. Deleuze then, once again, merely steps in to take the line of flight implied in the thinker's own system.

each other, mirror each other, impinge on each other's movements. To talk about a separate milieu is more akin to talking about the whole of existence seen from certain perspective. Given that all forms cohabitate the same space and share the same way of being, we might borrow an expression from object-oriented philosophy and describe Deleuze's ontology as flat. We will return to the essential continuity of Deleuze's world later.

<sup>&</sup>lt;sup>27</sup> Williams, J. (2013) *Gilles Deleuze's Difference and Repetition: A Critical Introduction and Guide*. Edinburgh: Edinburgh University Press. p. 107.

We saw that, with two important transformations, we can view Deleuze's project as a continuation of Kant's project from the first *Critique*. These transformations being that (1) the sought-after mechanism has to take the form of an immanent morphogenesis rather than external conditioning and (2) its scope of applicability has to be universal rather than restricted to the realm of experience. In this sense, we might number Deleuze among the neo-Kantians - despite the fact that he described his monograph dedicated to the thinker as "a book on an enemy"<sup>28</sup>.

#### 1.2.4 Deleuze and Mathematics

Mathematics is a prominent element of *Difference and Repetition*, and it is not immediately obvious how we should understand its role in the book. Some passages can encourage the impression that mathematics is, so to say, the original language of the text and that the path towards understanding Deleuze is to retranslate him into this mother tongue. This is what DeLanda seems to be doing<sup>29</sup> and what we were planning to do here before we became convinced of the untenability of this approach. Our present view is that such reduction is impossible and any attempt in this direction can only result in a substantial impoverishment of the text.

What then are our reasons for giving the mathematical element of Deleuze's thought a privileged place in our exposition? Essentially, there are two. Firstly, we think that a general understanding of Deleuze's relationship to mathematics is a prerequisite if we are to grasp certain aspects of his ontology properly. Secondly, the mathematical approach to the text offers a unique set of advantages that the other possible approaches (i.e. with Kant, Nietzsche, Bergson, ... primarily on the mind) lack. Mathematics can serve as a powerful visualizing tool, and help the new reader to come to terms with the notion of virtuality and connected issues. It enables him to de-abstract the text by grounding it in something concrete and gain the initial foothold in the notoriously impenetrable text. Whenever he becomes lost, he can fall back onto the safety net of mathematical formalism and regain his bearings.

<sup>&</sup>lt;sup>28</sup> Deleuze, G. (1984) *Kant's Critical Philosophy*. Translated by H. Tomlinson and B. Habberjam. London: The Athlone Press. p. xv.

<sup>&</sup>lt;sup>29</sup> For example, in chapter *Deleuze, mathematics, and realist ontology* from *The Cambridge Companion to Deleuze* (pp. 220-238).

Let's start with a quick survey of the ways mathematics is used in *Difference and Repetition*. Most often it serves the same role as physics or biology: as a wellspring of illustrative examples. At other times, it functions as the initial source of intuition which is then generalized beyond the boundaries of mathematics and hence ceases to be reducible to it. For example, Deleuze's original inspiration behind his take on the concept of the Idea comes from the history of calculus. It can be profitable to replicate this movement, to uncover the original mathematical intuition beneath the philosophical concept, and then use it to shed light on said concept, but we are not intending to attempt any such replication here.

But the presence of mathematics in *Difference and Repetition* is not exhausted by its functions as source of examples and inspiration. There is a deeper sense in which mathematics underlies and permeates the whole book. Deleuze held certain views about the nature of mathematics, a certain metaphysics of mathematics if your will, which informs and secretly colors his entire ontology. To illustrate what we mean by this, we need to introduce Deleuze's distinction between the axiomatic (or sometimes theorematic) and problematic pole of mathematics.

As Smith notes, the axiomatic/problematic distinction reflects a familiar tension from the history of mathematics.<sup>30</sup> We can encounter it already at the origin of modern geometry in Proclus' distinction between theorems and problems. While theorems are deduced from a fixed set of axioms through a fixed set of rules of inference, problems concern demonstration and they often, but not always, take the familiar form "using only a compass and a straightedge, construct a …". Think Euclid's *Elements* vs. Archimedes' *The Method*.

What is the relevant difference? Can't problems be always articulated in a formal system and thus reduced to theorems? Aren't problems, in fact, just theorems that have been formalized yet? Deleuze does not think so. His main task with respect to mathematics can be understood as an attempt to highlight the existence and the essential role of the problematic pole, to formalize the axiomatic-problematic distinction, and to describe the transformations between them. His central position is that we do not understand mathematics unless we grasp problematics as irreducible. It is particularly this quasi-

<sup>&</sup>lt;sup>30</sup> Smith, D. W. (2003) *Mathematics and the Theory of Multiplicities: Badiou and Deleuze Revisited*. The Southern Journal of Philosophy, vol. 41, p. 415. (and elsewhere)

mathematical notion of the 'problem' which bears on Deleuze's project in Difference and Repetition. As we will see later, problems stand at the very foundation Deleuze's ontology since the world, if you pardon the preliminary oversimplification, consist exclusively of problems and their solutions.

Let's return the axiomatics/problematics distinction. While axiomatics defines geometric figures statically and places them into a shared space, into an absolute system of coordinates indifferent to what it contains, problematics thinks them dynamically, in terms of their capacity to be affected via sectioning, cutting, projecting, folding, bending, stretching, reflecting, rotating, etc. All 'quantities' contained in the solutions to problems "are strictly relative to each other; we don't decompose the problem onto an absolute grid (number lines or cartesian coordinate system) in order to translate from one function to another through an 'overarching' layer not native to the terms of the problem itself, but rather specify a number of steps, a number of transformations, in the figures themselves". 31 While theorems exist within a shared space of mutual convertibility, problems are solved immanently, from within themselves, in a procedural, algorithmic way. "The problem does not ask for a magnitude, but a series of ideal events that produce a progressive, reciprocal structure defining the transformation, with full access to the elements from which these forms are composed (line segments and circles)."32 Problems are inseparable from their inherent variations, affections and events, while axiomatics strives precisely to uproot variables from their state of continuous variation in order to extract from them fixed points and constant relations.

Here are few examples of famous problems from the history of mathematics: trisecting an angle; squaring a circle; doubling of the volume of a cube; crossing the bridges of Königsberg (Euler's problem); constructing a regular 17-gon (Gauss' problem). Puzzles tend to originate in and maintain close relationships to 'ambulatory' sciences (la science ambulante) like metallurgy, surveying, or stonecutting, that subordinate all their operations to the sensible conditions of intuition and construction. Archimedes' theoretical innovations famously had their origin in his practical concerns with military installations.

Practical concerns tend to generate new concepts within mathematics, which tend to retain their inherently problematic character. Due to this connection to practical and

<sup>&</sup>lt;sup>31</sup> Brady, J. C. (2020) Deleuze on Problems, Singularities, and Events. Epoché, no. 34. [online] Available at: https://epochemagazine.org/34/deleuze-on-problems-singularities-and-event [Accessed 7. February 2022].

<sup>32</sup> Ibid.

empirical concerns, problematical pole and its notions were regarded by the serious 'state' mathematicians as 'barbaric', 'pre-scientific', or 'para-scientific', and the history of mathematics is marked as a result (already since Proclus) by the effort to separate it from its problematic origins, to 'rectify' thought and provide mathematics with 'rigor' by grounding it in the unshakeable foundations of a priori formal systems. Historically, this reduction of problematics to axiomatics happens through the double movement towards theorematization and arithmetization (= discretization). The quest to reduce geometry to arithmetic, or to reduce all of mathematics and eventually also physics and even all other sciences to set theory or group theory – these are attempts of the dominant axiomatic pole at "grounding" mathematics by ridding it of the problematic element.

Deleuze extrapolates from the case of mathematics to all sciences, and even arts and philosophy. Each field consists of the orthodoxy, of the "major" or "royal" science of axiomatics which represents the drive towards formalization and elimination of the problematic element, and the subterranean, less visible "minor" or "nomad" science of problematics, which continues to foist this drive by generating new problematic notions.

Royal sciences tend to take on a somewhat sinister aspect in Deleuze's writings. Firstly, because the reduction towards which they strive is not desirable or even possible. Both poles are necessary and science lives of their dialectical interplay. The "royal science continually appropriates the contents of vague or nomad science while nomad science continually cuts the contents of royal science loose" (TP 428; 554). Axiomatics depends for its existence on problematics – it tames the constantly emerging problematic notions. And, on the other hand, "the minor [science] would be nothing if it did not confront and conform to the highest scientific requirements" (TP 486; 607). Secondly, the drive of the royal sciences towards totalization doesn't constitute the essence of the scientific process, but rather its freezing by enacting condemnation and repudiation and repression of problematics. It shuts off lines of flight and prevents flows from escaping.

There is one historical case where the forces of the problematic pole burst out with such force that they couldn't be neither contained nor ignored, since they became the drive behind scientific and industrial revolutions. I'm referring, of course, to the invention of calculus. Calculus, had from the beginning an inherently problematic status. How can we tell where the local and global extremes (maxima and minima) of a function are? How can we tell where the point of inflection (transitions from concavity to convexity and vice versa) are? How can we know the angle between the tangent of a function at a given point

and the x-axis? How can we calculate the area under a given section of a curve? These are the mathematical formulations of the problems behind this quantum leap in the history of humanity. The problematic character of the task generated a plethora of wild, problematic notions which the 'state' mathematicians spent the next two centuries taming – we have in mind the dynamic, procedural notions like fluxions, thresholds, passages to the limit, continuous variations, and infinitesimals.<sup>33</sup> Only at the end of the 19<sup>th</sup> century with the development of the concept of the limit was calculus finally tamed.

Calculus also occupies a privileged position in *Difference and Repetition*. Deleuze returns to the point in time at its origins, before it was devoured by the drive towards axiomatization. "[T]here is a treasure buried within the old so-called barbaric or prescientific interpretations of the differential calculus, which must be separated from its infinitesimal matrix. A great deal of heart and a great deal of truly philosophical naivety is needed in order to take the symbol dx seriously" (DR 170; 221). The concept of the so-called differential, the 'dx' symbol from Leibnitz's notation, is of particular interest to him, since it is inherently problematic, it constitutes "the internal character of the problem as such" (DR 161; 210), "differentials express the nature of a problematic as such" (DR 178; 231). They serve Deleuze as the starting point for laying out the structure of Ideas.<sup>34</sup>

To conclude: the problematics/axiomatics distinction, as well as the essential irreducibility of the problematic pole, which have their origin in mathematics but ultimately get generalized beyond their boundaries, covertly underlie Deleuze's ontological reflections. The notion of the 'problem' likewise escapes the confines of its original field of application and becomes a generalized concept at the core of Deleuze's ontology. When we will later speak about the problematic character of Ideas, the notion of problematicity

<sup>&</sup>lt;sup>33</sup> The infinitesimal in particular haunted the orthodox mathematicians – an impure concept which nevertheless continued to generate correct solutions and had a big role in driving forward the scientific as well as the industrial revolution. Berkeley famously referred to the infinitesimals in his pamphlet *The Analyst* (1734) as 'ghosts of departed quantities'.

<sup>&</sup>lt;sup>34</sup> In essence, the differential serves to Deleuze as the means for mathematical expression of pure change. At this place, we again see closeness of Deleuze to Bergson. As D. Smith notes in his essay *Mathematics and the Theory of Multiplicities*: "Bergson had already spoken of the differential of "fluxion" as a means of capturing, via mathematics, a vision of the élan vital". The differential can also serve as a demonstration of the constitutive power of reciprocal relationships: "In relation to x, dx is completely undetermined, as dy is to y, but they are perfectly determinable in relation to one another. [...] Each term exists absolutely only in its relation to each other" (DR 172; 223).

there ought to be viewed as an extrapolation of the concept of problem developed in this chapter.

Here, in a nutshell, are the results of our general inquiry into Deleuze's philosophy. Deleuze is a metaphysician of process who puts strong emphasis on creativity and joyous character of becoming at the core of existence, and who conceives his project in relation to and as a continuation of the projects of his philosophical predecessors. We saw how he inverts Platonism by purging thought of all transcendence, finding himself in purely sensible world as a result, forced to renounce any recourse to transcendent principles of exegesis. The world has to be grasped purely immanently, without help from eternal models or universal standards of reason. Without being able to ground reason, we are left with no absolute picture of what thought is and how it ought to proceed, leaving us nomadically wandering. We also saw how Deleuze's conception of difference in itself forces us to rethink being and beings, to give up the categories of negation, opposition, identity and unity, and learn to think instead in terms of processes, becomings, affirmation, multiplicities and mobile assemblages. We then used Deleuze's relation to Kant to frame his ontological project as a search for a universal mechanism of immanent morphogenesis. Finally, we showed how are his ontological reflections colored by his non-standard beliefs about the metaphysics of mathematics.

Ideally, we would continue to sharpen our grasp on Deleuze's philosophy by continuing to consider his relation to Spinoza, Leibnitz and Bergson at the very least, but the limitations of this format force us to conclude the investigation here, content ourselves with the picture we have build up to this point and turn our attention to the main object of our interest: Deleuze's ontology.

#### Part II: The World According to Deleuze

Now that we have a decent idea of the general character of Deleuze's project, we are in a position to start laying out his ontological scheme. We said that in order to explain how geological, meteorological, biological, psychical, as well as all other types of forms come about, Deleuze, in the spirit of Maimon, replaces the Kantian mechanism of external conditioning with a mechanism of immanent genesis. But before we get to the specifics of this mechanism, we need to form an idea about the contours and topology of the world, as it is according to Deleuze. We will start with the most general, low-resolution view of Deleuze's system and gradually make it more complex (but also, hopefully, more clear) by adding further concepts from his difficult terminology.

#### 2.1 Virtual Fields and their Actualization

#### 2.1.1 The Actual and the Virtual

To start at the broadest possible level, the Deleuzian world can be viewed as a dialectical interplay between two registers or strata: the virtual (*le virtuel*) and the actual (*l'actuel*). The actual register is the realm of spatio-temporal happenings and in Deleuze's ontological scheme it constitutes the surface of things, so to say. Underneath the actual, in the metaphorical depths, lays the virtual register. It is invisible, intangible, unlocalizable, but, nevertheless, to the same extend as the actual, "the virtual is fully real" (DR 208; 269). Every system, every thing or event, as well as the world as a whole, is then made up of two heterogenous halves: of its actual side, that is, of qualities and extension they fill out, and of its virtual side, which contains within itself in an undifferentiated state all the ways in which the system in question can become. The *Stanford Encyclopedia of Philosophy* fittingly compares the virtual to Ts'ui Pên's book from Borges' famous story in which all alternatives are embraced simultaneously.<sup>35</sup> To put it in slightly different way, we can say

<sup>&</sup>lt;sup>35</sup> The Garden of Forking Paths. If the word 'undifferentiated' is throwing you off, a good way of imagining it is to think how all possible colors of light are contained within a white light, or all possible sounds within a white sound.

that any system contains coiled within itself all the ways in which it can develop further, and this is what the virtual is. For a system to become (develop, evolve, unfold) then means for something of its virtuality to actualize itself (*s'actualiser*), that is, to incarnate itself in spatio-temporal relations.

Between the two registers, the virtual is obviously the more difficult one to wrap one's head around. It serves as the transcendental condition of change in the actual and as such, it must be completely unlike it, lest we commit Kant's error of smuggling what is to be explained into the explanation. The ground cannot resemble that which it grounds. The reader must therefore guard himself against any attempts of talking about the virtual in terms which are applicable only to the actual. The virtual is unextended, doesn't consist of stable identities, and resists every attempt at representation. We must also fight off the tendency to think about the virtual in terms of the possible. While the possible is like the real minus the reality, the virtual is fully real and different in kind from the actual. We can say, as Proust said about of states of resonance, that the virtual is "real without being actual, ideal without being abstract" (DR 208; 269). Instead, we might think about it in terms of ability or capacity which are, after all, some of the original senses of the Latin word virtus. The virtual side of a system is made up of all its capacities for development, of all the divergent trajectories which might be actualized at the given moment.

Let's concretize our intuitions with the help of some examples. Say you're sitting at a family dinner and the atmosphere becomes tense. The rising energies must find some outlet. Someone might start shouting or crying. Someone might say some biting remark and leave. Someone might tell a joke and diffuse the situation, or make the situation even worse. The virtual side of the situation consists of all these ways the situation might develop. Or, to take a different example, we can say that different chess moves are virtually contained within a board state. To make a move then means to actualize something of the virtuality of the system, to incarnate it in extension and quality. All change, every spatio-temporal event, must in this sense be understood as an actualization of virtual capacity or ability.

We can use these examples to illustrate some of the defining features which characterize virtual fields and their actualizations. Firstly, actualizations are indeterministic. There is no way of saying beforehand if someone will start shouting or crying, or if the situation calms down. This isn't a question of a limitation of computational power. Even if we rewound and allowed the situation to play once more from an identical

state of the universe, the result could be different.<sup>36</sup> One class of outcomes might be more likely than another, so we might characterize Deleuze's world as probabilistic. This essential indeterminacy of the world, as far as we can tell, doesn't really seem to follow from anything else, it seems to be rather an expression of Deleuze's fundamental commitment to radical openness, creativity, and novelty. Closed, deterministic systems are repugnant to Deleuze, but we don't see why they should be impossible.

Secondly, the relation between the actual and the virtual doesn't only go one way, from the virtual towards its actualizations. Since the way a system can become alters with each actualization, any actualization in turn entails a reconfiguration within the virtual. Once the chess player makes a play, plays which might have been made before are no longer possible and other moves in turn open up. So, the virtual doesn't simply serve as the ground out of which the actual springs into being. The relation between the two registers is rather one of reciprocal determination (as James Williams likes to put it), they form two halves of an equal partnership as the extended and the transcendental half of reality, each having a role in its production.<sup>37</sup> It is therefore always something of an artificial abstraction to discuss one register in isolation from the other. Reality unfolds as a complex, dynamic interplay between the two registers.

Thirdly, while developments of hermetically sealed systems are to be thought about in terms of actualizations of virtual fields, great deal of actualizations happens rather at the edges between systems, that is to say, in relationality. Knife's virtuality is actualized when *someone* picks it up and cuts *something* with it. The virtuality of a chess board is being actualized when someone utilizes it in the accordance with the rules of the game, but if he'd instead soak it in gasoline and light it on fire, he'd be actualizing its virtuality as well. Hence, we cannot impose any sort of borders on the virtual side of a system. Any thing or

<sup>&</sup>lt;sup>36</sup> "Any replay of the tape of life would lead evolution down a pathway radically different from the road actually taken." – central thesis of Stephen Jay Gould's 1989 book Wonderful Life.

The issue of the relation between the virtual and the actual is an object of an ongoing academic debate. There are those who support the so-called reciprocity view (Williams, Huges, Somers-Hall), and others who opt for the virtual priority view (Badiou, Hallward). This thesis, for the reasons outlined above, resolutely sides with the first group. As a sidenote, it seems that a good heuristic to go by when it comes to Deleuze scholarship is that whenever Badiou has a take on Deleuze, it's safe to assume that it is completely wrong (the same goes for Žižek, who, despite having written a book on Deleuze, doesn't appear to have read him). There is an immense amount of bad faith in Badiou's writings. For instance, at one point he tries to make the following inference: Deleuze believes in univocity of being => he is some sort of crypto-authoritarian statist.

event is capable of establishing communication with any other and receiving an impetus for reconfiguration from it. What we are saying is that everything is already somehow present in that things or events virtual side which then really seems to be without limits.

#### 2.1.2 Mathematizing the Virtual

It is not easy to come to terms with Deleuze's concept of virtuality and one of the main challenges before the reader of *Difference and Repetition* is to find some way to visualize it, to make it somehow concrete and not allow it to float away into nebulous abstractions. This is where mathematics comes in handy. The virtual is partially mathematizable, and such mathematization can serve to ground and guide our further intuitions.

The area of mathematics, which enables us to quantify the ways in which a system can become, is the domain of state spaces. Let's illustrate how this works with an example. We'll need a simple system, a volume of water will do nicely. In order to construct a state space corresponding to the virtuality of a system, we first have to identify the degrees of freedom of that system, that is, the relevant ways in which it can change. In our case, the relevant changes might be those of pressure and temperature. Next, we create an ndimensional space where each dimension corresponds to one of the identified degrees of freedom. Any point in this space represents a possible state of the system, a specific combination of pressure and temperature values, and a trajectory then represents a change of the system through multitude of these states. Now, it might be the case that the system is as likely to occupy one point as any other point. The trajectory, which represents the history of the system, will then wander aimlessly through the constructed state space. Most systems are not like this, they have long term tendencies, preferred states, periodic movements, etc. That is to say, their state spaces have a definite structure. We can take the tendencies of the system into account in our mathematical model, if we transform our scalar field into a vector field. From any given state, that is, point in the state space diagram, radiate vectors in all directions. The size of any given vector corresponds to the probability that the system will change in this direction.

Particularly common are systems which display long-term tendencies towards specific states. The trajectory of such a system will wander around for a while, but, with time, will converge onto one of these states. We might then distinguish between the ordinary or regular points through which the trajectory representing the history of the

system might or might not pass, and these special or remarkable points, which represent the long-term tendency of the system. Mathematicians refer to them as singularities or sometimes attractors. Systems with a single singularity are particularly common – these are the systems which 'want' to minimize something. No matter where the system starts, it will end up at the same point, if given enough time. A wabbling soap bubble tends towards a perfectly spherical shape, falling body accelerates to its terminal speed, pendulum slowly settles into a vertical position, etc. But there are other possibilities. The system might have multiple singularities, equally distributed or differently weighted in terms of probability. As Poincare showed, singularities don't even have to be point-like, the system might instead settle into a fixed loop (these are called periodic singularities or limit cycles), as is the case with some non-linear oscillatory systems. We can find examples in certain aerodynamical phenomena, action potential in neurons, migration of cancer cells, some electrical circuits, etc. There are also Lorenz's famous (and strangely beautiful) chaotic attractors, originally used to model atmospheric convection, but gradually finding other fields of application.

In this way, state-space diagrams enable us to mathematically model the virtual side of a system and ground our understanding of this core facet of Deleuze's ontology. Useful and illustrative as this approach is, we must remain aware of its limitations. Most importantly, we were forced to ignore the relational aspect of virtuality. Sealed system is always an abstraction, any system is constantly being nudged from all directions. Moreover, there is no telling which influences might prove important, decisive impulses have the tendency to come from the most unexpected directions. We can't mathematically account for these inessential events which end up triggering a dramatic reconfiguration of the system.

The more complex the system, the more apparent this deficiency becomes, and the less practically useful will any actual attempt at mathematization prove. The problem is not simply the number of dimensions growing to infinity. Rather, in order to plot a dimension in the first place, we need to identify a degree of freedom, but the events triggering reconfigurations of the system are, in the last analysis, not something representable, identifiable and fixable. For example, you may agonize over a puzzle for many weeks and then have the pieces suddenly fall into place as a result of some slight olfactory sensation which in combination with plurality of other equally ephemeral factors causes a resonance with something in your childhood which then triggers the eureka moment. How would you

even begin to plot that into a graph?

For these reasons, it is not adequate to think about the virtuality of a thing as a hermetically sealed field. The inverse is closer to the truth: no boundaries can be imposed on the thing's virtual side and we must rather think of it as a unique, individual viewpoint opening upon a space which it shares with every other thing (which, however has no separate existence apart from these perspectives). This essential continuity of the Deleuzian universe will be of particular interest to us in the following exposition.

#### 2.2 Ideas and Multiplicities

In order to talk about the structured nature of the virtual register, Deleuze makes use of an old philosophical concept, that of the Idea ( $l'Id\acute{e}e$ ). The virtual is made up of Ideas. Not populated by, but made up of – the virtual is nothing apart from these Ideas.

Obviously, the way Deleuze uses the term is quite different from Plato's usage. Firstly, his Ideas are immanent, they are not situated in some transcendent realm but constitute the virtuality of the thing or event in question. The Idea doesn't exist anywhere apart from the thing or event that expresses it: "the virtual must be defined as strictly a part of the real object" (DR 209; 269). Another important difference is that whilst a Platonist would want to determine an Idea by asking the essentialist question "what is X?", according to Deleuze the form of an Idea rather corresponds to "minor" questions like "who?", "how?", "how much?", "where and when?", "in what case?". The Idea is "an "objectivity" [objectivité] which, as such corresponds to [this] way of posing questions" (MD 91). If we want to map out the contours and topology of an Idea, we must do it through these inessential questions that would for a Platonist correspond to mere opinions and signalize a confused way of thinking. A Platonist asks not "who is beautiful, but what is the Beautiful. Not where and when there is justice, but what is the Just. Not how "two" is obtained, but what is the dyad [...]" (MD 91). The following passage from A Thousand Plateaus concerning meaning of a book illustrates nicely this determination via minor questions: "[w]e will ask what it functions with, in connection with what other things it does or does not transmit intensities, in which other multiplicities its own are inserted and metamorphosed, and with what bodies without organs it makes its own converge" (TP 2; 10).

For the purposes of simplification, to aid in our sense making process, we can say

that in *Difference and Repetition* Deleuze employs two ways of talking about Ideas: as virtual differential structures coiled within actual objects, and as virtual problems to which actual objects are solutions. Let's take these in turn.

# 2.2.1 The Idea as a Differential Structure

Understood in this first sense, the Idea is a "system of connections between differential elements" (DR 181; 234). The defining feature of all differential structures is that they cannot be understood in terms of configurations of stable, preexisting elements. Instead, their elements are constituted solely by the relations which they assume to one another and they have no existence outside of this nexus of relations. Their only property is the propensity to become determined by coming into reciprocal relationships to one another.<sup>38</sup> In this sense, all differential structures display a certain "primacy of relation over the related terms: a belief in the constitutive power of reciprocal relation"<sup>39</sup>.

Deleuze further says that we can distinguish three types topological features within Ideas: differential relations (non-localizable ideal connections), differential elements constituted by and thus ontologically secondary to these relations (which is why Deleuze sometimes leaves them out when listing these features), and singularities or remarkable points which gradually emerge as these elements become determined. Idea is "a system of differential relations, and a distribution of the remarkable or singular points which result from them" (MD 89).

We must resist the temptation to simplify things by viewing Ideas as something static. The relations, and consequently also the elements, have the character of pure differences, continuous variations, and therefore cannot be compared, measured, or fixed in terms of their forms and functions. Correspondingly the whole, the Idea, is caught up in

<sup>&</sup>lt;sup>38</sup> One is naturally tempted here to relate Deleuze back to Saussure, but there is an important difference between the two conceptions of structure. While for Saussure 'differences are without positive terms' and 'eternally negative', Deleuze's relations have nothing to do with opposition and negation. To repurpose a quote originally aimed at Hegel, "[t]hose formulae according to which 'the object denies what it is not', or 'distinguishes itself from everything it is not' are logical monsters [...] in the service of identity" (DR 49; 70).

<sup>&</sup>lt;sup>39</sup> An apt description of Deleuze's position which I'm reappropriating from the first chapter of Meillassoux's *After the Finitude* (2006).

an unceasing process of self-differentiation, it is fluid, dynamic, and blurry at the edges. We explained the nature of the relations and elements, what about the singularities?

The singularities which emerge as the elements become determined (and which should not be conflated with the above discussed long-term tendencies of systems which are singular points of different kind) are the points of phase-transition of a system. That is to say, after the system goes through a series of regular points where nothing interesting happens, it might reach one of these remarkable points, at the point of which a violent reconfiguration is triggered and qualitatively new patterns start to be generated. That might sound complicated, but it's actually quite simple. For example, singularity is the point at which uniform flow becomes periodic, or periodic flow becomes turbulent. Or the points at which water transitions from solid to liquid and from liquid to gas. Or the points at which an outburst of anger/laughter/crying is triggered. Or the point at which a walk becomes a run. And so on. As the virtual elements gradually determine themselves by entering into differential relations, these thresholds start to emerge, and their distribution serves to determine the Idea further.

Deleuze calls the process through which differential relations establish differential elements and thus also distribute singularities 'differentiation' (*la differentiation*). Differentiation is the process by which the content of a virtual Idea becomes determined. A differentiated Idea still remains entirely in the virtual. It becomes actualized via a parallel process Deleuze calls differenciation (*la différenciation*), which incarnates the virtual differential elements into actual forms and the differential relations into concrete spatiotemporal relationships these forms occupy with respect to one another. The two aspects of differentiation (determination of elements and relations) thus correspond to the two aspects of differentiaciation (incarnation into qualities and extensities). "*It is as though everything has two odd, dissymmetrical and dissimilar 'halves'* [...] each dividing itself in two: and ideal half submerged in the virtual and constituted on the one hand by differential relations and on the other by corresponding singularities; an actual half constituted on he one hand by the qualities actualising those relations and on the other by the parts actualising those singularities" (DR 279-80; 358). In this sense, any actual thing or event must be thought about as an incarnation (actualization, diffrenciation) of a virtual Idea.

At this point, the reader could probably do with a concrete example. Let's take the English language. The English language, just like everything else, needs to be understood as an actualization of a virtual Idea which consists of elements, relations and singularities.

The language-Idea, of course, doesn't pre-exist its incarnation, it doesn't wait in some platonic heaven to become actualized. It becomes differentiated only as the actual elements of a language begin to emerge and reciprocally determine one another. As a phoneme slowly becomes established as a fixed element of a language, it effects what positions other phonemes can occupy, and how the rules of syntax and grammar can work, which in turn bear on the position and role of the original phoneme, and so on. This is what we mean when we say that the elements become established via a process of reciprocal determination and that they have no existence outside of the structure they form. Each element, each phoneme or rule of syntax is what it is in virtue of the relations it occupies with respect to other elements of the language. But what about the singularities? Language isn't a great example here, so let's take a different one, a storm for instance. 40 A storm, like every other actual thing or an event, is an incarnation of a virtual Idea. A phase shift corresponding to a singularity might be the point of saturation at which droplets begin to form around condensation of nuclei and rain starts to fall, or a lightning flashes, or a tornado forms. The system had to go through a continuity of regular points where nothing happened (wind gradually picks up speed, humidity rises, difference in potential between sky and earth increases) in order to reach these thresholds at the point of which the system undergoes a qualitative change.

One further observation demands our attention. In our example, the actual and the virtual side of language become determined at the same time. The Idea becomes differentiated at the same time and by the same process it becomes differenciated. There is no differentiation without differenciation and vice versa and they must be understood as two movements within a single complex process which Deleuze terms different/ciation (*la différent/ciation*).

Deleuze's notion of the Idea is closely connected with another of his central concepts, that of the multiplicity (*la multiplicité*).<sup>41</sup> In Deleuze's system, the concept of multiplicity

<sup>&</sup>lt;sup>40</sup> Although we could come up with examples even for language, the Great Vowel Shift of Middle English, to use an example from *Stanford Encyclopedia of Philosophy's* article.

<sup>&</sup>lt;sup>41</sup> The concept of multiplicity has its origin in differential geometry. The most important influence (for Deleuze and for philosophy in general) here is Riemannian geometry (a branch of differential geometry). Deleuze is not the first philosopher to take up the concept of multiplicity - Husserl discusses it in *Philosophy of Arithmetic* and, more importantly for Deleuze, Bergson makes use of it in *Time and Free Will* and *Creative Evolution*. Russel and Meinong also utilize the concept.

replaces the opposition between one and many. We must conceive "the multiple in the pure state, to cease treating it as a numerical fragment of a lost Unity or Totality or as the organic element of a Unity or Totality yet to come" (TP 37; 45-46). "[M]ultiplicity must not designate a combination of the many and the one, but rather and organisation belonging to the many as such, which has no need whatsoever of unity in order to form a system. [...] Everything is a multiplicity in so far as it incarnates and Idea. Even the many is a multiplicity; even the one is a multiplicity" (DR 182; 236). Everything must be thought of in terms of multiplicities. The world is formed by interpenetrating multiplicities, of multiplicities nested within higher order multiplicities, of multiplicities of multiplicities. For Deleuze, unity and plurality, just like opposition, negation and identity before, turn out to be illusions. Instead of asking 'is X a unity or a plurality', we ought to ask 'what kind of multiplicity is X'.

In accordance with this thinking, general unitary notions which abstract from concrete situations appear more as hinderances to thought rather than its tools. For example, rather than thinking 'hospital' in the abstract, we need to consider the concrete historical multiplicity or assemblage<sup>42</sup> of practices, rules, connections with other spheres like family, religion, etc. as Foucault did it in *The Birth of the Clinic*. If you feel sad this morning, this is not a repeated experience of the self-same thing called 'sadness', but rather an unrepeatable, assemblage of factors, forces, and relations. Hence Deleuze's plea to avoid the abstract and the universal and always think in terms of concrete historical situations.

It further seems that an analysis of any multiplicity is always necessarily incomplete. The stopping point is arbitrary, Foucault could have continued to involve more and more relations, making his description ever more minute without ever reaching a terminus (any analysis is always artificially blocked, to make use Deleuze's own expression). We can imagine a limit point at which the analysis encompasses the entire universe. Any one thing or event then appears rather as a contraction of the whole of existence, rather than one discrete unit among others. This is the reason why, according to Deleuze, a concept can never successfully represent an actual thing or event – it would

.

<sup>&</sup>lt;sup>42</sup> Assemblage (*l'agencement*) becomes a technical term in *Anti-Oedipus* (in the English translation the word appears only in *A Thousand Plateaus*) which (together with the concepts of rhizome and machine) supplements and partially replaces the concept of multiplicity. Generally speaking, we find the concept of assemblage much more wieldable than that of the multiplicity, which is why we tend to prefer it here over the term native to *Difference and Repetition*.

require 'infinite comprehension' to take into account all the conditions that gave rise to that thing or event, not to mention the fact that the relations which make it up have the character of pure differences and are thus resistant to any attempt at representation, and the thing or event, the multiplicity as a whole is a mobile assemblage caught up in a process of becoming, making any attempt at representation immediately obsolete.

This necessary failure of concepts to represent has a direct consequence on the way Deleuze writes his books and how they should be approached. His aim is never to convey a representation, but rather to set into movement, to affect the reader directly, without the intermediary of representation. As Deleuze says of Kierkegaard and Nietzsche, but as he well could have said of his own writings: "it is a question of producing within the work a movement capable of affecting the mind outside of all representation; it is a question of making movement itself a work, without interposition; of substituting direct signs for mediate representation; of inventing vibrations, rotations, whirlings, gravitations, dances or leaps which directly touch the mind" (DR 8; 16). From the impossibility of representation, we get Deleuze's conception of metaphysics as theatre. Since concepts cannot but fail to represent, they must function in some other way. Deleuze understands them as roles to dramatize, masks to fill and flesh out in an individual manner, unique not just from person to person, but from reading to reading. No two performances are ever the same. Understood in this way, the whole text reads like a set of stage directions. One has to allow it to trigger and affect him on bodily level.

We see why is reading *Difference and Repetition* is so difficult. the book itself is an application of the principles it puts forward, which, obviously, the reader doesn't understand at the outset, so he's left with this incomprehensible object in his hands, without a clue about how to even approach it. But we are straying from the topic.

#### 2.2.2 The Idea as a Problem

We saw that Ideas are virtual structures comprising of differential relations, elements, and singularities. The second way Ideas are discussed in *Difference and Repetition* is in their 'problematic' character. "*Ideas are problems*" (DR 146; 190) that demand solutions. Correspondingly, anything within the actual realm might be thought of as a case of (partial and provisional) solution to a virtual problem-Idea. Any time we encounter an actual thing, we can ask what virtual Idea does it incarnate, to which problem-Idea is it a solution. To

preclude any misunderstandings, the two ways of talking about the Idea are obviously complementary, and we separated them only to make our task more manageable. The described differential structure is predicated of nothing else than the virtual multiplicity that is the problem-Idea. "Ideas are problematic [...] virtual multiplicities, made up of relations between differential elements" (DR 244; 315).

Let's start with an example. Take the subgenus of the zebra. First zebras emerged few hundreds of thousands years ago in Africa as a response to a network of environmental conditions which encompass the climate, other herbivores already occupying available niches, predators geared against the existing herbivores, shift in water availability, gradual drying out of the continent, encroaching deforestation and desertification, population migrations, population densities, recent extinctions, and so on. This dynamic field of reciprocally determining elements determines what forms can arise and how they can change, and the newly emergent zebra continues to carry it within itself as a part of its virtual side. What we are saying is that this ecological milieu figures within the multiplicity that is the Idea of which is the zebra an incarnation. This example is informative because it points towards another way of talking about virtuality: we might think of it as a problem or a posed question to which is the actual thing or event is an answer or a solution. In the present case, we might articulate the problem thus: What form can best take advantage of the shift in the environmental conditions? What strategy is best equipped to cope with the existing challenges? The zebra is a solution to this problem.<sup>43</sup>

The important thing is that the problem doesn't disappear when a solution emerges. Any actualized thing continues to carry within itself its virtual-problematic origins - the problem is immanent to the solution. Only stupid problems (Deleuze's expression) disappear with their solutions. In fact, there can be a solution only so long as there is a

<sup>43</sup> In case you are wondering how can we know to which problem is the thing or event actually a solution, how can we be sure that our way of posing the question is the right one, it doesn't really matter. Questions are just our way of talking about something which is in the last analysis outside of the realm of possible experience and cannot be given or known. What is important for Deleuze is that Ideas be differentiable, how we actually differentiate them is secondary. Our zebra example maybe comes too close to talking about virtuality in terms of the actual, which is something we simultaneously absolutely must and are entirely unable to avoid. We always have to keep in mind this tendency of language to steer us the wrong way when talking about the virtual.

We also see here that Deleuze's take on the notion of the Idea stands in fact closer to Kant's than to Plato's. For Kant, the objects of the Ideas of reason lie outside of experience and must be represented in problematic form, since reason is the faculty of posing problems.

problem, it is a condition of its existence. The problem is that from which the solution gets its sense, that which generates sense – solution only has a sense as a solution to a problem. We can say that sense arises by a problem working itself through. Therefore, if we want to understand something, we need to understand the problem to which that thing is a solution. "To understand why things are the way they are, we look at what problems they respond to, what forces create just these tensions, conflicts, and congruencies. Things make sense when connected to their problematic origins." We see this point imbedded at the core of Deleuze's thinking process. When he was trying to understand Plato's Idea, he did not simply take it as a given, in a vacuum, he connected it with the problem of discerning legitimate claims from pretenders and thus preventing anarchy. When we allow philosophy to flow into abstractions, we lose the connection with the problematic side of things. Philosophy must always remain concrete and down to earth.

To say that problems persist within their solutions is not to say, that the they persist in the same form. A problem is always in motion, it mutates every time a solution is actualized. The ecological composition of the post-zebra environment is different than it was prior to its emergence, the animal-solutions which might have emerged in response to the environment-problem before might not be valid solutions anymore and new solutions, which would could not have emerged previously, might actualize now that the parameters of the problem have changed. The actual counter-effectuates (vicedicts) the virtual, their relation is one of reciprocal determination. Problems alter through the events they engender. We ought not think of this process in terms of static snapshots or a chain of discrete terms: problem-solution-problem'-solution'-problem''-... It is more of a continuous flow, problems are solved by unceasing experimentation, perpetual trying of and discarding solutions, which in turn continuously feed back into the problem and change its parameters, causing new obstacles and possibilities to crop up. At no point does a final solution emerge which would put an end to the process.

Problems are being progressively determined without ever reaching state of complete determination. The parameters and boundaries of the problem only become clear as it is being worked on and in this sense the solution seems to be only the state in which the problem reaches its fullest, if always necessarily partial articulation, its greatest degree of clarity – solution cannot be separated from the problem because the way language

<sup>&</sup>lt;sup>44</sup> Evens, A. (2000) *Math Anxiety*. Angelaki: Journal of Theoretical Humanities, vol. 5, no. 3, p. 106. – by far the most helpful resource on the topic we know of.

separates them is artificial. Idea becomes determined only when it comes to be dramatized (*dramatizer*), that is, incarnated in an actual situation. Once again, there is no differentiation without differentiation (and vice versa).

Of course, there is no telling beforehand how will the problem change after a solution is generated, nor what forces and elements will turn out to be relevant - seemingly unrelated things, places and people tend to be dragged into problems and figure in its solution. We have no way of knowing if a solution will turn out to be a good one or not. All we can ever do is to throw the dice and hope for the best. We see how closely are ethics and ontology bound in Deleuze's thought. We will return to this connection in the final chapter.

In light of what we have said thus far, the accounts of reality which talk in terms states of affairs causally resulting into one another appear hopelessly inadequate. Deleuze's concept of virtuality forces us to completely rethink the notion of causality. Every situation presupposes "a swarm of differences, a pluralism of free, wild or untamed differences" (DR 50; 71). Science is also guilty of covering over this virtual-problematic side of things and events, it can only account for the given (diversity of phenomena), but that by which the given is given (difference in itself) is beyond its reach. That is not to say science is useless, Deleuze in no way wants to disparage the scientific endeavor, it is merely incomplete, in need of supplementation.

We'd like to close this chapter with two borrowed examples that nicely illustrate what we have been talking about. The first example is that of a cocktail party: "One cannot say in advance what will take shape, which forces will be significant, which events will stand out, who will play a pivotal role. Guests arrive at a cocktail party with al sorts of history, tendencies, characters, but with no set plan. The situation itself is a problem. What's going to happen? Whom will Ed talk to? Is it going to get political again? Are there enough hors d'oeuvres? And if the host poses these problems to herself, she may be mostly ineffectual as the problem of the party will undoubtedly find its own solution, agreeable or otherwise. Over the course of the evening, the guests permutate their arrangements according to the problematic dynamic determined by their singular personalities, their prior relationships, the availability of alcohol, the style of music and locations of the loudspeakers, and who knows what else. The result is a complex continuity of movement that constitutes the only

sense of the cocktail party [...]." 45

Second example: "Think here of how a growth of a tree runs along a maximization problem: how to maximize exposure to sun light. The tree's growth traces its way through the shifting environment, but each moment of growth, occurring at 'only just' imperceptible (for us) scale of time is changing the very environment in which the sunlight is maximizable by hoisting the branches this way or that. It's not that the tree is meditating on a strategy – the tree is, in a sense, this strategy (among others in response to other problems that make up its becoming), progressively determining the conditions of the problem that it is (the possible differential interconnections between cells, water, and sunlight), while producing its own milieu in the process (a 'world' composed of sunlight, air, water, dirt and growth)."<sup>46</sup>

### 2.2.3 Interactions of Ideas

Ideas don't exist in a vacuum, they relate and interact with one another, touch "at points, on the edges" (DR 187; 241). The virtual is in effect a "meshed continuum of Ideas with zones of indiscernibility between them" Here we need to avoid the impression that there is some shared space in which would all Ideas cohabitate. Rather, each Idea expresses in its own unique way all other Ideas, any one Idea is the totality of Ideas lit in a particular manner, seen from a particular standpoint. This corresponds to our previous point, that any one thing or event can be viewed as a contraction of the entire universe. It can be so viewed precisely because its virtual side, the Idea of which it is an actualization or solution, is in communication, or at least capable of entering into communication, with all other Ideas.

Just like with Leibnitz' monads, each Idea expresses only a tiny portion of the space with distinctness, the rest remains submerged in obscurity. Any change in an Idea can then be understood as reconfiguration in this expression: some Ideas fade to obscurity while others emerge into a greater degree of distinctness. We can never arrive at adequate

<sup>&</sup>lt;sup>45</sup> Evens, A. (2000) Math Anxiety. Angelaki: Journal of Theoretical Humanities, vol. 5, no. 3, p. 107.

<sup>&</sup>lt;sup>46</sup> Brady, J. C. (2020) *Deleuze on Problems, Singularities, and Events*. Epoché, no. 34. [online] Available at: https://epochemagazine.org/34/deleuze-on-problems-singularities-and-event [Accessed 7. February 2022].

<sup>&</sup>lt;sup>47</sup> Protevi, J. (2011) *Mind in Life, Mind in Process: Towards a New Transcendental Aesthetic and a New Ouestion of Panpsychism.* Journal of Consciousness Studies, vol 18.

knowledge of a thing since bringing into focus of some of the things with which it is connected necessarily implies fading into obscurity of others. What is clear is clear only thanks to the vast obscure background against which it stands. Obscurity of some connection is the cause of the distinctness of others. The Idea is "necessarily obscure in so far as it is distinct, all the more obscure the more it is distinct" (DR 146; 191). This distinct-obscure character of an Idea (according to Deleuze foreshadowed by Leibnitz) must be substituted for the cartesian categories of clarity and distinctness.

In order to express the way Ideas relate to one another, Deleuze also likes to employ the language of foldings, unfoldings, perplications, complications, explications and implications. We can simplify the language and talk simply about envelopment (*l'enveloppement*) – Ideas envelop each other. Each Idea envelops all others.

This language of expression and envelopment makes it clear that there is no absolute grid in which we could plot the Ideas in their respective relations. Once again, there is no shared space of cohabitation. The Idea of a bullet train envelops in its individual way the Idea of speed, but the Idea of speed in turn envelops in its own way the Idea of a bullet train. The two assume no absolute relation outside of their expression or envelopment of one another, which is always an individual matter. It is also the case, that Ideas become determined in terms of distinctness/obscurity or in the way they envelop other Ideas only as they become expressed in actual things and events. Once again, no differentiation without differenciation.

We have to avoid the temptation to associate obscure and inessential with unimportant. On the contrary, "Ideas are set in motion by what lies at their furthest reaches and by what appears to be of little importance to them". <sup>49</sup> Deleuze puts this point very strongly: "the domain of Ideas is that of the inessential. They proclaim their affinity

<sup>&</sup>lt;sup>48</sup> The question offers itself what precisely do we have in mind when we talk about the 'Idea of speed'. Presumably, we can say that an individual has an Idea of speed, which would be the virtual multiplicity corresponding to his particular concept of speed, which is obviously highly mobile and contingent on the context in which speed comes up (that is, the way the Idea of speed envelopes or expresses other Ideas depends on the context), or we could talk about the Idea of speed which is proper to our age of bullet trains and jets, which is different from the Idea of speed proper to the age of horses and carriages, or an Idea of speed shared by physicists, engineers and mathematicians, the Idea of speed shared by physicists which differs from that of engineers and mathematicians, Idea of speed shared by physicists in a particular time and place, and so on. Ideas are dramatized at all levels.

<sup>&</sup>lt;sup>49</sup> Williams, J. (2013) *Gilles Deleuze's Difference and Repetition: A Critical Introduction and Guide*. Edinburgh: Edinburgh University Press. p.165.

with the inessential in a manner as deliberate and as fiercely obstinate as that in which rationalism proclaimed its possession and comprehension of essences" (DR 187-8; 243). When trying to solve a problem, it is often some unlikely element from a completely different area of life which suddenly emerges and triggers the epiphany, that is, sudden and violent change in the envelopment of Ideas. Deleuze uses the word "event" (*l'événement*) to refer to this occurrence whereby the obscure impinges on the distinct and causes a rearrangement. In this sense, an event is a change in the virtual register, but, of course, there cannot be a change in the virtual without an accompanying change in the actual. Events take place all the time, Ideas are always in communication, but the result is most of the time just some slight sensation, change in understanding, or material reconfiguration. If we want to talk about large-scale alterations like paradigm shifts or speciations, we need to understand these as results of many events taking place within a large number of individuals, since an event is always an individual occurrence.

# 2.3 Morphogenesis

So far, we have learned that the Deleuzian universe comprises of a complex dialectical interplay of the two heterogenous registers, the actual and the virtual. We also saw that all spatio-temporal things and events need to be understood as actualizations (solutions, dramatizations, differenciations) of virtual Ideas (problems, multiplicities, differential fields), which happen through the dual process of different/ciation. But how precisely is this supposed to happen? If the two orders of reality are completely disparate, how can a change in the one bring about a change in the other? What precisely takes the Idea and incarnates it in time and space? Until Deleuze supplies the mechanism by which is actualization accomplished, all we have is a heap of puzzling concepts and assertions. In order to lay out this mechanism, which is the mechanism of immanent genesis we discussed in general terms in the Kant chapter, we will once again have to complicate the picture. Let's begin by introducing Deleuze's broad views on individuation.

#### 2.3.1 Individuation

Deleuze's most important source of inspiration on the topic of individuation is without a doubt Gilbert Simondon, an influential French philosopher and Deleuze's contemporary who made individuation the central object of his career. When we compare the systems of these two thinkers, the similarities are striking. Deleuze essentially takes over the Simondonian framework and fills in his own details.<sup>50</sup> The following characterization of Simondon's views applies without modification to Deleuze's also.

According to Simondon, the traditional accounts of individuation all fail because they end up presupposing what they were supposed to explain. These traditional theories tend to fall under one of two headings: hylomorphism, which presupposes individuality of the form, and substantialist monism, which presupposes individuality of the building blocks, typically atoms of some sort. What they have in common is that they both understand individuation in terms of preexisting individuals (forms or atoms). But, for Simondon, this means that they smuggle what they were supposed to explain into the explanation. If we are to understand how individual beings come to exist, we must reverse the account: rather than understanding individuation in terms of individuals, we must understand individuals in terms of individuation. Individuals, on Simondon's account, rise out of something which is neither substance, nor matter, nor form, but rather a supersaturated, overloaded milieu, a metastable register which contains no individual entities of any kind. It is a pre-individual field which is always in excess of itself, always in process of becoming different than it is. Individuals which rise out of this metastable register continue to carry this excess within themselves and thus always maintain element of self-differentiation - they are out of step with themselves.

At this point, we need to make an important terminological clarification in order to prevent any future misunderstandings. In metaphysical/ontological contexts, the term 'individuation' typically refers to a process of formation, constitution or genesis at the end of which stands a fully individuated object or event, distinct from other objects and events. This is how Simondon uses the word and how we might expect Deleuze to use the it also.

<sup>&</sup>lt;sup>50</sup> Secondary sources tend to underplay the influence of Simondon on Deleuze, usually contenting themselves with mentioning that there indeed is a connection, without making apparent just how close the two systems really stand. The pre-individual metastable register, individuals as provisional solutions to problems, understanding individuals in terms of individuation rather than the other way around, internal difference as the transcendental condition of change - all this is already present in Simondon's texts.

Individuation would then refer to the entire process of incarnation of an Idea into a spatio-temporal thing or an event. That, however, is not the case. Deleuze refers to the entire process as 'dramatisation' (*la dramatization*), and reserves the word 'individuation' for a particular aspect or subprocess of this process. He also sometimes uses the expression 'field of individuation' (*le champ d'individuation*) to refer to the milieu in which the process of individuation takes place. From now on, we will be using the term exclusively in its Deleuzian sense. But in order to explain what the process of individuation actually is, we first have to amend our understanding of Deleuze's ontology with few additional concepts.

Until now, we have been talking exclusively in terms of an interplay between the virtual and the actual, but there are in fact four layers of reality to be distinguished in Deleuze's ontology. Sandwiched between the two established registers are two additional strata through which actualization happens and which thus complete the picture. The completed outline of Deleuze's ontological scheme taken from the bottom up (or from the depths to the surface), is as follows: (1) virtual realm of problematic Ideas; (2) pure unextended *spatium* peopled with intensities (*l'intensité*); (3) field of morphogenetic spatio-temporal dynamisms (*le dynamisme spatio-temporel*); (4) differenciated things and events classifiable in terms of species and genera. Individuation, as Deleuze uses the term, refers to the process through which intensities and spatio-temporal dynamisms take up the virtual Idea and incarnate it in qualities and extension. So, how should we understand the two middle strata of Deleuze's ontology? How do they relate to the actual and the virtual? How does individuation take place and how does it fit together with differentiation and differenciation?

### 2.3.2 Spatio-Temporal Dynamisms and Larval Subjects

Spatio-temporal dynamisms are morphogenetic processes on the side of the actual register (rather than constituting a separate register on their own) that ground differenciation and thus are presupposed by it. Deleuze likens them to dramas – they take up the virtual Idea and dramatize it in time and space. They have the character of pure differences, processes

<sup>&</sup>lt;sup>51</sup> This fourfold structure of reality is drawn much more explicitly in *The Method of Dramatisation* than in *Difference and Repetition*.

of self-differentiation, and they lack clear border or distinction from their surroundings, they are blurry at the edges. That is to say, they are sub-representational and pre-individual. Picture a swarming, shimmering teaming chaos without clearly identifiable individual elements. This field of individuation thus forms a sort of lower stratum of the actual realm – we have to do with spatio-temporal happenings, extensions filled with qualities, but there are no identifiable unities fixable in terms of form and function.

Deleuze introduces this metastable field of individuation thus: "[b]eneath the actual qualities and extensities, species and parts, there are spatio-temporal dynamisms. These are actualising, differenciating agencies" (DR 214; 276). They are "rates of growth, [...] paces of development, [...] decelerations or accelerations, [...] durations of gestation" (DR 217; 280), "lines, [...] slippages and [...] rotations" (DR 219; 283). These characterizations are not too illustrative, but luckily, we also get a concrete example: "Embryology shows that the division of an egg into parts [differenciation] is secondary in relation to more significant morphogenetic movements [spatio-temporal dynamisms]: the augmentation of free surfaces, stretching of cellular layers, invagination by folding, regional displacement of groups. A whole kinematics of the egg appears, which implies a dynamic. Moreover, this dynamic expresses something ideal [virtual Idea]" (DR 214; 276-7).

Morphogenesis occurs through these sub-representational, pre-individual genetic processes. They "work beneath all the qualified forms and extensions of representation, and constitute, rather than an outline, a set of abstract lines coming out of an unextended and informal depth" (MD 95). The embryo is merely the most illustrative case, we find analogous processes in all dimensions of existence: the physical, social, psychical, ontogenetic, evolutionary, ... every differenciation presupposes a prior "more significant" field of individuation comprised of spatio-temporal dynamisms of one sort or another. In this sense, all individuation is embryonic. "On the scale of millions of years which constitutes the time of their actualization, the hardest rocks in turn are fluid matter which flow under the weak constraints exercised on their singularities" (DR 219; 282). Any actual thing or event, before being a member of species with identifiable parts, must be understood as a unique individual field which sustains these spatio-temporal dynamisms.

Spatio-temporal dynamisms preside over the structuralization of the internal milieu of a system (the inside of the egg), but they also comprise the environment, the ecology (the ovary, as well as the rest of the chicken, but also the farm, the climate, and so on).

These external dynamisms are likewise a part of the field of individuation. As Deleuze puts it: "a geographic process of isolation may be no less formative of species than internal genetic variations [...]" (DR 217; 280). The picture is even more complicated since the internal milieu consists of multiple spaces which are in communication (with each other as well as with the exteriority), and set of individuals can in turn form a higher order unity which is then in communication with other higher order unities. Ideas are dramatized on all these levels, and, what's more, dramatizations of different orders have the tendency to echo one another.<sup>52</sup>

These "dynamisms are not absolutely without a subject" (MD 94). Wherever there is a spatio-temporal dynamism, Deleuze posits a larval subject (le sujet larvaire) which functions as it's patient, supporter and bearer. "Every spatio-temporal dynamism is accompanied by the emergence of an elementary consciousness [...]" (DR 220; 284). The embryo may serve as the paradigmatic example here, but all spatio-temporal dynamisms are subjectivized in this way, even the abiotic ones - the Deleuzian subject may be non-human, or even non-living. Since "rocks and islands as individuation processes are embryonic, [...] they too have a psyche" That's right, Deleuze is a panpsychist. Of course, the subject cannot precede these dynamisms, it is itself "comprised" or "designated" by them, and when they disappear, it ceases to exist also. Even if Deleuze does describe the larval subject as an 'elementary consciousness' (la conscience élémentaire), we ought not attribute it awareness or cognizance in any strong sense of the word. In most cases, it is like a "dreamless sleeper, the sleeper of deep sleep" (MD 94).

The larval subject is a difficult and puzzling element of Deleuze's ontological system which would require a substantial amount of space and effort to treat properly. Luckily, leaving this element aside doesn't result in distortions in the overall picture and merely leaves space for future elaboration. We can therefore leave this particular rabbit hole unexplored with clear conscience.

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<sup>&</sup>lt;sup>52</sup> "It has often been remarked that the global sexual behaviour of men and women tends to reproduce the movement of their organs, and that the latter in turn tend to reproduce the dynamism of the cellular elements: psychic, organic and chemical – three dramatisations of different orders echo one another." (DR 220; 283-4) Deleuze here refers primarily to the work of Hungarian psychoanalyst Sándor Ferenczi. Stanislav Grof somewhere expressed a similar idea that behavior of people on LSD mirrors cellular behaviors.

<sup>&</sup>lt;sup>53</sup> Protevi, J. (2011) *Mind in Life, Mind in Process: Towards a New Transcendental Aesthetic and a New Ouestion of Panpsychism.* Journal of Consciousness Studies, vol 18.

#### 2.3.3 Intensities and Dark Precursors

The spatio-temporal dynamisms further "presuppose a field in which they are produced, outside of which they would not be produced" (MD 93). In order for there to be a spatio-temporal dynamism in the first place, there needs to be something which initiates it, which sets it into motion. This something is an intensive difference, that is to say, a difference in intensities, or simply intensity (l'intensité). Morphogenetic processes are fueled by intensive differences. For example, by heating one end of a volume of water (a pot on a stove), we create temperature differentials which set into motion various flows, swirls and eddies. Material flows within a zygote are caused by intensive differences of a different kind. Sensations on skin result from differences in pressure or temperature. Migrations of peoples, shifts in social climate, changes in subjective qualitative states, ... every kind of flow needs to be understood as a result of, or, perhaps better, incarnation of an intensive difference of some sort or another. (Difference in) intensity is "the [sufficient] reason of the sensible" (DR 222; 287), it "constitutes the being 'of' the sensible" (DR 236; 305).

Intensity has the character of pure difference which takes the form of relations between freely varying series "E-E', where E itself refers to an e-e', and e to  $\varepsilon-\varepsilon$ ' etc." (DR 222; 287). We never reach some final level of pure material givenness, any thing or event, no matter how minute, has to be understood as a result of intensive difference, so this chain stretches ad infinitum. Any thing or event then flashes between heterogenous series. We see once again the strength of Deleuze's faith in the constitutive power of reciprocal relations.

In addition to intensities, Deleuze posits within this stratum of reality entities of another sort which he somewhat cryptically calls 'dark precursors' (*le précurseur sombre*). They function as operators that establish communication between these heterogenous series in the first place - a dark precursor is a difference that relates one difference to another, so to say. They are not themselves perceptible, they rather, by relating one intensity to another, prepare paths for flows, for the actually visible phenomena. By doing this, the dark precursors induce phenomena of "coupling between series, of internal resonances in the system, and of forced movement in the form of amplitude which

<sup>&</sup>lt;sup>54</sup> "The expression 'difference of intensity' is a tautology. [...] Every intensity is differential, by itself difference." (DR 222; 287)

overflows which overflows starting series themselves. It is under all these conditions that a system is filled with qualities and is developed in extension" (MD 94).

Deleuze makes the dark precursors sound needlessly esoteric and almost mystical, and the issue becomes much clearer when we consider a concrete example. Protevi neatly illustrates the notion in his analysis of the phenomenon of a lightning strike. Now, in accordance with what has been said, a flash of lightning presupposes that heterogenous series be put into communication by means of a dark precursor. The series figuring in this example might be the earth and the storm cloud. What about the dark precursor? Let's consider what needs to happen for the lightning flash to occur: "1) the formation of ionized air called "plasma" which is much more highly conductive than normal air; 2) formation of "step leaders" or channels of ionized air which propagate from cloud to ground in stages; 3) "positive streamers" which reach from objects on the ground to cloud; 4) the meeting of positive streamer and step leader, which allows the current to pass. So "dark precursor" could be either step 2 or 3."55

## 2.3.4 Spatium and Genesis of Extension

We never come directly into contact with intensities themselves in their pre-incarnated state, only with the intensive flows to which they give rise or in which they are explicated. "Intensity is difference, but this difference tends to deny or to cancel itself out in extensity and underneath quality." (DR 223; 288). Underneath this explicated and thus in a sense degraded form of intensity Deleuze imagines "an intensive spatium which pre-exists [and conditions] any quality and any extension" (MD 93), a "space as an intensive quality: the pure spatium" (DR 230; 296). Everything on the side of the actual, not just qualities but also the very extensions they fill, needs to be understood as unfoldings of this intensive space, which doesn't seem to fit in either of the two familiar registers, and we might do best to think of it a separate domain of its own.<sup>56</sup> Let's consider this difficult aspect of Deleuze's system more closely.

<sup>55</sup> Protevi, J. (2011) Mind in Life, Mind in Process: Towards a New Transcendental Aesthetic and a New Question of Panpsychism. Journal of Consciousness Studies, vol 18.

<sup>&</sup>lt;sup>56</sup> This is another point of contention in the academic circles. Williams places intensity on the side of the virtual, Roffe and Clisby on the side of the actual, and DeLanda and Protevi conceive it as an independent third register, an intermediary ontological domain between the virtual and the actual. All three however agree

Deleuze takes the concept of spatium from Leibnitz's distinction between two types of space: extensio and spatium (extensive and intensive space).<sup>57</sup> The former referring in essence to Newton's absolute space – an external homogenous isotropic medium indifferent with respect to what it contains, while the latter is internal to monads. Deleuze largely keeps Leibnitz's description, but replaces monads with intensities.

Just like monads, and, as we saw, just like Ideas, Intensities are expressive – each intensity expresses in its individual way the entirety of spatium. Deleuze employs the same language of distinctness/obscurity and foldings or envelopments in order to explain their relations and interactions. "[A]Il the intensities are implicated in one another, each in turn both enveloped and enveloping [...]" (DR 252; 325), intensity of anger envelops the intensity of love, etc. Once again, there is no shared space of coexistence outside of these expressions. Furthermore, "each [intensity] continues to express the changing totality of Ideas" (Ibid.).

The intensive spatium and virtuality obviously stand close together. We can say that the function of the former is to unfold the latter - by incarnating itself in the form of a spatio-temporal dynamism, the intensity also incarnates the virtual Idea. Simply put, Intensity governs actualization by expressing the differential relations, distinctive points and singularities of the Idea. Or, as Deleuze puts it, "[i]t is intensity which dramatizes. It is intensity which is immediately expressed in the basic spatio-temporal dynamisms and determines an 'indistinct' differential relation in the Idea to incarnate itself in a distinct quality and a distinguished extensity" (DR 245; 316). The intensive spatium in this sense serves as the bridge which spans the gap between the virtual and the actual. Or, to be precise, it spans the gap in the direction from the virtual to the actual. Actual happenings can, as we saw, reconfigure the virtual without the need of an intermediary.

Saying that intensities give rise to spatio-temporal dynamisms doesn't fully capture the extent of their generative power. What is generated is not just the dynamism, but also a specific spatiality and temporality inextricably connected with whatever individuation the

that intensity plays a crucial in Deleuze's account. We can find textual support for all three readings and the issue is not easy to decide. Here, we cautiously lean towards the DeLanda/Protevi view – mostly from the necessity of actually taking a position rather than a genuine conviction.

<sup>&</sup>lt;sup>57</sup> This lineage is never explicitly drawn in *Difference and Repetition* and secondary sources seem to be consequently largely unaware of it. Deleuze does make the connection with Leibnitz clear in *The Method of Dramatisation* (page 99). In general, the notion of spatium seems to be understudied and often left out by the interpreters altogether.

dynamism happens to be a part of. Not THE time and THE space in any absolute sense, it seems that Deleuze wants to discard such notions along with all the others illegitimate abstract universalizations. All there is, is rather a plurality of ad hoc times and spaces coming into being together with the dynamisms which occupy them and which are subjected to them. That is why Deleuze can refer to these dynamisms as "agitations of space, pockets of time, pure syntheses of speeds, directions and rhythms" (MD 93). These obviously differ depending on whether we talk about the membranes and rhythms of cellular processes or geological movements. Every individuation brings with itself its own set of spaces and temporalities.<sup>58</sup>

Distances in spatium are measured in terms of degree of expression. These distances are non-metric. Compared to extensive magnitudes, which are homogenous, measurable, divisible, made up of additive units, intensive magnitudes cannot be grasped on the basis of homogenous isotropous space, and cannot be divided without an accompanying qualitative change in their nature: "no part exists prior to the division and no part retains the same nature after division" (DR 237; 306). We can understand intensive and extensive spaces as two types of multiplicities: "those whose metric varies by division and those which carry the invariable principle of their metric" (DR 238; 307).<sup>59</sup> The former lack all permanent points of reference, all fixed constants and common measures, and are defined through continuous variations of their directions and points of orientation. They cannot be defined independently of the constantly shifting intensive relations which fill them.

To sum up, we can talk about intensities either in their pure unextended state, or in their unfolded, explicated form, as various pre-individual sub-representative flows, material or otherwise. Individuation denotes "the act by which intensity determines differential relations to become actualized" (DR 246; 317) – it is the process whereby the intensities, dramatize the virtual Idea in time and space. The field of individuation in which this process takes place would therefore seem to span not only the extended field of spatio-

<sup>&</sup>lt;sup>58</sup> Interestingly enough, Kant managed to discovered intensities (viz. his extensive/intensive magnitude distinction), but he placed them in preexisting extension rather than allowing them to generate it, thus retaining the primacy of extension. Herman Cohen, the founding figure of orthodox neo-Kantianism and one of the chief influences on Deleuze's project, would later remedy this defect.

<sup>&</sup>lt;sup>59</sup> These two kinds of multiplicity will reappear in *A Thousand Plateaus* under the names of smooth space (*l'espace lisse*) and striated space (*l'espace strié*) respectively.

temporal dynamisms, but the pure unextended spatium as well.

Since we cannot attribute any temporal precedence to the virtual Idea over its incarnation – Ideas are purely immanent – we can say that different/ciation happens through individuation. An actual thing becomes differenciated and virtual Idea differentiated through the process of individuation. We see that these three processes can be separated from one another only artificially. In reality, they always occur together, and must therefore be understood as structural moments of a single complex process which Deleuze terms indi-different/ciation (*indi-differen-iation*). Taken together in this way as a single process, individuation, differentiation and differenciation make up the complete notion of the universal mechanism of immanent morphogenesis which we in general terms introduced in the Kant chapter.

What remains for us to do is to take a step back, put together all the individual concepts of Deleuze's ontology which we have been discussing, and reflect on the system as a whole. Before we attempt our own summary, here are two brief but apt recapitulations of Deleuze's ontological system borrowed from secondary literature, which the reader might find helpful:

Protevi: "in all realms of being the intensive morphogenetic processes [intensities incarnated in spatio-temporal dynamisms] follow the structures inherent in differential virtual multiplicities [Ideas] to produce localized and individuated actual substances with extensive properties and differenciated qualities that, in biological realm, can be used in classification schemes that distinguish species from each other [...]."

Clisby: "the virtual contains only the problematizing instant itself (the Deleuzean 'Idea'). For the Idea to become actualized (differenciated) is for the Idea as 'problem' to have an actual 'solution'. However, this actual solution is dependent upon an already constituted intensive environment. In other words, it is the dramatizing potential of intensity that mobilizes these Ideas into extended form."<sup>62</sup>

<sup>&</sup>lt;sup>60</sup> Or even indi-drama-different/ciation (*indi-drama-differen-iation*) (DR 246; 317), if we wanted to further separate the dramatizing activity of the intensive processes from the field of individuation which they constitute.

<sup>&</sup>lt;sup>61</sup> Smith, D. W. et al. (2013) *The Cambridge Companion to Deleuze*. Cambridge: Cambridge University Press. p.242.

<sup>&</sup>lt;sup>62</sup> Clisby, D. (2015) Deleuze's Secret Dualism? Competing Accounts of the Relationship Between the Virtual and the Actual. Parrhesia: A Journal of Critical Philosophy, vol. 24, p.145.

### 2.3.5 The Global Picture of Deleuze's Ontology

So far, we proceeded by isolating and analyzing the various elements of Deleuze's ontology. This approach enabled us to get a grip on the individual parts, but it might also have obscured the way these parts are supposed to fit together, as well as the overall global picture of Deleuze's system. Let's correct this potential defect by reiterating the crucial moments of our exposition and try to fit them together into a coherent whole.

Here is the picture as we have presented it. The Deleuzian world, as well as all systems it contains, no matter their nature, comprise of three registers. The actual which consists of extensities and qualities which fill them, understood not in terms of stable selfsame entities but rather as processes of becoming, the virtual which contains within itself all the ways in which the system in question might develop, either from its own inner resources or as a result of a coming into contact with other systems, and the intensive spatium, which serves as the intermediary through which the virtual actualizes itself, incarnates itself into parts and spatial relations. We further distinguished two layers within the actual register: the lower layer of sub-representative pre-individual spatio-temporal dynamisms which is a teaming and shifting milieu without fixable elements, and the layer of fully differenciated systems with parts or organs which can be identified, isolated and talked about in terms of their function. We could impose further stratification onto these differenciated systems. A multiplicity on one level, a person for example, might figure as an element within a higher multiplicity, say a society, and in turn any element of a multiplicity, say an eye, might be taken as a lower order multiplicity made up of elements of its own. Any multiplicity must be taken as an incarnation of a virtual Idea. Its parts, their mutual relations, and the singular points which further determine it then must be understood as incarnations of the elements, relations and singularities which determine this Idea.

In Deleuze's system, any thing or event must be first of all regarded as an individual, that is, a unique metastable field of sub-representational, pre-individual flows. These flows affect one another, enter into relations, and in doing so reciprocally determine each another. That is to say, they form a differential field. The stronger the intensive differences, the livelier the chaotic swarming of these flows, and the greater their ability to make each other determined. As you put more energy into the system, the at first indistinct flows start combining with each other and profiling themselves against one another, causing more pronounced flows to take shape. At some point, you might be able to pick

them up and identify them. Between the two strata of the actual register there therefore seems to be rather a continuity of various degrees of determination rather than a sharp break.<sup>63</sup> The fully differenciated elements carry with them this differential nature and must also be understood in terms of reciprocally determining relationships.

Let's solidify our intuitions and conclude our exposition with a concrete real-world example, say, a weather system which gets gradually resolved into a weather event.

Our starting point is an ocean, the air above it, and the sun pouring energy into the system. At first, all we have is a system of weak intensive differences: differences between isotherms and isobars (bands of equal temperature and pressure), difference in temperature between the sea and the air, as well as variety less relevant intensive differences. These differences drive, that is, get incarnated into, various flows, swirls and eddies in the mass of air above the water. There is no event as of yet (unless you want to count the calm weather itself as an event), no elements, no relations, no singularities either on the actual or on the virtual side of the situation, there are only weak spatio-temporal dynamisms which are insufficient to give rise to anything substantial. No individuation, no differentiation, no differenciation.

As the sun keeps pouring its energy into the system, the surface of the sea keeps warming up, the intensive differences increase, giving rise to more articulated updrafts which pick up water vapor and carry it skyward, to corresponding downdrafts of cooled air, which together with other identifiable elements playing a role in the system link into each other and enter into a complex of relationships of reciprocal determination. Now there is more of an event now than there was before. Stronger intensive differences drive stronger flows which are capable of individuating some weakly differenciated elements which form a differential field. To the not quite differenciated event on the side of the actual corresponds a not quite differentiated Idea on the side of the virtual.

As the process of reciprocal determination progresses, as the elements become more pronounced, critical thresholds of the system become determined. How much water can the air hold before clouds begin to form? How much water can they contain before it

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<sup>&</sup>lt;sup>63</sup> This talk in terms of continuity of increasingly articulated flows and emergent character of forms is admittedly our extrapolation since Deleuze himself, to our knowledge, never talks about actualization in quite this manner, but it seems perfectly in line with his thinking and it nicely completes the otherwise somewhat punctuated picture.

begins to rain? How much potential difference between clouds and the sea can build up before discharges begin to happen? Or on the contrary, at which point will the process be reversed and the weather starts to return to the initial state? The situation has not yet reached its peak determination and the weather-system-problem might resolve itself into a variety of weather-event-solutions. The weather system might collide with a mountain range, resulting into a violent downpour. The energy the sun is putting in the system might not suffice to reach singularities and everything will return to its initial state overnight. Or it might in fact be sufficient and result into a formation of a tropical storm.

The process continues: the rising air cools, water vapor condenses releasing latent heat, warming the air, leading to further rise of air, leading to stronger pressure difference, leading to further movements of air, and so on. As the system becomes more and more different/ciated, as the problem becomes more and more articulated, it becomes clear that a storm is forming. It starts to rain, then first lightning flashes occur. The winds reach sufficient speed and the whole mass begins to rotate. A meteorologist looks at the satellite image, sees that he has to do with a circular tropical storm with wind speed reaching 120 mph and classifies it as a category three hurricane. The weather-problem has reached peak articulation in the form of the hurricane-solution.

### **Addendum: Deleuze and Ethics**

We will conclude this thesis with a brief consideration of how Deleuze's ontology bears on ethical questions. This manner of proceeding might maybe seem strange but we think there is a good reason for doing things this way. This reason is twofold. Firstly, ethics is the place where Deleuze's ontology is, so to speak, cashed out. For Deleuze, ethics is nothing else than the putting of ontology into practice, and to omit it would be to deprive ourselves of the actual tangible benefit that comes from studying his works. We couldn't possibly justify spending hundreds of hours on Deleuze's theoretical meditations if the only benefit was accumulation of sterile information. The information needs to actually inform our thought and action, our view of ourselves, the world, and our place in the world.

Secondly, as we foreshadowed several times during our exposition, the domains of ontology and ethics stand extremely close in Deleuze's thinking. In fact, the latter flows directly naturally from the former. The answers to questions like "how should I live?",

"how should I act and think in my day-to-day life?" immediately follow from his enquiries about the structure of being. Here, we might once again compare Deleuze to Nietzsche and Spinoza. How should a Nietzschean act given that everything recurs endlessly? Obviously in such a way so that he could wish to repeat each of his actions infinitely. How should a Spinozist act given the understanding of power in terms of ability to affect and be affected? Obviously in such a way as to maximize in himself this capacity for affection. So, given the structure of Deleuze's world as we laid it out in our exposition, how should we conduct ourselves in thought and action?

We saw that one of the basic facts of Deleuze's world is it's interconnectedness or ontological continuity. Everything is capable of entering into communication with everything else, any form arises out of and is inseparable from a field of individuation which overflows into its environment. A person then cannot be regarded simply as a self-sufficient unity acting on its environment. Any such separation covers over his fundamental nature as a process which interweaves outer and inner to the point where it doesn't really make sense to distinguish the two. Clearly, discourses based around categories of freedom, autonomy, etc. like classical liberalism or existentialism are hopelessly insufficient for the job of describing a person and his relation to the world. We must substitute affectivity and interconnectedness for separation, becomings and differences for identities, multiplicities and fluid assemblages for stable unities. Our starting point must be a complex of mutually dependent co-realities, a multi-layered structure of relationality. In this regard, Deleuze is a quintessential post-humanistic thinker.

Deleuze doesn't do away with the category of conscious agency altogether, but its role is greatly diminished. The only thing that lays within the purview of the agent's freedom is to position himself as favorably as possible and hope for the best. What do we mean by positioning? Instead of judging the world against some transcendental ideal it can never live up to, he can embrace it as it is by opening himself to the joyous, creative nature at the core of being. He can stop clinging onto past experiences and relations which long since lost the intensities they once possessed and take action to re-intensify his life. He can strive to better understand and empower his affective nature, to improve his grasp on the dynamic network of interconnections which drive his becoming, to place himself in such a way as to connect himself better with the shimmering, shifting conditions which continuously give rise to him. Even if these conditions must in the final analysis evade his understanding, he can increase his sensitivity to them and express them more fully, more

intensely, in his thought and action, in his way of life. Since the already made connections are constantly fading away and losing their intensity, we have to constantly leave them behind and re-intensify our lives through experimentation. Form new assemblages, connect with flows, respond to signs, seek out novel encounters. There is no way of knowing how the virtual will be counter-effectuated, how it will reconfigure itself in response to our actions, so the only thing to do is to throw the dice and see where they land. There is an amor fati element in Deleuze's ethics.

James Williams sums up Deleuze's ethics with a double imperative: connect yourself as best you can, express the conditions which give rise to you with maximal intensity, and forget whatever hinders you from doing so. Real affirmation necessarily carries within itself an aspect of violence, cruelty and destruction. Old identities must be constantly left behind and new ones allowed to emerge out of the depths of existence. The role of memory is not to reproduce, but to distance the past. We might view Deleuze's call towards unceasing experimentation as his take on Nietzsche's challenge to treat one's life as a work of art.

In practice, to live as a Deleuzian means to be on constant lookout for encounters (with things rather than people: "people encounters are so utterly disappointing" his which offer opportunities to re-intensify one's life. "I look around and wonder, does this move me?" Philosophy itself is not exactly a voluntary activity, it occurs when an outside incites us to think. Non-philosophical activities are an essential aspect of the philosophical journey — one must expose oneself to signs, seek out encounters. Foucault's summarizes admirably the Deleuzian life in his preface to Anti-Oedipus: "Withdraw allegiance from the old categories of the Negative [...]. Prefer what is positive and multiple, difference over uniformity, flows over unities, mobile arrangements over systems. Believe that what is productive is not sedentary but nomadic." 66

<sup>&</sup>lt;sup>64</sup> L'abécédaire.

<sup>65</sup> Ibid.

<sup>&</sup>lt;sup>66</sup> Deleuze, G. and Guattari, F. (2021) *Anti-Oedipus*. Translated by R. Hurley. London: Bloomsbury Academic. p.xiii.

# Summary

In the first part of our thesis, we focused on identifying and explaining the broad defining features of Deleuze's philosophy. We began by stating that he is a metaphysician who centers his system around the notion of process rather than substance, puts great emphasis on creativity and openness, and who understands himself as a classical philosopher, formulating his project in relation to and as a continuation of the projects of his historical predecessors. We then proceeded to sharpen our grasp on Deleuze's thought by investigating his relation to a carefully chosen sample of these influences. Through laying out his relation to Plato, we characterized Deleuze as a thinker of immanence and univocity, who sees the world in terms of simulacra and rejects any form of universal logos, replacing its totalizing security with nomadic wandering. We used his relation to Nietzsche to make sense of his concept of difference in itself and the joyful affirmation which underlies his attitude to philosophy and life as a whole. Against Kant, we framed his ontological project as a search for a universal mechanism of immanent morphogenesis, and defined his project of transcendental empiricism. Finally, we showed how is his ontology permeated by a certain metaphysics of mathematics which centers around the problematics/axiomatics distinction and an idiosyncratic understanding of the notion of a 'problem'.

In the second part, against this general background, we first laid out the various structural elements of the Deleuzian world and explained how they relate to one another, and then detailed the specific form of the universal mechanism of immanent morphogenesis. We started by stating that the world and everything in it must be understood in terms of dialectical interplay between two heterogenous strata or registers: the actual which consists of extension and qualities which fill it, and the virtual which contains within itself all the ways in which the system in question can become. We then focused on the virtual register, grounding it first in mathematical formalism, then rearticulating it in terms of the concept of the Idea, which we explained first in the language of multiplicities and differential fields made up of differential relations, elements and singularities, and then reformulated it in terms of problems and solutions. Finally, we showed how Ideas interact, making use of the vocabulary of distinctness/obscurity and foldings or envelopments.

We then shifted our attention to the process through which actual forms come about. After spelling out Deleuze's views on individuation, we completed his ontological schema by introducing firstly the space of sub-representational, pre-individual spatio-temporal dynamisms, which we placed at the lowest region of the actual register, and secondly the unextended spatium of pure intensities, which we conceived as a third register, intermediate between the virtual and the actual. We then showed how the virtual Idea is taken up by intensities and dramatized in space and time, and finally formulated Deleuze's mechanism of morphogenesis as a complex process, made up of three structural moments: individuation, which unfolds the Idea in quality and extension, differentiation, which determines the Idea on the side of the virtual, and differenciation, which incarnates the virtual structure into parts and their relations. We termed this complex process indi-different/ciation.

We closed off our exposition by using these ontological constructions to illuminate ethical questions, framing life as a never-ending experiment which aims at expressing as intensely as possible the conditions which continuously give rise to one's being.

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#### **Other Helpful Resources:**

The Deleuze Seminars: website containing transcripts and translations of Deleuze's seminars, available at: https://deleuze.cla.purdue.edu/ [Accessed 9 November 2021].

*L'abécédaire*: a series of interviews of Deleuze by his friend, student, and co-author Claire Parnet that took place in 1988, available at:

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