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Ontologies of the Future in Contemporary Philosophy: Stiegler and Meillassoux

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Ateities ontologijos šiuolaikinėje filosofijoje: Stiegleris ir Meillassoux

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Filosofija (H 001)

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INTRODUCTION

Although representing two different realms of contemporary philosophy – the philosophy of technology and the speculative realism – Bernard Stiegler and Quentin Meillassoux are rightfully considered as two of the most prominent nowadays' thinkers. While being extensively scrutinized and reinterpreted, they are rarely discussed next to each other even though they share a key element of their philosophical thought. For both Stiegler and Meillassoux, formulating (and possibly solving) the question of the radically open future is an essential step to be made in order to proceed with their original train of thought. In Meillassoux, the radical uncertainty in the form of Hyper-chaos requires a re-evaluation of human's access to the hyperchaotic real, whereas in Stiegler, the way of describing our reality as entropic with a potential of becoming negentropic urges for rethinking the role of human in this reversal. In both cases, radically open future becomes central for their ontological projects which in consequence challenges the previously formulated notions of temporality and futurity in continental philosophy.

The 20th century has been marked by attempts at rethinking and reconceptualizing temporality, starting from Henri Bergson's memory and his ontology of the virtual and finishing with Edmund Husserl's phenomenology and Martin Heidegger's project of the temporal analytics of *Dasein*. Nevertheless, the question of the future has gained a status of an independent philosophical subject only on the second half of the century – first and foremost in the projects of Jacques Derrida and Gilles Deleuze. By considering and significantly radicalizing the ideas of such thinkers as Immanuel Kant, Edmund Husserl, Martin Heidegger and Henri Bergson, both Derrida and Deleuze not only reveal the insufficiency of the metaphysics of presence but also present a significant critical account of such categories as the given, consciousness, sense, and others. Unlike in teleological metaphysics, in Derrida and Deleuze's thinking the idea of the future being the result of past transforming into present is abandoned. Despite significant differences in scope and aims of their projects, both Deleuze and Derrida propose a deconstructive interpretation of presence and replace the notion of teleological future with an idea of *a-venir* – the future that never comes. In Derrida's thinking, the future within time out of joint cannot come, whereas for Deleuze the future has already come virtually. Therefore, a temporal gap becomes significant for both thinkers.

Bearing this context in mind, today's philosophy is faced with new challenges formulated by such philosophical movements as speculative realism, new materialisms, accelerationism, and others. In April 2007,

Goldsmiths College is hosting a conference entitled *Speculative realism* which marks the new era of philosophers who are particularly preoccupied with the aforementioned topics: Quentin Meillassoux, Alberto Toscano, Ray Brassier, Ian Hamilton Grant, Graham Harman, Catherine Malabou, Rosi Braidotti, Manuel DeLanda, Karen Barad, Nick Srnicek and Bruno Latour to name a few. Each unique in their own way, all these philosophers are criticizing Kantian philosophy which is supposedly based on the idea of a necessary relationship between human consciousness and the world. By questioning it, a lot of the mentioned thinkers end up challenging human privilege over nature and other beings. For most of them, Meillassoux especially, the highest value of philosophy is its speculative character which leads to freeing mind from subjectivism. Consequently, ontology becomes a crucial philosophical preoccupation. On the other hand, imagination can be perceived as an alternative to the speculative path of rethinking human thinking. Bernard Stiegler's project is one of those where the marriage between time and technics opens paths to reveal the ontology of the future where imagination is prescribed a more significant role than ever. The return of ontology has been obvious in the recent years of continental thought yet the role of the future, although significant in the contemporary ontological systems, still remains unthought.

With such challenges as the anthropocene, social and political instability, and blurring of clear barriers between different practices of human life ranging from science to art, the problem of man's relation to the real arises anew. If we took Meillassoux's notion of correlationism as a starting point, one could say that the necessity of human's relation to the world has been the center of both critique and wishful thinking. Since the approach to the uncertain real calls for being (re)conceptualized, Stiegler and Meillassoux can be read as two different, yet interrelated conceptual ways of doing exactly that.

In this thesis, the ontological projects of Stiegler and Meillassoux are discussed as variants of what we choose to call the ontologies of may-be. Inspired by Meillassoux's remark in his text *Time without Becoming* on the mission of philosophy nowadays consisting in dealing not with the question of being but with a "real and dense possible", the term of may-be here is extrapolated as an umbrella term marking all ontologies which are preoccupied not only with present, past, or future being but with all of them at once and, especially, with the radical possibility or, in other words, the virtual. The ontologies of may-be are first and foremost ontologies which are dealing with radical uncertainty which is not seen as an epistemological category anymore but as an ontological characteristics concerning not only the impossibility of determining the future but also the radical groundlessness of

the present state of things. While in Meillassoux the radical uncertainty manifests itself through his concept of Hyper-chaos, Stiegler, on the other hand, approaches the uncertainty of the real from two different perspectives: as the pharmakological character of man's technical being and as the project of neganthropology.

Thesis

With the concept of the future understood as uncertainty at their core, both Meillassoux and Stiegler's projects ought to be read as two different solutions to the problem of correlationism: a purely speculative one, providing human mind access to the radical uncertainty (Meillassoux) and a technologically mediated, putting in question the very ontological distinction between human and reality (Stiegler).

Claims of the thesis

1) The concept of the future constitutes the heart of Meillassoux and Stiegler's ontological projects.

2) The concept of the future in Meillassoux and Stiegler ought to be understood in terms of ontological uncertainty which enriches and empowers the concept of *a-venir* extracted from the thought of Deleuze and Derrida.

3) Both speculative (Meillassoux) and media-oriented (Stiegler) approaches to the uncertain real require reshaping the concept and the function of imagination.

4) The projects of Stiegler and Meillassoux ought to be read as shifting from the ontology of being to what we call the ontology of *may-be* which is characterized by the radical openness to change of not only future but also being as such.

Method of the research

The research is pursued as a comparative analysis of Stiegler and Meillassoux which also re-actualizes their thought in the obvious relation to Kantian legacy and in less obvious and rarely discussed relation to such representatives of 20th century continental philosophy as Deleuze, Derrida, and others, as well as contemporary thinkers of future and ontology. By re-contextualizing Meillassoux and Stiegler's ideas, the research is aimed at inquiring into Meillassoux and Stiegler's projects as a whole and, therefore, revolves around their main opuses as well as publications and talks of a smaller scale. Therefore, the research is conducted by performing four methodical steps within the hermeneutic circle of interpretation:

1. Comparative analysis of Stiegler and Meillassoux's ontological projects;
2. Re-contextualization of Stiegler and Meillassoux within the horizon of postmodern French thought, majorly represented by Deleuze and Derrida;
3. Re-evaluation of Stiegler and Meillassoux's conceptual debt to Kantian transcendentalism;
4. Contextualization of Stiegler and Meillassoux's stances on mediation by applying them to the realm of artistic practices.

After Finitude is taken as Meillassoux's main opus based on the fact that this debut book is widely considered as presenting his main argument regarding the critique of correlationism and formulating his own speculative approach to the real. Alongside this book, *Time Without Becoming* as well as multiple talks are also considered in this research as presenting some valuable insights and clarifications of Meillassoux's main project. In addition to that, the text *Science Fiction and Extro-Science Fiction* is also closely read in order to distinguish differences and similarities in speculative and fictional approaches to the absolute real. It should be noted that Meillassoux's discourse on the divine inexistence, mainly presented in his doctoral thesis and briefly introduced to English readers in a few excerpts selected by Graham Harman, is not analyzed extensively in this research for two main reasons. Firstly, Meillassoux has expressed his wish to reformulate the argument of his doctoral thesis multiple times yet the long-awaited update on the argument has not been published to the date of completing this research. Secondly, since this research is focused on the ontology proposed by Meillassoux and its futuristic characteristics, only the main idea of Meillassoux's doctoral thesis is relevant to the argumentation of our research: precisely, the idea that God does not and did not exist but might exist in the future. Thus, this is the main idea we will be taking from Meillassoux's doctoral thesis, avoiding the discourse on theological and ethical matters which we view as secondary to the ontological questions treated in our research.

In Stiegler's case, one can speak of phases of his work as Daniel Ross does by diving Stiegler's writings in three phases each of which is marked by the change in focus: technological, organological and pharmacological, and neganthropological (Ross 2018: 22). While the suggested divide is not disputed in our research, we will mostly focus on the first and the third phases of Stiegler's work. The reason for such a choice is based on the fact that the technological phase of Stiegler's thought (the trilogy of *Technics and Time*) is treated here as grounding the main ontological presumptions while the third phase (the essays, interviews and talks collected in *Neganthropocene*) is

analyzed as a sketch of the new notions of human, knowledge, and futurity offered by Stiegler. While the intermediate phase is of no less importance for overall train of Stiegler's thought, the works regarding the pharmacological aspect of technology are covered less extensively in our research due to them being more socio-politically oriented and, therefore, functioning as derivatives from the ontological premises exposed in Stiegler's first and last works.

Relevance and novelty of the research

Never previously discussed alongside, Meillassoux and Stiegler present a beautiful case of divergent conceptual paths from the same source – Kantian transcendentalism. By revealing future as uncertainty to be at the core of both speculative and mediated approaches to the real, this research is aimed at offering a fruitful concept of ontologies of may-be which could serve multiple purposes.

First, although functioning within different and usually non-overlapping contexts, both Meillassoux and Stiegler's philosophies are highly popular and are viewed as leading representatives of the philosophical movement each of them constitutes a part of. Meillassoux is seen as one of the fathers and leaders of philosophical movement called Speculative Realism which was born in April 2007 at Goldsmiths College, London, where four very promising philosophers – Ray Brassier, Iain Hamilton Grant, Graham Harman and Quentin Meillassoux – came together to discuss the need of a new ontology. The meeting was moderated by Alberto Toscano who replaced Meillassoux at the follow-up event at Bristol in 2009. The latter fact is significant in order to understand Meillassoux's relationship to other speculative realists: although having started as a participating voice in the discussion on speculative realism as a new and promising approach to the real, Meillassoux's thought soon detached itself from the movement with philosopher offering multiple clarifications of his own position, ranging from calling himself speculative realist to materialist. Such distancing makes a sufficient reason for discussing Meillassoux's thought independently from the other speculative realists with two exceptions: Brassier's open critique towards Meillassoux's speculative approach to the real and Harman's extensive analysis of his colleague's ideas even though Harman himself tends to stay on his own path towards the real known as OOO (object-oriented ontology). Both Brassier and Harman appear in our research as polemical points, yet we do not see it necessary to go deep into their own philosophical systems which significantly differ from Meillassoux's project. Having all the above in mind, it can be confidently said that Meillassoux, as well as speculative realism as a philosophical stance, has

secured himself a name in the list of the most influential contemporary thinkers and, given it has been well over a decade from the start of the movement, the time has come to review and test Meillassoux's position against the more traditional stances as well as his contemporaries from different philosophical strata.

This is where Stiegler comes along, who, differently from Meillassoux, is usually seen as a thinker who is independent from any contemporary philosophical movement. On the contrary, he himself is the founder and the main leading voice of such theoretical and practical movements as *Institut de recherche et d'innovation (IRI)*. Not being directly associated with any contemporary philosophical voices, Stiegler does not escape contextualization either. His close readings of Heidegger, Kant, Derrida, Leroi-Gourhan, Simondon and other thinkers put him in a hermeneutical circle of meaning. Without going into an extensive discussion on the originality of Stiegler's ideas, it is important to underline the key aspects of his thought which have been borrowed from his predecessors and remodeled in order to capture and reflect today's ontological problematics. Moreover, the sad and sudden loss of one of today's most influential French thinkers urges for evaluation and contextualization of Stiegler's philosophical corpus.

Another methodological remark needs to be made regarding the potential differences in Meillassoux and Stiegler's political engagement. As it is showcased in our research, the treatment of future as an event may lead to formulating a certain hope which may result in taking up a political stance (see Badiou and partially Derrida in further chapters). Even though neither for Stiegler nor for Meillassoux future is a question of a (political) event, the former with his discourse on negentropy is openly political while the latter remains mainly silent when it comes to social or political problematics. Nevertheless, there is a vivid discussion regarding the political charge Meillassoux's speculative realism has. Despite a few attempts to discuss Meillassoux's *After Finitude* alongside Lenin's thought on materialism (Brassier 2007; Johnston 2008; Žižek 2009), the more dominant reading of his project is apolitical (Hägglund 2011) and even in the cases where politics is mentioned by his interpreters, Meillassoux project's political charge is only derived from his ontological discourse on materialism and realism (Brown 2011; Galloway 2013). This research follows Hägglund and others in reading Meillassoux as apolitical and thus does not focus on Stiegler's political agenda and its practical applications since they are viewed as stemming from his ontology of the future which requires a reconstruction and conceptualization – precisely what this research is aimed at.

As a result of the comparative reading of Stiegler and Meillassoux's projects, a number of secondary effects emerge which are of no less importance then the crystallization of the concept of future as uncertainty from the two different contemporary philosophical stances. First, by looking into the ways transcendentalism is reimagined by Stiegler and Meillassoux, Kantian thought is being re-activated in this research, particularly when imagination is re-introduced as an alternative to understanding and reason when it comes to approach the uncertain real. Second, by coining the term of ontologies of *may-be*, we end up both reviving and questioning the attempts of the previous century at shaping the concept of the future as something radically open.

Previous research on the topic

While the question of the future seems to remain within the focus of continental philosophy since the late 80's and the early 90's when such thinkers as Fukuyama, Baudrillard, and Derrida were actively engaging in conceptualizing the frame of thought which would be able to grasp the problematic nature of unpredictable future, neither Stiegler nor Meillassoux directly tackle the futurity as a problem. Despite that, there are numerous researches discussing the ideas of Stiegler and Meillassoux in the context of future – be it the future of artificial intelligence (Heffernan 2019), the future of education (Jandrič 2017, Duoblienė 2018) inspired by Stiegler or the future of ontology inspired by Meillassoux (Johnston 2013; Sparrow 2014; Harman 2018). Yet their projects are almost never discussed alongside as if speculative realism and technological epiphilogenesis belonged to different realms of the real with an exception being a couple of Kristupas Sabolius' texts (Sabolius 2014, 2016) where both thinkers are discussed in the context of rethinking the role of imagination as well as presented as alternative approaches to the real within the context of art. However, at the moment of writing this introduction, there has not been published any extensive studies on Meillassoux and Stiegler *taken together* neither as opposite nor as complementary philosophical perspectives. One of the possible reasons for such lack of interconnectedness between the two no doubt exceptionally popular contemporary thinkers is the conceptual and institutional bubble that has formed around each of them: while Meillassoux is still being associated with the name of speculative realism despite "the movement" having almost completely dissolved into numerous majorly different steams of thought, Stiegler's legacy is still to be fully apprehended and contextualized outside of his highly original and socially active intellectual engagement.

Although Meillassoux's project is more and more often discussed outside of the movement of speculative realism (see Gratton 2014, interpreting Meillassoux's argument in the context of Anglo-American tradition; Shaviro 2014, comparing Meillassoux's project to Laruelle's idea of non-philosophy; or Ayache's *The Blank Swan* applying speculative materialism to a new understanding of the stock market), it has never been discussed from the point of view of technics and technology which, understood in an undoubtfully very peculiar manner, is predominantly Stiegler's field of thought. Since Stiegler's project on the idea of neganthropology has been sadly interrupted by him passing away, the corpus of the research regarding the last period of his intellectual work is still to be formed. As a result, the majority of the most influential research has been conducted on such Stiegler's ideas as tertiary retention, technics, and individuation (see Colony 2011, Hansen 2004, 2012, Ieven 2012), which, although unavoidably related to the problem of time and futurity, still require an additional reconstruction or, to be more precise, a re-actualization in regard to Stiegler's take on entropy which is directly rooted in the problematics of the ontology of the future. Meillassoux, on the other hand, has received a lot of attention from fellow scholars and therefore the question of the future in his work has been touched from various perspectives ranging from opposition to complementation (see Bryant, Srnicek, Harman (eds.) 2011, Johnston 2013, Gratton 2014, Sparrow 2014, Gottlieb 2019, Harman 2011a, 2018).

Given all of the above, there are three main reasons for conducting research on Meillassoux and Stiegler: 1) their similar stance regarding the preceding philosophical tradition – mainly, the project of overcoming it from within; 2) the latent yet crucial importance of futurity to their projects which leads to 3) the potential of sketching a new ontology which would answer today's theoretical and practical challenges more effectively.

Structure of the thesis

The thesis is comprised of three parts which correspond to the temporal logic of the problematics: the discourse begins with re-contextualizing the projects of Stiegler and Meillassoux as two different responses to Kantian transcendentalism, then the postmodern concept of *a-venir* is introduced and problematized in order to serve as a basis for building the original ontology of *may-be* in its two different forms - the one of Stiegler and the other one of Meillassoux. The first chapter "Ontology after Kant: Two Responses to Transcendentalism" is crucial for bridging two completely different discourses: the one of speculative realism, embodied in Meillassoux, and the one of philosophy of technics, represented by Stiegler. Without the reference

to Kantian transcendentalism, the main subjects of the thesis would remain uncorrelated with each other and thus no common background of the philosophers' aims would be drawn. Another and less obvious step towards bridging the two discourses is made in the second chapter "Future as the Time Out of Joint" where the concept of *a-venir* is taken as the basis for constructing the concept of the future as uncertainty which the thesis aims at proving to be the core of both Stiegler and Meillassoux's ontological projects. In the third chapter "Ontologies of May-Be", the two different approaches to the uncertain real are introduced under the umbrella term of *may-be* which, as showcased further in the research, opens to uncertainty not only future but also being as such, which is why the chapter problematizes such notions as chaos and entropy, future as uncertainty, imagination, and mediation. With the discussion of the latter two, a hermeneutic circle is completed by returning to Kantian legacy through the reimagined concept of imagination which is showcased as a persistent conceptual task in both Stiegler and Meillassoux's projects.

1. ONTOLOGY AFTER KANT: TWO RESPONSES TO TRANSCENDENTALISM

In his *Critique of Pure Reason*, Immanuel Kant claims to be looking for "the solution of the question regarding the possibility or impossibility of metaphysics" (Kant 1998: 7) and before even having started the investigation presents us with the provisionary conclusion: "Metaphysics, as here represented, is the only science which admits of completion– and with little labour, if it is united, in a short time; so that nothing will be left to future generations except the task of illustrating and applying it didactically." (*ibid*: 9) Such a conclusion is made possible by the presupposition held by Kant that the science of metaphysics "is nothing more than the inventory of all that is given us by pure reason, systematically arranged" (*ibid*). Consequently, all other claims from the ones regarding the existence of God to the ones regarding the essence of things are considered by Kant as irresolvable antinomies rather than serious questions meriting time and effort of scientifically-minded philosophers. It seems that after Kant, there is no place for metaphysics yet the investigation on being has not been terminated even by those thinkers who are not disputing Kantian input to the history of philosophy. So how is it possible to enquire on being after Kant?

In order to proceed with an answer, two remarks need to be made: one regarding the peculiar form of idealism represented by Kant and the other one regarding the distinction between metaphysics and ontology. The idealism Kant claims to be representing "concerns not the existence of things (the doubting of which, however, constitutes idealism in the ordinary sense), since it never came into my head to doubt it, but it concerns the sensuous representation of things to which space and time especially belong" (Kant 1950: 41). His *critical idealism*, or transcendental philosophy, is applied to the "mode of our cognition of <…> objects, so far as this mode of cognition is possible a priori" (Kant, 1998: 33). Thus, instead of claiming to be able to make statements about the things which are independent from us, the cognitive beings, Kant restricts his critical discourse to the condition of our cognition. And here is where the second remark ought to be made: even though restrictive, Kant's transcendental philosophy functions as the ground for the further investigation of being.

In his book *Kant and the Problem of Metaphysics*, Martin Heidegger points out the main goal of Kant's *Critique of Pure Reason* to ground metaphysics by developing it as fundamental ontology (Heidegger 1997: 1). The notion of *fundamental ontology* is no doubt an import from Heidegger's

philosophy who at the time of writing the book on Kant was also working on the second part of *Being and Time*. For Heidegger, *fundamental ontology* results from Dasein's being-in-the-world and its ek-sistence. The philosopher claims the main question of metaphysics to be the question of Being and warns about the majority of ontologies being preoccupied with beings instead of Being as such[1] (Heidegger 2000: 43). Given the latter definition, Heidegger's conclusion about Kant's project seems rather natural: "To make the possibility of ontology into a problem means: to inquire as to the possibility, i.e., as to the essence of this transcendence which characterizes the understanding of Being, to philosophize transcendentally." (Heidegger 1997: 10-11) Kant himself, while talking about the unity of apperception constituting the core of the consciousness, describes it as transcendental synthesis which is not *before* the synthesis of particular images but rather constitutes the condition of any and every synthesis as connection and determination. Kant names such condition by the term *epigenesis* which is defined as a principle that "on the part of the understanding the categories do contain the grounds of the possibility of all experience" (Kant 1998: 97). The notion of *epigenesis* consists of two elements: 1) *genesis* means an investigation of an origin in search of the beginning of something; 2) the prefix *epi-* means that something is residing above and can be read as signaling that the beginning we are searching for is on a different dimension than the processes that have already begun and are currently taking place. As Heidegger notices, transcendental knowledge investigates the *possibility* and is connected to reason which transcends beings (Heidegger 1965: 20).

Both Meillassoux and Stiegler can be read as Kant's successors who, while criticizing and essentially updating Kant's project of transcendental philosophy, nevertheless remain in debt to the German thinker and can even be viewed as working from within the Kantian paradigm instead of choosing an outsider's perspective to attack and overthrow the transcendental philosophy. While Meillassoux is widely known as the one who came up with the accusation addressed to Kant under the title of correlationism, Stiegler's

[1] It should be noted that for the purpose of our research any possible difference, distinction, or even a conflict between the notion of metaphysics and ontology will be largely suspended. As it is discussed in more detail further, Meillassoux denounces metaphysics due to it being based on the principle of the sufficient reason, yet his project can still be called ontological as long as it is aimed at investigating the relationship between thought and *being*. In a similar manner, although not pretending to create any systematic explanation of the structure of the world, Stiegler is also departing from a set of presuppositions on being which merit to be labeled as ontological.

early work is focused on expanding the principle of *a priori* into the realm of technical materiality.

As it will be showcased in more detail further down the research, Stiegler's project is aimed and modifying the notion of epigenesis into the notion of epiphilogenesis by expanding the former with the technical element. By combining Heidegger's being in the world and Derrida's arche-trace, Stiegler's notion of technics proves that any experience is made possible not by pure a priori forms but by worldly beings leaving traces, such as language, mathematics, time measurement, etc. The worldliness of technics described by Stiegler echoes Heidegger's idea on Dasein finding itself already within the world: we discover ourselves among entities which are not simply an addition to the essence of Dasein but are essentially connected to it. "Its own past – and this always means the past of its 'generation' – is not something which *follows long after* Dasein, but something which already goes ahead of it." (Heidegger 1985: 41) This means that all, even the most personal experience, is always related to the shared experiences. Moreover, Heidegger and Stiegler's take on always being already in the world reveals that past is never simply something that is over – on the contrary, it always has a power of projection. Dasein finds itself within a certain world and this world together with its past as a whole forms the future-oriented trajectory of Dasein. For Heidegger, Dasein exists in a mode of expectation which is grounded and directed by the worldly past. This idea is further developed by Stiegler who understands technics in the broadest scope possible – as language, mathematics, geometry, and so on. For him, technics always designates the past which has not been lived by me yet which enables my actions by being appropriated by me as a direction of projecting existence. It is impossible not to notice that even within Heideggerian discourse on being-in-the-world the distinction between subject and object loses its sharpness together with the dialectics of interiority and exteriority regarding the subject. Yet Stiegler's project departs from exteriority which later leads onto the search of interiority. In order to understand such a twist, one needs to take a closer look into the relationship between Stiegler and Derrida's positions.

In his book *On grammatology*, Derrida introduces the notion of archi-writing in order to articulate the relationship between writing and speech. Archi-writing is understood as being prior to the distinction between writing and speech, the graphic and the articulated, and its mode of functioning is explained following Ferdinand Saussure's idea on the importance of the difference in linguistics. For Saussure, meaning and sense can be constituted within a language only because of the difference which, as Derrida adds to it,

is always prior than any identity whatsoever. Thus, *différance*[2] ought to be understood as a process during which a difference is produced prior to any definition of a content (Derrida 2006: 87). Derrida's notion of *trace* is crucial if one wants to conceptualize Stiegler's term of *epiphilogenesis*. For Derrida, trace is the origin of sense, it is "*the différance* which opens appearance and signification. Articulating the living upon the nonliving in general, origin of all repetition, origin of ideality, the trace is not more ideal than real, not more intelligible than sensible, not more transparent signification than an opaque energy" (Derrida 1998: 65). Lastly, Derrida claims the trace to be impossible to describe by metaphysics (*ibid*). If compared even at such an early stage of our discourse, Derrida's trace and Stiegler's technics would appear contradictory: while Derrida's trace is not in any way material or tangible, Stiegler always makes sure to stress the tangible materiality of technical entities such as language, internet, or geometry. One could claim that Stiegler simply drops the Derridean prefix *archi-* and as a result, technics becomes simply one of the members of the opposition between the ideal and the real, the reason and the sense. Yet such conclusion would be too hasty. When discussing the possibility of experiencing archi-trace as a phenomenon, Derrida showcases that archi-trace can never be given: "It [the archi-writing] marks *the dead time* within the presence of the living present, within the general form of all presence." (Derrida 1998: 68) In a similar manner, Stiegler's notion of technics also entails the dead time – the time that has never been experienced by its subject. When I am engaging with technics – be it language, internet, or geometry – my own existence, its quality and direction, are determined by structures that are tangible yet at the same time transcendental to me as long as they date back to the past I personally can never reach and live.

The short digression to Derrida's influence on Stiegler's notion of technics allows us to understand the meaning of the term *epiphilogenesis* in relation to the Kantian *epigenesis*. The prefix *epi-* here signifies rethinking of apriorism as well as questioning subject's interiority. If, as claimed by Stiegler following Derrida, experience is made possible not (only) by pure a priori forms, the power of subject's apperception loses its central significance in the

[2] Charles Ramond in *Dictionnaire Derrida* stresses the in-betweenness of the term *différance*: it is the milieu between differences in time (being late or delayed) and in space (non-identity, non-coincidence, or numerical distinction), as well as between speech and writing, activity and passivity. For Ramond, Derridean *différance* is a paradoxical concept of indistinction, whose paradoxicality resides in it being "a figure of anti-conceptuality", resisting to any definition, analysis, or deduction (Ramond 2016: 67).

process of cognition since the technical objects are introduced into the equation. Therefore, the static structure of Kantian apriorism gains some dynamic expression in Stiegler's thought since not the pre-given forms of experience but transitive structures become essential when describing any act of consciousness. The transitive structures being neither purely interior nor purely exterior to the subject can nevertheless be described as being both yet such a description is always late to the thing described since in order to capture the activity of the dynamic consciousness one inevitably has to freeze it in the middle of its work of interiorization and exteriorization. According to Stiegler, epiphilogenesis can be understood as a transcendental notion which nevertheless challenges the distinction between the empirical and the transcendent (Stiegler 1998: 243). Epiphilogenesis is empirical in a sense that it describes the traces which lead to the past but since it is the past which has never been lived by the subject it can only be thought of as something transcending the subject. Moreover, since the epiphilogenetic imprint (technics, tool, trace) anticipates the interior constitution of temporal consciousness, it can be described as transcendental. A reflection about such empirical-transcendental epiphilogenesis is always late which is brilliantly exemplified by Stiegler's interpretation of the myth on Prometheus and Epimetheus. After having received a task of assigning all creatures a quality, Epimetheus fails in distributing the qualities leaving human without one. This is when his brother Prometheus steps in and introduces humans to fire, writing, and tools as means of not only surviving but also creating and defining themselves. Not having a single predestined, natural quality, humans are in constant creation of themselves through technical means. According to Stiegler, the Prometheus and Epimetheus myth teaches us that "humans are prosthetic beings, without qualities, and that temporality (as *elpis*, waiting in hope and fear) emanates from this de-fault of and at the origin, this originary disorientation" (Stiegler 2009: 2). We can think epiphilogenesis as a Epimetheian lack: forgotten quality or forgotten origin. The gift of fire and writing by Prometheus can then be interpreted as the development of epigenesis on the level of technics which results in constituting consciousness. Therefore, the self-reflecting consciousness is late twice: first, when it discovers itself among already existing tools and second, when it realizes the impossibility of its possibility as the epiphilogenetic traces enable the projections of consciousness while at the same time the origin of such traces remains impossible to be grasped, understood, dated, or explained. To conclude, by exposing the importance of the technical element in the constitution of consciousness, Stiegler opens the principle of apriorism onto the field of very tangible and at the same time temporal technical entities.

While one might read Stiegler as the one who turns Kantian transcendentalism inside out by exposing the unthought stitches of the system, Meillassoux's ambition drives him even further when it comes to rethinking the Kantian legacy. For Meillassoux, Kant is the one responsible for the current state of mind in the philosophy regarding the relation between thought and being which the French philosopher calls correlationism. The most straightforward definition of correlationism is given by Meillassoux in the first pages of his *After Finitude*:

> By 'correlation' we mean the idea according to which we only ever have access to the correlation between thinking and being, and never to either term considered apart from the other. We will henceforth call *correlationism* any current of thought which maintains the unsurpassable character of the correlation so defined. (Meillassoux 2008: 16)

Meillassoux's own project is directed at showcasing that, differently from Kant's claim, being can be thought apart from the thinking consciousness. While such phrasing – thinking being apart from thought – might sound paradoxical, it seems more reasonable when expressed in Kantian terms: thinking the thing in itself and not just for us. Yet the paradoxicality of Meillassoux's position is worth considering as it stems from Kantian transcendentalism exposing its paradoxical and revision-worth character instead of being a simple flaw in Meillassoux's argumentation. As showcased by Meillassoux, the correlationist mind is always both inside and outside of itself: everything is inside the thinking mind because "in order to think anything whatsoever, it is necessary to 'be able to be conscious of it'" and at the same time consciousness is "the world's window" as it is always conscious of something (Meillassoux 2008: 18). Therefore, Meillassoux's project of accessing the being through a non-correlative thought is supposed to break the paradox of transcendentalism by proposing a different paradox – the act of thought which is not necessarily connected to its content. For Meillassoux, such act of thought is supposed to be speculative and it should lead to the absolute.

From the very beginning of *After Finitude*, it seems that absolute is treated by Meillassoux as Kantian noumena. After having accused the contemporary philosophy of losing the *great outdoors*, Meillassoux continues on explaining what the pre-critical outdoors exactly is: "that outside which was not relative to us, and which was given as indifferent to its own givenness to be what it is, existing in itself regardless of whether we are thinking of it or not" (Meillassoux 2008: 20). If we assumed that Meillassoux uses the term absolute

as a synonym with Kant's noumena, a whole plethora of interpretational problems regarding the notion of noumena would be presented to us. From the passage quoted, it seems that Meillassoux is presupposing an existence of some kind of a hidden layer of the real an access to which has been forbidden since Kant. The problem with such an assumption is that for Kant noumena is hardly a layer of the reality, something residing behind what is accessible, and the reason for such an interpretation is the fact that Kant openly states not wanting to be associated with metaphysics. In his *Prolegomena*, Kant describes the purpose of his transcendental ideas as "if not to instruct us positively, at least to destroy the narrowing assertions of materialism, of naturalism, and of fatalism, and thus to afford scope for the moral Ideas beyond the field of speculation." (Kant 1950: 112) In the same spirit, understood as a mere limit of our knowledge, noumena should not be read as a metaphysical statement and function perfectly within the realm of transcendentalism which can be read as a composition of epistemological and meta-epistemological questions. In a similar way, Meillassoux also refuses the title of a metaphysician, claiming that "not all speculation is metaphysical, and not every absolute is dogmatic" (Meillassoux 2008: 62). Even though he aims at accessing an absolute (which makes him a speculative thinker according to his own definition), Meillassoux does not claim the absolute to be an absolute being which would be accessible through a principle of sufficient reason (which would, according to Meillassoux, make him a metaphysician). In his *After Finitude*, Meillassoux makes an important distinction between speculative and metaphysical thought. According to Meillassoux, one can be speculative but not metaphysical because, for him, metaphysics is "every type of thinking that claims to be able to access some form of absolute being, or access the absolute through the principle of sufficient reason" (Meillassoux 2008: 62) while he himself claims to be able to access an absolute which is not a being and through a path which would not be based on the principle of sufficient reason. Therefore, Meillassoux's endeavor to grasp the absolute should not be read as an attempt to map out an alternative ontology and is rather similar to Kantian transcendentalism in the minimalism of the claim that is made. If Kant is known for setting limit to the understanding and the reason, then Meillassoux's urge to seek for the *great outdoors* should be understood as the act of overcoming the said limit. All that both Kant and Meillassoux are saying about noumena and absolute accordingly is our capacity or incapacity of grasping them. Yet the difference of their positions resides in the content that is presupposed in the notion of the thing to be grasped. While Kant's discourse on noumena remains deeply apophatic and therefore essentially negative, Meillassoux's trust in the reason's capacity to

grasp the absolute opens the possibility of *some kind* of content to be grasped. Yet it still remains to be clarified what exactly the newly empowered reason is capable of grasping.

In the upcoming analysis it will be showcased that Meillassoux and Stiegler's projects are both bringing material and realist input to Kant's transcendental philosophy and therefore updating it to reach outside the given to and within the consciousness in order to touch upon the worldly reality as such. Let us examine Meillassoux and Stiegler's proposed updates on Kantian transcendentalism in more detail in order to showcase how the question of time and more precisely the one of future becomes essential to both of their positions regarding Kantian legacy.

1.1. Meillassoux and the Thirst of Absolute

In *After Finitude*, Meillassoux formulates his task as "trying to understand how thought is able to access the uncorrelated, which is to say, a world capable of subsisting without being given" (Meillassoux 2008: 52). Such self-subsisting world is called by Meillassoux an absolute. Even though the French thinker's project is aimed directly against what he himself calls correlationism, stemming from Kant's transcendental philosophy which claims that all that human mind is able to access are phenomena and not things in themselves, it seems that a crucial part of Meillassoux's original motivation to seek for the absolute is often overlooked. Moreover, it is not entirely obvious, what Meillassoux means by absolute. As Alberto Toscano notices, the notion of absolute is employed by Meillassoux in two senses: as the absoluteness of the arche-fossil and as the absoluteness of a reason assumed to be congruent – yet non-correlative – with being (Toscano 2011: 90-91). In our research, both aspects of the absolute are discussed but before doing that, it is necessary to ask – why absolute and why now? In order to pose the question and hopefully offer a few possible paths to resolve it, I suggest looking into Georg Wilhelm Friedrich Hegel's thought which, being right after Kantian thinking chronologically, already posits absolute as a central problem yet in a slightly different way than it is done by Meillassoux. It is worth noticing a grand similarity between Meillassoux and Hegel's starting points. Both philosophers are discontented with the role Kant gives to the reason, depriving it from the access to the real as it is and not just as it appears to the consciousness contemplating it. Moreover, both Hegel and Meillassoux are strong advocates for speculative thought as being able to lead the

consciousness outside of itself. Given the two major similarities in their projects, why then Hegel's path is not good enough for Meillassoux?

In his *Differenzschrift*, Hegel formulates a critique towards Kantian approach which can be summarized as being twofold. Firstly, Hegel accuses transcendental unity of apperception of being a purely formal principle which results in being just a network catching what is to be perceived instead of constituting the perceived itself. Secondly, Hegel exposes transcendental unity of apperception as being a principle of a subjective nature which projects subject's perceptual patterns onto the world as if the world before perception and apperception was a certain thing in itself (Hegel 1977b: 79-81). From what has been said, it is possible to conclude that Hegel's concern with the relationship between thought and reality is driven by a very similar disappointment in Kant's thought as we have already experienced in Meillassoux's writings. Yet when it comes to developing his own stance on what an absolute is, Hegel's philosophy appears to be significantly more difficult to crack open.

One of the reasons for such a difficulty is the size of written corpus left by the German thinker. As a notion, absolute appears in many different writings of Hegel and with every appearance it seems to gain a slightly different meaning. Moreover, the reading of those different meanings heavily depends on the interpretative tradition one chooses when approaching Hegel's philosophy. Here we are following the footsteps of such thinkers as Slavoj Žižek (2013) and Markus Gabriel (2011) who, although undoubtedly in a very different manner, both read Hegel as a thinker of change and therefore from this point of view, absolute should be understood not as something static and already there in the real where it is awaiting for human consciousness to grasp it, but rather as a part of an evolving and constantly changing reality which is never separated from mind acting more as self-grasping rather than according to the principle of subject engaging in a cognitive relationship with an object that is completely separate from it.

If the processual reading of Hegel's philosophy accepted, *The Science of Logic* appears to be one of the best places to look for a definition of the absolute that would both reflect the fact that the absolute is in a constant becoming and confirm its ontological importance. For Hegel, absolute is neither just being, nor just essence but instead is inevitably related to both. According to him,

> <…> being emerges in essence as *concrete existence*, and the connection of being and essence develops into the relation of *inner* and *outer*. The *inner* is *essence*, but as a totality whose essential determination is to be *referred to being* and to be being

immediately. The *outer* is *being*, but with the essential determination of being immediately *connected with reflection* and, equally, in a relationless identity with essence. The absolute itself is the absolute unity of the two; it is that which constitutes in general the *ground* of the essential relation which, as only relation, has yet to return into this its identity and whose ground is not yet *posited*. (Hegel 2010: 466-467)

The question of the absolute for Hegel is first and foremost the question about the structure of the real which is necessarily self-reflecting, so the leading question becomes not as much of epistemological as of ontological dimension. In opposition, Kant is preoccupied mostly with the fundaments of what can be known by human mind and thus his initial stance already presupposes a difference between cognition and its object which later evolves into a set of limitations of the former regarding the latter.

One could announce the case closed as soon as it is admitted that the preoccupation of Kant and Hegel is completely different yet the perseverance of Meillassoux's project to find a way for the human mind to grasp the absolute leaves the main question to be posed. What is the problem that Meillassoux is dealing with and how it is different from Hegel's preoccupation? As Gabriel points out, "Post-Kantian idealism is not a first-order theory according to which there would be no objects in the universe. In other words, it is not committed to ontic nonsense, as Meillassoux's criticism of 'correlationism' suggests. <…> Post-Kantian idealism is rather a higher-order theory, the content of which is objectivity, that is the very possibility of objective states of affairs being manifested to finite thought." (Gabriel 2011: xx). Despite the multiple critiques and reinterpretations, the question that has been open since Kant throughout Hegel and up to Meillassoux is the following: how can thought be incorporated into the structure of the real? Or to be more precise, what the structure of the real should be to accommodate thought? The problem that would allow us to build a bridge between such different thinkers as Kant, Hegel and Meillassoux is not the epistemological one but precisely of an ontological nature. This means that there is a need to not only understand what an absolute is but to also examine by which means of thought to grasp it.

From the viewpoint of Meillassoux, the problem with Hegel's speculative approach to the absolute is that it falls under what Meillassoux calls "the strong correlationism". While Kant's position can be summed up as a claim that we cannot know the in-itself, Hegel's position alongside many others is supported by the premise that the in-itself cannot be not only known but also thought (Meillassoux 2008: 63). Thus, even if driven by the urge to free the

thought from the limitation drawn by Kant, Hegel, in the eyes of Meillassoux, ends up absolutizing correlation itself:

> A metaphysics of this type may select from among various forms of subjectivity, but it is invariably characterized by the fact that it hypostatizes some mental, sentient, or vital term: representation in the Leibnizian monad; Schelling's Nature, or the objective subject-object; Hegelian Mind; Schopenhauer's Will; the Will (or *Wills)* to Power in Nietzsche; perception loaded with memory in Bergson; Deleuze's Life, etc. (Meillassoux 2008: 66-67)

In a sense, Kant's successors have moved from their predecessor so far that their positions turned out to be exactly what Kant's transcendental philosophy tried to avoid – the fideistic metaphysics. Consequently, the challenge Meillassoux is taking upon himself is the following: "to try to understand why *it is not the correlation but the facticity of the correlation that constitutes the absolute*" (Meillassoux 2008: 90). While the notion of facticity ought to be explained in the context of Heidegger's philosophy, it is important to notice that the absolute, access to which is being sought, is not a clear concept within Meillassoux's reasoning. For instance, Toscano claims the notion of absolute to be employed by Meillassoux in two senses: as the absoluteness of the arche-fossil and as the absoluteness of a reason assumed to be congruent – yet non-correlative – with being (Toscano 2011: 90-91). Yet the two senses of the absolute distinguished in Toscano's interpretation are not the sides of the same apple as the absoluteness of the arche-fossil is *something* while the absoluteness of reason is *somehow*. In other words, in the first case the notion of the absolute functions as a noun and is discussed on the ontological level as an entity which can or cannot be accessed by the human thought while in the second case the notion of the absolute is employed as an adjective describing reason and therefore remains within the realm of epistemology. Of course, one could quickly make a remark on ontology and epistemology always working hand in hand but it does not relieve us from the pressure of explaining the coexistence and, most importantly, the shift from the epistemological dimension to the ontological one since it is precisely what needs to be done in order to break through the Kantian transcendentalism. In order to untangle the complicated notion of absolute in Meillassoux's thinking, one needs a closer look into its various aspects.

It seems easier to say what absolute is not, and such an apophatic manner of writing is employed by Meillassoux when he reconstructs Descartes' argument as a two-step procedure of first establishing the existence of an absolute in the form of a perfect God and then deriving the absolute reach of

mathematics from it (Meillassoux 2008: 54). While it is clear that Meillassoux is not willing to follow Descartes in his first step and simply assume the existence of some kind of an absolute entity, the absolute reach of mathematics, as it will be demonstrated further in our research, is vital for Meillassoux's argument against correlationism. Yet what is relevant to our research at this point is the transition in Meillassoux's interpretation of Descartes' argument from ontology to epistemology. Such a move is essentially metaphysical, so, not surprisingly, if Meillassoux wants to avoid metaphysical discourse yet still make some statements within the realm of ontology, he must proceed the opposite way, i.e. derive some kind of ontology from a certain epistemology. As we will see, in Meillassoux's case, it is the supposed non-correlatedness of mathematics that enables him to claim that reason is able to grasp something *outside* of itself.

In order to complete the shift from epistemology to ontology, Meillassoux needs to surpass the usage of the term absolute as an adjective-adverb which is enacted in any metaphysical claim. According to Meillassoux, every dogmatic metaphysics is based on the thesis "that *at least one* entity is absolutely necessary" which then is easily expanded into the claim that *every* entity is necessary (Meillassoux 2008: 60). The latter claim is how Meillassoux summarizes the principle of sufficient reason and by choosing to reject it, eventually turns it around as in "it is necessary that no entity was necessary". Consequently, *the principle of unreason* is formulated as a bridge between ontology and epistemology: "We must grasp how the ultimate absence of reason, which we will refer to as 'unreason', is an absolute ontological property, and not the mark of the finitude of our knowledge" (Meillassoux 2008: 91). Here the shift from epistemology to ontology is probably the most expressed in Meillassoux's reasoning yet it is necessary to note the peculiar character of the "absolute ontological property" he is talking about. The principle of unreason, stating that there is no reason for the things to be as they are, is essentially void of content. There is nothing positive to be thought when grasping such a principle since the absence of reason undermines any possible representation of whatever is built on top of such an ontological principle. Of course, in the further pages of *After Finitude* Meillassoux will give a name to the principle of unreason by calling it Hyper-chaos yet as it will be soon showcased, any attempt at describing it and thus representing it fails due to the radical uncertainty it entails which undermines even Meillassoux's attempt at qualifying his concept of Hyper-chaos as a peculiar type of time since no temporal sequence is possible if the principle of unreason is taken seriously. But let us not pre-empt the analysis of the

temporal aspect of the Hyper-chaos and let us focus on the absoluteness of it. So, what there is absolute about the principle of unreason?

If understood as independent from human existence and capacity of thought as well as necessary, the term absolute can be applied to Meillassoux's idea of the necessity of contingency. Yet by doing so, we return to the realm of epistemology or, to be precise, our discourse becomes so formal that it might as well be called meta-epistemological as well as meta-ontological. In Meillassoux's words, "The absolute is the absolute impossibility of a necessary being. <…> everything must, without reason, be able not to be and/or be able to be other that it is" (Meillassoux 2008: 102). Such a formula for the absolute cannot be further from the *great outdoors* we departed with our analysis from. In the quote above, absolute is in no way understood as an entity but functions more like a principle which is formal to such a level that even its content is purely negative. Moreover, the negativity of the principle of unreason is doubled: first, there is a claim of an absence of any reason for the things to be as they are and, second, there is a claim of a must for the things to be able to change. Therefore, the void of representation is in action on both ontological (the groundlessness of things) and ontic (the instability of things and their manifestation) levels. Yet it is essential to notice that Meillassoux never claims that things necessarily change but is rather talking about their *ability* to do so. That is a very peculiar case of potentiality in action: each and every thing is thought of as having a potential to be altered with no reason whatsoever. Given the Aristotelian theory of potentiality which is inseparable from the principle of causation as well as the doctrine of the essence of things (for example, seed's potential to become a tree is both encrypted in its essence and succumbs to the causal chain of steps required to fulfill its potential), the potentiality of the things to change under the reign of the principle of unreason poses a serious challenge to represent it using the vocabulary of the classic philosophy.

In order to find a suitable vocabulary to identify the peculiar negativity within the potentiality to be other, it could be useful to turn to Giorgio Agamben's notion of *impotentiality*. Impotentiality is a newly coined philosophical concept designating a potential of not doing, not acting, not being. In Agamben's thought, impotentiality is not simply an opposite of potentiality since their difference is not merely that of the positive act and the absence of it. Instead, impotentiality resides in every potentiality and is even grounding it. For Agamben, potentiality can be defined as experience situated in-between experiencing nothing and experiencing something, i.e. as "perception of its own formlessness, the self-affection of potentiality" (Agamben 1999: 217). The important aspect of such a perception is the fact

that it is directed towards oneself which leads to shifting from a simple passivity as immobility to passivity as self-affection. Thus, the opposition of activity and passivity is nuanced by introducing the idea of "the event of matter" (*ibid*). By entering a relation with one's own passivity, a creative force is triggered yet contrary to Bergsonian-Deleuzian creativity of surplus, the creativity that Agamben is talking about is marked by the sign of negativity. As he goes on interpreting Aristotle's notion of potentiality, Agamben notices that to be potential means "to be in relation to one's own incapacity" (Agamben 1999: 182). This means that in order for the productive force to be awakened, one has to face the ignorance and darkness that resides in the potentiality. Therefore, Agamben's *impotentiality* can be also summarized by the tension between vision (as knowledge or creation) and blindness (as the radical not-yet).

A similar tension between the known and the unknown accompanies Meillassoux's necessity of contingency. According to him, the main difference between the absolute and the empirical contingence is that while the empirical contingency entails the eventual change or perishing of the thing in question, the absolute contingency "designates a *pure possibility*; one which may never be realized" (Meillassoux 2008: 106). We can see how two different modes of temporality are employed in the given distinction. In the case of the empirical contingency, we are dealing with a rather straightforward, causality-based chain of events: the future, although not necessarily precisely planned and dated, is predictable in a sense that we can definitely know of its arrival *sooner or later*. Whereas in the case of the absolute contingency, one is faced with a future which does not allow any speculation of the *sooner or later* of a change or a perish. As a possibility that "may never be realized", absolute contingency dwells in-between the known and the unknown in a similar fashion to Agamben's impotentiality. As a result, the ontological principle grounding Meillassoux's worldview unveils a radical uncertainty of the absolute which urges at rethinking the futurity as such.

1.2. Stiegler and Technological Temporality

Before dwelling deeper into Stiegler's notion of technics and discussing its problematic relation to Kant's transcendentalism, it is worth clarifying Stiegler's innovation regarding retentional structures which constitute the core of phenomenological vocabulary – the same that Meillassoux openly accuses of being correlational. As it will be showcased in this chapter, Stiegler's addition to the primary and the secondary Husserlian retentions salvages the

retentional structure from claustrophobic existence within the cognizing subject by introducing to the flow of consciousness the radical otherness – technological temporality in the form of tertiary retention.

To understand Stiegler's idea of tertiary retention one needs to start from Edmund Husserl and his claim made following Kant that consciousness functions as a temporal structure. Differently from Kant, who is mainly concerned with distinguishing the human faculties, Husserl dedicates numerous texts to the objects of a temporal consciousness which themselves can be temporal as well. J. N. Mohanty brilliantly summarizes the point of departure between Kant and Husserl's thought by comprising it into a problem of time-order: had Kant "recognized that the *acts* of synthesis themselves (as constituting objectivities, and so not themselves as objects) were also temporal, and had he made use of his own recognition <…> that the pre-objective representations themselves were temporal – he would have recognized a level of temporality that is the *pre-objective* foundation of objective time" (Mohanty 1996: 27). The famous example of a temporal object presented by Husserl is musical melody. As showcased by the philosopher, listening to a melody helps to explain the temporality of consciousness which is always a combination of protentional and retentional mechanisms. While someone is listening to musical melody playing, there is an act of perception which grasps the experiences then and there. Yet if perception were grasping every sound separately, we would not be able to connect the melody into a coherent totality of sound. To hear the melody as a melody, consciousness must connect the previous notes with the current ones as well as anticipate the upcoming ones. Husserl constantly stresses that protention and retention constitute parts of a present experience which is happening now and therefore do not form separate past or future temporal modes. In this way, retention and protention extend the present moment and ensure a coherent experience. In this aspect, the flow of a temporal object coincides with the flow of consciousness since the continuation of melody corresponds to the retentional and protentional structure of temporal consciousness.

In order to distinguish between retentional structures of experience and fictional experiences, Husserl claims the following:

> Retentional consciousness really contains consciousness of the past of the tone, primary memory of the tone, and must not be divided into sensed tone and apprehension as memory. Just as phantasy-tone is not a tone but the phantasy of the tone, or just as tone-phantasy and tone-sensation are essentially different things and not by any chance the same thing only differently interpreted or apprehended, so too the tone primarily remembered in intuition is something *fundamentally and essentially*

different from perceived tone; and correlatively, primary memory (retention) of the tone is something different from sensation of the tone. (Husserl 1999: 191-192)

Stiegler agrees with Husserl that temporal object is an ideal object which constitutes the texture of consciousness when corresponding with the flow of it (Stiegler 2011: 14). Yet Stiegler's approach begins to differ from Husserl's when the former modifies the example of a temporal object, and instead of talking about a melody performed live, shifts to an example of a recorded melody. According to Stiegler, this shift allows to clearly observe the structure of a temporal object which is based on repetition through memory (Stiegler 2011: 21). While Husserl did not need to make a distinction between object and phenomena, since an object can be grasped only if a consciousness is presented with a phenomenon, Stiegler's example of a technically recorded melody proves that object and phenomena can be distinguished without holding any metaphysical assumptions which Husserl would probably prefer to withhold by the procedure of *epoché*. As Stiegler showcases, a recorded melody allows to hear the same object whereas every time a phenomenon is different (Stiegler 2011: 18). Therefore, while for Husserl the duration of temporal object corresponds with the duration of consciousness, Stiegler proves that in the case of a technical temporal object such correspondence is broken and instead the temporality of an object starts influencing the temporality of consciousness.

Another important feature of Husserl's phenomenology that Stiegler appropriates before updating it with the concept of technological temporality, is the difference between primary and secondary retentions. For Husserl, they can be distinguished on the basis of their relation to presence and experience. He views the secondary retention (memory) as a "re-presentation of something itself in the sense of the past" and claims it to be analogous to perception in the sense that it "has the appearance of the object in common with the corresponding perception, except that the appearance has a modified character, in consequence of which the object does not stand before me as present but as having been present" (Husserl 1999: 203). Thus while the primary retentions participate in the present apprehension by expanding the momentary experience and stretching it in time, secondary retention works with already fixed sequences of experience which are lived in present time always as something that *has been*. In this context, one could say that Husserl prioritizes presence as the only possible (and, most importantly, accessible to us) dimension of experience.

Stiegler, on the other hand, begins questioning the Husserlian prioritization of presence and present experience by expanding the retentional

structure with a third level. For Stiegler, *tertiary retention* is a prosthesis of the consciousness which plays an essential role in the constitution of mind, memory and personally non-lived passed (Stiegler 2011: 39). According to Stiegler, tertiary memory always participates in both secondary and primary memories, as well as in the present constitution of a self. Yet, for Stiegler, the orthographic already-there is impossible to be traced on its own and can only be discovered through prosthetic structures, i.e. technics (Stiegler 2009b: 42). In a way, tertiary retention functions as a criterion for selection which influences the function of primary and secondary retentions. The interaction between the three retentions is described by Stiegler in the following way:

> Secondary retention is already within the primary impression, expressing it, imprinting the effects of its indeterminacy there. It itself is inhabited by the retention of non-lived experience as both essential and that is nothing other than its world. It is made possible by an essential already-there composed of non-lived memories preserved as conscious images. (Stiegler 2009b: 216)

If we come back to the example of melody and reflect on the retentional structure engaged while listening to a familiar melody, there is little doubt that when listened to for the second or third or fourth time the melody engages a protentional mode which allows us to foresee upcoming notes and melody changes. With the anticipating protention engaged, we are freed from actively following the melody and our attention can be concentrated to other aspects of the experience than the melody itself, for instance, we can pay more attention to the background accompaniment. In fact, tertiary retention is also providing a criterion for the present experience but differently from the personal memory that is engaged in the listening of a familiar melody. In the case of a tertiary retention, the memory engaged is never personal and cannot be traced back to a personally lived experience. On the contrary, tertiary retention is always supported by shared, collective memory which has to be fixed in a tangible and therefore transmissible manner. In the context of our example it would mean that as long as we have listened to *any* melody, our auditory attention is trained to listen to a melody as a rhythmical sequence of sounds and make sense of it in various ways ranging from interpreting the mood to catching a mistake in the performance. Moreover, in the case of a recorded melody, a peculiar instance of repetition takes place: even though the temporal object – the melody – remains the same, the listener who hears it for the second time is already different due to a change in the horizon of their lived experiences since the last time they listened to the recording. The recorded melody itself is acting as a criterion for the perception, pushing us to

concentrate at certain things and expect the others. If accepted, Stiegler's idea of tertiary retention leads to concluding that it is not consciousness that constitutes temporal objects and not even the temporal flux of consciousness and object are corresponding but rather that temporal object being technically fixed is affecting the process of perception as a criterion for attention.

Understood as a criterion for primary and secondary retentions, the technically embodied tertiary memory proves to be in relation to temporal consciousness. Moreover, when Stiegler claims that the memories of tertiary retention are preserved as images, this means that they are viewed as having a certain temporal structure. Stiegler's project demonstrates that time and space can no longer be kept separately precisely because tertiary retention as a special exteriority is always also temporal. The distinction of time as a form of interiority and space as related to exteriority has its roots in Kant's *Critique of Pure Reason* where the philosopher extracts space and time from the field of cosmology and employs them as transcendental forms of intuition which are supposed to enable the formation of appearances as spatiotemporal as well as the very distinction between the apprehending consciousness and the object apprehended. However, the idea of something interior remains extremely problematic both regarding the contents of the interior apperceptions as well as the transcendental form which enables their emergence. Stiegler's notion of tertiary retention also means that changes in spatial qualities can result in changes of both objective and subjective temporality.

For Stiegler, Husserl's mistake was to distinguish between primary and secondary retentions by claiming that in the case of the former there is perception in action while in the case of the latter – imagination. According to Stiegler, by separating imagination from primary retention, Husserl is working under an assumption that memory has no selection which, and here Stiegler agrees with both Kant and Husserl, is a prerogative of imagination. Yet if it were true that memory does not require any process of selection, time would not flow because there would be no events as well as no anticipation would be possible. Thus, Stiegler concludes, primary retention needs criteria which are provided by secondary and tertiary retentions (Stiegler 2011: 18-20). This is exactly where Stiegler's position deviates from Husserlian phenomenology. Husserl views consciousness as necessarily supported by its lived experience which he sees as essential to constituting perception of the world. Consequently, he does not consider tertiary retention due to it being rooted in the "outside" world and thus allegedly being secondary to the perceiving consciousness. Stiegler, on the other hand, showcases that since it is acting as a criterion for memory and perception, tertiary retention or, precisely, the objective form of memory is constituting the consciousness itself as a past

which has never been lived by it. After conjoining tangible technical experiences with present perception, Stiegler is able to offer an updated definition of consciousness. According to him, consciousness is a montage of overlapping primary, secondary, and tertiary retentions (Stiegler 2011: 28). When discussing the effect of Kuleshov[3] which Stiegler uses to exemplify the effect of tertiary retention, Kristupas Sabolius notices that we can only face present if there is a certain selection, in other words, when the given is put together into the bundles that make sense. Therefore, according to him, the perception of and in present is always a creative act (Sabolius 2013: 80). All things considered, one can say that tertiary retention is always present in primary retention.

To sum up, Stiegler's notion of tertiary retention dismisses the following: 1) Kantian presupposition that temporality belongs only to consciousness; 2) Husserl's prioritization of presence and lived experience; 3) a distinction between static exteriority and dynamic interiority which constitutes the ground for phenomenological discourse on active and passive side of consciousness, the perceiving and the perceived. One could conclude that Stiegler deals with Kantian legacy by introducing the element of technics which then is showcased not to be simply exterior to the consciousness but instead grounding its activity through the principle of schematism. Moreover, consciousness' rootedness in time is showcased by Stiegler to be parallel to its rootedness in technics which overthrows the whole discourse on the interior of the consciousness and the exterior of the world. In a sense, Stiegler's discourse undermines Meillassoux's attempt at showcasing the correlationist nature of our thought precisely because the strict distinction between the indoors and the outdoors is being questioned by Stiegler. And nevertheless, both Stiegler and Meillassoux seem not only to be in debt to Kantian legacy but they also take up rather similar labels as to how their own positions should be understood: both thinkers want to be viewed as materialist but, as it will be

[3] In the beginning of the 20th century, Lev Kuleshov's experimentation with montage enabled the development of new montage techniques and facilitated the conceptualization of phenomenological experience of cinema's montage. Lev Kuleshov's effect is built on the succession of different images and our way of conjoining them in an attempt to interpret. First, a man's face is shown which is then followed by different objects: a bowl of soup, a body of a dead girl, and a face of an attractive woman. Even though the same image frame of the man's face is used after showing the object, the pairing of them result in very different interpretations of the emotion on the screen: from hunger to grief to passion. This is an example of how the semantics of the seemingly unrelated images can overflow into each other resulting in an interpretative act based on filling in the missing information virtually.

demonstrated in the following chapter, their interpretation of what it is like to be a materialist in contemporary philosophical climate is rather different.

1.3. Two Faces of Materialism

Although both Meillassoux and Stiegler have called themselves materialist, the materialist aspect in their philosophies is not so obvious and has been a cause of numerous discussions among the interpreters and critics. After having showcased that both Meillassoux and Stiegler can be read as reimagining Kantian transcendentalism by opening it to "the outside", we have to make another step in the interpretation and describe "the outside" that is being opened in each case. Therefore, a deeper analysis of Meillassoux and Stiegler's materialism is needed. This will be done in two steps. First, we will look into Meillassoux and Stiegler's definition of materialism and see how it resonates with their projects as well as the critique by the interpreters. Having clarified the notion(s) of materialism at work, we will finalize the reading of both philosophers as reimagining Kant's transcendentalism by formulating the problematics their notion of the subject brings into the question of what real is (like) in materialist perspective.

When talking about Meillassoux, one would probably be more inclined to call his stance realist instead of materialist simply due to him being associated with the movement of speculative realism from its very beginning in 2007 at Goldsmiths conference entitled *Speculative Realism*. According to Sparrow, the presupposition that the thinkers involved in the movement share is the following: "there is a reality that exceeds the bounds of perception and phenomenological intuition" (Sparrow 2014: 62). This is the realist part of the definition while the speculative part is summarized by Sparrow in the following way: "human thought is capable of transgressing the limits of phenomenological evidence" (*ibid*). Of course, Sparrow's main preoccupation is to respond to the attacks from speculative realism and to defend the stance of phenomenology as well as it being relevant in today's philosophical climate, so not surprisingly his definition of the speculative realism movement revolves around their relation to phenomenology. Despite that, it captures the essence of the position rather well: speculative approach is supposed to help transcend the limits of consciousness and open it to the real reality. Yet two questions are to be answered at this point: what kind of reality speculative realism is talking about and what constitutes the exceptionality of the speculative approach compared to transcendentalism or even different versions of speculation such as the Hegelian one. The answer to the first question is to be sought by looking into the materialism of Meillassoux's

position while the concept of the speculation will be investigated further down our research.

Meillassoux himself defines his materialism the following way:

> Every materialism that would be speculative, and hence for which absolute reality is an *entity without thought*, must assert *both* that thought is not necessary (something can be independently of thought), and that thought can think what there must be when there is no thought. The materialism that chooses to follow the speculative path is thereby constrained to believe that it is possible to think a given reality by abstracting from the fact that we are thinking it. (Meillassoux 2008: 65)

As we can see, Meillassoux's definition of materialism or, to be precise, speculative materialism, revolves around the relation between thought and its object instead of making claims about the essence or the structure of the world. In this sense, Meillassoux is not a metaphysician since his discourse is rather scarce when it comes to describing the world "when there is no thought". All that is claimed, however, is that there *is* a world without thought and we can access it. As Watkin notices, "speculation and materialism are intended to strike a blow at the dependence of truth on human cognition" and both serve as "a resistance to anthropocentrism" (Watkin 2016: 61). The success of such a resistance depends on how strong the argument for the independence of the matter from the thought is. Thus, both aspects of Meillassoux's argument need to be convincing: a) the material reality of the world; b) the possibility of a non-correlational approach to the material world. While the latter is attempted by Meillassoux when he introduces the notion of speculative thought, the former is discussed under the example of arche-fossils which we should turn to again in order to investigate its materiality.

For Meillassoux, arche-fossils are "materials indicating the existence of an ancestral reality or event; one that is anterior to terrestrial life" (Meillassoux 2008: 25). Although pretty straightforward, Meillassoux's account on arche-fossils has been approached multiple times by commentators and critics claiming that a correlational consciousness has equally no direct access to the realm of future things and events. For instance, Harman questions the necessity of the example of arche-fossils in order to dismantle the validity of correlationism. According to him, a future-related statement as well as a statement about the real out of scope of possible human experience and reflection is equally challenging and nevertheless is easily dealt with by so-called correlationist thinkers. Almost as a response to his own question, Harman notes that "for Meillassoux diachronicity is not a

matter of fact, but of possibility" since even if human life was present from the Big Bang, "even in a world without genuine arche-fossils, they would live on as a valuable thought experiment." (Harman 2011: 13) Yet Harman's interpretation of the arche-fossils argument overlooks the crucial aspect of it – the materiality of the arche-fossil. What the correlationist thinking is challenged with is not a pure speculation neither an image of some reality which surpasses the perceiver; instead, what presents itself is a trace, pointing to the realm of the real which is both temporally and ontologically prior to the perceiver. Every trace has at least two constituent dimensions. First, it is necessarily material. Second, it is always referring to something which is no longer present: the human who left the footprint on the beach is no longer there, analogically, the arche-fossil is referring to the beings or entities from back in the day. To put it bluntly, every trace is essentially temporal, and its temporality can be described as *presenting what has passed*. The materiality of Meillassoux's arche-fossil implies its essential connection to the past and thus complicates the possibility of expanding the argument to the unlimited future of correlationist mind. This is because the time of living beings as well as the time of the planet is an irreversible process which means that everything moves within a line of events and even though we do encounter some traces along the timeline, they do not function as means of altering nor reversing the timeline. All we can do with a trace is to remember who left it. And in cases like arche-fossils, where there is no one to remember anymore, we can read what is inscribed in the materiality of the trace itself.

Two directions of critique towards Meillassoux's argument about arche-fossils have been projected by the interpreters: either the materiality of arche-fossils is challenged or the materiality of the thought that is supposed to access it. Harman sees the necessity of Meillassoux's project to be supplemented by the notion of dead matter if the French philosopher wants to be "both mathematicist and realist (or at least a 'materialist')" (Harman 2018: 192). The same Cartesian matter-thought dualism is in the centre of the second group of critique regarding Meillassoux's materialism. Watkin points out the absence of Meillassoux's account of the relation between thought and brain which could be useful in solving the following contradiction: if everything is subject to change under to idea of Hyper-chaos then brain as the generator of thought, absolute thought included, is too. This, for Watkin, means that "the ultimate value of human beings or anything else, cannot be taken as an absolute guide to the eternal nature of the universe because, like everything else, they can change" (Watkin 2016: 60). Therefore, the coherence of Meillassoux's materialism is challenged once again.

In a similar manner, Stiegler's discourse of technics is being challenged from two perspectives: regarding the notion of the subject and that of the object. In some cases, Stiegler's notion of technics is accused of being too related to materialism (Colony 2011, Ieven 2012); in other instances, Stiegler is criticized for reducing technics to the structure of memory (Hansen 2004). Both directions of critique stem from the assumption that Stiegler's discourse is to be viewed as a continuation of Derrida's thinking, and therefore, Stiegler's project is accused of being too simplifying or reductionist regarding his predecessor's ideas. For instance, Ieven notices that Stiegler's notion of *différance* resembles Derrida's since for both it is a postponement that generates a difference. The scholar is quick to add, however, that in his deconstruction of traditional notions of time and space, Derrida would never allow the fundamental difference to be reduced to material or technological conditions, and that it is precisely what Stiegler does (Ieven 2012: 82). Such critique should be viewed from a distance since Stiegler is not and never was a historian of philosophy or a devoted Derrida's scholar. Moreover, in his latest publication of writings and speeches *The Neganthropocene* Stiegler is openly distinguishing his thought from Derrida's.

According to Stiegler himself, before he started philosophizing, he was materialist and after having started his philosophical path, he claims to be still a materialist in a sense that he believes the that even though the spirit is not reducible to matter, it is always conditioned by it (Stiegler 2009a: 32). Here, matter should be understood as a tangible intra-worldly existence. Thus defined, it becomes very difficult to argue against the idea of the materiality of technics since even language and coding have a tangible expression which, if not being their total essence, constitutes a significant part of it. Nevertheless, one could still question the basis on which the relationship between technics and consciousness is built. Does temporality as the basis of tertial retention act as a common ground for technics and consciousness because of its material or because of its ideal aspect? If tertial retention is grounded by its materiality, the materiality of consciousness needs to be accounted for, which Stiegler's project has not contributed to yet. The most that is done by now, as notices Ieven, is Stiegler showcasing that consciousness is constituted by founding its rhythm which is always in need of an exteriorized element and therefore functions as a driving force of individuation. If so, the idea of transcendental apperception becomes useless as all forms of knowledge turn out to be dependent on de-transcendentalized esthetics which is closely related to technology (Ieven 2012: 81). It is strongly suggested that ideality alone cannot ground the relation between consciousness and technics.

Here it is important to unwrap Stiegler's notion of technics which is heavily indebted to Gilbert Simondon and at the same time creatively updated. In what follows, we will be agreeing with Mills' insight into the relation between Simondon's *associated milieu* and Stiegler's *technics*. As noticed by the researcher, although sharing the same logic of the exteriorization process, the two thinkers differ in defining the primordiality of technics regarding human's nature: while Simondon "doesn't describe technics as being originary for humanity", for Stiegler, "the history of the human is also the history of technology and vice versa" (Mills 2016: 162-163). In other words, while Simondon assumes a primordial non-technological state of humanity, Stiegler goes all the way back blurring the origin of human which results in complicating its future as well. If no technology-free past is possible, the future can only hold a pharmakological outcome of the human-technics relation. Being essentially intertwined, human and technics suggest a world-view so heavily materialist that the whole distinction between materialism and its classic opposition idealism becomes almost invalid as there is no space for a purely non-material being in Stiegler's worldview.

It must be noted that Stiegler's duo of *who* and *what* should not be understood as corresponding to the distinction between the material and the immaterial, matter and mind, or similar. Instead of considering them as separate entities, Stiegler prefers to view them as processual and, most importantly, co-founding. For him, "The self is surrounded by [*au milieu de*] 'itself', by its objects and prostheses, a milieu that is therefore not only itself but its *other*. And this *other* precedes it, is *already-there*, as an unlived past that is only one's past on condition that it becomes one's future." (Stiegler 2011: 49) Here the spatial metaphors meet the temporal ones, as is also the case in the theory of evolution which has heavily influenced Simondon who in his turn has been the source of inspiration for Stiegler. As already mentioned, Stiegler underlines the *already there* of technics regarding human which leads the philosopher to ground the temporal aspect of the human subject on its technicity:

> It [technics] thinks *before* us, being already there before us, insofar as there is a being before us; the *what* precedes the premature *who*, has always already pre-ceded it. The future – which is 'the task of thinking' – is in the thinking of (by) technics. We must understand this 'of' in two senses that, taken together, produce time: to think technics as the thought of time (re-doubled). (Stiegler 2009b: 32)

Following Simondon's notion of the associated milieu, the Kantian, and, consequentially, correlationist distinction between interiority and exteriority, can be successfully challenged in a way, which would differ from the speculative strategy of Meillassoux. For Simondon, the living being has a complex individuality where associated milieu participates in its being rather than constituting the result of the living being's actions. Yet the other side of the fraction should be also considered since, in Simondon's system, "the technical object is also this aspect of the process of 'concretization' through which the technical object *calls forth* an associated milieu that it integrates into its functioning" (De Boever et al. 2012: 213). This is where Stiegler takes over and proceeds discussing the "transformation of the universe by the technical tendency", resulting in what he calls "a technophysical and technocultural milieu, whose laws of equilibrium are no longer known" (Stiegler 1998: 59-60). It is worth noticing the dual, co-determining effect of the relationship between the individual and its milieu, which can only lead us to concluding that for Stiegler, who, in this regard, is closely following Simondon, being a materialist entails more than simply assuming the primacy of the matter. On the contrary, the technical co-determination of individual and its milieu acts as a vortex disturbing the causal temporal logic: if there is no *prior* to individual or its milieu, there can be no *prior* to technics which constitutes the dynamic relationship between the two. In the same sense, there can be no *post* technics; only a new stage of technics and being.

In order to discuss such a new stage of technics, one needs to turn to Stiegler's understanding of information which, again, is rooted in Simondon's thought. While the Stieglerian take on entropy is discussed at length further down our research, the very notion of information on which the Stieglerian notion of negentropy is based, merits a closer attention in this chapter, where the materiality of Stiegler's thought is clarified. The main conceptual shift made by Simondon and Stiegler in the notion of information consists in treating it qualitatively instead of quantitatively. The main premise of the information theories of the 20th century is that information ought to be treated as units which can be either full or empty, meaningful or meaningless, useful or useless. According to this approach, the exchange of information is treated without taking into account the mode and the milieu that information is being transmitted through. In other words, the classic information theory omits the materiality of the transmission stripping information of any knowledge and leaving behind only bare units in a form of bits. Simondon, on the other hand, reconceptualizes information as a tension between the signal and the receiver thus pushing the discourse towards a more qualitative domain. Stiegler makes one step forward from Simondon by showcasing that the very possibility of

the said tension between the signal and the receiver is grounded in protention which in itself has a transformational potential for both sides of the tension. As noticed by Ross, where Stiegler differs from Simondon is that "Simondon *retains* from information theory the notion that information must be thought *independently of its supports* (that is, its medium, its tertiary retentional basis), making it impossible to understand wherein the *possibility* of such a tension lies" (Ross 2018: 27). Here Stiegler is making a profoundly Heideggerian move by exposing the forgotten or the neglected aspect of information. In his own words, "All these forms of thinking, deriving from the nineteenth and twentieth centuries, remain fundamentally locked within a failure to consider *tekhnē* – a neglect through which the *indifférance* of *tekhnē* is able to come fully into play, as the unthought and the uncared-for, the *impansé*." (Stiegler 2018: 268) The obvious allusion to the Derridean *différance* gives away the peculiar character of the relationship between the signal and the receiver, or, if we wish, the technics and the human: being always already there, their primordial co-constitutive relation remains hidden under the layers of informational noise and representational structures. As a result, the question of technics becomes also a question of memory (and forgetfulness) or, to be more precise in Stiegler's terms, the question of tertiary retention.

There is one more direction of critique towards Stiegler's early project which turns against the close relationship between technics and memory. It is sometimes claimed that by joining the two, Stiegler misses the opportunity to expand on the theory of technics and to understand the functioning of consciousness as such. One of the most adamant critics regarding this is Hansen, who is claiming that Stiegler remains too close to presence which has been prioritized by Husserl. According to the scholar, the experience of tertiary retention remains an experience that could have been lived, even if consciousness is not living it at a given present (Hansen 2012: 57-58). In his earlier article Hansen concludes that by reducing tertiary retention to non-lived experience, Stiegler loses any possibility to talk about consciousness being oriented towards the future (Hansen 2004: 259). If we are looking into Stiegler's earlier works dedicated to the relationship between technics and time, the only possible answer to Hansen's critique is claiming that Stiegler's technics is not to be understood just as relicts from the past that are being actualized by a consciousness in the present time; on the contrary, as already showcased in the research, tertiary retention functions as a force constituting consciousness which structurally resembles transcendentalism. Yet Stiegler's position can only be called quasi-transcendental since it is still strongly related, if not rooted in, materiality.

On the other hand, the material aspect of the relationship in question is also problematic. As stated by Colony, Stiegler does not seem to notice that spatiality exists even before the distinction between the organic and inorganic and therefore any articulation of exteriority is made possible not by technical materiality but rather by *différance* which is prior to any possible distinction (Colony 2011: 86-87). One could agree with Colony being rather reserved regarding the dangers lurking in materializing technics which would result in a primitive metaphysical model where materiality is simply prioritized over ideality. Yet it seems that the scholar is reducing Stiegler's notion of technics to technical gadgets, whereas in his works Stiegler is careful to trace back the influence he experienced from Heidegger's philosophy which results in him understanding technics as an intra-worldly structure functioning as a memory that catalyzes consciousness. Thus understood, technics becomes situated in-between materiality and ideality. Moreover, it surpasses the distinction since it is what grounds the possibility of it. Embodied in tangible things and processes, tertiary memory functions as a storage of experience that surpasses an individual consciousness, providing a pool of possible actualizations for a consciousness that is able to access it.

Given the discussed critique to Meillassoux and Stiegler's materialist stances, one could benefit from looking into the different ways they both update transcendental subject by introducing the outside element into it. So what kind of subject the two philosophers are presupposing in their discourses?

1.4. Rethinking Human: Transcendental Idealism Technologized

Since 1980's there has been numerous theoretical and practical movements claiming that artificial intelligence is about to take over humanity[4]. French epistemologist Dominique Lecourt has named this generation of thinkers biocatastrophists who share one goal among themselves – surpass the limits of the being in the world by rethinking or even overcoming human as such (Lecourt 2011). This would be Alain Turing's dream come true: a machine, once created relying on human understanding as an example, gains its autonomy and overcomes its own creator. Marvin Minsky, who led MIT's program of artificial intelligence in the technologically oriented 80's, perfectly sums up such belief in claiming human brain to be based on machine-like function which requires a special approach.

[4] See the most recent discourses on the ways in which technological advancement can lead to humans transcending themselves as a race: Kurzweil (2005) and Kaku (2011).

[W]e do know their [brain centers'] construction is based on information that is contained in tens of thousands of inherited genes, so that each brain-part works in a way that depends on a somewhat different set of laws. Once we recognize that our brains contain such complicated machinery, this suggests that we need to do the opposite of what those physicists did: instead of searching for simple explanations, we need to find more complicated ways to explain our most familiar mental events. (Minsky 2006: 2)

According to Minsky, we have the potential to create intelligent machines only because we are machines ourselves. Minsky and other theoreticians and practicians that followed share the same underlying belief that the appearance of artificial intelligence constitutes a crucial turn in human evolution. The question remains, whether a turn in the road leads to completely abandoning the path. Although rather successfully realized today in such forms as algorithmic structures governing our choices (Youtube, Facebook, Amazon, Netflix, etc.), the idea of human-machine symbiosis requires a conceptual reconstruction, in order to be able to understand the challenges it poses today and might pose tomorrow.

It is safe to say that for Descartes, ego that is capable of cognitive function, has nothing to do with a machine. Such faith falls only on animals, whereas human soul, based on the relationship between thinking and existing as well as supported by good and fair God, is granted a special place in the hierarchy of beings. In his *Discourse on the Method,* Descartes states that "were there such machines exactly resembling organs and outward form of an ape or any other irrational animal, we could have no means of knowing that they were in any respect of a different nature from these animals." (Descartes 2012: 43-44) It is important to note that human's exceptionality according to Descartes is prescribed on a functional basis: ego cogito is a purely functional description of a being, in other words, I am who I am because I do a certain thing – I think. This seems to be enough for Descartes to eliminate human beings from the realm of machines who are viewed as lacking the performative function of thought.

In Kant, thinking is divided into different types (understanding, reason, imagination) and undergoes a shift from a function to a capacity as a faculty of consciousness. By stressing the potential of thought rather than its activity, the philosopher deprives thought of ontological leverage and makes it no longer responsible for granting being to the thinker. By diving thought into understanding, mind, and imagination and showcasing them as a priori tools for knowledge and cognition, Kant acts like a clock master who is capable of

dismantling ego to demonstrate its structure as a temporal synthesizing mechanism. In this sense, Kant's human can be described as a machine, yet it is neither synthetically produced, nor completely organic. In a way, Kant's human is an ideal machine since the tools at its disposition are always prior to experience, that is, they are transcendental. As soon as transcendentality is introduced, human is marked with something outer – an inexperienced and unthought element which is yet essential for any and every human being.

The stranger part of transcendental ego is well captured by Kant's critics and interpreters who see Kantian humanism, based on a priori, universal, and unchanging structures of thought, as a problematic idea[5]. Almost a century ago Max Horkheimer and Theodor W. Adorno showcased how the principle of schematism is being exploited by the cultural industry which has turned Kantian mechanism of knowledge into a principle of oppressing creative power and freedom of will through the cultural changes and technological advancement. As famously stated by Horkheimer and Adorno,

> The active contribution which Kantian schematism still expected of subjects – that they should, from the first, relate sensuous multiplicity to fundamental concepts – is denied to the subject by industry. It purveys schematism as its first service to the customer." (Horkheimer and Adorno 2002: 98)

In 2017, Google's artificial intelligence Deepmind beat world's go champion proving that computational machines are finally capable of competing with human even in the realm previously secured only for *homo sapiens*, that is, in situations where creativity and spontaneity are essential when making decisions. Is this enough to suppose that transcendental subject can be produced synthetically and if so, what would be its limits of cognition? And more importantly, what such cases say about the limits of *homo sapiens* as a possible creator of other transcendental subjects? Finally, what is left for philosophy after Kant's distinction between phenomena and noumena which shut the door to the realm of metaphysics, leaving ontology with the sole task of drafting the shadowy zones on the map of the real? According to Stiegler, "Adorno and Horkheimer did not take into account that the three syntheses of

[5] The critique towards Kantian universalism is best exemplified by Judith Butler and Seyla Benhabib's lasting discussion. Butler chooses to reconceptualize the idea of the self by claiming that at the heart of the self there is not the spontaneity or freedom Kant described but the effects of psychic loss and pain (Butler 1997: 22). Benhabib's critique towards Kant is based mainly on the fact that universalist moral theories rely on a self which is mainly defined by rationality and therefore erase any human difference whatsoever (Benhabib 1992: 50, 161).

the imagination described by Kant presuppose a fourth synthesis, which I call the technological synthesis of the imagination, and which is that of tertiary retention." (Stiegler 2018: 159) Adorno and Horkheimer overlooking the importance of technology to the process of the synthesis of imagination leads to them not grasping fully the danger as well as the potential of the exteriorized schematization.

The possibility of transcending the limits of transcendental subject is shared not only by biocatastrophists described by Lecourt but also by speculative realists who, despite taking very distinctive paths of philosophical thought, all share the same question of how to grant consciousness an access to the real which would not be based on the correlational principle. In the same way as biocatastrophists, speculative realists are facing the need of rethinking the notion of consciousness in such a way that would allow a foreign element into it and thus would open the doors leading from the solipsistic room. One of the so-called founders of speculative realism[6] Meillassoux claims that there are objects in the real which do not correlate with the consciousness that tries to grasp them. One example of such objects is arche-fossils.

> I will call 'arche-fossil' or 'fossil-matter' not just materials indicating the traces of past life, according to the familiar sense of the term 'fossil', but materials indicating the existence of ancestral reality or event; one that is anterior to terrestrial life. An arche-fossil thus designates the material support on the basis of which the experiments that yield estimates of ancestral phenomena proceed – for example, an isotope whose rate of radioactive decay we know, or the luminous emission of a star that informs us as to the date of its formation. (Meillassoux 2008: 25)

Meillassoux presupposes that such an object should be problematic when faced by correlationist philosophers who rely on an assumption that consciousness and reality (thinking and being) are always interdependent (Meillassoux 2008: 26). Whereas Meillassoux's subject is faced with the elements of the real which are radically foreign to him, and the only way to grasp them without falling back to correlational relation is for Meillassoux mathematical rationality.

Before continuing with Meillassoux's notion of mathematics in this chapter as well as the further part of the thesis, one needs to shortly discuss the limitations Meillassoux's anti-Kantian position might have. Even though

[6] Although it would be more accurate to call Meillassoux a speculative materialist, as has been done by Anna Longo, commenting his 2012 Berlin talk where Meillassoux stresses that besides being speculative he also strives at eliminating any subjectalism from philosophical thought (Longo 2014: 34).

Meillassoux's notion of *cogito* is not defined solely by metaphysics of representation and can be a meeting point not only for the correlation between subject and object but also for the relationship between thought and being, the investigation of consciousness is not the main preoccupation of the philosopher. According to him, one should strive for a subject that would escape both solipsism and the principle of *cogitamus* towards a more objective knowledge (Meillassoux 2008: 87). Yet there is a valid reason to doubt whether by disposing of the presupposition that it is transcendental subject who is both the recipient and the generator of phenomena, it is still possible to discuss a thing in itself as something different from the thing for us. According to Malabou, Meillassoux's "The 'in-itself' which must be 'grasped' is therefore not Kant's in-itself, since that, by definition, cannot exist without us." (Malabou 2016: 143) She soon adds that in order to speak of an absolute which is unconditioned one would have to work within the frame of transcendental philosophy. Finally, Malabou concludes that Meillassoux's "in-itself ceases to be the other side of finitude, and becomes instead pure separation" (Malabou 2016: 143). Although it is hard to disagree with Malabou's remark on Meillassoux's vocabulary being still very much Kantian, it must be also noted that Meillassoux's discourse has a stronger interest and trust in mathematics, which, for Kant, had still to be founded before moving onto anything else. By founding subject's capacity to think an independent object on mathematical science, Meillassoux, instead of deepening the distinction between interior and exterior, puts it under question entirely. But at what cost is this done?

Meillassoux understands mathematics as a non-mediated access to the real, claiming it to be the only way to form propositions on ancestral reality:

> The thesis we are defending is therefore twofold: on the one hand, we acknowledge that the sensible only exists as a subject's relation to the world; but on the other hand, we maintain that the mathematizable properties of the object are exempt from the constraint of such a relation, and that they are effectively in the object in the way in which I conceive them, whether I am in relation with this object or not. (Meillassoux 2008: 13)

The sharp distinction between primary and secondary qualities has been widely discussed by both Meillassoux's allies and critics. On the one hand, it might seem odd to rely on mathematical discourse as a non-correlational one and at the same time to claim that it grants the nature scientists the access to the real. Gratton views Meillassoux's project as leaving science behind, claiming that "the physical world is not a set as in set theory, which are

unchanging (and thus sets). But the physical world has things that come and go; such is the stuff that makes history and the world go round." (Gratton 2014: 80-81) Gratton's observation falls within the already discussed idea of Meillassoux's project as dealing with time without becoming: if the absolute real is conceived as a general principle of Hyper chaos, meaning that anything can happen anytime as long as it is non-contradictory, there is no surprise that the atemporal mathematical approach is chosen by Meillassoux as the only way to access the grounding layer of the reality. Yet the question remains if mathematical approach can be trusted when it comes to accessing the absolute and here we have to agree with Johnston's claim that both Badiou and Meillassoux are guilty of fetishizing mathematics and at the same time conflating "the metaphysical-pure-logical-ontological and the physical-applied-empirical-ontic <…> failing to explain and defend this conflation (one significant version of which is the juxtaposition of post-Cantorian trans-finite set theory, as pure mathematics, and the physical space-time mapped by the application of mathematical frameworks other than set theory)." (Johnston 2011: 106) The critique is valid within the framework of *After Finitude* where mathematics is employed as a solution to a rather practical problem of grasping the real in such cases as arche-fossils. It seems that a lot of confusion might be caused by Meillassoux's choice of such an example since there is no evidence that either nature scientists or philosophers are having trouble at dating and understanding the *real* existence of fossils which are way older than any form of life on Earth. Thus, Meillassoux's project should be read including his other texts and especially the talk on non-meaning given in Berlin, as will be done in the further chapters of this research. For now, it sufficient to quote Shaviro's observation that Meillassoux "values physical science not for its own sake but only because—and to the extent that—it allows us to reject the very notion of subjectivity" (Shaviro 2014: 119). In other words, mathematized natural science serves Meillassoux as a tool to get rid of phenomenological correlation between the perceiver and the perceived.

Yet the question remains, is it true that mathematics is free from any correlation? Meillassoux's discourse is very scarce regarding the premises he is basing his thought on mathematics. The claim that science uses mathematical expression as a non-subjective way of expression does not account in and for itself for the genesis or philosophical analysis of the origin of mathematics. For instance, Stiegler, who is supporting Derrida's reading of Husserl's *Origin of Geometry* as proving the necessary connection between recording and constituting, stresses the possibility of every recording's message to be shared between a few people: "The writer is affected in writing, encountering and reflecting on the writerly self. This auto-affect—which,

since it unfolds through its own outside, is not one—is can be disseminated to and reactivated for all readers." (Stiegler 2009: 37) Despite both treating mathematics as composed of a dual structure, that is, being material-technical and ideal at the same time, Meillassoux and Stiegler explain the ideality of mathematics in a completely different way. Meillassoux's project is based on an idea that mathematical discourse is objective in the sense that it gives us access to objects despite of our thought process on them. This means that a numerical expression of the time in which an atom splits used in measuring the age of a certain stone, does not change in regards of our thought about it; moreover, not only it would remain the same even if the humanity disappeared from the Earth but it still would be the same even if no thinking or living being ever existed. To sum up, Meillassoux's project weakens the link between mathematical rationality and human consciousness, and as a result mathematics is transferred to (onto)logical real. Differently from Meillassoux, Stiegler bases his notion of mathematics not only on technicity but also on imagination, instead of relying on pure rationality. Inspired by Heidegger, Stiegler claims that rational understanding as a "(re)constitution of knowledge is possible only because there is originary knowledge, 'mathematical' in the ancient sense" (Stiegler 2009: 134), and therefore one could not say that for Stiegler mathematical knowledge "in the ancient", or more primary, sense is just a simple act of understanding. In this regard, Stiegler and Meillassoux seem to be on the same page, yet Stiegler, instead of dehumanizing the ideality of mathematics, rather contrasts the activity of transcendental imagination with the activity of reason. For Stiegler, imagination is a prior member in the dyad. Such an interpretation of Stiegler's project can be proposed after reconstructing his line of thought when he rethinks Kant, Heidegger, and Derrida. This is done in three steps:

1. For the knowledge to be transmissible, it must be recognized as *already there* which requires not only a passive participation in receiving the knowledge but also an active participation in re-actualizing it.
2. After transcendental analytics is replace with existential analytics, all knowledge is seen as working on the level of projection and becomes knowledge-towards-death.
3. After existential analytics is replaced with grammatological deconstruction, the relation between knowledge-towards-death and writing is stressed and showcased as functioning on the level of becoming-dead. (Stiegler 2009b: 134-135)

To sum up, for Stiegler, all knowledge, mathematical included, is technics precisely because it always contains something irreducible, something that, in

Derridean terms, acts as a trace, *différance*. Meillassoux, on the other hand, even when talking on the mathematization of the world as a Galilean revolution, barely touches the question of technics. Stiegler, on his part, showcases that "There is no "reason" nor "idea" without *organon*: *eidos* and *logos* are always already techno-logies. This *technologos* is the *hupokeimenon* (the ground) of ideality and of science in general—and more profoundly, of time as such." (Stiegler 2009: 42). Since Stiegler views mathematics as one of the appearances of technicity, it never is viewed by him as an ultimate, immediate relation to the real, whereas for Meillassoux, the objectivity and immediacy of mathematics remains unquestionable precisely because the very nature of mathematics is unquestioned by him.

In a way, both Stiegler and Meillassoux rethink Kantian apriorism yet they radicalize it in different directions. Stiegler chooses to immanentize Kantian apriorism while Meillassoux's project is based on a presumption of a time which is more fundamental than the temporality of consciousness. Stiegler's notion of *epiphilogenesis* correlates with Kantian transcendentalism. Epiphilogenesis is derivative from epigenesis which is described by Kant as a principle, according to which "concepts of objects in general lie at the ground of all experiential cognition as *a priori* conditions; consequently, the objective validity of the categories, as *a priori*, concepts, rests on the fact that through them alone is experience possible" (Kant 1998: 224). Therefore, the notion of epigenesis is comprised from two aspects: 1) *genesis* means the investigation of where something comes from by trying to grasp the beginning of the said something; 2) the prefix *epi-* marks a level above something, meaning, that the beginning in search resides on a different level than the processes that have already begun. As it will be showcased in more detail further down the research, Stiegler's project is aimed and modifying the notion of epigenesis into the notion of epiphilogenesis by expanding the former with the technical element. By combining Heidegger's being in the world and Derrida's arche-trace, Stiegler's notion of technics proves that any experience is made possible not by pure a priori forms but by worldly beings leaving traces, such as language, mathematics, time measurement, etc.

As a result, the notion of human is reconceptualized by doing away with the clear distinction between the natural interior and the artificial exterior. Due to the technological essence, human being for Stiegler is always already outside itself: "The self is surrounded by [*au milieu de*] 'itself', by its objects and prostheses, a milieu that is therefore not only itself but its *other*. And this *other* precedes it, is *already-there*, as an unlived past that is only one's past on condition that it becomes one's future." (Stiegler 2011: 49) Departing from such understanding of human (nature), it is possible to see how the Minskian

idea of human-machine can be deconstructed. *Automaton* in ancient Greek means "acting on one's own will". While Homer uses this word to describe automatic doors that open themselves, it quickly enters wider use as describing non-electronic moving machines, especially those whose movements resemble human or animal. A cuckoo clock is a perfect example of such a machine. The tension and interplay between automaton's passivity and activity, determinism and spontaneity are crucial for the purpose of our research. If automaton works on its own, it means that it is at least partially autonomous. But does that also mean it can be spontaneous? Can spontaneity be programmed into a machine? Looking from Stiegler's perspective, the answer cannot be given that easily. Even though technics and human are seen as interrelated, it does not mean that any form of technics as a machine enjoys the same qualities of spontaneity and creativity as a human being. "The technical inventing the human, the human inventing the technical. Technics as inventive as well as invented." (Stiegler 1998: 137) But not any technics. Moreover, even not each and every human being would be seen by Stiegler as enjoying his/her power of thinking to the fullest. As it will be showcased in the further chapters of this research, the pharmakological aspect of human-technics relationship means not only that technics can be harmful but also that not every type of conscious activity is fruitful and creatively spontaneous.

To push the skepticism one step further, Umberto Eco's response to the question if spontaneity can be programmed into an automaton would probably be negative, based on his definition of a natural language. According to him, "natural languages do not live on syntax and semantics alone. They also have a *pragmatic* aspect, which concerns rules of usage in different contexts, situations or circumstances; one can also use language for rhetorical purposes, so that words can acquire multiple senses – as happens with metaphors." (Eco 1995: 23). Based on that, if an artificial intelligence is incapable of creating metaphors is precisely because a metaphor always contains a leap from one notion to another. Similar leap is made in a successful joke. Maybe that is why we still have not encountered an artificial intelligence machine that would be good at cracking jokes, and the ones that do attempt at doing so, showcase a rather unusual sense of humor and are still relying on internet as a database for computation. Judging from what has been previously said, spontaneity appears to be a human, all too human quality at least up to nowadays. But for how long?

Lithuanian visual artist duo Pakui Hardware (Neringa Černiauskaitė and Ugnius Gelguda) notice that contemporary robotics is more and more keen on relying on life forms other than human when designing the anatomy of robots such as dogs and octopuses since the human-like ones prove to be the

clumsiest ones (Pakui Hardware 2017). In their 2017 Paris talk, the duo raised a question regarding human body: how, if at all, our often too slow and limited body can be of any use in the realm of posthumanism? Is there any value to it? (*ibid*). This is where Malabou's notion of technicity proves to be very illuminating. Differently from Meillassoux and from Stiegler, Malabou pays a lot of attention not to the question on materiality of technics but to its plasticity. For Malabou, plasticity "describes the nature of that which is 'plastic', being at once capable of receiving and giving form" (Malabou 2005: 8). She later adds that "The plasticity of the word itself draws it to extremes, both to those concrete shapes in which form is crystallized (sculpture) and to the annihilation of all form (the bomb)" (Malabou 2005: 9). Therefore, if we speak of a plastic individual, it must be able to synthesize its mode of being and to transform the essence of its species through accidents turned into habits. "Effected by habit, the singularity of the 'plastic individual' becomes an *essence a posteriori*." (Malabou 2005: 74) The philosophical response to the metamorphoses discussed above can be at least threefold. One can claim, as Bergson and others did, that understanding is not the same as soul. One can also take the stance similar to transhumanists and hope for the artificial intelligence to overcome and destroy the human intelligence in the future. Finally, one can attempt at forming a position which would not be normative and would refuse to evaluate the moral or political consequences of the so-called techno-human evolution. In a postscript to the English translation of her latest book, Malabou stresses the importance of working on the edge between human and artificial brain:

> By emphasizing the resemblance between human brains and artificial brains (and thereby that they will naturally be in competition), the ones calling the shots – who are human, I repeat, not machines – paradoxically and intentionally mask the fact that this resemblance is in fact a difference, a difference that, rather than compromising the future, would allow us to see it, if only it were presented as such (Malabou 2019: 154-155).

What is crucial in Malabou's discourse is that she, contrary to Meillassoux who completely reverses his predecessor's thought and differently from Stiegler who performs a deconstruction of it, still relies on Kant's theory of cognition. Malabou notes that when he speaks about the power of formation, Kant makes sure to warn against reducing it to a simple mechanical force. Such reduction can be prevented first and foremost because the power of formation does not rely on a necessary cause. As stated by Malabou, "this force that is capable of everything is a force without reason. A mad

mechanism. An uncontrolled automaton" (Malabou 2016: 63). Interestingly, Kant underlines the main goal of mechanical force in the following way: to control and limit the power of formation in order to prevent it from turning into an uncontrollable force. From that Malabou concludes that life borrows from mechanism in order not to become mechanical itself (Malabou 2016: 63).

While synthesis of time, space, and experience is considered by Kant as a core of transcendental subject, Meillassoux performs a shift in the notion of synthesis by viewing it as a quality that describes subject. For him, synthesis is what makes transcendental subject what it is but does not exists outside of it. Nevertheless, it is questionable if even in Kant's philosophy synthesis is an activity prescribed only to subject. According to Malabou, Kant was first to show that synthesis is "a neutral event, anonymous, authorless" (Malabou 2016: 132). Here a distinction between subjective and natural synthesis would be useful, and it can be drawn using Malabou's terminology, that is, applying the notions of *correlation* and *articulation*. In Malabou's system, articulation is something that binds and keeps together different moments of time, while correlation is understood as something that connects subject to time. Even though both syntheses are intertwined, they are not the same thing, and this is why Malabou is capable of criticizing Meillassoux's attack against Kantian correlationism. According to her, Meillassoux's critique of correlationism is only valid for subjective synthesis, while the natural, the neutral articulation of time remains untouched by it. In conclusion, if one accepts the existence of both personal and impersonal syntheses, it becomes hardly possible to maintain a view that dating something is a purely mathematical act, even if one understands mathematics like Meillassoux does – as a non-correlational way to face the real.

The already problematized notion of epigenesis in Malabou's thinking is explained relying more on its biological use. According to Malabou, epigenesis as morphological transformation of the brain under the influence of outer forces should be understood as sensible representation of articulation (Malabou 2016: 134). Therefore, the investigation of epigenesis should grant understanding not only on what predispositions the cognitive mind has, but also the genesis and evolution of the very one who is performing the act of cognition. For Malabou, transcendentality is not something that is given beforehand but rather as a morphological creativity which, by inventing categories, changes the inventor – the subject – itself. As showcased by Malabou, the fact that epigenesis is contingent, means the world to be contingent as well. If we follow her reasoning, the self-forming and

transforming brain is not, strictly speaking, a subject in the same way as the world should not be viewed as an object.

Various philosophical attempts at rethinking the notion of epigenesis prove the shift from epistemology to ontology: instead of being preoccupied with only brain or transcendental subject, philosophers are more and more keen on raising the question of what is real. The gradual dismissing of the distinction between subject and object in contemporary thought has a more radical character than the similar attempt in phenomenology, which seems to replace ontologically charged notions of subject and object with more cognition-oriented notions of the perceiver and the perceived. What Malabou's project has proved is the possibility of viewing the world as being as much adaptive, as the brain is.

The danger in going down the path of plasticity (be it the plasticity of the brain or of the world as such) lies in a possible overlooking of the very practical-political aspect of any attempt at rethinking human. Such concern can be seen in Stiegler's work, who describes his own project as directed against "transhumanist delirium" (Stiegler 2018: 105). He is openly critical of Malabou's notion of plasticity calling it "a soft phrenology where spirit – blithely confounded with thought, itself reduced to 'cognition' – becomes gelatinous, while reason, mentioned in passing, becomes a synonym for causality, consisting of this gelatine traversed by electro-chemical currents" (Stiegler 2018: 256). It is worth noting, that Stiegler's re-actualization of Kantian epigenesis arrives at completely different results than Malabou's project. The reason for such a different result is that Stiegler stresses more the technical aspect of epigenesis. Even though both Stiegler and Malabou's epigenesis is subjected to evolution and includes a posteriori factors, Stiegler's notion of epiphilogenesis does not exercise the same level of biological materiality as Malabou's does. Therefore, the two philosophers view the relationship between consciousness and the real in a completely different manner. For Stiegler, the glue that ensures the interaction between technics and consciousness is temporality that is shared by both and that results in rhythmic structures that can reverberate with each other. Whereas for Malabou, materiality is first and foremost related to a body and is factual. From the very beginning of her project, Malabou continues to develop a discourse on an actant who is undergoing a constant evolution and is constantly transforming itself. The question, whether such an actant is human brain, the whole ecosystem, or an amoeba, is of a secondary importance. As a result, in Malabou's though there is no space for a schism between cognition and reality since cognition is seen as a part of reality while consciousness itself is viewed as a product of material transformation.

Self-organization through transformation becomes the main driving force of the real. Yet the question remains if there must be tension for the moving as such. It appears that such tension resides in the notion of plasticity which comprises the capacity to transform, to be transformed and to explode. In other words, plasticity conjoins the capacity to annihilate and to be annihilated. One could be tempted to make a parallel between Malabou's plasticity and Bergson's creative evolution. Yet the main difference between them is that Malabou, unlike Bergson, does not eliminate negation and annihilation from the creative process. Moreover, for her, annihilation is ultimately creative since transformation without annihilation is not possible. Negativity appears to be where the realm of *a priori* starts. According to Malabou, "There is an epigenesis of reason because the *a priori* has no meaning. Rationality engenders itself – invents its forms – out of this necessary lack." (Malabou 2016: 98) Malabou's discourse creates a precedent of discussing possibility without probability; instead, one can start projecting a notion of possibility that acts through radical unexpectedness.

The triad of future, plasticity, and time in Malabou's thinking form an anticipatory structure which she calls *voir venir* – to see what is coming. In the commentary for his disciple's book, Derrida stresses the ambiguity of *voir venir*: on the one hand, expectation implies seeing something, yet on the other hand, one can never know what will come. In Derrida's words, "'To see (what is) coming' means *at the same time* to anticipate and to let oneself be surprised, to bear *and, at the same time*, I mean precisely *at the same time, not to* bear the unexpected. In other words, the surprise *in* what is coming, the event *of* what is coming: the future." (Derrida 2005: ix) A similar blindness, or hesitation, is required when a robot is acting in a creative and creating way. A similar blindness, or a foreign element, is necessary for subject to form. It is possible that a similar unknowing as being open for a radical novelty is what philosophy as theory needs. *Theoria* as an insight into what is, in today's context might require a certain blindness.

2. FUTURE AS THE TIME OUT OF JOINT

As showcased in the previous chapter, both Stiegler and Meillassoux open up Kantian transcendental subject to the outside materiality: Stiegler does it by proving the subject itself being constituted by the exterior element of technics while Meillassoux raises a possibility for subjective thought to access the objective in a radically non-correlational way. When transcendental, and thus, temporal, subject is reimagined, the question of time becomes a problem too. While in Kant's thought time alongside with space are discussed on the transcendental level as interior forms of perception, the introduction of the exterior element leads to re-ontologisation of temporality. Our further research is based on the conceptual distinction between two French terms – *futur* and *avenir*. *Futur* will be used to designate a preconditioned discursive future mode of things and will be translated as the English "future". The term *avenir* will be understood as radical openness and unconditionality of things to come and consequently will be described by terms "radical openness", "uncertainty", and *avenir* where it stems directly from Gilles Deleuze and Jacques Derrida's thought. While future constitutes a part of the temporal triad alongside with past and present and, therefore, succumbs to the causal logic, radical openness distorts the causal temporal chain by being completely unpredictable.

The said distinction of two future-designating terms is essential in order to understand both Meillassoux's idea of Hyper-chaos and Stiegler's discourse on negentropy, the futurity of both of which will be discussed in more detail in the third part of the thesis. But before that, an excursus to the continental thought of the 20th century is needed since it is the time in the history of philosophy when the question of future and the things to come becomes not only a problem but also an answer. The investigation of this part of the thesis is organized in the following way. First, the concept of future as event is discussed in the thought of Heidegger, Baudrillard, Derrida, and Benjamin, in order to showcase it being rooted in the temporal triad due to the expectation which inevitable follows any thought about an event, no matter how disruptive it is. The second step is to discuss the idea of a radically open future in the thought of Deleuze and Derrida where the structure of expectation is broken, and the question of futurity becomes not only epistemological or ethical but first and foremost ontological. Finally, the third step is taken to read Stiegler and Meillassoux as a response to and in certain cases a variation of Derrida and Deleuze's projects. The three steps are necessary as a preparatory stage for the third part of the thesis where a concept of future ontology as the ontology of *may-be* is developed by showcasing Stiegler and Meillassoux's

projects as offering two different approaches to the ontological uncertainty: mediated (Stiegler) and immediate (Meillassoux).

2.1. Future as Event: Limits and Challenges

As Gratton notices, the question of time is important not only to the speculative realism but also to the ones criticized by it: "those critiqued by the speculative realists, such as Martin Heidegger, Jacques Derrida, and several others, were not 'correlationists,' but were after a realism of time – Being *as* time, as Heidegger put it, a claim that made his project and the later deconstruction possible." (Gratton 2014: 18-19) Despite a vast array of interpretations and reinterpretations in the modern and the postmodern thought, they all seem to be interested in the notion of an event as something which is essential for structuring time and, as an independent aspect of the real, requiring a unique ontological approach. As noticed by Badiou, the question of event is directly related to the ontological problematics of the multiplicity which is reflected by Heidegger's shift from *Sein* to *Ereignis*, Lacan's tension between non-existent One and One that emerges from action, even by Nietzsche's discourse on history split in half (Badiou 2005: 101). For Badiou, the problem then is the following: "if by 'philosophy' we must understand both the jurisdiction of the One and the conditioned subtraction from its jurisdiction, how can philosophy grasp what happens; what happens in *thought*?" (Badiou 2005: 101-102). One could paraphrase Badiou's question using Heideggerian vocabulary in the following way: is it event as truth that interrupts being or is it the truth of event that evolves within being? Whereas if one takes a Bergsonian perspective, the same question will gain a completely different form and would rather look like this: does event as novelty act as rupture or does novelty arise in the real from its continuous becoming?

Since the question of the emergence of novelty is raised by Meillassoux who introduces a concept of *facticity* as opposed to contingency, it is necessary to distinguish it from the Heideggerian concept of *facticity* as related to thrownness and projection. As we will soon discover, the similarity between the concepts is not just phonetical – on the contrary, Meillassoux's project enables us to think the emergence of novelty in a more radical way that his predecessors. At the same time, Stiegler's debt to Heidegger's thought results in him reinterpreting the being-towards-the-end by introducing a crucially important technical element resulting in reshaping the ontology of futurity in a way which can be seen as a valid alternative to Meillassoux's

ontology. Thus, what is the Heideggerian project regarding the emergence of novelty and, most importantly, what are its shortcomings?

For Heidegger, facticity is closely related to thrownness and also results in Dasein's projecting. As noticed by Michael Inwood, "thrownness is not a fact that is over and done with, like details of one's ancestry which one can discover by research. It is a constant accompaniment of Dasein's existence, poignantly revealed in certain moods." (Inwood 1999: 219) Thus what starts as a passivity of Dasein in a form of discovering oneself as *already there*, leads to a certain activity in a form of projecting while being involved in some kind of projects. In the discourse of Meillassoux, the term *facticity* preserves its passive aspect yet the self-discovery of the subject is stripped of any possible cognitive content. In *After Finitude*, Meillassoux contrasts contingency and facticity: "if contingency consists in knowing that worldly things could be otherwise, facticity just consists in not knowing why the correlational structure has to be thus" (Meillassoux 2008: 70). Differently from Heideggerian facticity, Meillassoux's facticity leads not to a possibly anonymous projection but to an extremely formal realization, "For facticity fringes both knowledge and the world with an absence of foundation whose converse is that nothing can be said to be absolutely impossible, not even the unthinkable." (Meillassoux 2008: 71) As we can see, Meillassoux applies the term to discuss the passage from the observationalist realm to a hard-core ontology. Yet here one could join Badiou's critique towards speculative realism when he claims its representatives to be lacking a theory of the event which allegedly renders it incapable of political change: "for Meillassoux the future decides, the future and perhaps the dead will make the final judgment. This is a political weakness. The question is how is the Real of the present deployed for the future?" (Badiou 2011: 20) In this regard, Heidegger's project seems to provide more content but at what cost?

One of the central theses of Heidegger's *Being and Time* is that temporality is a condition of subjectivity and not vice versa. This idea is of a crucial importance when discussing the difference between authentic and inauthentic regimes of being, because once accepted, it forbids us from making a clear-cut distinction between subjectivity and objectivity. For Heidegger, the anticipating structure of *Dasein's* being leads to facing its own authenticity: "we must characterize Being-towards-death as a *Being towards a possibility* – indeed, towards a distinctive possibility of Dasein itself" (Heidegger 2001: 305). Here we agree with Hoy claiming that for Heidegger, temporality is prior to subjectivity; according to the commentator, time develops as becoming of subjectivity (Hoy 2008: 264). This also means that in Heidegger, the Kantian axiom is reversed, and it is no longer held that time

is an interior form of experience which would not exist without consciousness. Yet the future-orientedness of the being-towards-death is still to be reflected within Heideggerian thought. The answer to the question what is anticipated by *Dasein* can only be negative: it is first and foremost *Dasein's* own end. Nevertheless, for Heidegger, such end is marked by the sign of authenticity since only when facing its own end *Dasein* is believed to face its own possibility of being which would be authentic. In a sense, *Dasein's* authenticity is expressed in their contact with their own possibility of being and is always processual or, to use Deleuzian terminology, in becoming: "Anticipation makes Dasein *authentically* futural, and in such a way that the anticipation itself is possible only in so far as Dasein, *as being*, is always coming towards itself – that is to say, in so far as it is futural in its Being in general." (Heidegger 2001: 373) Even though Heidegger never explicitly claims inauthentic and authentic being to belong to different ontological realms, it seems that he presupposes a more fundamental temporality than the everyday time. Heidegger holds that linear temporality results from inauthentic being and therefore invites to restrain from applying the terms of past, present, and future when talking about authentic being (Heidegger 2001: 374). Therefore, Heidegger's being-towards-death can be said to fall out of the causal chain of everyday time. Moreover, even though it is based on anticipation, the being-towards-death does not belong to the future as such since it is understood as something more fundamental than the causal temporal chain itself.

If one accepts the idea that the anticipation-driven authentic being falls out of everyday causal temporality, there is a reason to also suggest that both being-towards-death and Event are rooted in a futurity which cannot be derived from present. If this is the case, the following question arises: from where to where does authentic time flow? Heidegger would probably claim the time to be flowing from future, although there is a sufficient reason to distinguish between two types of future: the future of everyday *Dasein* thought and the future of authentic anticipating being of *Dasein*. Since *Dasein* is understood by Heidegger not only as being-towards-death but also as finding itself within the world, *Dasein's* being has a certain historicity to it. For Heidegger, "Only in so far as Dasein *is* as an 'I-*am*-as-having-been', can Dasein come towards itself futurally in such a way that it comes *back*." (Heidegger 2001: 373). To anticipate my own primordial possibility means to turn to the source from which my being stems from. Therefore, every time I turn to the future, I must deal with something which has always already been there. The relation between future and historicity is crucial not only to Heidegger, but also to Derrida's discourse on spectrality and Benjamin's

discourse on the course of history. The hypothesis we will be further testing is that in order to conceptualize future-oriented being, a distinction between interior temporality and exterior historicity proves to be invalid. As it will be shortly showcased by reading Derrida, Baudrillard, and Benjamin, if consciousness in the world is seen as being both historic and anticipating, a new paradigm of non-causal temporality becomes necessary.

Following Fukuyama's claim, Baudrillard announces the need to speak not as much about the end of history as of the turning around of the modernity. Since every historical event throws us back to the starting point, it becomes impossible to speak of any future: "We are faced with a paradoxical process of reversal, a reversive effect of modernity which, having reached its speculative limit and extrapolated all its virtual developments, is disintegrating into its simple elements in a catastrophic process of recurrence and turbulence." (Baudrillard 1994: 10-11) Baudrillard seems to be holding that event is what it is precisely because it can never be turned around and is always escaping our attempts at interpreting it. In this regard, Baudrillard remains close to Badiou's discourse even though the latter is more optimistic regarding the possibility of the Event to come. Whereas for Baudrillard, the main obstacle for the event to come is the temporal discrepancy which marks contemporary flow of history: according to the thinker,

> War, history, reality and passion – deterrence plays part in all these. It causes strange events to take place (!), events which do not in any way advance history, but rather run it backwards, back along the opposite slope, unintelligible to our historical sense (only things which move in the direction of history [*le sens de l'histoire*] have historical meaning [*sens historique*]), events which no longer have a negative (progressive, critical or revolutionary) potency since *their only negativity is in the fact of their not taking place*. (Baudrillard 1994: 17)

A change in ontological structure of the real becomes a main obstacle for the event to arrive as well as for history to evolve. Instead of being based on beings and events that are *here and now*, the real is constructed as a narrative. According to Derrida, such a narrative is based on the event that never happened, "an event of which one can only speak, an event whose advent remains an invention of men (in all the senses of the word 'invention'), or which, more precisely, remains to be invented." (Derrida 2007: 394). Therefore, a parallel between Heidegger's inauthentic *Das Man* and Baudrillard-Derrida's narrative real can be drawn. In both cases we are dealing with overflow of information which results not only in insignificant discourses in everyday life but is threatening to replace the real itself. In other words, the

world described by the French thinkers is devoid of possibility to face authentic being and authentic temporality. Despite that, nostalgia for novelty as well as expectation of an event remain as strong as ever; what is more, they take the main role on the stage of the real.

One could ask what is left from a future oriented notion of event after the removal of the linear understanding of history. If we follow the pessimistic narrative of Baudrillard, we will be faced with the necessity to grasp the illusory character of the real which is more likely to be described as atemporal (non)being. As stated by Baudrillard, "We are no longer haunted by the spectre of communism, nor even by that of power, now the aristocratic illusion of the origin and the democratic illusion of the end are increasingly receding, we no longer have the choice of advancing, of preserving in the present destruction, or of retreating – but only of facing up to this radical illusion." (Baudrillard 1994: 122-123) Since the French thinker does not provide any more detailed account on the possibility of realization of such a face-off, we will continue the chapter by drafting the strategy for such a theoretical and practical act. For this reason, one ought to rethink the linear understanding of history by re-actualizing it in the perspective of the eternal return. Our hypothesis is that future comes back through repetition which opens a possibility of authentic temporality.

When discussing the illusionary character of the idea of an end as well as the impossibility of the event, Baudrillard contextualizes both concepts within a perspective of messianism. He claims that "Messianic hope was based on the *reality* of the Apocalypse" which itself is no more real than the theory of Big Bang, and, therefore, should be thought of not as real but as virtual (Baudrillard 1994: 119). Such virtuality has nothing to do with future. If we followed the line of thought by Bergson and Deleuze, virtuality should be viewed as situated on the same level as present: already being *here and now*, it does never need to become real in the future. But if one agrees on treating nowadays' temporality as well as the notion of historicity as under the influence of virtuality operating *here and now*, messianism cannot be longer viewed as being able to enter a relevant relationship with today's real. Does that mean that messianism is necessarily connected to the idea of apocalyptic end which is based on linear temporal causality?

Derrida's answer would be negative. According to him, messianicity does not depend on linear understating of common historic time – on the contrary, it is the very condition of the possibility of history. "Messianicity (which I regard as a universal structure of experience, and which cannot be reduced to religious messianism of any stripe) is anything but Utopian: it refers, in every here-now, to the coming of an eminently real, concrete event, that is, to the

most irreducible heterogeneous otherness." (Derrida 1999: 248) As noticed by Hoy, messianicity in Derrida's thinking is prior to the history of philosophy and is rooted in temporality which constitutes history's condition of possibility (Hoy 2008: 270). The already discussed dual notion of the future should be born in mind here: both utopianism and messianism belong to the notion of future which can be reduced to a narrative and which has preserved a causal temporal structure. Messianicity, on the other hand, serves as a fundament for temporality and historicity and gives way to open, unpredictable, and irrepresentable future. Such future is capable to tear the given structures of the real and open possibilities for novelty and change.

The messianicity discussed differs from religious messianism not in what is expected (in both cases it is an event) but in within what kind of temporality the expectation unfolds. Even though in both cases the expectant is thrown outside of the linear structure of time, only Derridean messianicity can tear the said linear temporal structure. Justice described by Derrida is not unilateral with the arrival of the messiah in Christianity precisely because justice is not supposed to start a new time but to tear the lived time without presupposing a beginning of a new era. According to the thinker, the eschatological dimension of justice is inevitably connected to the future as what is to come and such future "*is not present*, but *there is* an opening onto it" (Derrida 2002: 20). Justice as promise in Derrida's thinking always works by deferring: the event of justice is postponed but not because it is not yet time for it come but because being postponed is its essence. If event is understood as something ultimately postponed, any optimistic scenario of novelty in the realm of politics, art, or any other field should be postponed as well. Moreover, there is a danger of achieving an opposite result to the expected one if the notion of event is applied to certain fields. For instance, if applied to the field of ethics, the discourse of the event to come risks hypnotizing the consciousness with the narrative about a certain future without being able to provide any means to make it actual or to mobilize the consciousness for any act whatsoever.

Nevertheless, the relationship between eternal return and event should not be viewed as an opposition, on the contrary, by returning, event (or to be more precise, its expectation) brings novelty. The reason for that is the following: when considered together, eternal return and event preserve a linear structure of time, instead of engaging into a cyclic mode of temporality which could risk complicating the emergence of novelty. Yet there is a fundamental difference between the linear organization of the returning event and the causal development of time. Such a difference can be conceptualized with the help of Benjamin's figure of the angel of history. Benjamin bought Paul Klee's painting *Angelus Novus* in 1921 and has kept it in his Paris home since.

In 1940, while fleeing the German occupied city, Benjamin passed the painting onto George Bataille who hid it together with his friend's documents in the National Library. Shortly after war, the painting was passed onto Adorno who transported it to New York and then to Frankfurt. Today the painting is kept in Museum of Israel in Jerusalem. This is how Benjamin describes the angel depicted in Klee's painting:

> A Klee painting named "Angelus Novus" shows an angel looking as though he is about to move away from something he is fixedly contemplating. His eyes are staring, his mouth is open, his wings are spread. This is how one pictures the angel of history. His face is turned toward the past. Where we perceive a chain of events, he sees one single catastrophe which keeps piling wreckage upon wreckage and hurls it in front of his feet. The angel would like to stay, awaken the dead, and make whole what has been smashed. But a storm is blowing from Paradise; it has got caught in his wings with such violence that the angel can no longer close them. This storm irresistibly propels him into future to which his back is turned, while the pile of debris before him grows skyward. This storm is what we call progress. (Benjamin 2007: 257-258)

The main point of distinguishing the described linear movement from the causal temporality is the blindness of the moving one. The angel described by Benjamin has his back to the direction he is moving to. Moreover, the angel moves towards the future not by his inner force but under the effect of a very strong wind – an outside force. Even if the angel "is turned toward the past", (s)he is carried by wind that blows from tomorrow. A tension between two opposite directions can be interpreted as resulting from a fundamental ontological difference: the ruins of the past left behind (or, rather, in front of, since (s)he is always facing the past) by the angel of history belong to a different ontological realm than the mover of history – heaven. There is no direct contact between the angel and the source of the wind of progress: the angel is turned away from heaven and we, observers, cannot tell if the angel has left heaven or is moving towards it in a spiral that brings together the beginning and the end. According to Hoy, Benjamin's metaphor speaks of the impossibility to see where we are going – forward or backwards. That is because the path of history is never marked with any road signs that would signal of an increasing freedom (Hoy 2008: 269). Not seeing the future, we can only speculate about its content, moreover, moving with our backs first throws off any feeling of direction, and the idea of history as moving in one and single direction becomes less evident. Lastly, the past which is left behind (or, rather, in front) of the angel of history appears to be insufficient in and for itself, since the very movement of history is initiated by a force that falls out

of a causal chain of past-present-future. As shown by Benjamin reading Klee, the essence of history as well as temporality itself is not temporal.

Nevertheless, history falling between such ontologically foreign plateaus as heaven-genesis and future-end does not result in a complete loss of track. In late Heidegger, distancing oneself from God makes it possible to pose a question on the truth of being, "about the event itself, from which all future history arises, provided there will still be history" (Heidegger 2012: 21). In the same way, distancing oneself from the future allows to turn towards a temporal mode of being which would exceed the frame of narratives about tomorrow. In a paradoxical way, negativity, which results from the future never becoming actual, turns out to be productive as a possibility of novelty in the given ontological structure. The future that never comes raises a question of contingency as well as urges to rethink the notion of novelty and creativity.

As already showcased, in discussing future as event, a few problematic aspects arise. While paying a special attention to negativity in being towards the future, both Heidegger and Badiou base their discourses on the notion of rupture. And even though both thinkers exploit the anticipatory narrative, neither develops a discourse on future itself since both philosophers understand event as grounding temporality instead of constituting a part of it. Baudrillard and Derrida's discourses on nostalgia for novelty and expectation of event create a precedent of rethinking the linear flow of time, which is successfully done by Benjamin interpreting Klee. And yet, neither disjointed temporality, nor eternal return as return of the new do not allow to grasp the essence of the future, let alone to represent it. For the most part, the question of the future remains chained to the past and present modes of the real.

For the most problematic aspects of representational temporality to be indicated, the notion of representation should be defined. One would think that the father of phenomenology (if not the only representative of it[7]) Edmund Husserl could provide us with a clear definition. Unfortunately, the situation is quite the opposite. In his investigations on the consciousness of internal time dating from 1893 to 1917, Husserl repeatedly employs the notion of

[7] "[…] phenomenology has become so diffused that its methodology seems no longer relevant to its practice. […] In this respect phenomenology began and ended with Husserl" (Sparrow 2014, 12). Exposing phenomenology's lack of rigor regarding its method as well as its failure in getting to the things themselves, Tom Sparrow points out the way for the philosophy of the living dead to renew and transform. According to him, phenomenology has a future as an antirealist stance (Sparrow 2014, 13). In this research, we would prefer to perform an *epoché* on the question of the future of phenomenology.

representation in a sense of reproduction as secondary memory which he views as taking part in the constitution of temporality and intentionality of consciousness (Husserl 1991, 52-54). An additional layer to the Husserlian notion of representation is added when he engages in a discussion of a relation between presentation and representation. In Husserl's *Logical Investigations*, representation is no longer viewed only in relation to secondary memory and in opposition to primary memory. Husserl makes it clear that presentation is always accompanied by representation; moreover, representation lies at the basis of presentation: presentation as an objectifying act includes representation which ensures "the differing mode of relation of an act to its objects" (Husserl 2006: 245). Therefore, representation is inevitable whenever intentionality of consciousness is involved regardless its temporal mode – be it actual apprehension, primary memory, or secondary memory.

Once the consideration of representation surpasses the realm of temporal consciousness, the interrelation of presentation and representation grows into the tension between the real and the represented. The tension applies to such domains as the relation among different paradigms of science, the distinction between speech and writing, as well as the relation of an art piece to the real. In order to disclose the temporality proper to the logic and the ontology of representation, a question of what exactly the prefix *re-* adds to what is presented must be raised. This necessitates turning again to Derrida's *hauntology* as the point of departure for our analysis. In *Specters of Marx* Derrida's discourse revolves around the opening lines of *The Communist Manifesto*, where Karl Marx and Frederick Engels write about the specter of Communism haunting Europe. While constituting what seems to be essential to the history (and consequently, to the fate) of Europe, the haunting specter lacks any kind of determinacy that would allow it to maintain its position as (onto)logically central. Neither entirely past nor fully present, the specter exists by haunting, that is, it is present by being represented. We shall let Derrida speak himself:

> First suggestion: haunting is historical, to be sure, but it is not *dated*, it is never docilely given a date in the chain of presents, day after day, according to the instituted order of a calendar. Untimely, it does not come to, it does not happen to, it does not befall, one day, Europe, as if the latter, at a certain moment of its history, had begun to suffer from a certain evil, to let itself be inhabited in its inside, that is, haunted by a foreign guest. Not that the guest is any less a stranger for having always occupied the domesticity of Europe. But there was no inside, there was nothing inside before it. (Derrida 2006: 3)

The one who returns (*le revenant*) is always repeating itself, which means its mode of being is never plain presence but folded representation. We cannot say that specter *is* nor can we claim it to *have been* because it is not actuality but virtuality where it belongs. As showcased by Derrida, specter constitutes the tension between inside and outside, here and there, now and then. This leads to a conclusion that every presence is haunted since representation is essential for every presentation. This in no way means that presentation and representation are identical. On the contrary, the difference between presence and representation is precisely where the temporal dialectics of returning and renewal is put into play which calls for a certain level of mediation – artistic, discursive, or symbolic. According to Sabolius, Derrida's notion of haunting has nothing mystical and instead should be understood "as past's intervention in the present" while spectrality ought to be read as "a constantly recurring and therefore temporally spectral existence that withholds the past manisfesting as a ceaseless expansion of fictions the layers of which cover the unreachable level of 'real existence'." (Sabolius 2016: 71) As the very notion of representation suggests, it is either past (prefix *re-*) or present (*præsens*) mode of temporality we are dealing here with. These two temporal modes are exactly how the ontological question of representation has been dealt with by phenomenologically oriented thinkers up to now.

The reductionist character of representation's temporality is best exemplified by the thinking of Kant and its critique proposed by Meillassoux which has been already discussed in the first part of the research. To recapitulate, the overall scope of Kant's project, summed up by Meillassoux's term *correlationism*, is based on a thinking that we can only access to the things as they are given *to us* and not as they are *for* and *in* themselves. Consequently, the domains of non-human real, unobserved reality, and atemporal phenomena stretch way further than a phenomenological orientation of thought would allow. Yes, consciousness is temporal but what about things – are they also temporal given that their mode of being is not defined by their being-in-relation-to-consciousness? One might be tempted to disavow the phenomenological tension between the consciousness and its object in a similar manner to Stiegler's approach. By claiming both the objects of the real and the consciousness to be technological and therefore temporal (and not vice versa!), Stiegler arrives at a new definition of a phenomenon which does not rely so heavily on the correlation between consciousness and the real: "As for phenomenon as phenomenon – above all else as the separation of the *who* and the *what*, all objectivization of the *who* and all subjectivization of the *what* <…> is techno-logical différance" (Stiegler 2009b: 28). Such *différance* is perceived by the French thinker as a co-

possibility of both the *who* and the *what* (Stiegler 1998: 141). Surely, such redefinition of a phenomenon is arrived at ontologizing the object of consciousness which is diametrically opposite to how Meillassoux's argument is being constructed. According to Hallward, Meillassoux treats correlationism as an epistemological theory (Hallward 2011: 137), while Sparrow thinks such a view is underestimating the aspiration of phenomenology which "takes itself to be advancing an ontological program" (Sparrow 2014: 107). Yet even if phenomenology in its classical, Husserlian form, is treated as an ontological theory, the ontology proposed by it remains within the framework of the presence and appears to be incapable of grasping the not-yet-existent real in a non-correlative way. And this is precisely why it is worth turning to the concept of disjointed time in Deleuze and Derrida's thought with the hope of building a base for an ontology of the future which would escape the trickery of representational thinking and, after being tweaked by the ideas of Meillassoux and Stiegler, would present itself as a fresh, content-full ontology.

2.2. Disjointed Temporality in Deleuze and Derrida

In this chapter, the concept of disjointed temporality is crystalized by reading the main treatises of Deleuze and Derrida who both employ the Shakespearean metaphor of *time is out of joint* to describe a particular mode of futurity. After having coined the term of disjointed temporality and having extrapolated the main features of it, we will move on to applying the concept to the projects of Stiegler and Meillassoux in order to formulate their stance regarding future ontology. One should begin by clarifying that the saying *time is out of joint* stems from William Shakespeare's *Hamlet* when at the end of Act 1, Hamlet is confronted by his father's ghost calling to revenge for his death. Soon after meeting the Ghost, Hamlet utters the famous passage:

Ghost. [*Beneath*] Swear. [*They swear.*]
Hamlet. Rest, rest, perturbèd spirit. So, gentlemen,
With all my love I do commend me° to you,
And what so poor a man as Hamlet is
May do t' express his love and friending to you,
God willing, shall not lack. Let us go in together,
And still your fingers on your lips, I pray.
The time is out of joint. O cursèd spite,
That ever I was born to set it right!
Nay, come, let's go together. *Exeunt.* (Shakespeare 2006: 128)

There have been multiple attempts at interpreting the disjointed time as well as the appearance of the ghost in the play, and most of them agree on a multilayered reading of this text passage. The layer that is the most straightforward speaks of revenge that is called upon Hamlet from the outer world. Yet as notices Cantor, since the figure calling for revenge "is at one and the same time a pagan and a Christian", it leads to redefinition of revenge as "a Christian revaluation of values in the exact Nietzschean sense" (Cantor 2004: 29-30). Even though such interpreters as Cantor and Milward (2006) tend to stress the tragic situation of being tortured between multiple solutions, neither of them relates the ghostly appearance to the specific temporality Hamlet seems to fall in. Therefore, the readings of Yang and Craig seem to have more layers of interpretation, since both researchers tackle the unusual temporality that is opened by the appearance of the revenant. In his 2009 article Young is exploring the cognitive scope of Shakespeare's *Hamlet* and concludes his investigation by stating that "The political chronicle is out of joint because of his [Hamlet's] father's unnatural death, since for Hamlet time is linked by the continuation of his father's body – part of his memories" (Yang 2009: 79). In a similar manner, Craig tends to see the relation between the appearance of the Ghost and the disjointed time on a more general – in this case, philosophical – level. According to him, "Hamlet realizes that the status of this Ghost itself presents a problem itself reflective of the time being out of joint: there is simply no unproblematic understanding to be had of it, any more than of reality as a whole, no sure intellectual architecture wherein and whereby to orient oneself" (Craig 2014: 187-188). The epistemological and ontological shift captured by Shakespeare in *Hamlet* becomes a focus of the metaphor re-employed by Derrida and Deleuze. Yet the context in which Derrida and Deleuze turn towards the Shakespearean metaphor is different both in the level of elaboration and in the vastness of the area it is applied to.

For Derrida, the question of disjointed time becomes relevant when he rethinks the destiny of Marxism in his book *Specters of Marx*. The choice of the metaphor as a starting point for the discourse in Derrida's book seems well premeditated. Not only the image of disjointed time but also the figure of the ghost of Hamlet's father, which is analyzed in detail by Derrida, are crucial for extrapolating the metaphor of the specter, which later is turned into a Derridean philosopheme. In the thinking of Derrida, the untranslatable metaphor is unveiled in multiple dimensions: it has something to do with the dismantling of the causal temporal chain of past-present-future as well as the historical continuity. Referring to the difficulties that arise in translating the multilayered sense of the English expression, Derrida notes that "Time: it is

le temps, but also *l'histoire,* and it is *le monde*, time, history, world" (Derrida 2006: 21). Therefore, the disjunction of time means not only a subverted temporality but at the same time a rupture in history and a crucial change in the structure of the world. With the appearance of the specter, order and causality become victims of the temporal disjunction performed as a disclosure of the spectral moment as necessarily grounding both. As showcased by Derrida, a specter is a certain type of being that resides between *here and now* and *there and then*, bringing some serious ethical challenges to the living: how one brings justice to the unfairly hurt now, when it is too late to turn the flow of time and yet when the specters of the unjustly hurt are very much present and demanding justice? In this context, the very question of the future becomes problematic: "Without this non-contemporaneity with itself of the living present, without that which secretly unhinges it, without this responsibility and this respect for justice concerning those who are not there, of those who are no longer or who are not yet present and living, what sense would there be to ask the question 'where?' 'where tomorrow?' 'whither?'" (Derrida 2006: xviii). Here Derridean stance falls within the problematics that theoretical thought as well as cultural practice faced after the atrocities of World War II and can be situated along the line of Adorno's famous claim that "To write poetry after Auschwitz is barbaric" (Adorno 1997: 34).

Yet Derrida's concept of spectrality brings more hope than the sheer cry of helplessness in the face of the horrors one cannot undo. By coming back, by being not just a ghost but a revenant, the one who returns, specter acts as a time-binding force, potentially resulting in creating a time and space for a change. 1993, the year when *Specters of Marx* are published, can be viewed as *post*-being: after the collapse of Soviet Union, any politics, social order, and reordering, as well as intellectual and cultural life which are to come can only be viewed as following the significant turn in the world's history. Fukuyama's statement about the end of history leaves no hope for *tabula rasa* situation since the Heideggerian self-finding in the world is still relevant.

Dasein's facticity is such that its Being-in-the-world has always dispersed [*zerstreut*] itself or even split itself up into definite ways of Being-in. The multiplicity of these is indicated by the following examples: having to do with something, producing something, attending to something and looking after it, making use of something, giving something up and letting it go, undertaking, accomplishing, evincing, interrogating, considering, discussing, determining… (Heidegger 2001: 83) In other words, one always finds themselves within a relation to something and somebody, and, as showcased by Heidegger and other thinkers we will come back to, any intra-worldly

relation is temporal (both in a sense of "not lasting forever" and "having a specific temporality").

No matter how radical the rupture of *post-* situation is, it still predefines contextual horizon and preconditions the mode and the direction of our agitation. Yet the end of history and the return of the ghost are different from the situation of the Heideggerian *Dasein*. For Heidegger, the past is something that catalyzes and directs action as a projective mode of being, whereas the temporal direction in Derrida's thinking is more difficult to identify. French philosopher notices that the spectral time distorts the linear dialectics of beginning and end precisely because every specter has its beginning and ending intertwined: "A question of repetition: a specter is always a *revenant.* One cannot control its comings and goings because it begins by coming back." (Derrida 2006: 11). Disjointed time in Derrida's thinking appears to be a process of disruption of the causal temporal chain where the moment of radical past is always presupposed but never actually given as presence. To put it bluntly, the question is the following: has Marxism ever been actual? No. Yet it is something past, something that is haunting us without ever having been fully present.

By contrast, Deleuze in his *Kant's Critical Philosophy* turns to the Shakespearean *time is out of joint* seemingly by accident, just in order to illustrate the peculiarity of the Kantian project. Deleuze indicates that when Kant showed the fact that time is not measured by movement and that things are more likely to be otherwise, it became clear that everything changes, including the movement: "Time is no longer related to the movement which it measures, but movement is related to the time which conditions it: this is the first great Kantian reversal in the *Critique of Pure Reason*." (Deleuze 1984: vii). While discussing Kant's Copernican revolution, Deleuze makes a remark that not consciousness, interiority or transcendental dimension are to be viewed as central pieces of Kant's system but the very act of reversal of the time and movement relation. The disjointed time for Deleuze means the pure flow which is independent of space or movement and thus is not limited by any ruptures, since both limit and rupture are primarily spatial categories.

Therefore, the metaphor of disjointed time plays a different role for Derrida and Deleuze. In Derrida's thinking, the disjointed time refers to rupture which is grounding the temporal chain whereas in Deleuze it is viewed as a pure flow that overcomes spatially organized chain of past-present-future. Nevertheless, there are two moments of reciprocity: a) the impossibility of conceptualization and representation of the disjointed time; b) the disjointed time is viewed as falling out of the temporal chain by grounding it.

The falling out of causal temporality opens a possibility of re-thinking the status of the future, and, most importantly, its potential of bringing change and novelty. But to approach Derrida and Deleuze's notions of *avenir*, we inevitably must deal with their notions of difference. In the following passages, Derridean *différance* is discussed alongside Deleuzian difference by showcasing the former as the difference for oneself and for the other (*pour soi et pour autre*) and the latter as the difference in itself (*en soi*).

For Derrida, *différance* does not exist and is not an entity. The thinker proposes to use the verb "is" in parentheses when talking about *différance* to mark the impossibility of defining negative existence which he himself associates with the discourse of negative theology. According to Derrida, "Already we had to note *that* différance *is not,* does not exist, and is not any sort of being-present *(on).* And we will have to point out everything *that* it *is not,* and, consequently, that it has neither existence nor essence. It belongs to no category of being, present or absent." (Derrida 1973: 134). Located in the ontological gap between being and nothingness, *différance* balances between something process-like and something result-like, between what is given and what grounds the given. It is crucial to stress that being itself undefined, *différance* makes every definition possible because, as stated by Derrida himself, *différance* is a necessary interval between the entity and what it is not. Here we can easily recognize transcendental mode of speaking which is radicalized by Derrida in his notion of trace – something that is neither a result nor a reason since there is no entity which could have left the trace. When he talks about the primacy of difference before identity, Derrida views trace as the absolute origin of sense.

What is of an extreme importance in this context is that the Derridean groundlessness is always unveiled through mediation. It is enough to recall how Derrida explains the composition of the word *différance* in order to grasp its paradoxical ontological status as being both negative and mediated. In French, the suffix *-ant-* indicates an act in process while the suffix *-ence-* is normally used to form nouns derived from verbs. By merging both suffixes together into *-ance-*, Derrida conjoins both meanings into a dialectical movement between process and result. In this regard, Derrida's *différance* is to be viewed as relational and mediated difference-for-itself.

Moreover, the notion of *différance* includes a moment of otherness. *Différance*, unlike being and non-being, is the Other of the ontology which is absolutely different from identity-based classical ontology and only possible to be defined by it. Yet the otherness in Derrida's thinking does not mean any kind of pure transcendence; its structure can be named „transcendence within immanence." In a sense, both deconstruction and *différance* are discovered

too late regarding the presence and givenness. Besides, it appears that *différance* affects presence not as something logically or temporally more fundamental (not as something transcendent to it) but as a transcendental principle which constitutes the conditions of possibility of being.

Unlike Derridean *différance*, which is related to the domain of trace of meaning and language, Deleuzian difference does not only structure the fields of sense but also constitutes a mode of actualizing the virtual real. Deleuze's take on repetition resembles Derridean discourse on trace since both claim that there is no first element that is to be repeated. Yet here Deleuze is closer to what we may call vitalist thinking since he tends to describe repetition using psychoanalytical vocabulary. For Deleuze, repetition is the subconsciousness of the concept, the knowledge, or the memory, in other words, repetition is the subconscious of representation: "When the consciousness of knowledge or the working through of memory is missing, the knowledge in itself is only the repetition of its object: it is *played*, that is to say repeated, enacted instead of being known. Repetition here appears as the unconscious of the free concept, of knowledge or of memory, the unconscious of representation." (Deleuze 1995: 14). This dimension of the subconsciousness to which Deleuze refers is anything but lacking content. On the contrary – it is overflown with sense that is to be actualized in determined entities and situations having in mind that an actualization by repetition, in other words, a re-actualization, always entails a temporal disjuncture. In other words, difference as repetition is first and foremost an ontological statement that difference and not identity comes first, yet by posing such a statement, Deleuze conjoins the problem of disjointed temporality with the ontological problematic of what there is.

It is important to recall that Deleuze makes a distinction between the difference of objects and the internal difference: the former is viewed by him as superfluous and negative – a claim that is grounded on Deleuze's conviction that the essence of difference is always positive and affirmative. In his discussion on Hegel's principle of dialectics, Deleuze deliberately stresses the positivity of the dialectical process, thus continuing the line of the readings by his predecessors Kojève and Hyppolite[8], for whom *Aufhebung* constitutes the

[8] For Kojève, the main difference between Hegelian Nature and History resides in their openness for novelty: "Only Man's *future* would then be given over to skepticism and faith (that is, to the certainty of hope, in Saint Paul's expression): since it is a 'dialectical' – i.e., creative or free – process, History is essentially unforeseeable, in contrast to 'identical' Nature" (Kojève 1969: 214). Hyppolite also chooses a reading of Hegel that prioritizes openness of the system by claiming that the force driving the change of future and past is an eternal temporality which he calls a "perpetual movement" (Hyppolite 1953: 5).

core of Hegelian processualism and both of whom see Hegelian system as an open one. As if correcting Hegel himself, Deleuze concludes that "Difference is the true content of the thesis, the persistence of the thesis. The negative and negativity do not even capture the phenomenon of difference, only the phantom or the epiphenomenon. The whole of Phenomenology is an epiphenomenology." (Deleuze 1995: 52) For Deleuze, *the same* never returns in repetition; instead, sense is re-actualized as well as a niche for novelty and creativity to emerge is formed. On the other hand, what Deleuze views as the most ontologically important in the chain of repetition is not the rupture that differentiates one moment from the other but rather the plenitude of the continuity. This is exactly why the difference through repetition for Deleuze emerges not in relation to entities but in-itself. We should note that Derridean *différance* also escapes any kind of identity determination but unlike in the case of Deleuzian difference, the ontological groundlessness of *différance* allows to view it neither as self-sustaining nor as depending on anything.

For both Derrida and Deleuze the future as what-is-to-come does not result from the present that gradually becomes past. By deconstructing the idea of presence that tends to dominate both metaphysical and phenomenological thinking, Derrida and Deleuze replace the forward-directed notion of future with a notion of futurity that never comes. For Derrida, the disjointed time *cannot come* while for Deleuze, the *avenir has already come* virtually. With the futurity not *existing*, the modes of the present and the past come to the first plan for both thinkers yet in a very different way.

Derrida accomplishes the transformation of presence by conjoining two moments: the disjunction of the temporal chain and the "logic" of *différance*. In *Specters of Marx*, Derrida brings forward the aspect of *différance* which is less elaborated in his other texts: *différance* means not only postponement or delay but also unveils itself as a non-reducible rupture *here and now* in the form of a promise of the yet-to-come. As described by Derrida, *différance* "even if it moves toward what remains to come, there is the pledge [gage] (promise, engagement, injunction and response to the injunction, and so forth)." (Derrida 2006: 37) The unveiling of the promise is different from the phenomenologically given nowness because in the case of the latter, *here and now* is understood as given and presented in their entirety, whereas Derrida showcases that *here and now* can only be possible: they have to preserve their mode of *perhaps* in order to remain a demand. If no demand and no promise are given, there is no way something is ever to come as *avenir*. Yet as long as demand remains unfulfilled and promise is not actualized, *avenir* has not come yet. And respectively, since the essence of demand is comprised in its lack of

fulfillment and the essence of promise resides in its not-yet-being-actual, *avenir* not only has not come yet but it cannot come at all.

What is more, the ontological status of what-is-to-come is problematized by relating it to spectrality. As stated by Derrida, *avenir*, as well as past, is only for specters: "The question is indeed 'whither?' Not only whence comes the ghost but first of all is it going to come back? Is it not already beginning to arrive and where is it going? What of the future? The future can only be for ghosts. And the past." (Derrida 2006: 45). The relation between *avenir* which is never to be actualized and the present is rendered possible by the retentional aspect of spectrality, that is, by its being *always already there*. In this regard, even though *différance* is not to be reduced to the postponement, it is postponement from where a structure of spectral future as a promise emerges. In *Of Grammatology*, Derrida states that arche-writing as spatial exteriorization marks *dead time* within the lived presence of the present: "Arche-writing as spacing cannot occur *as such* within the phenomenological experience of a *presence*. It marks *the dead time* within the presence of the living present, within the general form of all presence." (Derrida 1998: 68). This phrase is the key to unlocking the understanding of spectrality as well as that of *avenir* which is not coming. We should read this in the context of Heideggerian intra-worldliness: *Dasein* finds itself within the world which not only constitutes a background for the personal temporal scale to emerge but also forms an expansion of my own temporality to the temporal experience that has not been lived by me and was not given to me as an actual one, yet takes part in constituting my own temporality. By relying on Heidegger's conceptual scheme of *Dasein* and the Derridean notion of a trace, Stiegler understands dead time, or to use his own terminology, tertiary retention as a system that relates to technics. The scope of objects and/or phenomena falling under this category encompasses everything from language to everyday tools. What must be noted though is that when he talks about Derrida's notion of arche-writing, Stiegler makes sure to emphasize its irreducibility to technics. According to Stiegler, we can talk about arche-writing as a sort of quasi-transcendentalism. This *quasi-* can be explained in a twofold manner: 1) there is no origin; 2) supplement is always already materialized yet never simply material (Stiegler 2001: 254). Although Stiegler praises Derrida for putting forward the idea of *inventing* in the place of *resisting* (Stiegler 2018: 254), his own project demonstrates the necessity to (re)think the technological element of *différance* which, according to Stiegler, opens up "a new era of noesis: the Neganthropocene" (*ibid*).

As in Derrida, where specter is not something that has been actual before, Deleuze's eternal return is not a moment that comes after any kind of temporal

moment. It is worth noting that the idea of eternal return has its roots in Friedrich Nietzsche's thought which has been a significant influence on Deleuze. As stated by Deleuze, Nietzschean eternal return is always there (*déjà présent*) in every metamorphosis, which renders it simultaneous with what returns since it "relates to a world of differences implicated one in the other, to a complicated, properly chaotic world *without identity*" (Deleuze 1995: 57). An important distinction is to be made regarding the being in a present mode. For Deleuze, simultaneity and presence are different in a sense that in the mode of presence everything is given actually whereas the eternal return resides in the virtual dimension. This means that we can only experience presence while virtual temporality can only manifest itself through actualizations by narrowing down its ontological content. Within Deleuze's system, actuality has always a dimension of surplus where both what has passed and what is actual are represented. Such a stance is exemplified by the philosopher's take on active synthesis, which he sees as comprised from simultaneous correlatives: "Active synthesis, therefore, has two correlative – albeit non-symmetrical – aspects: reproduction and reflection, remembrance and recognition, memory and understanding." (Deleuze 1995: 80) Instead of relying on a linear temporal structure of cognition, where past precedes present which is then succeeded by future, Deleuze dismantles the temporal chain based on causality in order to showcase an ultimately dense cognitive and ontological reality where past, present, and future modes are intertwined. The French philosopher distinguishes four Bergsonian paradoxes that are integrated into his own project: 1) paradox of leap – past is understood not on epistemological or phenomenological level, but ontologically; 2) paradox of being – there is an ontological difference between present and past; 3) paradox of simultaneity – past does not emerge from present, instead, they are simultaneous; 4) paradox of physical repetition – all past exists within present as its integral part (Deleuze 1997: 57). This can be achieved by introducing a notion of virtuality which is granted reality without being ever actual. For both Deleuze, as well as for Bergson, whose notion of pure memory Deleuze integrates into his own project, virtuality not only constitutes the fundament of presence but renders any temporal sequence as such possible.

An important observation must be made: Deleuze's discourse on the eternal return is also where he again turns to the Shakespearean metaphor of the disjointed time. The problem Deleuze is dealing with in his *Difference and Repetition* is that of how representational structures encompass and reduce the ontological difference to the analogic understanding of the being: the difference finds itself to be trapped between a priori categories and empirical notions; genus and species; etc. According to Deleuze, one of the prevalent

illusions regarding difference consists in reducing it to the analogy of judgement: "This distribution of difference in a manner entirely dependent upon the requirements of representation essentially belongs within the analogical vision of the world" which betrays both "the nature of Being <…> and the nature of the distributions themselves <…>, as well as the nature of difference." (Deleuze 1995: 269) By discussing the ways of introducing ontological difference into the scheme of the transcendental illusion of representation, Deleuze turns towards the already mentioned purity of the disjointed temporality. The repetition that brings the real ontological difference, as demonstrated by Deleuze, is brought only by the third mode of temporality – the future – which not only constitutes a place where a decision is born but also eliminates any cyclic interpretations of time by reshaping it into a line, by putting time out of its joints. This is why, according to Deleuze, eternal return as repetition is possible only in this third time which grounds the possibility of the other two modes of temporality: "The expulsive and selective force of the eternal return, its centrifugal force, consists of distributing repetition among the three times of the pseudo-cycle, but also ensuring that the first two repetitions do not return, that they occur only once and for all, and that only the third repetition which turns upon itself returns for all times, for eternity." (Deleuze 1995: 297) The openness of the future for Deleuze appears to be radical in at least two aspects: 1) the third time is conceived as the most purified form of temporality which is irreducible to present ontological forms and given understandings; 2) the radically open *avenir* grounds the very possibility of the actually given modes of temporality, that is, of presence and past. The two aspects of *avenir* – radical openness and being a *Grund* – taken together result in an extremely dynamic understanding of the real which is driven by the pure form of irreducible and unpredictable productivity. Thus, Deleuzian take on the eternal return results in reinterpreting the classic idea of *Ungrund* as not only a non-ground but also as an overflow of ungraspable and untamed being. In a sense, we are dealing here with a contingency without any necessity.

The relation between contingency and necessity is one of the major preoccupations of Meillassoux who has been already named a philosopher of time without becoming. Such name is being used to describe Meillassoux's thought since the release of his book co-authored with Anna Longo and entitled *Time without Becoming*. In her text, Longo makes a direct parallel between Meillassoux and Deleuze regarding their take on virtuality. According to her, "Deleuze's virtual, as an already given finite eternity, is the throw that affirms, in one gesture, all the diverging series of contradictory ramifications of chance. It is a becoming without time rather than time without

becoming." (Longo 2014: 49). Time without becoming for Meillassoux signifies the necessity of contingency and the Hyper-chaos which is grounding the real by constituting neither a static being nor a fluid becoming. This intermediate ontological domain between being and becoming can be understood as purely formal yet its formality, as well as productivity that stems from it, are diametrically opposite to the formality of Deleuzian eternal return. Time without becoming for Meillassoux is based on the formal principle of non-contradiction which ensures the necessity of contingency whereas if we apply the Longo's suggested notion of "becoming without time" to Deleuzian ontology, we will quickly realize how problematic it is. The eternal return, its groundless formality, and radical openness are conjoined in Deleuzian notion of virtuality which is always already given yet never fully actualized. It is true that the virtual domain is to be seen as always accompanying the actual one and ensuring a content-full actualization in the real. Nevertheless, we can hardly call this kind of virtuality a "finite eternity" as in Longo's commentary. Both finitude and eternity are highly problematic notions when used in the context of Deleuze. Deleuze would never agree with the idea that there is a finite number of things to be actualized since the domain of virtuality is not to be confused with the domain of possibility which is always already given both in quantity and quality and can be predicted before the actualization. Whereas the notion of "eternity" throws us back to a Platonic discourse on eternal Ideas in which all things take part in order to be real. This is an image that Deleuze, I believe, would like to escape since Platonism is one of the paradigmatic cases of reducing the being to a priori given structures and viewing the difference as stemming from the already given identities. The Deleuzian virtuality is neither finite nor infinite, neither temporal nor eternal. It is beyond the oppositional structures precisely because it produces them. While it is a debated question if Deleuze managed to escape correlationism (see Badiou 2000 and Brassier 2007), as it is understood by Meillassoux, i.e. as the presupposition that thought and reality are necessarily correlated, Bryant, Srnicek, and Harman have almost no doubts that Deleuzian project "was aimed at moving beyond the traditional Kantian limitations of continental thought" (Bryant et al. 2011: 5). In this aspect Deleuze and Meillassoux are similar in their ambition yet what renders their projects irreducibly different is their take on purity: for Deleuze, being pure means being content-full and productive whereas for Meillassoux what is pure is formal. This is why the latter ends up with a logical-mathematical principle of *Grund* and the former with the vitalist one. As Hallward points out, Meillassoux's insistence on the abstract logical possibility of change ends up in "the *absolute* disjunction of an event from existing situations" and therefore

renders such change impotent to alter the situations (Hallward 2011: 139). Although a valid point, Hallward's criticism overlooks significant drawbacks when it comes to thinking the open future as an event, as it has been showcased in the previous chapter.

Although there have been numerous critical approaches towards Deleuze and Derrida's philosophical legacy and its applicability to tackle contemporary theoretical and practical challenges[9], today is seeing the most vigorous challenging of their ideas. For instance, Bryant, Srnicek and Harman distinguish a few main characteristics of the thinkers belonging to the speculative turn:

1) Realization that anti-realist trend in continental philosophy is hardly equipped to face up to the challenges that arise in the wake of ecological catastrophe and increasing application of technology.
2) Turning to reality itself which would be independent of thought and of humanity.
3) Choosing the path of speculation as concern with the Absolute (Bryant et al. 2011: 3)

At the same time, Stiegler as well poetically summarizes the prevailing disappointment with the philosophy of the 20th century:

We, almost seventy years after *Dialectic of Enlightment*, and more than forty years after the publication of *Of Grammatology* and *Difference and Repetition*, wandering among the ruins of warring capitalism like shades in the shadow zones, have the impression that *nothing* has yet truly taken place in terms of thinking this regression and this unreason. We have come to believe (falsely) that these works and projects have ultimately come to nothing, have led to nothing, to nothing decisive, that nothing has been learned, that nothing good has been turned into 'action' by repetition, nor by acting from within repetition, that is, within différance. That nothing can be done to

[9] For instance, see de Fontenay (2012) and Wolfe (2012) on the question of animals and animal rights as well as Snaza (2015) attempting at marrying the contrary positions of the former. Even though both de Fontenay and Wolfe rely their discourses on reading Derrida, the latter sees human as another animal while the former strives at preserving the difference between them. Both arrive at complications when it comes to applying the philosophical discourse to political practice. On the same note, Deleuze and Guattari's notion of becoming-animal is often utilized as a recourse for thinking new forms of subjectivity in the epoch of the Anthropocene (Ruddick 2017) as well as their concept of the machine which appears to be fruitful when grasping the differences and similarities between Anthropocene and Capitalocene (Moore 2016). Despite the majorly favorable attitude towards Deleuzian legacy when it comes to the problematics of human relation to the nature, it does not provide a shield from the overall critique towards the idea of the Anthropocene in its application in arts, sciences and humanities (Demos 2017).

counteract this situation that leads to the self-destruction of reason, that is, to generalized disindividuation. (Stiegler 2015: 73).

Therefore, we chose to distinguish three limitations of the postmodern thinking that are most relevant to our research. First, there is a difficulty to represent the future if it is understood as an event; second, there is a need to expand the concept of archi-trace and archi-writing with a discourse on technicity in order to account for such contemporary phenomena as artificial intelligence, algorithm-based organic and inorganic systems and other; third, the refusal of postmodern thought to tackle the question of the absolute is currently met with philosophical endeavor to grasp the thing in itself, previously forbidden by Kantian phenomenology. It is important to note that both Stiegler and Meillassoux can be viewed as working their way from within the thought of their predecessors. In Stiegler's view, while Husserl has brought phenomenology to "its most extreme point", Derrida has exposed its logic of the supplementarity thus rendering phenomenological approach very questionable (Stiegler 2018: 213). As it will be showcased further in our research, there is enough reason to believe that Stiegler's project is developing under the same *deconstructionist* logic. A similar conclusion can be made regarding Meillassoux's work. As noticed by Harman, "Meillassoux's philosophy would not make sense if he did not accept the fundamental truth of the correlationist axiom: we cannot attempt to think something outside thought without turning it into a thought, thereby committing a pragmatic contradiction" (Harman 2018: 177).

Despite more or less open discontentment both Meillassoux and Stiegler demonstrate regarding the so-called postmodern thought, they still remain heavily influenced by it. The problematics of disjointed temporality discussed in this chapter allows us to draw several points around which the third part of the thesis is concentrated. Our reading of Deleuze and Derrida as the thinkers of disjointed time revealed that:

1) The problematics of disjointed temporality is first and foremost ontological as the multilayered connotation of the English word *time* suggests – it is not only the temporal structure but also customs, history, and the world in general which is disjointed.
2) Spectral time in Derrida and eternal return in Deleuze mark a time between now and then as well as a space between here and there. As a result, a classical structure of identity-based metaphysics is overthrown allowing radical uncertainty to creep in.
3) Posing a challenge to be represented, disjointed time also problematizes the causal understanding of moments of time and

appears to be better fitted to conceptualize change and emergence of novelty compared to a philosophical notion of event.

4) Although rather different, Deleuze and Derrida's discourses on difference share the same premise – they both represent an attempt at philosophizing in a way which would grasp the transcendence within immanence.
5) Finally, while Deleuze and Derrida employ the conceptual metaphor of disjointed time to designate an underlying structure of time, consciousness, and being, their main difference resides in the following. For Deleuze, the ground of all is overflowing with content due to the productive potential of virtuality; while for Derrida, the *différance* as the grounding principle precedes any being which signals the ground to be rather formal.

All five aspects listed above legitimize the discourse of the following chapter where Stiegler and Meillassoux's projects are interpreted as ontologies of may-be where the problem of disjointed time as future is reshaped into the problematics of uncertainty and our (in)capacity of accessing, understanding, and acting in it.

3. ONTOLOGIES OF *MAY-BE*

Certainty and its antonym uncertainty could be discussed on at least three different planes: psychological, moral, and epistemological. Since the epistemological plane of discourse has the most elaborate philosophical discussions, let us regard it as the ground the remaining two. For a very long time the term *uncertainty* was understood as a modality of subject's knowledge about an object. Being uncertain about something simply meant not having enough information or conviction about it. Uncertainty used to be a state of knowledge which could be as easily entered as it could be stepped out of. For Descartes, certainty is almost synonymous to indubitability as in *Meditations on First Philosophy* he stresses the importance of clarity and distinctiveness when it comes to the certainty of an idea (Descartes 2008: 88). Given that for Descartes "certainty of the intellect is far greater than that of the senses" (*ibid*: 208), a crucial note is made by Descartes on Bourdin's critique to his *Meditations*: "[He reacts as if] I should regard the things I denied at one stage because I found them subsequently to be rendered evident and certain for me. And it should be noted that he himself everywhere treats doubt and certainty not as relationships between our knowledge and objects, but as permanently inhering properties of the objects, so that what we have once discovered to be doubtful can never subsequently be rendered certain" (*ibid*: 218). If treated methodically, doubt, or uncertainty, is not seen by Descartes, as well as by his followers in onto-epistemology, as altering the metaphysical state of objects. For Descartes, uncertainty is ontologically harmless if not fruitful in the long run of search for clear and distinct knowledge.

Yet with the arrival of the early 20th century, there can be seen an ontological shift in the notion of certainty: previously seen as a cognitive relation to the object, certainty, or, to be precise, the lack of it, becomes a more and more troubling metaphysical problem in such domains as physics, chemistry, economics, politics, art, and many fields of technological advancement. Let us shortly consider three examples of uncertainty being ontologized.

1. Most of STEM subjects treat uncertainty as a faulty measurement, mistake in calculation, inadequate scale selected to represent the data and many other *mistakes in applying the selected method*. Although uncertainty in biology is generally viewed similarly to the rest of the STEM subjects recently there has been a rise of concerns regarding the term of uncertainty. By stressing the openness of a biological system, its complexity and dynamics,

systems' biologists seem to have shifted from the understanding uncertainty as resulting from faulty methodology towards a search for representational structures that would be able to grasp the uncertainty that is *inherent to the system itself*. The advocates of the use of models in biology often stress the double-sidedness of uncertainty as, on the one hand, stemming from the complexity of biological systems, and, on the other hand, as an inevitable result of our scientific approach towards the biological reality. As Kirk, Babtie, and Stumpf state in their article on uncertainty in systems biology,

The fact that models are simplified (but not simplistic) representations of real systems is precisely the property that makes them attractive to explore the consequences of our assumptions, and identify where we lack understanding of the principles governing a biological system. We should start to think of models as tools to uncover mechanisms that cannot be directly observed, akin to microscopes or NMR machines <…>. Used and interpreted appropriately, with due attention paid to inherent uncertainties, the mathematical and computational modeling of biological systems allows us to explore hypotheses and learn about nature. But the relevance of these models depends on our ability to assess, understand, communicate and, ultimately cherish their uncertainties. (Kirk et. al. 2015: 388)

2. December 2015, an agreement within the United Nations Framework Convention on Climate (more widely known as The Paris Agreement) has been made in order to facilitate dealing with greenhouse-gas-emissions mitigation, adaptation, and finance, starting in the year 2020. In February 2019, 195 members of the convention have signed the agreement, and 185 have become party to it. The agreement is aimed at keeping the increase in global average temperature to below 2 °C above pre-industrial levels. Such a state of affairs might be supported by many people yet when it comes to implementing the means in order to secure it, the support turns out to be not that all-encompassing. While it might be the question of time when such industrial giants as USA or China decide to join the agreement, the estimated date of enacting the agreement is argued to be not that arbitrary. It is true that any global act must have a starting point when the organized force becomes active, so it might as well be the 2020. Especially when so many global ecological processes have been demonstrated to be irreversible even to this day. While the outcome has been formulated by the agreement writers, every country that has signed it must determine, plan, and regularly report their contribution to mitigation of global warming. This leaves each participating government in the situation of indeterminacy not only because an ecologically aware economic and political system must be constructed but also because of

the indeterminate nature of macrosystems of which our ecosystem is an exemplary case.

Consideration on the future of humanity and an attempt to both imagine and rationalize it, is challenging the ideality of Descartes' clear and distinct ideas, as uncertainty becomes more and more prominent. According to Jean-Pierre Dupuy, who is responsible for coining the term of *enlightened catastrophism*, "Imagining the future now means trying to come as near as possible to that black hole in which *there are no longer any differences*, in order to perceive the primordial chaos in which everything has its origin." (Dupuy 2013: 14-15). Certainly, the constant projection of catastrophic end within the realm of environmentalism and neighboring discourses could be viewed as a human, all too human, desire for predicting even the unpredictable. Even though future-oriented humanism has always been striving to project itself outside of the presence, in the case of environmental politics (if not in the case of all contemporary politics), the inability or the refusal to project some kind of a future is endangering the life today. In such situation, a certain type of temporality becomes crucial – a temporality where the given of presence is intertwined with the projections of future. As showcased by Dupuy, the logics of contemporary future can serve as a major factor in engaging people for an action: "We must learn to think in a way that when faced with a catastrophe we would think it impossible not to take place, and until it has not taken place yet, we would think it possible not to take place. This is where our freedom intervenes." (Dupuy 2002: 79). It is evident that the complexity and the uncertainty of human world urges for looking for alternative forms of thought which would be capable either of calculating what is not calculable or of making future-oriented decisions without relying *just* on past data.

3. In December 2017, an artist duo Pakui Hardware gives a talk under the title *Hesitant Hand, The Programmed, The Spontaneous* which was followed by Catherine Malabou's lecture on artificial imagination. As already discussed in this research, Pakui Hardware's question is the following: can our body which is too slow in comparison to automatic productivity as well as our biological limitedness be of any use in the field of the posthuman? The potential value of human disadvantage is showcased by one of Pakui Hardware's projects – *Hesitant Hand* (2017) which brings forward the issue of robotization in a field that has been often seen as one of the last fortresses able to resist the anonymization and routinization resulting from implementing mechanical processes destined to replace human labor with machine labor. An industrial robot in the exhibition space functions as a "curator", shifting around the artistic objects in a hypnotizing process. While

the way the robot functions slightly reminds a pensive hand motion, the organic brain of the artistic process – artists and viewers – are reduced to the role of passive viewers who have been left out of the dynamic interactions of the robot and the artistic objects. The seemingly hesitant mechanical hand raises the question of what the relation between the organic and the mechanic is.

Be it biological, social-economical-political, or cultural, the uncertainty always marks a shift from subjectivity to an objective state of affairs. The ontological reality does not seem to be uncertain because of our limited knowledge about it, neither the socio-political reality seems to be uncertain because of our lack of data. What all three examples previously discussed showcase is that our realities are objectively uncertain which leads to the need of rethinking both the notion of uncertainty (as chaos or entropy) and the notion of intelligence (both human and artificial) which is supposed to grasp and inhabit it.

The title of the chapter – *Ontologies of May-Be* – is inspired by Meillassoux's remark in his text *Time without Becoming*. After having discussed the notion of Hyper-Chaos, the thinker makes a more general statement regarding the mission of philosophy today:

> I think that ultimately the matter of philosophy is not being or becoming, representation or reality, but a very special possibility, which is not a formal possible, but a real and dense possible, which I call the "peut-être", the "may-be". In French, I would say: "l'affaire de la philosophie n'est pas l'être, mais le peut-être". Philosophy's main concern is not with being but with the may-be. (Meillassoux 2014: 27)

The disjointed time, already discussed in the context of postmodern thought, brings forward not only a problematic notion of the future but also pushes us to rethink the realm of possibility, actuality, and virtuality. Which where the term *may-be* comes in handy: the ontologies of *may-be* are first and foremost ontologies which are dealing in and with uncertainty which, as it will be showcased in this last part of the thesis, is a shared characteristic of Stiegler and Meillassoux's projects. Yet before reading their philosophies as ontologies of *may-be*, one needs to discuss the ontological base of the uncertainty in question: in Meillassoux, it is the idea of Hyper-chaos while in Stiegler, it is the idea of negentropy. Therefore, the conceptual differences between chaos and entropy are to be drawn before moving on to unfolding the interpretation of uncertainty on both ontological and epistemological levels.

3.1. Chaos or Entropy?

The task of defining chaos and entropy is complicated by a few issues: 1) *chaos* has a rich etymological and theoretical history; 2) *entropy* has a wide application in fields from physics to economics and beyond; 3) there have been attempts at defining one term by another. In order to clarify the picture, we shall start with the more recent term – *entropy*, then proceed to highlighting the problems arising in discourses where the terms are used as synonyms, and finish with an attempt to narrow down the notion of *uncertainty* in a way which would allow us to discuss the terms of chaos and entropy on the same theoretical terrain.

The idea of entropy found its place in theory after thermodynamics has been introduced to the field of physics causing a lot of theoretical confusion. While all previous physics of motion could be explained as a reversible act within a system, thermodynamics proved that not all physical processes are reversible. In fact, the gas particles within a closed system that is being heated act according to the law of energy preservation only at the beginning. After having reached a certain moment of chaotic movement within a closed system, the particles begin dropping their speed and settling for an idler arrangement which eventually culminates in a static structure as the gas tank completely cools down. The moment of complete idleness within a closed system is called entropic and presents a troubling riddle to the classic mechanical physics since thermodynamic processes within closed systems are irreversible and thus violate the law of energy preservation. Moreover, thermodynamic processes resulted in being not only irreversible but also unpredictable due to the chaotic movement of the particles that is neither directed at something nor resulting in something other than idleness.

A few decades after the discoveries in thermodynamics, the term of entropy caught the eye of information theorists as well as biologists, communication scientists, environmentalists and many others. While the aspect of moving towards idleness has been preserved in all further reapplications of the term, one major aspect has changed: instead of being considered as a property of a closed system, entropy is now discussed in the context of open systems. The notion of entropy is nowadays applied to a vast array of fields and some theorists even go as far as applying the notion to explain the structure and development of human, corporate, and cosmic life at once (see Hershey 2010). Hershey's account on entropic systems is based on the common structural ground that all three systems share: first, humans, corporations, and universe are all open systems; second, all three are approaching entropy and the speed of this approaching can be measured as

Excess Entropy Production (Hershey 2010: 73). But the interesting thing is the vital tension that Hershey notices when comparing the three systems: "The driving force for change, the motivating factor which drives us beyond one non-equilibrium state to the next may be Excess Entropy. It expresses the tension of life, the distance (in entropy terms) from equilibrium (death, disaster, chaos). Excess Entropy Production (EEP) measures the speed of approach to equilibrium." (Hershey 2010: 73). Therefore, in order to remain below the maximum entropy level, the system must change constantly as if disequilibrium was the solution to idleness, i.e. death. In other words, the urge to change is what postpones the achievement of the maximum level of entropy but at the same time it is what is driving the system towards its end.

For instance, a biological body, as far as an open system, is forced to constantly renew its cells in order to prevent it wearing out yet there is always a possibility of cell renewing becoming cancerous not to mention the inevitable overall wearing off of the body as well as slowing down of the renewal processes which leads to death. The question here is about speed since change appears to be a postponement of the end or, to be more accurate, it is the self-driven mechanism directed towards the end. If we were looking for a metaphor, we could use the analogy with a cooking clock. The newly emerged open system launches the count down and every time the change happens, the final gong is postponed although the system is gradually wearing off. The chain of postponements during the race towards the final gong of entropy is made of different qualities: some changes are sudden while some are gradual, some of them happen in huge leaps while some are effectuated in a small-scale flow of change. The only thing all these different changes have in common is the impossibility to predict each one of them in detail. Which cell and when is going to die in order to give place to a new one? Why some cells are being produced in vain and when do they become cancerous? These are the mysteries which cannot be solved not because we are lacking data or technologies to make predictions of such a kind but because these processes are essentially uncertain. The only certainty is that every biological organism must reach its peak in entropy and die. As irreversible as a thermodynamic mechanism, a living body is nevertheless an open system and therefore brings the movement towards entropy into question. Once an organism is dead, it does not vanish from the real – it continues participating in processes on a bigger scale than the one of a single organism which is now providing food, shelter and other resources for other parts of the ecosystem. In a similar spirit, Stiegler describes his notion of *pharmakon* as something that "*always produces both entropy and negentropy* in ways that are not just those of the living" (Stiegler 2018: 268). According to the French thinker, the

pharmakological aspect of (neg)entropy has been continuously overlook by cybernetics, information theory, and cognitivism (*ibid*).

Therefore, when open systems are in question, the state of entropy becomes problematic since while regarding one system the entropy is already reached, in a different system, that involves the same particles in question, the entropy can be still in process of postponement. When applied to open systems, the notion of entropy raises two theoretical challenges: 1) to decide whether the entropy rate can be calculated and if so, what to measure it with; 2) to understand where novelty arises from in an open entropy-oriented system.

The means of measuring entropy depend on the way entropy is defined. Even though the concept of entropy has been modified and applied in various disciplines (economics, geography, environmental sciences, and communication studies to name just a few) there seems to be often involved the idea of information and informativity. "Entropy is nothing but the amount of missing information (MI)" – declares information theorist Ben-Naim (2008: 24), whose idea represents one of the two dominant approaches towards defining entropy. Another way to speak about it would be describing entropy as a growing disorder and has been applied by Prigogine and Stengers (1984). Yet when it comes to measuring entropy, both definitions present different but equally challenging problems.

As already stated, the main goal when looking for an adequate way to define and understand entropy is to achieve a definition which would be rooted in objectivity and not in subjective and therefore relative perceptions. Ben-Naim argues that disorder is too subjective to be applied as a defining and explicatory term of entropy while lack of information is seen by him as an objectively quantifiable term. According to him, "increase in disorder (or any of the equivalent terms) can sometimes, but not always, be associated qualitatively with increase in entropy. On the other hand, 'information' or rather MI [missing information] can *always* be associated with entropy, and therefore it is superior to disorder" (Ben-Naim 2008: 19). For Ben-Naim and others, information *is there* in the system and therefore lack of information also belongs to the system instead of simply designating our subjective ignorance.

Despite an obvious advantage the definition of entropy as the lack of information has regarding its objectivity, there are serious reasons to doubt if such an approach can be productive enough when it comes to defining and dealing with contents of an entropic system. As Ben-Naim righteously notices, "Information theory is neither concerned with the content of the message, nor with the amount of information that the message conveys. The only subject of

interest is the *size* of the message itself." (Ben-Naim 2088: 23) Therefore, if entropy is defined through the lens of the theory of information, there seems to be no room for evaluating the increase or the decrease of entropy on the scale of values of goodness, usefulness, etc. All we can do is identify the fact that there has been an increase or a decrease of information yet if the very content of that information remains unaccounted for, there seems to be no way in judging the fact and acting appropriately.

So, what does it mean to be informative? How can anything be informative as such and not only for the perceiver? It seems that to answer these questions we need to turn to the input-output theory which in this case can be applied by claiming that every system can answer to a question by Yes or No because every interaction is marked by input-output relation. Such a view is represented by Wheeler who has introduced the idea of "it from bit" as a guide for connecting physics, quantum and information. He summarizes the formula in the following way: "every it – every particle, every field of force, even the spacetime continuum itself – derives its function, its meaning, its very existence entirely – even if in some contexts indirectly – from the apparatus-elicited answers to yes or no questions, binary choices, **bits**" (Wheeler 1989: 310). For the purposes of our investigation, the crucial elements of the definition are the stress on information and the fact that the yes-no answers required to form the informational bits are apparatus-elicited. This allows us to speak about technology in the broad sense (as a meaning-generating, essentially mediated approach to the real) which constitutes a crucial part of not only understanding the reality but makes part of its very existence. Wheeler's claim is ontological, yet it is of a derivative nature: the ontological structure Wheeler is presenting here is claimed to stem from the notion of information which traditionally requires an information user who in our context can be called the observer. According to such a worldview, we do not ask nature "why"; we ask "if". The explanatory part is on us, it is where our discourses – political, religious, scientific – flourish but the primary way to deal with the environment and its actants is by sending a signal and getting a reaction. We do not ask what kind of reaction is being received, the important thing at the primal stage is getting a response to the signal or not. Therefore, an informative system is a system which gives a response when triggered. And an uninformative system is such that does not respond to the trigger. Given that being responsive and unresponsive are two sides of the spectrum, it is natural to ask if there can be levels of responsiveness and therefore levels of informativity. How can we measure if one system is more informative than the other or if its level of informativity is increasing or

decreasing? It is important to note that here we can only measure the quantity of information and not its quality in a sense of content.

Moreover, positions like Wheeler's risk in causing even more theoretical problems when it comes to the ontological picture of the world. Wheeler seems to be openly constructivist when it comes to the notion of reality: "It from bit symbolizes the idea that every item of the physical world has at bottom – at a very deep bottom, in most instances – an immaterial source and explanation; that what we call reality arises in the last analysis from the posing of yes-no questions and the registering of equipment-evoked responses; in short, that all things are information-theoretic in origin and this is a participatory universe." (Wheeler 1989: 311). Following Wheeler, information is not what a thing possesses but its relation to the other thing. Information is relation where the response to the trigger is yes. Of course, one can say that not getting a response to the trigger is also informative in a sense that the thing now is seen as uninformative. But being uninformative in ontological sense means not being active and actual because it means not entering relations with other particles, therefore not differentiating from them and as a result not possessing any qualities. Being uninformative means not being. Therefore, such a system or its particle falls out of relational being and cannot be considered as an actual one. Moreover, one could say that there could be particles that generate different responses at different times: sometimes the response can be yes and sometimes it can be no. Here we need to strengthen our discourse by making a clarification of two terms: unresponsiveness and negative response. Negative response is also a response and it is informative precisely because here we remain in the tension between yes and no of the input-output system. Whereas, unresponsiveness means a failure in triggering the thing and getting a response (positive or negative). In order to get any response, an established structure of responses is necessary: there must be criteria according to which a response could be read as either positive or negative. In other words, a code, a specific language of yes/no is needed. If when triggered the system showcases neither behavior A (associated with yes) nor behavior B (associated with no) it means that the question-response structure is not activated. The conclusion is clear: the system is unresponsive. That does not mean, however, that the system as such is uninformative and therefore falls in the category of non-being. This merely means that the system is uninformative *in this precise* input-output situation, *this* discourse and regarding *that* trigger or question. System being uninformative is also relational which brings us back to where we started. Entropy is relational since what is entropic in one context (regarding one type of question or trigger) may be non-entropic in a different context. A dead body

is in a state of pure entropy regarding the life of the organism in question yet in the larger scale of ecosystem it constitutes a non-entropic system of matter transforming into different kinds of matter which is supporting the life of other living organisms from bacteria to mushrooms, insects, and plants. It is important to note that entropy being relational does not mean it being subjectively perceived. It merely means that a system can be viewed as rushing towards entropy if and only if we consider it as closed. In this case the loss of information can be trust-worthy criteria to measure the entropy of a system, but this measurement is always local and has its limits of application.

But if the latter is true, what about the claims of various theorists that entropy can be applied to open systems such as human body, human collectives and even a universe? One could assume that the term they are applying is different from the term applied in thermodynamics and informational theory precisely because the latter consider entropy to be the quality (or the direction) of a closed system and since the measurement of entropy is based on input-output relation, it is always relational and can be exercised bearing in mind it being rooted in a certain context. So, what is meant by theorists when they call open systems entropic? It is strongly possible, that they take entropy in the first sense of directedness towards chaos and disorder. Since disorder, as already shown, should be considered in relation to informativity, we need to understand what it means for an entropic open system to be chaotic. Here chaos means first and foremost unpredictability and uncertainty – two qualities that are tightly related to the openness of a system. An open system does not have a stable number of particles meaning that their relations can be reconfigured and even disappear at any time and the reason for that might not always be the system's inner dynamics but also the outside effects. In this way the number and the position of the system's particles as well as the relations they generate become uncertain and the system becomes unpredictable. It is true that in a closed entropic system we also encounter unpredictability in a sense that the trajectories and relations between the particles are not only extremely difficult to measure and predict but also because there is no law or rule that they follow in their configuration. Nevertheless, what we can measure is if the system is moving towards entropy and at what speed. These things can be calculated in principle even if the data to be considered is way too vast for the human mind. Whereas in an open system all relations change so fast that very often by the time input is exercised the conditions change so much that the output turns out to be random regarding the input.

One of the most prominent fields where the notion of entropy is applied in the sense of openness and unpredictability, is evolutionary biology.

According to Volkenstein, evolution of the universe can be compared to biological evolution since in both cases evolution generates new information which is created "as a result of an arbitrary choice, arising in turn from the instability of the original state of the system in question together with the availability of various more stable states, from amongst which the choice is made" (Volkenstein 2009: 170). Volkenstein claims the new order to be arising not gradually but "all at once – at a jump" (*ibid*). In short, "The cosmic, geological, and biological evolutionary processes – processes of structure-formation, of the appearance of order out of initial chaos – all take place as a result of the export of entropy, its efflux into the surrounding medium" (Volkenstein 2009: 170). It is important to note that both entropy and evolution are connected to the question of memory: in case of evolution, there is a memory of the prior states, whereas in the case of entropy, any memory whatsoever is eliminated since there is no place of differentiation which could produce novelty. Yet the question remains, who is remembering what? It is obvious that in the context of evolutionary memory the term *memory* is de-psychologized and is applied not as much to a conscious individual but is geared more towards matter as such. To the question of how a material memory can be individualized and divided into separate living beings, Volkenstein answers in the following way: "What we have said here of the biosphere holds true also of an individual organism, in the sense that in developing from an initial fertilized ovum, say, it retains in its structure and the way it functions, a memory of the prior biological evolution that has led to that organism" (Volkenstein 2009: 170).

In a sense, material memory can be viewed as a constantly changing conglomerate of information too, yet here, differently from the information theories discussed above, information is treated regarding its content and not only quantity. Volkenstein makes a rather unexpected move by claiming both biological evolution and the emergence of artistic work to have the same ontological grounding structure. According to him, "The creation of a genuinely artistic work involves the creation of new information, since it involves the fixing, the committing to memory, of random choices" (Volkenstein 2009: 186). It seems that no novelty can arise if there is no mechanism of remembering. And it does not mean that novelty is relational or correlational to the perceiver. Remembrance is encoded in the matter – be it the chain of DNA or the literary heritage of a certain culture. Volkenstein suggests seeing a work of art as an integral informational system where information is contained in all of its features – the content, the vocabulary, the rhymes, etc. According to him, a work of art resembles a living organism precisely because neither of the informational aspects can be separated from

it. “Once published, a poem acquires a life of its own as a non-isolated system retaining contact with its creator and entering into interactive relations with its readers and hearers” (Volkenstein 2009: 187). According to Volkenstein, the work of art can undergo the loss of information in case there are inadequacies between the consciousness of the author and the reception. On the other hand, the increase in information is achieved once the work of art catalyzes (in Volkenstein’s vocabulary, activates or programs) “a stream of associations, thoughts, and feelings of the consciousness of the receptor, and stimulates the creation of new information by him” (Volkenstein 2009: 188). Every recipient has his thesaurus which constitutes a matrix of perceiving the work of art and extracting information from it. The thesaurus can be altered during the lifetime since people have new experiences and acquire new knowledge. This explains why we return to the same works of art and manage to see them differently every time: “Genius is unlimited informativity” (Volkenstein 2009: 190). Volkenstein draws a direct connection between how informative the work of art is and its value: “the newer, the more unexpected that information is, the more valuable the work” (Volkenstein 2009: 188). Such an approach allows not only to talk about objective entropy (even though Volkenstein himself seems to prefer the term *chaos*) but also leaves space for the emergence of novelty – an essential component of any open system. Yet the question if one can possibly predict or at least calculate the emergences to come, remains unanswered.

While David Hume raised the problem of the impossibility to count and therefore account not only for all possible facts of the reality but even for the actual ones, AI today is solving both aspects of the problem by employing a powerful computational process which exceeds human capacity thousands of times. But the interesting thing is that AI systems that are employed to make predictions about, for example, the best possible structure which would withstand the forces of nature in a particular place and situation, conduct a massive trial and error procedure in order to calculate the best possible outcome. It seems that the trial and error computation works best when faced with things that machines cannot calculate and human cannot understand. Thus, prediction without causation ends up giving the result without explanation. Curiously enough, it is more than enough for our goals.

Even if the urge to predict the unpredictable is suspended at least for some time, what remains to be accounted for, is the emergence of something new within an entropy-oriented system. To clarify the question, a systematic difference captured by Prigogine and Stengers is worth looking into. According to them, a distinction between entropy flow and entropy production must be made. Entropy production is carried within a closed system where

entropy can increase or remain constant, while entropy flow emerges within the increase of entropy when "increasing entropy corresponds to the *spontaneous evolution* of the system" and therefore becomes an "indicator of evolution" or an Eddingtonian "arrow of time" (Prigogine and Stengers 1984: 119). What Prigogine and Stengers have in mind is the dynamic interaction between micro and macro processes within an isolated system where entropy-directed system can produce a change within itself which leads to transformation of both the system as a whole and its particles taken separately. This is the moment when the question of entropy becomes a question of evolution and therefore a question of time. As noticed by Toffler, Prigogine and Stengers undermine conventional views of thermodynamics by showcasing that nonequilibrium conditions are able to produce order and therefore life (Toffler: 1984: xxii). In other words, even a closed system can be pushed into a change while an increasing disorder can sometimes be responsible for the emergence of a certain order. It is important to note, that in the context of biological processes, such as the emergence of life, discussed by Prigogine and Stengers, the terminological duo of order and disorder is applied to designate the state and the results of a system. As a result, this allows accounting for the emergence of entities that are ontologically new, which would be hardly possible if a homogenous term of information was applied to account for the level of entropy in a system.

As the vast and complex field of application of the terms of entropy and chaos prove, the relationship between certainty and uncertainty can be explained avoiding the vicious circle of jumping from subjective perspective to objective state of things. This is precisely what Stiegler and Meillassoux are doing in their philosophical projects, where they give an additional dimension to the already complex notions of chaos and entropy, as well as enrich the understating of the notion of uncertainty. While Meillassoux sees chaos as an underlying structure of the real, Stiegler's understating of entropy is more of a direction where the system is going. As it will be showcased in the two following chapters, different definitions of uncertainty give different promises about understanding it: while Stiegler claims it can be done through mediation, while Meillassoux is seeking for an immediate way to grasp the chaotic real. Both philosophers arrive at a similar challenge, which requires rethinking human rationality and its relation to the chaotic or the entropic real. It is becoming clear that the question of uncertainty is not purely epistemological neither purely ontological, as it urges to investigate both aspects at once.

3.2. Future as Ontological Uncertainty

3.2.1. Uncertainty as Entropic Tendency

In order to explain how uncertainty is reconceptualized by Stiegler as an entropic tendency, one needs to begin from the notion of the Anthropocene – an epoch which Stiegler's most recent projects are directly replying to. Without going into an extensive debate on the dating and definition of the Anthropocene, we are going to employ an extrapolated general understanding of it as an epoch where human activity for the first time ever becomes a fundamental force of change within nature. As a result, a clear distinction between culture and nature is cancelled resulting not only in the need to rethink what human and nature are but also opening a radical uncertainty of what tomorrow brings. Many Earth System scientists argue that abrupt environmental change is not just possible, but virtually certain. As Steffen and his colleagues summarize it,

> Nonlinear, abrupt changes in key environmental parameters appear to be the norm, not the exception, in the functioning of the Earth System. Thus, global change is not likely to be played out as a steady or pseudo-linear process under any conceivable scenario but will almost surely be characterized by abrupt changes for which prediction and adaptation are very difficult. (Steffen et al. 2004: 9)

Here uncertainty is brought up as something lurking in the future and threatening us from its obliviousness. As a result, one is faced with the need of reconceptualizing not only humanity's relation to its surrounding real but also the very non-human entities as such. Looking from this perspective, the conclusions and the conceptual basis of Meillassoux's project seems less useful for the task, as Shaviro notices that Meillassoux's assumption that matter exists outside of the correlation is a consequence of "an anthropocentric prejudice" which consists in assuming "that things cannot be lively and active and mindful on their own, without us" (Shaviro 2014: 76). Stiegler, on the other hand, does not offer any more anthropocene-suitable theory of matter either but his stance on entropy and negentropy is worth looking into when it comes to coining the conceptual tools to grasp the uncertainty the Anthropocene entails.

Stiegler's main question is how to account for anthropology in the Anthropocene era. He claims that it becomes neganthropology and that "it must contribute to the advent of the Neganthropocene" (Stiegler 2018d: 34). Stiegler's definition of the Anthropocene era is, no doubt, peculiar to his own

theory: for him, the Anthropocene is "the most recent period of geophysical evolution, in which the *systemic and massively toxic character of contemporary organology* comes to light, especially since the advent of organological industrialization, that is, since the industrial revolution, which we must understand as an *organological revolution*." (Stiegler 2018d: 34-35) Stemming from his understanding of technics – which is always acting as an essential supplement for human in the form of exteriorization – Stiegler's discourse on the Anthropocene is lacking the impression of a shock or a sudden turn in the structure of the world. Instead of claiming the new epoch to have resulted from an unprecedented human activity, Stiegler regards it as an intensified tendency which has always been present. According to Stiegler, one of the main characteristics of the epoch of the Anthropocene is its impact on human will by turning it into negative potentiality which leads to passivity in action. "Such negative protention is inherently *performative and self-fulfilling*. If in general terms belief is a highly performative form of protention capable of nurturing a will, then non-belief is a negative performativity that brings dejection, stupefaction and neglect (of which denial is a specific and cowardly form): it is paralysis." (Stiegler 2018d: 35) Similarly to the majority of the Anthropocene thinkers and even to the transhumanists, Stiegler believes in human's responsibility for her own future, yet it is not entirely clear if the philosopher would extend the humanity's burden of responsibility to non-human forms of being as well.

Stiegler sees algorithms as contributing to the contemporary Anthropocene yet it remains to be explained why they are capable of this. Human being is algorithmic first and foremost, so the question is can algorithms be turned around into something positive.

> By short-circuiting the protentional projection of psychic and collective noetic individuals, by phagocytically absorbing the milieus associated with them, and by sterilizing the circuits of transindividuation that are woven between them through their individual and collective experiences, by doing all this, algorithmic governmentality annihilates the traumatypical potentials of any protentions that might bear the possibility of neganthropological upheavals. Such is computational nihilism in the contemporary Anthropocene. (Stiegler 2018d: 49)

In Stiegler's discourse on the Anthropocene, there is a shift from the empathic to the rational part of human existence. In order to deal with the challenges raised by the Anthropocene, it is not enough to accept the responsibility for oneself and others; it is also necessary to perform a shift from computational to digital thinking. Stiegler sees the emergence and vast

usage of big data as a transformation of various forms of knowledge (*savoir vivre, savoir faire* and *savoir conceptualiser*) by liquidating them. "The Anthropocene is an 'Entropocene', that is, a period in which entropy is produced on a massive scale, thanks precisely to the fact that what has been liquidated and automated is knowledge, *so that in fact is no longer knowledge at all*, but rather a set of *closed systems*, that is, *entropic systems*." (Stiegler 2018b: 51-51) Any change in the way we produce, reproduce, and use knowledge is made possible by the fact that technics, even in the wake of the Anthropocene, is a pharmakological entity. According to him, "Technics is an *accentuation of negentropy*, since it brings *increased differentiation*. But it is equally true that technics is an *acceleration of entropy*, <...> a destruction of biodiversity, cultural diversity and the singularity of both psychic individuations and collective individuations." (Stiegler 2018d: 41). For Stiegler, entropy and equally negentropy, as long as they remain connected to technics, are always both collective and individual, and there seems to be no way and possibly no need to separate those two dimensions.

The question of future as uncertainty becomes relevant when Stiegler discusses the singular quality of the Anthropocene which he sees as having a structure of a promise. This means, that the question of the Anthropocene is composed of "its negative protention and the necessity of overcoming itself" (Stiegler 2018d: 45). Even though Stiegler does not use the same terminology, it could be said that the Anthropocene as such has an auto-reflective essence and is an intertwined connection between the two opposites – entropy and negentropy. Therefore, it makes sense to speak of the Anthropocene in terms of difference and differentiation. Echoing the already discussed distinction between determinate future (*futur*) and radically open future (*avenir*), Stiegler makes a distinction between the concept of probabilistic becoming (*devenir*) and indeterminate future (*avenir*). Yet in practice, it is extremely difficult to draw a sharp distinction between them since the very measurement of negentropy is problematic: "What appears entropic from one angle is negentropic from another angle." (Stiegler 2018b: 54). As it will be showcased in the following chapter, Meillassoux also maintains a similar distinction between the probabilistic and indeterminate approaches to the future. What makes their discourses different though, is the scope of their projects: while Meillassoux seems to be satisfied with drafting the distinction on a metalevel or, if one prefers a more classical vocabulary, on a metaphysical level, Stiegler, on the other hand, is determinate not only to conceptualize but also to provide the means to act on the said distinction. In other words, Stiegler's project is aimed at empowering the knowledge against the calculating rationality yet what remains to be done is to describe the recipe for such an

emancipation. Despite numerous discourses on multiple occasions, Stiegler's project is lacking in precision when it comes to describing how the positive use of knowledge should look like. In this way, it preserves its form as a promise and therefore remains as an ultimate openness to the unpredictable future. In a very unexpected way, Meillassoux's formal approach to the Hyper-chaos as a grounding principle of the real provides more content to work with than politically charged Stiegler's hope for knowledge as pharmakon.

3.2.2. Uncertainty as Grounding Chaos

The problematics of uncertainty is directly dealt with by Meillassoux when he tackles the so-called Humean problem of causality. Hume makes a conclusion regarding the necessity and the nature of causality by assigning to it epistemological necessity and at the same time depriving it of the ontological necessity: "Let men be once fully persuaded of these two principles, *That there is nothing in any object, consider'd in itself, which can afford us a reason for drawing a conclusion beyond it;* and, *That conjunction of objects, we have no reason to draw any inference concerning any object beyond those of which we have had experience*" (Hume 1969: 189). His main argument against the ontological necessity of causal connection is twofold: first, the supposition "*that the future resembles the past,* is not founded on arguments of any kind, but is deriv'd entirely from habbit" (Hume 1969: 184); second, past experiments provide us with determination which "presents us with no steady object, but offers a number of disagreeing images in a certain order and proportion" (Hume 1969: 184). It becomes apparent that the tension here is to do with epistemological and ontological aspect of contingency. While Hume's thought is advanced within the realm of epistemological problematics, Meillassoux's scope is significantly wider and includes not only epistemological but also an ontological aspect of the contingency. In *After Finitude*, Meillassoux reformulates Hume's problem in the following way:

> instead of asking how we might demonstrate the supposedly genuine necessity of physical laws, *we must ask how we are to explain the manifest stability of physical laws given that we take these to be contingent.* Once reformulated, Hume's question is in fact the one we raised earlier: if laws are contingent, and not necessary, then how is it that their contingency does not manifest itself in sudden and continual transformations? (Meillassoux 2008: 151)

Yet the question remains whether such clear distinction between epistemological and ontological problematics can be drawn. According to Johnston, Meillassoux is guilty of ontologizing Hume's epistemology (Johnston 2011: 95) and therefore extracts from it more than the author originally intended to put there. Shaviro backs up the claim that Meillassoux ontologizes Hume's epistemology by adding that this act leads to him forming an antirealist stance on causality: "All these theories of causality—Hume's, Kant's, and Meillassoux's – are antirealist ones: they all start from the unquestioned assumption that causality cannot actually result from the actual properties of things in themselves" (Shaviro 2014: 135). By positioning Hyper-chaos as real and necessary, Meillassoux proposes a worldview where chaos constitutes an underlying part of the reality instead of being positioned by possibly limited or confused human reason. Yet since Meillassoux trusts mathematization as being able to grasp the real in a non-correlative way, his account of human reason empowers it by conjoining ontological and epistemological aspects of the real. As a result, he leaves doors open for understanding chaos, but the question is who or what can grasp it? Reason or rather unreason?

In his text *Time Without Becoming* Meillassoux further expands on the idea of Hyper-chaos which he understands as a fundament of the real as well as the source of the necessity of contingence. According to him, the time of Hyper-chaos does not obey any laws of nature precisely because it is Hyper-chaos that ordains them (Meillassoux 2014: 25). Since Hyper-chaos is described by Meillassoux as neither static nor processual, it raises doubts whether it is sensible to describe it using temporal categories. The doubt is supported by the fact that the only law Meillassoux accepts as necessary is the law of non-contradiction the relationship of which to Hyper-chaos should then be understood as being outside of time. The important thing to stress is the difference between Meillassoux's understanding of chaos and mathematical notion of it. In mathematics, chaotic systems are those which are closed, determinist and non-linear. Whereas in Meillassoux's thought, chaos is perceived not as a quality of a system but as the very principle grounding any system whatsoever. O'Mahoney notices that Meillassoux's statement that "what is mathematizable" is a criterion for defining the absolute can be challenged using Kripke's argument formulated in the context of Wittgensteinian language games: "the rules governing their [mathematical functions'] application can be formulated in more ways than one – indeed, in utterly absurd but nevertheless meaningful ways" (O'Mahoney 2013: 147). Another problematic aspect with Meillassoux's account is the status of reason. As O'Mahoney notices, the stability of reason's rules is inconsistent with the

idea of the necessity of radical contingency: according to the scholar, this aspect of Meillassoux's thought can be called its *Kantian moment*. First, a unity and potency of observing reason is presupposed; second, human subject is excluded from the chain of natural causality, i. e. chaos (O'Mahoney 2013: 151). Moreover, it can be concluded that Meillassoux is rethinking a priori principle at least in two regimes: a) modifying it into a trace of the real the origin of which surpasses the transcendental subject in time; b) formulating it as Hyper-chaos which functions as a non-fundament of any temporality possible.

In a way, one could say that Meillassoux flips inside out the Aristotelian notion of self-contemplating God as the ontological principal of the real. The idea of self-contemplating God implies an intelligent act performed by almighty entity and directed towards itself. Yet there is a safety net installed in such a vision which arises from the Greek understanding of *Logos* and has been inherited by Christian theology, namely that this self-contemplating God is described by the highest ontological descriptors: he is the mightiest, morally the best, and the most rational being in the universe. Here the notion of blindness cannot enter the stage precisely because God enjoys the highest ontological status, so the notion of blindness as not knowing or not fully understanding what is happening in the universe is reserved for the limited minds of human beings. But what happens when the idea that human mind is limited in its capacity to know the universe is rejected? Not surprisingly, the notion of the self-reflecting almighty undergoes serious transformation. Meillassoux demonstrates one of the possible paths of such a reformation: in his system the almighty force of universe is deprived of the Greco-Christian requirement for the almighty entity to be ultimately good and ultimately reasonable. In his demonstration of the absolute necessity of contingence, Meillassoux rewrites the idea of "the Cartesian God" who is almighty yet remains inconceivable to the human mind: according to Meillassoux, non-normative almightiness is blind, irrational, and autonomous (Meillassoux 2006: 88). What Meillassoux is trying to say is that for the almighty force to be actually existent, it has to surpass not only human mind but any law whatsoever – be it a moral rule or laws of physics. He names such a force Time and prescribes to it unlimited liberty to bring forth anything, including the stability and death. The notion of blindness enters the stage as soon as the last rational law is eliminated: the force that is responsible for all geneses is also the force which can destroy everything at any time for no reason at all. This means that the future is blurry not only for us, limited human minds, but it is essentially unpredictable within the realm of ontology. Instead of being caused by some reason, the future remains as a pure possibility. In short, when

the idea that anything is possible is accepted, the idea of ultimate contingency enters the stage too.

Another important aspect of Meillassoux's notion of Hyper-chaos is its rootedness in virtuality which facilitates a definitive switch from possibility within the future to radical uncertainty. When we think of something as possible, we usually apply a mechanism of prediction, be it calculation, wild guessing, or causal relations. Whereas in the case of Hyper-chaos, there can be no prediction possible because the real is radically contingency. Even though Meillassoux mentions the notion of virtuality a few times in his writings when talking about the Hyper-chaos, there has not been a comprehensive exposure of the notion so far. For instance, in his book *After Finitude*, Meillassoux claims Hyper-chaos to be the only thing that fully merits the status of the thing-in-itself, based on the fact that it is impossible to calculate the possibilities it constitutes which, according to the philosopher, leads to the fact that "it is precisely this super-immensity of the chaotic virtual that allows the impeccable stability of the visible world" (Meillassoux 2008: 182). As Harman notices, after the strict distinction between virtuality and potentiality is deleted in Meillassoux's thinking, the virtual spills into all layers of the real (Harman 2011a: 63). Despite being omnipresent in Meillassoux's ontology, his notion of virtuality remains purely formal. Differently from ontologically superfluous Deleuzian virtuality which gives birth to the actualized reality, Meillassoux's virtual should be understood rather as a structural carcass for the real. Strictly speaking, Meillassoux's virtual is neither superfluous nor empty because it functions rather as a law than a material content of the real. Even though Gratton observes that it is not "a set of possibilities, but a hyper chaos in which *virtually* anything is always possible" (Gratton 2014: 75), the virtuality of Meillassoux's universe remains as a negative possibility of something being different yet does not provide any *reason* for any of the difference to emerge.

3.3. Grasping the Uncertain Real: Understanding, Reason, Imagination

After having started the thesis from Kantian philosophy and its discussion in Meillassoux and Stiegler's thought, we turn to Kant once again. This time, the question is regarding the access to the real which different ontologies presupposed by the philosophers in question entail. As it will become obvious in the very last chapter of this work, the epistemological question of grasping the (uncertain real) is closely related to the ontological problematics of mediation which is tackled by Meillassoux and Stiegler in radically opposite

ways. While Kant has put clear limits on human understanding regarding metaphysical ideas, Hegel and Meillassoux are more optimistic towards the capacity of reason when it comes to grasping the real even if the real is absolute itself. Let us first investigate the different treatment Kant and Hegel gives to understanding and reason before we move on to Meillassoux's solution of the problem which will be demonstrated to have borrowed more from Kantian system more than it is explicitly stated by Meillassoux himself. Lastly, we will discuss Stiegler's approach, which can be seen as a continuation of Kantian legacy of critical thought although with a contemporary twist – an accent on stupidity as a force urging the search for a reason that would be capable of beating it.

Kant's distinction between understanding and reason is based on the assumption that the former has its limits since it can only be applied to the objects of possible experience whereas reason pretends to grasp the infinite and therefore can become the cause of metaphysical illusions when no phenomena correspond to the ideas in thought. For Hegel, understanding and reason also remain distinct yet for a slightly different reason. The limits of understanding arise not because it requires an object of possible experience but because the categories of understanding are one-sided and incapable of incorporating infinite objects that would be composed of the contrarieties (limited/limitless, one/many, etc.). According to Hegel, reason alone is capable of comprising both contrarieties and therefore of stepping outside the limits of understanding: "Just as Reason, in the role of observer, repeated, in the element of the category, the movement of *consciousness*, viz. sense-certainty, perception, and the Understanding, so will Reason again run through the double movement of self-consciousness, and pass over from independence into its freedom." (Hegel 1977a: 261). It would be fair to note that Kant also credits reason with an important task, although it is limited to the realm of moral theory where reason is seen as constituting freedom and in the form of categorical imperative grounding any possible moral act. Meanwhile, in Hegel's system, the freedom of pure reason is active not only in the realm of morality but within the whole process of *Geist* since Hegelian subject ceases to be limited to an individual with cognitive abilities and is developing more like an object blooming of the concept of the mind. Such dynamics clearly oversteps the limited subject making a leap to the infinity. Strictly speaking, there is no place for any kind of transcendence in Hegel's system because a limited subject has been eliminated and therefore reasoning is no longer bound to a priori forms of cognition or the distinction between phenomena and noumena.

There seems to be a general agreement among some of Hegel's scholars[10] that the main concern of the German philosopher was to ground metaphysics and that the rational thing to begin with was tackling the question of sensual experience as it is done in his *Phenomenology of Spirit*. After having demonstrated the difference between understanding and reason one would hope to move on to exposing the conceptual development of reason as *Geist*. For such a goal, Kantian model is clearly irrelevant precisely because for Kant cognition is divided in two parts: the content of cognition and the structures constituting the possibility of it. As Guyer underlines, Hegel's goal is to find a single principle that would serve as a fundament of cognition (Guyer 1993: 187). From this follows, that any a priori distinction within the realm of cognition needs to be eliminated if one strives to derive the cognition from a singular principle. Since understanding, with its a priori forms, tends to entangle reason into antinomies, it becomes evident, that it is necessary for understanding to transcend itself in order to transform into an unlimited reason. Therefore, as Beiser notices, Hegel sees the ideas of reason and not the ones of understanding as the condition of experience (Beiser 2005: 169).

If we returned to Meillassoux's thought, and simply assume that reason and not understanding which is inherently correlationist is to be responsible for grasping the absolute, there would be still at least one question to clarify. Differently from Hegel, Meillassoux is not talking about the development of the real in the form of an all-encompassing reason – his concern is way more human, maybe even all too human. How do we make philosophy that would be capable of reasoning beyond the principle of correlation possible? Meillassoux suggests turning towards speculation as something that would be capable of freeing the thought from the burden of correlation. Yet his specification of what speculation means is very scarce. My suggestion is to investigate Meillassoux's notion of speculative though in relation to the chaotic absolute that he himself assumes and the peculiar status of imagination that is presupposed in Kant.

[10] See Beiser, Frederic C. *Hegel*. New York: Routledge, 2005; Guyer, Paul. "Thought and Being: Hegel's Critique of Kant's Theoretical Philosophy". In *The Cambridge Companion to Hegel*, edited by F. C. Beiser, 171-211. Cambridge: Cambridge University Press, 1993; Scherer, Irmgard. "The Problem of the A Priori in Sensibility: Revisiting Kant's and Hegel's Theories of the Senses". *The Review of Metaphysics*, Vol. 52, No. 2 (1998), 341-367; Stern, Robert. *Hegel, Kant and the Structure of the Object.* London: Routledge, 1990.

One could ask why Hegel's suggestion to rely on reason when it comes to knowing the absolute is not enough in Meillassoux's quest. After all, both thinkers are striving at finding something that would be able to transcend the limits of an individual subject of cognition and grasp the real as it is. Even though Hegel's system not only allows but even encourages the dynamics between various contradicting elements, it is always assumed that the overall process of the real is self-reflecting and therefore falls under a certain structure. Meillassoux, however, introduces the notion of Hyper-chaos as a principle of necessary contingency meaning that any order can transform into a disorder and vice versa without any sufficient reason. To refuse the principle of sufficient reason is a sufficient reason enough to look for a faculty that would be able to grasp such a chaotic reality. This is where the notion of speculation enters as a capacity to deal with the *Ungrund* of the real which can be also characterized as an ontological uncertainty.

The problem of dealing with an ontological uncertainty is well summarized by Immanuel Kant in his short essay *The End of All Things*. According to him, the idea of the end of all time has a horrifying effect on a subject since it surpasses their temporality leaving them with the sublime which has to be dealt by the means of imagination, a faculty that "works harder in darkness than it does in bright light". When we pursue the transition from time into eternity (whether or not this idea, considered theoretically as extending cognition, has objective reality), as reason does in a moral regard, then we come up against the *end of all things* as temporal beings and as objects of possible experience – which end, however, in the moral order of ends, is at the same time the beginning of a duration of just those same beings as *supersensible*, and consequently as not standing under conditions of time; thus that duration and its state will be capable of no determination of its nature other than a moral one (Kant 2001: 221).

Two major aspects of Kant's reasoning should be pinpointed. First, the "transition from time into eternity" is seen as independent of its objective reality. This means that we are dealing with the idea of the end of all things and thus it is no longer understanding that is supposed to lead us in our reasoning. Another important message we can read from this passage is that when facing the idea of the end of all things, our reasoning switches towards the field of morality. Therefore, the faculty at work is now reason and not the understanding. What seems the most intriguing for me is the role of imagination in this shift from time to eternity. Although shortly mentioned by Kant at the very beginning of his reasoning, imagination does not enter the stage anymore. Or, to be precise, does not enter the stage explicitly.

Here it makes sense to turn to Kant's *Critique of Judgement* which ought to be positioned as a bridging discourse between the faculty on understanding explained in the *Critique of Pure Reason* and the faculty of reason explained in the *Critique of Practical Reason*. In the *Critique of Judgement*, the sublime is discussed alongside beauty as a feeling which can be dealt with either by the faculty of cognition or the faculty of desire. In both cases, imagination is at work in its mathematical or dynamical attunement. Yet what is the most intriguing in Kant's reasoning is the inadequacy which accompanies the feeling of sublime. The inadequacy arises from the tension between suprasensuality and sensuality and is expressed by Kant in these terms: "For the sublime, in the strict sense of the word, cannot be contained in any sensuous form, but rather concerns ideas of reason, which, although no adequate presentation of them is possible, may be aroused and called to mind by that very inadequacy itself which does admit of sensuous presentation." (Kant 2007: 76). As Eugene Thacker notices, since extinction "can never be adequately thought, since its very possibility presupposes the absolute negation of all thought. […] Any postulation about the state of the world after the end can only be speculative – and, for Kant [in *The End of All Things*], this means that any speculation about the end of all things can only be based on our moral assumptions and prejudices about the world as a human-centric world, a world-for-us." (Thacker 2011: 102). Thacker is pointing out that Kant's answer to the horror of an absolute extinction is purely speculative and remains within the realm of human. The speculation for Kant is covered either by metaphysics or morality which ties it inseparably with human condition. Yet with Meillassoux one can notice that speculation can be thought of as independent of human subjectivity and yet still engaging into an ambiguous relationship with the faculty of imagination.

In order to shed some clarity onto the question if non-correlationist cogito can still be viewed as rational, it is worth looking into Meillassoux's notion of thought and thinking. It ought to be said that his use of *cogito* stems from Cartesian roots. In *After Finitude*, Meillassoux describes his philosophical endeavor in the following way: "Following Descartes' example, we are attempting to move beyond a 'cogito' by accessing an absolute capable of founding science's (ancestral) discourse. But the cogito in question is no longer the Cartesian cogito – it is a 'correlationist cogito' that encloses thought in a reciprocal relation to being, one which is merely the mask for thought's underlying relation to itself." (Meillassoux 2008: 87). Despite stemming from Cartesian notion of *cogito*, Meillassoux's project is aimed at deconstructing a different *cogito* – correlationist one, a Kantian *cogito*. The term of *deconstruction* has been chosen here on purpose – it seems that Meillassoux's

mental experiment on arche-fossils which mark the existence way prior to the emergence of human consciousness or life on Earth at all is presented in a way that it could blow up correlationist philosophy from inside. "If the ancestral is to be thinkable, then an absolute must be thinkable," claims Meillassoux (Meillassoux 2008: 88). Yet what does it mean to think in such a case? In Kant, we find a rigid distinction between understanding, reason and imagination, although the latter can be discussed in length if we bear in mind the changes from the first to the second edition of *The Critique of Pure Reason*. For Kant, absolute is neither thinkable, nor perceivable or imaginable since it escapes the realm of human consciousness. For Meillassoux, apparently, the possibility to think the absolute has nothing to do with the capacity of human consciousness and does not even require it for its own constitution. Yet it is still not clear, what (or who) is supposed to think the absolute. In other words, the content of Meillassoux's *cogito* requires an exposition. In the footnote of his talk *Iteration, Reiteration, Repetition*, Meillassoux makes a significant note: "I hope that it is clear to everybody that I intend the term 'thought' not solely in the strict sense of rational, argued thought, but also in the broad (Cartesian) sense encompassing every form of subjectivity (sensation, perception, imagination, memory, will, understanding, etc.) I place my confidence in the reader to understand that the strict sense (argued thought) is intended when I accord to the human subject the capacity to theorise the absolute ('the absolute is thinkable'), the broader sense when I speak of the 'closure of thought into itself' (in its subjective representations in general)." (Meillassoux 2012a). If accepted, such a distinction leads to a conclusion that for Meillassoux speculative thinking is stripped of any other aspects of *cogitation* (from imagination to will) and therefore functioning as a pure rationality. Yet what is rationality for Meillassoux?

Let us follow Lee Braver who takes Putnam's quote as a starting point for drawing the main aspects of any realist stance. In his book *Reason, Truth, and History*, Putnam claims: "The world consists of some fixed totality of mind-independent objects. There is exactly one true and complete description of 'the way the world is.' Truth involves some sort of correspondence relation between words or thought-signs and external things and sets of things. I shall call this perspective the externalist perspective, because its favorite point of view is a God's Eye point of view." (Putnam 1981: 49). On his behalf, Lee Braver makes a list of qualities, showcased in a realistic stance:

1) Independence – "the furniture of the universe does not rely upon us for existence".
2) Correspondence – truth is a correspondence between thoughts and things.

3) Uniqueness – there is one and only way to determinate structure independently of us.
4) Bivalence – the truth values must be determinate.
5) Passive Knower – "correspondence knowledge of all independent reality requires passive cognition" (Braver 2007: 15-23).

In fact, Meillassoux can be situated within Braver's scheme rather easily. According to the French philosopher, for him "materialism holds in two key statements: 1. Being is separate and independent of thought (understood in the broad sense of subjectivity), 2. Thought can think Being." (Meillassoux 2012b: 79).

In a classic form of realism, rationality is supposed to grasp the truth of the real – its highest order. Such a presupposition has been held since Aristotle and Plato and has been passed onto a number of analytic philosophers. After all, isn't the correspondence of human rationality and nature's order the basis of the mutual relation between ontology and epistemology? Now, if we turned to Meillassoux, the correspondence relation would seem to be broken. Meillassoux's speculation is to be differentiated from classical rationality since it grasps not the world's order but its radical *Ungrund*, Hyper-chaos.

Stiegler's position is also offering an alternative view on rationality which is viewed first and foremost as an antidote to the stupidity of the world. Although much in debt to Kant's transcendental philosophy, especially regarding the function of the principle of schematism, Stiegler views his position as rather distinct from the Kantian:

> He argued that this analytical faculty that is the intellect, as the understanding, can unfurl the logical consequences of any analytical, conceptual given, on the basis of 'pure concepts of understanding', without anything else having to be added. I myself argue that his automatic intellect, which can automatize itself in the sense of artefactualizing itself, itself presupposes a primordial artifactuality of the schematization – and, through it, of the understanding itself, that is, of its concepts and categories – and that it can, therefore, function *without reason*, as, for example, automated artificial intelligence. (Stiegler 2018c: 71)

Similarly to Kant, Stiegler reserves a very limited space of action for reason but the areas of reasonable activity are understood differently by the two thinkers. For Kant, reason is reserved for contemplating ideas and acting as a generator of regulatory principles and therefore best applied in the realm of morality. For Stiegler, however, reason is associated with calculation and therefore is always accompanied as well as threatened by unreason or, in his own words, *systemic stupidity*. According to the philosopher, the 20th century

has witnessed reason and theory's sublimation to rationalization: "And this inversion of sign, through which reason leads to unreason, progress to regression, is justified under the cloak of reason itself, rationalization then consisting in positing and in having accepted as a conclusion that 'noting can be done', that is, that *there is no alternative*." (Stiegler 2015: 44)

Stiegler's discourse on stupidity bears a sign of ambivalence, which stems from the richness of the meaning of the French *bêtise*. *Bêtise* in French can mean both animality and stupidity and therefore poses an interesting theoretical challenge for such thinkers as Derrida and Deleuze who have also engaged in discourses on rationality, animality and humanity, while applying the same French word. Even though Stiegler extensively and very critically investigates Derrida's take on Deleuze's discourse on *bêtise*, it is not going to be the focus of our research regarding the role of rationality in Stiegler's philosophy. What Stiegler inherits from both Deleuze and Derrida, is the idea that stupidity and knowledge are essentially intertwined. According to him, "knowledge can itself become stupidity par excellence, so to speak. And this is so because knowledge, and in particular theoretical knowledge as passage to the act of reason <…> can occur only *intermittently* to a noetic soul that is constantly regressing, and that, as such, is like Sisyphus perpetually ascending the slope of its own stupidity" (Stiegler 2015: 45-46). Here again, Stiegler has based his discourse on the assumption on the lack of essence which is in the core of being human and is the main reason for him being technological and ever (auto)creating.

In his recent writings (see *Neganthropocene* 2018), Stiegler seems to shift from the notion of *reason* to the notion of *knowledge*. Such terminological change can be explained by the fact that the concept of *knowledge* allows Stiegler to conjoin both interior and exterior qualities of thinking: on the one hand, knowledge is something that human mind operates and generates yet on the other hand, it is also something which is operated and generated. In other words, knowledge is always both a process and a result; a faculty and an object of the faculty. For Stiegler, knowledge is always accompanied by non-knowledge:

> The cognitivist anti-*epistēmē* imposes *absolute non-knowledge* (the age of 'post-truth'): it operates only through the *dissolution of all knowledge into and by calculation*, and, in so doing, it *accomplishes nihilism* – that is, the devaluation of all values. The anti-*epistēmē* of absolute non-knowledge concretized as fixed capital, however, ties the latter to entropy, as we shall see. To think [*penser*] this fact in order to overcome it – to take care of it in order to tend to it or to heal it [*panser*] – requires a *new critique* of Hegel, which would also be a new critique *of his dialectic*, which it

is a matter of 'transvaluing' into a *pharmacology* in Socrates's sense in *Phaedrus*, Derrida's sense in 'Plato's Pharmacy', and Deleuze's sense in *Difference and Repetition*. (Stiegler 2018: 140)

By conjoining thinking with caring for and about what is thought of, Stiegler manages to humanize knowledge once and for all. Having paired artificial intelligence with its antinomic counterpart – the new reticulated artificial intelligence or, in other words, artificial stupidity (Stiegler 2018: 143), the philosopher leaves more hope for the future of humanity than one would expect. Since caring for and about what is thought of cannot be computed, it remains accessible first and foremost (or should we say *only*) to human thinking which eventually leads to acting, given the performative and imperative-imposing quality of care as such.

For both Stiegler and Meillassoux, the Kantian triad of intellect, reason, and imagination proves to be insufficient in order to access, think, and act in the uncertain real. As a solution, both thinkers turn to alternative modes of thought which combine the extra-formal mode of thought with the differentiating work of imagination. Yet in order to trace and explain the difference in their approaches to the uncertain real, one needs to look into their stance regarding mediation. As it will be showcased in the next chapter, Meillassoux's project remains purely formal while Stiegler's has a transformative potential precisely due to the latter's openness to mediating practices and the former's reservedness when it comes to philosophy possibly sharing the stage with other forms of discourse on the real.

3.4. The Problem of Mediation

3.4.1. Overpassing Mediation: Meillassoux and Lovecraft

As already showcased, Meillassoux's idea of Hyper-chaos ought to be read as the absolute precisely because it serves as a fundamental principle grounding the real. The problem, however, resides in understanding, how such a principle ought to be grasped: while a presumption of the existence orderly reality leads to employing rationality as the tool to grasp it, the hyper-chaotic reality cannot rely on the order of rationality since rationality itself appears to be a derivative from the principle of *no reason*. This is the reason for Meillassoux to look for the ways to surpass the finitude of human mind which, in itself, has become an object of controversy among Meillassoux's readers. Such commenters as Shaviro insist on Kant's idea of finitude being indispensable (Shaviro 2014:

131), the bigger part of thinkers involved with Meillassoux's thought tend to see Meillassoux as rightfully surpassing the finitude in a similar scope and manner to Hegel's (see Harman 2011a; Žižek 2011; Gratton 2014). While we tend to join the latter group of Meillassoux's readers, it is useful to pay attention to Sparrow's, who is determined to defend phenomenology from Meillassoux's attacks, remark regarding the accessibility of Meillassoux's absolute: "an intellectual intuition of the mathematizable properties of the arche-fossil does not result in mathematical knowledge *for us*. It is simply uncorrelated, unqualified knowledge of mind-independent properties" (Sparrow 2014: 109). Even so, the question remains of how our flawed and inevitably correlated mind deals with a type of knowledge that essentially surpasses our limits. As it will be shown in this chapter, the knowledge of Meillassoux's absolute as Hyper-chaos requires an approach which would constitute an alternative to rationality as precision and calculation.

Meillassoux's philosophy is rare case of a mixture of both – speculative and fictionalizing – approaches to the real, or, in his own terms, the absolute. On the one hand, Meillassoux takes a speculative path towards the non-correlational reality by putting his trust in mathematical discourse: "Our absolute, in effect, is nothing other than an extreme form of chaos, a Hyper-chaos, for which nothing is or would seem to be, impossible, not even the unthinkable. This absolute lies at the furthest remove from the absolutization we sought: the one that would allow mathematical science to describe the in-itself." (Meillassoux 2008: 108). On the other hand, the term extro-science fiction coined by Meillassoux designates a fictional path towards the non-correlational reality and is presented as a world "where, in principle, experimental science is impossible and unknown in fact." (Meillassoux 2008: 108). He continues to state his goal being "to show the properly speculative benefit of becoming aware of the difference between science fiction and extro-science fiction." (*ibid*).

While his discourse on science fiction has been relatively intact, Meillassoux's stance on mathematics has been often questioned regarding its capacity to actually grasp the real in a non-correlative way. One could be asking if mathematical discourse is seen by Meillassoux as a non-mediated approach to the reality. Moreover, the following question could be raised: what ontological charge does he give to mathematics? Questions of such kind will not guide our research at the time given. either will the tendency of placing Meillassoux's philosophical discourse within the same realm as Mallarmé while object-oriented ontology is so often discussed within the context of weird fiction authors such as Lovecraft, Ligotti and others. As Graham Harman puts it, "Lovecraft, when viewed as a writer of gaps between

objects and their qualities, is of great relevance for my model of object-oriented ontology (OOO). <…> These gaps are the major subject matter of object-oriented philosophy, and Lovecraft's constant exploitation of these very gaps automatically makes him as great a hero to object-oriented thought as Hölderlin was to Heidegger." (Harman 2011b: 11)

While Meillassoux's speculation is the means to face the madness of the reality, fiction can be seen as a way to represent such madness. Here I am following the suggestion of Woodard, claiming that "Kant's critical philosophy and much of continental philosophy which has followed, has been a defense against horror and madness." (Woodard 2011: 3). Woodard proceeds to demonstrate that while Kantian critique is directed towards unleashed world and unleashed mind, the authors of weird literature, namely Ligotti and Lovecraft are working precisely in these margins of madness. According to Woodard, "Speculative thought may be participatory in the screaming tumult of the world or, worse yet, may produce its spectral double. Against theology or reason or simply commonsense, the speculative becomes heretical. Speculation, as the cognitive extension of the horrific sublime should be met with melancholic detachment." (*ibid*). Does the same apply to Meillassoux's speculation? Could we say that when images and notions fail, the nonrepresentational regime of weird literature and non-metaphysical speculation enter the stage?

Both speculation and fiction often demonstrate relations which are foreign to the reality we deal with on a day-to-day basis. Whether it is formulas and abstract notions employed by speculative discourse or an unheard mutation of physical laws in fictional narratives, our commonly shared database of relational structures is confronted with a novelty. Normally, when facing a new element, any coherent system tries to incorporate it by either applying to it an existing law or reconfiguring the system of laws. There is always a third path possible which consists in refusing to incorporate the given novelty into the existent system by stating that the element in question does not fall under the real of the system in question. Yet the incommensurability of different systems shifts from power relations to a more complex game of hide and seek when one of the systems belongs to the realm of the virtual. The virtual discourses, be they speculative or fictional, have the power of transforming the actual discourses without being incorporated or annihilated by them. Once exposed to the perceiver, they are virtually present in everything she is discursively dealing with, even though they never become a part of the actively applied discursive systems. This ghostly presence creates a fold in the reality and invokes the possibility of multiple ontologies which would not be mutually exclusive but would function in a simultaneous reverberating way.

Curiously enough, there is a case where Meillassoux employs a way of argumentation which involves an act of imagining a possible ontological order. In his *Science Fiction and Extro-Science Fiction*, followed by Asimov's novel *The Billiard Ball*, Meillassoux offers a thought experiment which involves the act of fictionalizing and is supposed to support his stance of Hume's problem. Meillassoux reformulates Humean problem in the context of the possible trajectories of a billiard ball: "According to Hume, the question is: what guarantees that the ball will not adopt a trajectory that is not only unforeseen, but in principle unforeseeable, and which cannot be modeled because it escapes not merely every identified law but every identifiable law?" (Meillassoux 2015: 18). Moreover, he makes a claim that certain fictional works, which he chooses to name *extro-science fiction* in order to differentiate them from regular science fiction, can be viewed as a speculative exercise in order to test the hypothesis of radical contingency. Although every attempt at metaphysical or ontological description of the real can be perceived as more or less wild act of imagination (just think of Leibniz and his windowless monads), Meillassoux is explicit in the fictionality of his argument. In this text, Meillassoux claims that Hume's problem should be formulated not on an epistemological level where in a Popperian manner one would ask if current theories can be dismissed because of the possibly emerging new experiments in the future. Rather, the encourages to think about Hume's problem ontologically and, therefore, to ask not about the stability of theories but about the stability of processes and laws (Meillassoux 2015: 15). According to Meillassoux, Hume's problem allows us to think a reality where the laws of physics and other sciences would not apply; even more, we can think a reality where no science as such is possible. He also adds that for Kant, a consciousness without a science would be shattered rationality (*ibid*: 27), in other words, the relationship between consciousness and science is seen by Kant as correlational. Without going into detailed typology of extro-science fiction worlds, one can extract the necessary conditions for a discourse to merit such a name and to be able to represent Hume's argument on ontological level. For Meillassoux, extro-science fiction is a fiction where the events in reality cannot be explained by any real or imagined logics and where science does not exist or exists as negated (*ibid*: 44).

Meillassoux's project is interesting precisely because even though his earlier works exemplify the speculative discourse, the act of fictionalizing is not seen by him as a simple heuristic mean but a constitutive element of the legitimization of the discourse. The text in question should not be seen only as an introduction to Asimov's novel, which, by the way, Meillassoux classifies as a piece of regular science fiction; on the contrary, the text could

be read as another philosopher's argument against correlationism and for the possibility of grasping the absolute. To be fair, the argument from fiction is employed by Meillassoux to support the case that has been presented beforehand in his major work *After finitude* where the mode of argumentation merits to be called speculative. Speculation differs from fictionalizing in the imagery that is employed by each of them: speculative discourse is abstract and formal whereas fictional discourse relies heavily on figurative imagery and narratives. Despite the differences in the choice of imagery and their level of abstraction, both speculative and fictional discourses are dealing with what we would call the virtual which is related to the actual not as a mere possibility but in a reality-constituting way. In other words, neither speculation nor fiction deal with the metaphysically present entities; instead, their object becomes what should, could or must be.

If extro-science fiction allows thinking the real where events do not correlate with thought through science or other explanatory theories, one could ask what images or notions should be applied to think such a reality. The problem with Meillassoux's discourse is that even though he is very careful in classifying the fictional narratives, he does not provide a single example of a proper extro-science fiction, leaving it as a possibility. On the other hand, the concrete examples are not essential since it is more than enough to tell what such a fictional narrative should be about, that is, about the world where no laws or theories have an explanatory power. Such a model or representation remains purely narrative and non-visual, even its narrativity is limited to describing the conditions of its possibility and not the imagery itself. One could say, that extro-science fiction, described by Meillassoux, is a non-representational representation, which has a purely speculative content, meaning, that such a discourse is dealing only with the necessity of contingence and not the contents of a contingent reality.

One could also raise a question regarding Meillassoux's discourse which is not directly related to fiction by asking if it has a problematic relation with representation as well. In order to answer, we should turn to the question of the ontological status of mathematics in Meillassoux's thinking by questioning it being immediate (in the sense of being non-correlative) access to the real. It is important to note that when grounding the thinkability of absolute on mathematics or, to be precise, mathematical physics, Meillassoux does not seem to presuppose that the real itself is mathematical and that mathematical description can grasp the totality of the real. In the 2012 lecture in Berlin, Meillassoux discusses the role of empty sign in formal and natural languages by constructing an argument that an empty sign allows to grasp factuality and is the only way to think the absolute (Meillassoux 2012a).

According to Watkin, Meillassoux's statement that the real can be expressed through mathematics means that the real is (non)existent in the same way as an empty sign is grounding mathematics as such (Watkin 2016: 63). In this way, contingency is implanted not only into the core of mathematics but into the core of the real as well. According to Meillassoux, "The empty sign, qua true sign, uncovers for us the remarkable fact that *meaning is contingent in the constitution of the sign*; that the sign has no need of meaning in order to be a sign." (Meillassoux 2012a). A good example of an empty sign could be x or y in an equation – while being open to any signification, it also has no reason to have a certain expression as x or y. An empty sign is twice arbitrary, yet it serves as a vehicle for the meaning to appear. One could be tempted to think of Derrida's take on Saussure when he talks about gaps of signification in *On Grammatology*. Yet, as Meillassoux points out himself, empty signs are empty of signification not morphologically but on a syntactical level. Meaning, that the task of contemplating such a sign becomes way more challenging. One of the most troubling sentences in Meillassoux's talk is the following: "I am convinced that an essential part of the enigma of mathematics – in what does mathematics consist? what does it speak of? – turns upon the elucidation of the following question: how *can we* think a meaningless sign? And what exactly do we do when we produce such a notion mentally? My thesis will be that we make an eminently ontological apprehension when we do so." (*ibid*). What is the active power in Meillassoux's ontological apprehension? Is it rationality, imagination, understanding? All of them? Or none?

The current stage of analysis of the relationship between fiction and speculation can be summarized by stating that both experience a crisis of representation. While an empty sign can mean anything and everything, the extro-scientific worlds, even though containing events that can be perceived, do not provide any explanation on ontological reasons why those events are occurring the way they are. Despite the grounding emptiness, both empty sign and extro-science fiction function as expression which is formal and narrative. Such expression employs imagination whose job is not to produce, reproduce and synthesize images but to reflect the crisis of images and concepts. Of course, one could say that introducing imagination, images or even the imaginary would mean reopening the already closed door to correlationism and letting back in a portion of subjectivity. Yet there is enough reason to believe that a certain type of imaginary could serve the exact purpose being a shared signifying entity which cannot be fully reduced to the material or the psychological realm. The aspect of speculation that is not touch by Meillassoux that much, consists in a special capacity of thinking (or maybe imagining?) a void which would not be accidental space that has not been

filled in yet, but which would act as a necessary base of everything that is. The weirdness of such *Ungrund* requires not only to look closely to the relationship between speculation and fiction but also urges to rethink the crisis or representation. Such a task requires to conceptualize a specific temporal structure that can be called as deferred time. This will be done based on the premise that in both cases human consciousness is faced with something radically foreign and therefore unthinkable and unimaginable through the means of visual or conceptual representation, yet it could be grasped through caesuras and gaps in the experience.

A great case for acts of imagination resulting in discontinuous temporality has been made by Gaston Bachelard in his book *The Dialectic of Duration*. Although Bachelard's reasoning is aimed at refuting Henri Bergson's idea that duration is always continuous and his stance drifts closer to idealism than materialism in Meillassoux's sense, yet the structure of cogitation employed by the French epistemologist is very insightful for our research, since it showcases how a gradual change in the levels of cogito results in a complete distancing from phenomenological experience. After claiming that the Cartesian *I think therefore I am* introduces existence into thought, Bachelard proceeds to multiply the levels of thought: "If however we can rise to the *I think that I think*, we shall already be free of phenomenological description. If, continuing a little further, we reach the *I think that I think that I think*, which will be denoted by $(\text{cogito})^3$, then separate, consecutive existences will appear in all their formalising power." (Bachelard 2000: 109). Bachelard's reasoning is concluded by stating that our ability to multiply the levels of cogitation is a result of a formed person which, contrary to "flat" psychology, has a deep, multidimensional, temporally constituted through a discontinuous axis which allows us to place such psychological activities as dreaming on an equally important and simultaneous level to the day-to-day rationality. Yet, for our purposes, the formalizing and at the same time ontologizing power of temporally employed imagination is what needs to be highlighted here.

There are three steps in Bachelardian distancing performed by piling the acts of *cogito* on top of each other: (1) the intentionality of consciousness is transformed, (2) continuous flux of experience is disrupted, and (3) the brackets of phenomenological *epoché* are opened. After the third and the most formal act of *cogito*, the consciousness is not only liberated from phenomenological experience, as suggested by Bachelard, but also returns to the ontological dimension. The repetition of the act of thinking leads to dimming the object of thought leaving the consciousness with the very act of repetition and a formal identity of I = I. By turning from its object of intentionality to itself through the act of successive repetition, consciousness

is left with more than a simple tautology. Its identity is proven to be achieved by repetition where the previous member is not simply negated but preserved in a dialectical way. Such a repetition can never be grasped by a synthesizing act of imagination precisely because it is built on two types of lacunae: the successive piling of thought levels and the gradual fading of the object of thought. The I that Bachelard arrives at the third level of cogito is not the same as the Cartesian one: while the latter is closely conjoined to the idea of material existence (as something that thinks, desires, dreams, and doubts), the former is operating on a formal level and constitutes less of a thing and more of a process. The take-away from the excursus on Bachelardian cogito is the following: formality as dissociation from phenomenological objects can have a processual character if performed in a layering, repetitive way, which in itself constitutes a temporality that defies the linear causal logic of everyday time. Because of that, Bachelardian piling of *cogito* can be seen as a speculative act.

Now moving to the analysis of Lovecraftian fiction and its relation to Meillassoux's speculative philosophy, it is important to notice that the key factor allowing us to draw a bridge between speculative and fictional thinking is that they both function as a response to a crisis of representation. When Graham Harman in his book *Weird Realism* describes Lovecraft as the perfect writer for object-oriented ontology (OOO), he does that by showcasing how various Lovecraft works problematize the connections between any two of the following: sensual object, sensual quality, real object, and real quality. According to Harman, the stylistic world of Lovecraft is such in which "(1) real objects are locked in impossible tension with the crippled descriptive powers of language, and (2) visible objects display unbearable seismic torsion with their own qualities." (Harman 2011b: 27). In this sense, as suggested by Harman, Lovecraft can be viewed as "a Kantian writer of 'noumenal' horror" who at the same time is utterly materialist. While it is true that Lovecraftian universe is built around a persistent disconnection between the layers of the real (be it between the perceiver and the perceived or between the apparent and the underlying qualities of the same object), what also merits stressing is the speculative way of achieving such disconnection. If we look into a few examples of Lovecraftian horror while bearing in mind Bachelardian speculative temporality, we will quickly observe a similar distancing from phenomenological objects.

In the story *The Colour Out of Space* there is a description of color which lacks any descriptive power, resulting in a major dissociation of images instead of a visual imagery: "The colour, which resembled some of the bands in the meteor's strange spectrum, was almost impossible to describe; and it

was only by analogy that they called it colour at all." (Lovecraft 2008: 598). Harman points out that such a description merits to be called "a color by analogy" and presents a challenge to the Humean idea of objects as bundles of qualities (Harman 2011b: 68). Yet what needs to be stressed is the speculative character of the analogy in question. Normally, analogy functions as a bridging mechanism between two different objects and/or their qualities, yet in Lovecraft's case, the description of the color lacks the bridging power precisely because there are no qualities to be bridged. It seems that Lovecraft tends to take random phenomenal qualities and join them in a way that strips them of their representational character. This results in transforming them into a speculative bundle which is never unified in an object since it cannot be perceived phenomenologically. In other words, without a corresponding category or schema in the Kantian sense, hardly any unification of perception is possible and therefore phenomena cannot emerge.

In the same story, Lovecraft problematizes discursive representation even further when the main character Nahum describes the traces that he discovered after a meteorite landed in his property: "[Nahum] was never specific but appeared to think that they were not as characteristic of the anatomy and habits of squirrels and rabbits and foxes as they ought to be." (Lovecraft 2008: 600). Here we are witnessing the second level of allusion, "an allusion to an allusion", as noticed by Harman. The thing witnessed is not simply described as unspeakable but the very affirmativity of the description is put into question by claiming that Nahum "appeared to think". In the similar manner as in Bachelardian cogito, adding another layer to allusion, which is itself already hard to capture due to its function as a bridge between two objects or qualities, results in deepening the gap in the meaning that could be generated from the description. The more speculative the allusion, the less clear the projected image. It is hard to argue with the claim that this is one of the sources of the chilling effect Lovecraft's texts are famous for, yet it is also important not to ignore the formality of such descriptions, bringing us to a very peculiar ontological domain where objects are present by being withdrawn not only from perception but also from any rational grasp in general. Layering the levels of the real and thus distancing the initial, phenomenological object leads to a new, different dimension of the real. What it is – the underlying structure or simply the void of cognition – is not for us to tell but the undeniable fact is that this new layer, this new dimension could not be reached in any other way than the dialectical layering of the previous dimensions.

Needless to say, if the phenomenological object is withdrawn, the traditional system of representation falls into crisis, which is the key factor allowing us to draw a bridge between speculative and fictional thinking, since

they both function as a response to the crisis of representation. In Lovecraft's novel *At the Mountains of Madness*, the reader is presented with rather specific yet barely informative descriptions whose lack of recognizable content leads to a chilling effect. Once the expedition to the Antarctic first discovers mysterious buildings, the narrator oscillates between a description of a mirage and a complete refusal to describe anything whatsoever: "The effect was that of a Cyclopean city of no architecture known to man or to human imagination, with vast aggregations of night-black masonry embodying monstrous perversions of geometrical laws and attaining the most grotesque extremes of sinister bizarrerie." (Lovecraft 2005: 37). Missing people and expedition dogs added, the narrative seems to be fueled by the Unseen which is hiding out from human gaze or maybe even surpasses human conceptualization. Note that perception is not actually surpassed here, since certain feelings of disgust, awe, or awkwardness are very much present when the narrator recalls his encounters with the weird mater as well as the weird beings. By weirding of the matter, the possibility of representation is put in brackets since for a perception to form in a way which would allow any form of representation (utterance or image), there has to be a correspondence with the conceptual apparatus of the perceiver. As long as the matter and the beings encountered by the characters of Lovecraft remain utterly weird and unknown, no correspondence can arise.

In his analysis of Lovecraft, Harman makes an observation that "any filmed version of Lovecraft would fall short of capturing his allusiveness" (Harman 2011b: 66-67). The same conclusion can be drawn from our analysis too, even though we do not necessarily subscribe to Harman's belief about each and every object being withdrawn. What Lovecraft achieves is not the illustration of the ever-present withdrawal but the deepening of the crisis of representation. This can be done by forging descriptions which, instead of representing something behind them, work as a speculation without any indication toward the outside. Every attempt at visualizing any of Lovecraftian images results in a failure to grasp it in its entirety, which means that instead of working as a power of synthesis, imagination is employed as a power of dissociation, creating and contemplating the processual presence of gaps within the real.

Whereas in Meillassoux, any possibility to represent is shut down by the enforced gap between consciousness and reality. Viewed as essentially correlative, representation ought to be ditched from speculative discourse which has the ambition to accede to the absolute. This theoretical move is made by accomplishing a shift in the notion of temporality meaning that diachrony imposed by speculative discourse can be seen as a form of crisis of

representation. By exposing the correlational approach to the question of ancestral statements as non-valid, Meillassoux brings into dynamics temporal regime of the "before". Since ancestral statements are made about the real before any temporal consciousness has emerged, Meillassoux presupposes a temporality that is more fundamental than the phenomenological one (Meillassoux 2006: 170). We are no longer talking about the "before and after" in the realm of temporally organized consciousness; on the contrary, the "before and after" of phenomenological temporality itself is in question. Meillassoux's Hyper-chaos grounds the real and is the source of the necessity of the contingent. As he states, "time is not governed by physical laws because it is the laws themselves which are governed by a mad time" (Meillassoux 2014: 26). The notion of "mad time" or Hyper-chaos in Meillassoux's thinking signifies a shift from the ontology of "what there is" to the ontology of "what there may be". As philosopher writes, "hyper-chaotic time is able to create and destroy even becoming, producing without reason fixity or movement, repetition or creation." (*Ibid*).

By viewing the hyper-chaotic time as something that is unthinkable and at the same time generates the static and the dynamic in the real, Meillassoux deprives us of any possibility to grasp the logic of such a temporality. Moreover, if Hyper-chaos is neither about the static nor about the change, there is little reason to think it in terms of temporality, since Meillassoux himself explains the reality of Hyper-chaos by relying on the law of non-contradiction (Meillassoux 2006: 94) which is atemporal. Perhaps, rethinking the notion of chaos exploited in Meillassoux's work would clarify his stance. For Meillassoux, chaos is not just a mathematical property pertaining to a closed deterministic and nonlinear system – instead, it grounds the system itself. In this way, the temporality of such a structure is reversed and begins to turn around the factuality of emergence. For Hyper-chaos to be temporal, it does not have to be necessarily connected to either the static or the change. Consequently, the hyper-chaotic time for Meillassoux is deprived of (or simply not necessarily connected to) becoming. While Harman claims Meillassoux's Hyper-chaos to pertain "only to future moments, not to what is going on right now" (Harman 2018: 198), the fact that Hyper-chaos is interpreted by the French thinker as a principle ordering the reality rather than a state of being within the reality, it makes much more sense to perceive the *mad time* as atemporal. Following Hallward's suggestion that "Meillassoux's time is a matter of spontaneous and immediate irruption *ex nihilo*" (Hallward 2011: 139), I will argue next that the emergence *ex nihilo* is what constitutes temporality of Meillassoux's Hyper-chaos.

Meillassoux is able to account for the emergence of novelty without presupposing any triadic notion of temporality. Instead, he reimagines the notion of virtuality by bringing forth its negative and at the same time generative aspect. Chaos for Meillassoux is to be thought within a tension between the possible and the virtual. While the possibility of something can be measured and therefore is predictable, the virtuality of Chaos escapes both finite and infinite realms of possibilities. To sum up, for Meillassoux, the temporal shift is expressed as a discrepancy between the being and the thought when the latter tries to grasp the ancestral reality which is anterior to the thought itself. Thus, the temporal shift gains its ontological load in a form of the radical "before". In a similar way, such examples of weird literature as Lovecraft's novels perform an analogous temporal shift by presenting a piece of reality which is either rooted in ancestral times (The Great Old Ones) or steps out of human temporality whatsoever (the realm of necromancers). In both – speculative and fictional – discourses the imaginary becomes crucial. Where content-full notions collapse and images fade away, speculation and fiction enter the stage of the imaginary of emptiness – be it *Ungrund* of the real in the necessity of contingency or non-human materiality in Lovecraftian universe of strangeness and horror.

Both speculative philosophical argument for the necessity of contingency (*After Finitude*) and the description of the world without science (*Science Fiction and Extro-Science Fiction*) have as an object not entities of some metaphysical reality which exists in the present mode but that which is absolutely necessary, that is, the contingency of entities and laws of the real. One could say that extro-science fiction presents conditions of thinking as a reality where events do not correlate with thought through the means of science or any other explanatory theories. But how can such extro-science-fictive reality be thought? What images and notions should be applied? The fact that Meillassoux does not provide any examples of pure extro-science fiction is particularly alarming. Of course, one could follow Gottlieb's wishful interpretation claiming that the *unreason*, presupposed in extro-science fiction would undermine the "conventional practices of narrative continuity" and, therefore, one should not be surprised that Meillassoux is able to provide a list of only partial examples of extro-science fiction (Gottlieb 2019: 27). Yet as long as extro-science fiction remains a possibility, its employment in the broader scheme of argumentation remains purely speculative. To be fair, for the argumentation to work, one does not need to look for concrete cases of extro-science fiction. It is more than enough to simply state what such fiction should be about, that is, a world where no laws or theories can explain its events. A purely narrative and nonvisual model of representation is employed

here, and even its narrativity is limited by describing the conditions of its possibility. Therefore, Meillassoux's extro-science fiction functions as a nonrepresenting representation who's not only form (as in the case of Lovecraft) but also the very content remains speculative. In other words, extro-science fiction represents the necessity of contingency but not the content of such contingent reality.

3.4.2. Mediation as Pharmakon

As already showcased in the previous chapter, reality, if understood as uncertainty, requires an approach which would escape reductionism while preserving the capacity to grasp the essence of the real. Meillassoux's flirtatious relationship with science-fiction signals a possible insufficiency of his ultra-formal speculative approach to the real: while perfectly functional as a principle, the idea of Hyper-chaos requires some content to be filled with, not to mention a special strain on intellect and reason which is imposed by the formality of speculative thought. This is where formal imagination enters the stage and this is also the reason why the last chapter of the thesis is dedicated to discussing mediation through imaginary as a pharmacological structure which is capable both obscuring the real as well as opening a crack through which the real could be faced. Without making a direct reference to Stiegler's project and constantly working within the context of his idea of tertiary retention as well as within the context of Derrida's specter and his *hauntology*, we will discuss a few cases where artistic mediation proves to be an efficient means to access the uncertain real as well as their philosophical premises.

Here we are following Sabolius' reading of Derridean spectre and the ontology it presupposes. In *Proteus and the Radical Imaginary*, Sabolius defines spectre as "the primary mediation and, at the same time, the illusion of things themselves" (Sabolius 2016: 72). According to him, "[w]e do not see things, only spectres" (*ibid*) which means that by constantly manifesting itself virtuality makes up the real as such, instead of being some kind of a veil behind which a more realist real would reside. Yet whatever your fundamental assumption on the real might be in terms of its level of uncertainty, the question remains if you hold it possible to be fully grasped by human consciousness. If an ontological difference between how things are in and for themselves and the way they are described by us is presupposed, the question of appropriate language for expressing what we actually know becomes not only relevant but also urgent. Probably the easiest way out of the confusion might be believing that it is our language that projects protentional and

retentional modes of temporality on the monolithic and static real. The further step could be stating that the discrepancies between our discursive way of viewing things and their real way of being can be overcome by embracing another form of language. For instance, the similar conceptual move is suggested by Paul M. Churchland when he suggests that phenomenal qualities (*qualia*) can be reduced to the neuroscientific language without any ontological residue whatsoever (Churchland 1985: 10).

The belief in the possibility of shifting from one language system to another as if it caused no loss whatsoever proves wrong in the multiple cases of the actual vocabulary shifts. For in order to presuppose the perfect translatability one must rely on the notion of the real which remains intact once approached from different perspectives and described by different language-tools. For instance, when Meillassoux talks about arche-fossils as preceding the existence of human race, representatives of which are dealing with arche-fossils from the perspective of science, he assumes the reality of arche-fossils to be a priori unrelated to our cognition. What Meillassoux does not seem to take into account is that long before his book *After Finitude* the community of scientists has agreed on the fact that language (as a paradigm comprising tools, vocabulary, and presuppositions) has a significant effect on the real that is approached by it. Tomas S. Kuhn's spirit haunts every scientific attempt at finding a more effective model not only to represent what is already known but to expand the knowledge itself. The model of the atom, based on the model of solar system in addition to the model of the atom as a dynamic wave, constitutes an immense challenge to imagination as well as promises a huge leap towards the development of a theory which would account for matter as *both* particles and waves. In this way representation as a model not only captures what is known but also allows for something which is only to come to emerge. Consequently, the distinction between epistemological and ontological emergencies of the novelty loses its rigor when models constitute mediation between the observer and the reality observed.

One could point out the obvious visual status of the models in question which remain way too representational in contrast to the only pure language there is (known) – the mathematical language. This is a fair point yet the independence of mathematics from representational logic and ontology should be considered with caution. When Meillassoux writes about measuring the age of certain arche-fossils, he strongly relies on mathematical expression of the measurement in question. What should be stressed, however, is that 4.56 billion as a number makes sense only in the realm of numeric kingdom which, if not applied to any object, is neither present nor represented. Whereas when 4.56 billion is spoken of as a number of years of Earth, which is the case in

Meillassoux's book, we are no longer dealing with pure numeric expressions and their relational reality. Earth and time that are measured by numeric expression remain human-related since their meaning is deeply rooted in representational models, such as Earth as a celestial body and timescale based on arbitrary divisions into time periods. Not to mention the point of departure that is necessitated by any kind of temporal measurement: x happened on Earth 4.56 billion years ago *from a point of view chosen by us*. If applied mathematics is in question, the correlationist residue remains present.

The interchangeability of different vocabularies would mean that not only the real but also the observer remains intact once there is a shift from one vocabulary to another. Yet exactly the opposite is the case: the very act of shifting from one paradigm to another constitutes a cognitive rupture once the difference between the old and the new systems is conceived as well as once the new system's suitability to represent the real is acknowledged. Moreover, an assumption that the distinction between the real (what there is) and the reality (what appears to be) is caused by vocabulary problems leads to not being able to account for the emergence of novelty in the real. There are at least two ontological levels of the real: the "what is" and the "what once was not". If the real is what there is then we can only account for what is present yet there is no possible way to account for the crossed out *what* or for the emergence of any *what* whatsoever. This *white zone* of the real forces upon us the need of both accepting the idea of a difference in ontological layers of the real and the special kind of mediation which would be capable of putting into a discourse and thus rendering intelligible the not-yet-given part of the real.

An excursus to the artistic mediation must be made in order to develop an argument for the necessity of mediation in a form of representation even when the latter is to be dismantled. Contrary to what one would expect, the artistic practices which associate themselves with anti-representationalism tend to add more levels of representation instead of stripping them down. The following two examples make good illustrations of how facing the real in art is achieved by multiplying the levels of mediation.

The first example is Claude Lanzmann's documentary "Shoah" (1985) – the iconic case of anti-representational cinema. A documentary is a problematic genre on its own since it evokes the question of what constitutes the relation between the real and its representation. What makes the situation even more complicated is the fact that "Shoah" is dealing with the subject of Holocaust, immediately evoking the dilemma of the impossibility of representing the atrocities that are believed to surpass human imagination. What makes "Shoah" an anti-representational statement is the fact that it is based entirely on testimonies of survivors, witnesses, and German

perpetrators, followed by visits to German Holocaust sites. Strictly speaking, Lanzmann is representing nothing more than there is *actually* in a possession of ours: the sites of atrocities that can hardly be recognized as such because of the soothing flow of time and the testimonies of those who can only represent never rendering it fully present what actually happened. In this way, Lanzmann is going against the very nature of cinema, which has always strived to create an illusion of the actually given by hiding it under the veil of representation. Over nine hours long, "Shoah" is almost impossible to watch since it surpasses any rules that have been previously set by cinema which was expected to balance between the not-enough (that would preserve the interest of the viewer) and the just-right (that would prevent the viewer from getting tired in front of the screen). It is as if Lanzmann was demonstrating the raw material of the footage without editing it, thus, without applying to it any representational tools such as narrative or acting. Yet "Shoah", like every other work of cinema, has been edited – it was cut, directed, the lighting and sound were adjusted, etc. The only difference between the representational cinema on Holocaust and Lanzmann's "Shoah" is that the latter makes a statement about the irrepresentable whereas the means – cinematic mediation as representation – are ultimately the same in both cases.

Lanzmann's "Shoah" might appear as a relatively weak case of anti-representation because of its belonging to the sphere of cinematic art which is essentially mediated and thus a priori representational. That is why another, a more radical, example of an artistic practice is necessary. The Zooetics research, conceived by Nomeda and Gediminas Urbonas in dialogue with Tracey Warr and Viktorija Šiaulytė, is focused on finding a common language across sciences and arts as well as exploring the disconnection between human knowledge and the knowledge of other life forms. As a part of their research, *Psychotropic House* was installed at the Contemporary Art Centre in Vilnius in 2015. Built as a laboratory, the installation challenges the idea of active construction and creation by humans which normally constitutes the essence of any artistic practice. At the *Psychotropic House*, mycelium – a life form of extra-terrestrial origin – is the main active force. By parasitizing and colonializing other cultures and materials, mycelium creates hybrid constellations that have been named by the artists as "the plastic of the future". It is important to stress that it is not mycelium itself that makes the representational paradigms shift but the very fact of including the non-human life form in the artistic domain. By questioning the authorship, the being-made, the distinction between organic and inorganic, and the tension between object and subject, Urbonai make use of mycelium and the hybrid structures it produces *in relation to* artistic representation. Once again, we cannot assume

any presentation coming first since our practices (artistic practice being just one case among others) are essentially representational.

It is true that mycelium does not have its own point of view to which we could switch from our representational models and schemes. It is always our point of view that is modified by letting the mushroom-like life form make art while the perspective of mycelium remains out of reach to us. This is where a crucial choice has to be made if we want to preserve the idea that there is a representation-free real: either we agree that the real is a hidden side of any representation which allows representation to gain its form or we accept the fact that the real is the very shift between different representational schemes. In the first case, the facing of the real becomes possible for anything or anyone but us since bacteria, absorbed by the colonializing mycelium, face the real in a way which is essentially closed for our experience. In the second case, facing the real would mean diving into the lacunae of the plead between different representational schemes – which leads not to stripping down the reality of representational schemes, but on the contrary, results in multiplying representational layers. Since the first path proved to be a blind alley, we are shifting to the second one.

As already witnessed, representational ontology is something that we cannot do without which means that representational structure is as ontologically necessary as our breaking free from it. Let us take a little detour and discuss the utopian thinking as the most heavily mediated (and paradoxically – one of the most open) way of dealing with the future.

One should bear in mind a rather common criticism of poststructuralist thinking when its incapacity of catalyzing a change or producing anything new both discursively and ontologically is pointed out. For instance, Richard Rorty has repeatedly expressed his critical attitude towards the emancipatory potential of the projects developed by such thinkers as Foucault and Derrida while at the same time remaining unenthusiastic about modernist utopian narratives. The problem with such a critique resides in it being grounded on dualist logic which necessitates a choice between a radically open non-narrative futurity and a discursive future-oriented narrative. Instead, by refusing to apply the dualist scheme one can showcase that even the most mediated future-oriented narrative brings forward a radical semantic and ontological openness.

Since Rorty in his *Philosophy and Social Hope* discusses the Holy Scripture and Communist Manifesto as two instances of narratively rich utopian emancipatory discourses (Rorty 1999: 208), let us stick to those two instances of utopia as the paradigmatic ones. It would be too simplistic to assume that the mentioned narratives could weight out the supposedly

content-lacking postmodernist discourses. Firstly, neither The Kingdom of Heaven nor classless society represents a reality that surpasses our given situation since the real in question is approached by the mediation of our historical experience, semantic relations prevailing in our language, and individual or collective imagination. Secondly, every utopian narrative is self-negating but not in the sense that it fails when actualized or that it is not able to describe the awaited real in its full scope. Every utopian narrative negates itself because, having been generated in and by the present-grounded structure of thought, all it can achieve is a disclosure of ruptures in the real. In a sense, utopian thinking is *about* future but is not future *per se*. On the other hand, an actualized utopia is an oxymoron since as soon as a narrative is actualized it is no longer future-oriented because it turns into a new given real. Therefore, any utopian narrative is based on and structured by the negative: the never-becoming-real is what allows a radical novelty to emerge.

It looks like *a-venir* escapes any attempt of phenomenological tematization as well as any discursive approach because it is never given as such. And yet it is precisely through mediation that the generative *nihil* of *a-venir* is not only given to us as conscious beings but also emerges ontologically. Anselm Kiefer's works constitute a very representative case of facing the real of *a-venir* through artistic mediation. The German painter is known for his colossal works aimed at rethinking the relation between history and future, dystopia and present, destruction and renewal. The most relevant word to summarize the imagery of Kiefer's paintings and installations would be "debris". Debris of cathedrals, abandoned industrial spaces as well as tombstones of great historical figures – all this imagery constitutes a glimpse at the almost destroyed past as well as a reminder of a possible destruction of the future. In his interview with Jean-Michel Bouhours, the curator of Kiefer's retrospective at the Centre Pompidou in Paris which took place from December 2015 to April 2016, the artist shares his view on time: "My idea of time is that the more you return to the past, the more you advance into the future. It's a double, contradictory movement that expands time" (Kiefer 2016). When asked about the eschatological intent in his work, Kiefer expands on his circular understanding of time: "Today, people worry about changes, animals disappearing, the disruption of nature. Yet thirty million years ago, a meteorite killed off three-quarters of existing species. Nearly all living things disappeared, and yet another phase of evolution began, about which we still know very little…" (Kiefer 2016). In order to face the future, Kiefer puts human history into a circle and then tears it up allowing the memories about what has never happened to emerge through imagination. Through an extreme

mediation of images, the real is not only (re)presented but also emerges as a chance to change the future before it is not too late.

We must admit that Kiefer's works are limited to the artistic practice whereas non-human reality succumbs to a totally different logic – a logic that remains hidden from us. Can Kiefer's approach be applied to Meillassoux's arche-fossils? Yes, because the ontological tension between the temporality of consciousness and the time that precedes human consciousness is actualized by mediation – be it an artistic practice (as in Kiefer's case) or mathematical language (as in Meillassoux's argument). There is no reason why this ontological tension cannot be put into a circular play outside the artistic domain. In fact, arche-fossils are already temporally circulating since they bring forward the irrepresentable past and point out the irrepresentable residue in every representation. Therefore, if *a-venir* is about what is yet to come, it must destroy itself in relation to what is. Representation is what must be repeatedly slain in the yet-to-come of the future. In this way, *a-venir* is the return of the end of the representation.

As the conclusion of the chapter as well as the thesis is approaching, it is important to say that one can hardly find two more different thinkers than Stiegler and Meillassoux when it comes to their account of the question of mediation. As an adamant critic of Kant and passionate defender of mathematics being able to provide us the directly access to the thing itself, Meillassoux stands on the furthest step in the scale of mediation, almost approaching the view that human mind as such is capable of accessing the real without any mediating agent. Stiegler, on the other hand, is known for his idea that human consciousness is as temporal as it is technical, which leads to him considering such medias as cinema, social networks and other capitalist structures not only as powerfully influential to humanity but also as an inevitable result of its techno-temporal projections. Despite the seeming different paths and even destinations (considering that Stiegler's discourse is continuously shifting towards political activism while Meillassoux remains in the realm on theoretical ontology), the relationship between their notions of the future and their understanding of mediation is not only very close but also rather problematic. In Meillassoux's case, the notion of mathematics as well as the role of language in grasping the chaotic absolute require a separate investigation; while Stiegler's discourse urges rethinking and further conceptualizing the relation between human and material technicity as well as the possible scenarios of exploiting their healing aspect by exercising a political act.

Let us turn to Bernard Stiegler's *Passer à l'acte* where he recalls the spatiotemporal experience which he had lived during his incarceration. Being

imprisoned means living within a circle of repetition with no rupture except the release which results in a shift from one cycle of repetition to another at most. The temporality in prison appears to be much more restricted than the temporality outside the bars because of the extremely limited space: life among four walls, the same inmates, the repetitive selection of meals served exactly at the same time, and regular walks in the spatially limited courtyard. As Stiegler notices, when one is deprived of her world comprised of choices, she is rendered incapable of structuring her being in the world (Stiegler 2003: 26-27). This is when the idea of an interior field which would remain intact to the controlling forces comes to mind as a promise of liberation from the imposed rhythms. Stiegler claims to have realized that even though the everyday life in prison brings no actual change or any hope for it the living memory of the consciousness tends to transform day after day (*ibid*). Apparently, everything that Stiegler manages to find in his consciousness is related to memory: the books he has read, the works of art he has encountered, and the language he has learned and has been applying since. Interiority as a problem as well as a necessity emerges when a rhythmically monotonous temporal order is faced by the consciousness. Yet any attempt at investigating the contents of the discovered interiority results in a failure to distinguish between what is interior and exterior in relation to consciousness. Stiegler's approach allows us to see that Kantian *Self* is always already exteriorized: it is surrounded by its objects which are at the same time its prostheses – the situation resulting in constitution of a non-lived past which, according to Stiegler, can become someone's past if and only if it becomes their future (Stiegler 2009b: 49). In other words, exterior traces (such as language) can constitute an impact to the consciousness only after having been actualized, appropriated, interiorized in such a way that they would become a part of conscious self-hood and thus take part in its project.

It could be objected that the claim about the essential bond consciousness has with technics can only be made from the perspective of the active consciousness and thus serves as a projection of the vision of human essence. According to Hansen, the idea of the tertiary retention is doomed for contradiction if the project resides in explaining the effect technics has on consciousness without surpassing the consciousness itself (Hansen 2012: 46). By refusing the metaphysical distinction between the organic and inorganic, Stiegler showcases the essentiality of the relation between consciousness and technics yet it does not necessarily mean that Stiegler's project leads to a contradiction. As long as one accepts the idea that collective time measurement (calendars, time zones, clocks) and synchronized rhythms (working hours, annual festivities, traffic jam frequencies) affect individual

temporality in a significant way, the presupposition of a clear and strict distinction between personal and collective temporality cannot be taken seriously. Moreover, the distinction of authentic and inauthentic temporalities is challenged[11]. Once stuck in a traffic jam and feeling bored, I may plunge into the temporality of the melody that is airing or I may start day-dreaming which would cause me to enter into the sphere of an altered temporal structure where time may fly extremely fast as I fantasize about the distant future or it might freeze as I contemplate the pattern on a car seat. My inner temporality is structured by the images which offer their own temporal rhythms – but where do these images come from? On the one hand, it is my imagination that projects, composes and structures the imagery of my day-dreaming in the traffic jam; on the other hand, the imagery that is reactivated by my imagination has not been entirely created by it and can find its prototypes in the outside world. Needless to say that being in constant need of exteriorization (in the form of language, tools, technology, etc.) renders human consciousness prone to being "hacked" by the exterior temporal structures which are employed to constitute, shape, and restructure one's personal temporality. The technical essence of human beings explains the possibility of dreaming someone else's dreams[12] or succumbing to the industry of imagery[13].

In Stiegler's recent works, the element of futurity enters in the form of a reimagined notion of rationality as well as that of critique and is functioning on the premise of disjointing linear temporality. The *time out of joint* in Stiegler's project appears in two forms: as short-circuits of thought and as discrepancies of speed. The short-circuits are explained by Stiegler in a similar manner to Horkheimer and Adorno who also work on the premise of Kantian schematism. Being always already exteriorized and exteriorizing, the

[11] For instance, both Henri Bergson and Martin Heidegger exploit the distinction of the authentic and the inauthentic. Defending the idea that duration can be spatially measured only if it concerns the time that has passed as is not actually lived, Bergson echoes Heidegger's discourse on the difference between *Dasein's* care as its mode of projecting its being and *Das Man's* forgetfulness once trapped among careless mundane activities. Both thinkers rely on a presupposition that there are two different temporalities and the only criterion to distinguish between them is their proximity to the human subject.

[12] In one of the interviews given in 1987 and aired in FR3 television under the title *Qu'est-ce que l'acte de creation?*, G. Deleuze utters his famous phrase: "if you are caught in the dream of another, you are screwed".

[13] See M. Horkheimer and T. W. Adorno, *Dialektik der Aufklärung*, Frankfurt am Main, Fischer Taschenbuch, 1989.

principle of schematism is prone to hacking which can result, in Stiegler's terms, in a disruption operating through short-circuits:

> it proletarianizes individuals and replaces them with automatisms, which, through this very fact, bypass and short-circuit them. <…> After the advent of the culture industries, which made it possible to control ways of life, but which could do so only at the cost of a total proletarianization of the consumer, today's 'data economy' amounts to a new stage of this proletarianization, one that outstrips and overtakes our will and our volitions via platforms (Stiegler 2018: 126).

By shortening the path of conceptualizing and imagining, the industries of schematism are threatening to dream our dreams for us which is a direct challenge to the freedom of an individual being who becomes deprived of the possibility and even a necessity of critical thinking. This is made possible only because of the primordial disjoining of time which Stiegler describes as discrepancies in speed:

> Technics evolves *more quickly* than culture. <…> What *shock* would be provoked by a device going quicker than its 'own time'? Such a shock would in fact mean that speed is older than time. For either time, with space, determines speed, and there could be no question of breaking the time barrier in this sense, or else time, like space, is only thinkable in terms of speed (which remains unthought). (Stiegler 1998: 15)

It is important to note that for Stiegler, speed does not result from the conjunction between time and space. According to him, "<…> intelligence is but a type of mobility, a singular relation of space and time. <…> différance is itself also a conjunction of space and time more originary than their separation. <…> différance will, perhaps, have to be thought *as* speed." (Stiegler 1998: 146) Thinking of speed as of *différance* allows Stiegler to capture its pharmakological character which means that in the moment of bifurcation between the possible future scenarios, a radical openness is present in the form of an invitation for the individual to take the responsibility of thinking about and acting upon the threat of the catastrophe, be it the global stupidity, as discussed by Stiegler, or such problems as global warming, radical political movements, and others. Needless to say that the formality of Meillassoux's Hyper-chaos is lacking such an imaginative-transformative potential yet, on the other hand, its speculative character can be seen as a means of liberation from the poisonous structures of correlative mind.

CONCLUSION

While the concept of *a-venir*, stemming from the thought of such philosophers as Deleuze and Derrida, functions as a disruptive element within the causal temporality, bringing forward the unexpected and the unpredictable, the notion of the ontologies of *may-be*, presented in this thesis, penetrates even deeper into the realm of uncertainty by being related not only to the future mode of things but also to their being as such. Both Stiegler and Meillassoux's projects can be called the ontologies of *may-be* as they share the openness to radical change which does not succumb anymore to the causal temporal chain. In Meillassoux, it is in the form of Hyper-chaos as a principle which is able to generate anything and everything as long as it is non-contradictory. In Stiegler, the ontology of *may-be* acquires the form of pharmakological aspect of the technics which is equally likely to create and to destroy, depending on the level of critical engagement with it. Yet the difference between Meillassoux and Stiegler's projects lies in the level of optimism they showcase regarding the capacity of human mind to grasp the openness of the may-be. While for Meillassoux the may-be ultimately transcends human and is accessed by her only as a formal principle, Stiegler's may-be ultimately depends on human mental and physical activity.

Reading Stiegler next to Meillassoux allowed us to expose the not-so-obvious sides of their projects: Meillassoux's epistemological side (the previously unthought path of speculative imagination as an access to the absolute) and Stiegler's ontological premises (temporal reverberations and discrepancies as the base of human-technics relationship). In both cases, time and imagination appeared to be crucial as the shift from ontology of being to the ontologies of *may-be* puts to test our access to the real which, as long as it is radically open and uncertain, can no longer be fully grasped by the calculating and causally wired reason. In Meillassoux, it is speculative imagination that allows to grasp the absolute real, whereas in Stiegler, it is specific temporality that grounds human as such as well as technical traces. In Meillassoux's case, the paradox of formal imagination has been revealed: pushed to the extreme level of formalizing, the imaginative activity turns into a negating vortex which eventually wipes out the human reason altogether. As a result, Meillassoux's project, aimed at posing and possibly solving the problem of the necessity of correlation between human mind and reality, appears to be successful on the condition of dehumanizing both sides of the equation, thus when the famous cry for *the great outdoors* is pronounced, a silent remark ought to be added that when the doors open, there might be no

one to step through them expect of the most purified mode of thought, a.k.a. a formula (of non-contradiction, if staying true to Meillassoux's project). Stiegler, on the other hand, is much more open with his take on imagination when it comes to the technical nature of human's relation to the world, yet the pharmakological character of tertiary retention results in a similarly powerful uncertainty as in the case of Meillassoux's Hyper-chaos. Yet differently from Meillassoux, Stiegler's uncertainty is not only tolerating human presence but also requiring its active participation in both understanding and creating the real. Despite not showcasing any human-erasing tendencies, Stiegler's project can be exposed to have a similar underlying paradox to what we just called Meillassoux's negating vortex: if technics is neither inside nor outside of human, imagination engaging and inhabiting it can be also perceived as at least not necessarily or not entirely human. As a result, the question of correlationism can never reach the status of a problem in Stiegler's project precisely because the imagination employed on both human and non-human sides of the equation is deeply mediated and therefore always necessarily entangled with the reality as such.

Reading Stiegler and Meillassoux in the context of Derrida and Deleuze's projects as *time out of joint*, allowed us to achieve two things: 1) to showcase the emancipatory potential in Derrida's arche-trace and Deleuze's difference as repetition in political and theoretical (in the sense of metaphysics) realms; 2) to re-contextualize Stiegler and Meillassoux's thought in relation to the contemporary French postmodernist thought and to draw their potential of overcome the drawbacks and shortcomings of it. Stiegler's potential resides in equipping the individual with political power to change and shape not only herself but the social structures. In this way, he moves one step further than Derrida's project of deconstruction. Meillassoux's potential resides in returning to the individual the power to grasp the real in a non-correlational manner. In this way, he puts into action Deleuzian imperative of philosophizing as creatively posing and solving problems.

In the face of contemporary challenges arising in such contexts as global warming, fake news, or the need to re-evaluate human-machine relationship, both philosophers provide a future-oriented array of tools to rethink human as such. Stiegler's project allows to de-villainize technics and technology while Meillassoux's non-correlational approach to the real demonstrates the possibility of grasping the world from a non-human point of view which may be fruitful for the purpose of ontologically grounding the project of de-centralizing human.

Perhaps not entirely unexpectedly, Stiegler and Meillassoux's debt to Kantian philosophy results in the inescapable interrelatedness of their

theories. Although both expanding transcendental subjectivity by either pushing it to and over the limit (Meillassoux's ambition to think the absolute) or introducing a radically foreign layer to the subject (Stiegler's temporal technics and technical temporality), Meillassoux and Stiegler seem to depend on Kantian structures through the development of their theories. Previously non-thematized yet, as showcased in the research, essential role of imagination when accessing the uncertain real is of an equal importance in Stiegler and Meillassoux's thought. Yet as the discussion of various artistic practices and their access to the real has showcased, the speculative (Meillassoux) or critical (Stiegler) thought is in need of its supplement – the mediated, the imaginary, the virtual – that would problematize the concept of representation in the face of the future as the uncertain real.

Lastly, our research allowed to trace two possible views on how the future of ontology might look like. Stiegler's project showcases a tendency of shifting from ontological to ontic strata of being and preoccupying primarily with praxis of human existence. In other words, it is ontology in action, ontology that equips us with tools to understand and shape our being. Yet such shaping overflows into the realm of activism instead of remaining within the shores of philosophical activity. On the other side is Meillassoux's project. As original and daring as it is, the project of non-correlationist access to the real can hardly see a continuation due to the formality of ontological statements made by it. Although intellectually stimulating, it remains isolated from other theoretical or political acts.

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