

## RETHINKING HUMAN: TRANSCENDENTAL IDEALISM TECHNOLOGIZED<sup>(1)</sup>

### **Abstract**

In this paper the relationship between human and machine is conceptualized by reading Quentin Meillassoux, Bernard Stiegler and Catherine Malabou. The paper traces their debt to Kantian transcendentalism and exposes their differences in treating the relationship between subject and its surroundings. While Meillassoux's non-correlational subject is showcased to be problematic due to his unclear concept of mathematical mediation, Stiegler and Malabou's takes on epigenesis are proved to be more fruitful, yet different in relation to the idea of materiality, approaches in conceptualizing the human-machine relationship and its future creative potential.

**Keywords:** Malabou, Meillassoux, Stiegler, Technology, Transcendentalism.

Since 1980 there has been numerous theoretical and practical movements claiming that artificial intelligence is about to take over humanity<sup>(2)</sup>. French epistemologist Dominique Lecourt has named this generation of thinkers biocatastrophists who share one goal among themselves — to surpass the limits of the being in the world by rethinking or even overcoming human as such

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(2). 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).

(Lecourt 2011). This would be Alain Turing’s dream come true: a machine, once created relying on human intellect 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.

[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 theoretical and practical endeavors 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. In this paper, we will reconstruct Bernard Stiegler, Quentin Meillassoux and Catherine Malabou’s notions of subject which all bifurcate between technicity and transcendental subjectivity in order to test their effectiveness to conceptualize the challenges posed by the idea of human-machine symbiosis.

## **1. Homo Sapiens or Homo Machina?**

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 which are viewed as lacking the performative function of thought.

In Kant, thinking is divided into different types (intellect, reason, imagination) and undergoes a shift from a function to a capacity as a faculty of consciousness. Take, for instance, Kant’s description of synthetic propositions, which are defined in purely processual if not performative vocabulary:

They contain merely the rule, by which we are to seek in the world of perception or experience the synthetical unity of that which cannot be intuited a priori. But they are incompetent to present any of the conceptions which appear in them in an a priori intuition; these can be given only a posteriori, in experience, which, however, is itself possible only through these synthetical principles. (Kant 1998: 320)

By stressing the potential of thought rather than its actual activity, Kant deprives the thought of ontological leverage and it becomes no longer responsible for granting being to the thinker. By dividing thought into intellect, 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* in order 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 transcendentalism is introduced, human is marked with something *other* — an inexperienced and unthought element which is yet essential for any and every human being.

The *other* 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<sup>(3)</sup>. Almost a century

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(3). 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

ago, Horkheimer and 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?

## 2. The (Im)Possibility of a Non–Correlationist Subject

The possibility of transcending the limits of transcendental subject is shared not only by biocatastrophists described by Lecourt but also by speculative realists (Quentin Meillassoux, Graham Harman, Ray Brassier, Iain Hamilton Grant) 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<sup>(4)</sup> Meillassoux claims that there are

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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).

(4). 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).

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, one needs to shortly discuss the limitations Meillassoux’s anti–Kantian position might have. Even though 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 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).

Yet the question remains if 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 — it 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, it would not only remain the same even if the humanity disappeared from the Earth but 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 the

(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 intellect. 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 the 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:

- 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.
- After transcendental analytics is replaced with existential analytics, all knowledge is seen as working on the level of projection and becomes knowledge-towards-death.
- 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.

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 writing on the mathematization of the world as a Galilean revolution, almost does not touch the question of technics. Stiegler, on his part, showcases that “There is no “reason” nor “idea” without *organon*: *eidōs* and *lógos* 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 is never 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 of 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. Stiegler's project is aimed at 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.

### 3. Can a Machine Be Spontaneous?

Let us now return to Minsky's image of machine-flesh and as what philosophy has to comment on it. *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?

Umberto Eco's response 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, it 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 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 Catherine 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 intellect 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 still relies on Kant's theory of cognition, contrary to Meillassoux who completely reverses his predecessor's thought and differently from Stiegler who performs a deconstruction of it. Malabou notes that when Kant speaks about the power of formation, he 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 enough, Kant describes 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).

#### **4. Transcendentalism Reimagined**

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 exist 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, transcendentalism is not something that is given beforehand but rather as a morphological creativity which, by inventing categories, changes the very inventor — the subject — itself. As showcased by Malabou, the very 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, as 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 adaptive, as the brain is.

It is worth noting, that Stiegler's reactualization 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 materiality as Malabou's does. Therefore, the two philosophers view the relationship between con-

sciousness 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, there is no space in Malabou's thought 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 from the creative process negation and annihilation. 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 anticipational 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" (Malabou 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.

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DAINA HABDANKAITĖ

Vilnius University, University of Turin; d.habdankaite@gmail.com.