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Thinking the Machine: Supplement, Mimesis, Metaphor

Keywords

machine, labor, supplement, simulacrum, metaphor, desire, knowledge

Abstract

The fact that we were used to thinking non-thinking machines, the ones supplementing human physical labor, and that we are only now encountering machines that supposedly supplement human thinking, does not mean that this is either the direction in the evolution of the machine or the genealogy of ideas about the machine. Psychoanalysis tempts us to say that the history of the machine could only be written together with the history of the unconscious, while studies of ancient orality reveal to us the intricacy of the oral technicity predating the technology of the written word. This means that the machine predates a simple tool, and highlights the possibility of thinking a genealogy of the machine, which must necessarily entangle with the genealogy of thought and memory. Following this line of thought, we should correct ourselves by saying that the idea of a machine that thinks is not a contemporary occurrence after all.

Misliti stroj: nadomestek, mimesis, metafora

Ključne besede

stroj, delo, nadomestek, simulaker, metafora, želja, vednost

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Povzetek

Dejstvo, da smo bili navajeni misliti stroje, ki ne mislijo, tiste, ki nadomeščajo človekovo fizično delo, in da se šele zdaj srečujemo s stroji, ki domnevno nadomeščajo človekovo mišljenje, še ne pomeni, da je to smer razvoja stroja ali genealogija idej o stroju. Psihoanaliza nas napeljuje k temu, da bi rekli, da je zgodovino stroja mogoče pisati le skupaj z zgodovino nezavednega, medtem ko nam študije antične oralnosti razkrivajo

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njihovo zapletenost, ki predhodi tehnologiji pisane besede. To pomeni, da se stroj pojavi pred preprostim orodjem, kar kaže na možnost mišljenja genealogije stroja, ki se mora nujno prepletati z genealogijo mišljenja in spomina. Če sledimo tej misli, bi se na vsezadnje morali popraviti in reči, da ideja stroja, ki misli, vendarle ni sodoben pojav.



The Supplementary of the Machine

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What does it mean to think the machine and how does it differ from thinking the *thinking* machine? Can we think what the machine thinks, and if so, does our thinking have the same relation to the machine as our arm has to the lever, wedge, or hydraulic arm, or is this relation more like the one between our legs and the wheel? Is this relation therefore synecdochic or rather metonymic? This open set of questions raises another, namely regarding the relationship between thinking and the machine. The fact that we were used to thinking non-thinking machines as the ones supplementing human physical labor, and that we are only now encountering machines that supposedly supplement human thinking, does not mean that this is either the direction in the evolution of the machine or the genealogy of ideas about the machine. Psychoanalysis tempts us to say that the history of the machine could only be written together with the history of the unconscious, while studies of ancient orality reveal to us the intricacy of the oral technicity predating the technology of the written word. This means that the machine predates a simple tool, and highlights the possibility of thinking a genealogy of the machine, which must necessarily entangle with the genealogy of thought and memory. Following this line of thought, we should correct ourselves by saying that the idea of a machine that thinks is not a contemporary occurrence after all.

There is nothing contradictory about (1) being a machine and (2) being able to feel, to think and to tell right from wrong like telling blue from yellow.¹

¹ Julien Offray de La Mettrie, *Man-Machine*, ed. Jonathan Bennett (n.p.: Early Modern Texts, 2009), 30.

With La Mettrie and the materialisms of the Age of Enlightenment, the relation between thought and machine changes: thinking no longer opposes life in the same way as life opposes inanimate matter and freedom opposes the constraint of causation, but instead begins to represent the structure of the thinking apparatus that operates thought as its possibility. Of course, the point is not to claim that La Mettrie presents us with something new that has never been thought before, for we could argue that this thought can be traced back at least to Aristotle.² It would also be futile to engage in debates about dualism and monism when we should instead begin by tracing the territory of the questions raised above. The transformation of the opposition between thought and machine into a relation between a structure and its productions should not lead us to confuse the life that bears the machine with a machine that bears life, but instead we should follow the productions of this uncanny similarity between the artistry of life and the life produced by artistry.

It is in light of this elusive difference that we propose reading the works of Samuel Butler and Karel Čapek. When reading Butler's *Erewhon*³ and Čapek's *R.U.R.—Rossum's Universal Robots*,⁴ one can detect a certain fear of the supplementarity between man and machine, which becomes so characteristic at least in the second half of the nineteenth century although, as we will attempt to show later, the genealogy of this fear stretches further back in time.

The first hint of this fact can already be found in the title of Čapek's play, as the word robot comes from the Slavic word *robota*, meaning forced labor, which is presented in the play in the form of a machine that is made and bound to work as a supplement to human labor. The condition for this deployment lies in the robot's ability to carry out work faster and without any need of rest. In the play it is stated that young Rossum had to remodel early robots invented by his fa-

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² “Now given that there are bodies of such and such a kind, viz. having life, the soul cannot be a body; for the body is the subject or matter, not what is attributed to it. Hence the soul must be a substance in the sense of the form of a natural body having life potentially within it. But substance is actuality, and thus soul is the actuality of a body as above characterised.” Aristotle, “On the Soul,” trans. J. A. Smith, in *The Complete Works of Aristotle: The Revised Oxford Translation*, ed. Jonathan Barnes, vol. 1 (Princeton: Princeton University Press), 656, 412a17–22.

³ Samuel Butler, *Erewhon: Or, Over the Range* (London: Trübner, 1872).

⁴ Karel Čapek, *R.U.R.—Rossum's Universal Robots*, trans. David Wyllie (eBooks@Adelaide, 2006), Manybooks.

ther, Dr. Rossum, because “the old man [...] had no idea at all about industrial production.”⁵ His robots were too human-like and so young Rossum “threw out everything that wasn’t of direct use in his work, that is to say he threw out the human and put in the robot.”⁶ Apart from the physical and emotional limits imposed on human work, the adjective “universal” expresses the machine’s ability to be used in a wider range of demand, in contrast to human work, which is necessarily specialized and therefore must be educated for a long time, whereas robots with their “amazing memory,”⁷ learn at the first encounter with the knowledge being taught to them, as if they already possess it, in the simple way of their constitution.

In Butler’s 1872 satirical novel *Erewhon*, the civilization our hero encounters lives in a kind of inverted culture that opposes progress down to the smallest detail, from the inversion of the social system of awards and benefits, to the banishment of all modern technology, and so on. What stands out again is the fear that people’s bodies and minds will be supplemented by apparatuses and machines, rendering them redundant and consequently extinct. The notion of progress in *Erewhon* certainly implies a vector of increasing supplementarity of life by the machine, but what also becomes noticeable is the absurd and comic character of the civilization described, which, in order to give up technology and preserve itself, had to sacrifice knowledge and wisdom—which meant the banishment of a whole array of societal machines, if we use the term as Louis Mumford uses it in *The Myth of the Machine*.⁸ For Butler, the age of the machine had always already begun and we share with the machine our evolutionary fate, which is also the main theme of *Erewhon*: “The fact is that our interests are inseparable from theirs [machines], and theirs from ours.”⁹ It is technological advancement that has accelerated man’s race in evolution:

⁵ Čapek, 12, 13.

⁶ Čapek, 13.

⁷ Čapek, 20.

⁸ “There it is no doubt that the machines which built the pyramids and the great temples, and which performed all the great constructive works of ‘civilization’ in other areas and cultures, were true machines.” Lewis Mumford, *The Myth of the Machine: Technics and Human Development* (New York: Harcourt Brace Jovanovich, 1966), 197.

⁹ Samuel Butler, “Darwin among the Machines,” *Zeitschrift für Medien- und Kulturforschung* 9, no. 1 (2018): 63, <https://doi.org/10.25969/mediarep/18697>.

If we examine the machinery of the Great Eastern,¹⁰ we find ourselves almost awestruck at the vast development of the mechanical world, at the gigantic strides with which it has advanced in comparison with the slow progress of the animal and vegetable kingdom.¹¹

In order to advance in the evolutionary race, one needs to master the machine, which will eventually subdue him in this race, but remain bound to him in fate. Jean-Jacques Rousseau was perhaps the one who, by not even taking serious account of it, described the supplementary logic of man's nature, when in his *Discourse on the Origin and Basis of Inequality among Men*, also commonly known as *The Second Discourse*, he described man as the one among animals who, while not possessing any instinct that belongs to him, receives from nature its supplement—the capability to simulate instincts.¹² It is therefore the role of man in relation to other animals what a machine is in relation to man, with the difference that at the present moment at least man thinks he is the master of the machines and not the other way around. In his short letter from 1863—four years after Darwin's publication of *The Origin of Species* and four years before Marx's *Capital*—Butler proclaimed the urgent need for a theory of the general evolution of animals, humans, and machines, with which we would be able to think the history of this supplementarity and fight against it, of course only if the “mischief” has not already been done.¹³

It is man's imitation of animal instincts and his own supplementary nature—to paraphrase Rousseau—that enables him to use other animals in his place, but at the same time it enables capital to make machines work in the place of man. The term manpower is still rarely used today in the same way that the term horsepower has been used since the eighteenth century, i.e., as a concept that expresses the amount of work that a machine is capable of doing in place of a worker (human or animal). Although the term horsepower itself predates the

¹⁰ The SS Great Eastern (nicknamed: Leviathan, or Great Babe) was a British ship built during the Victorian Era which held the title of the largest passenger ship in the world for four decades (1859–99). “SS Great Eastern,” Wikipedia, last edited October 17, 2024, https://en.wikipedia.org/wiki/SS_Great_Eastern.

¹¹ Butler, “Darwin among the Machines,” 61.

¹² Jean-Jacques Rousseau, *The Social Contract and The First and Second Discourses*, ed. Susan Dunn (New Haven: Yale University Press, 2002), 96.

¹³ Butler, “Darwin among the Machines,” 3.

invention of the steam-engine, it could be said that it is a term formed in the anticipation of the machine, and is thus already molding life in its approach¹⁴ by expressing abstract work, to which facts of life are subsumed under a general concept of use:

Man's very soul is due to the machines; it is a machine-made thing: he thinks as he thinks, and feels as he feels, through the work that machines have wrought upon him, and their existence is quite as much a *sine qua non* for his, as his for theirs.¹⁵

The work hour as a universal measure of work in the capitalist mode of production presupposes an industrial system of production in which the worker is “free” from mastery of the skill constraining him to his traditional occupations and thus becomes an abstract unit of abstract work, detached from his material and epistemological conditions: “Rather, it is the machine which possesses skill and strength in place of the worker, is itself the virtuoso, with a soul of its own in the mechanical laws acting through it [...].”¹⁶ In *Grundrisse*, specifically in “The Fragment on Machines,” Marx describes this becoming of the machine, through the “accumulation of knowledge and of skill”¹⁷ and thus through the appropriation of social intellectual and physical labor, which gets transferred onto the machine in the form of fixed capital. Later in *Capital* he again makes this point clear:

Owing to its conversion into an automaton, the instrument of labour confronts the worker during the labour process in the shape of capital, dead labour, which dominates and soaks up living labour-power. The separation of the intellectual faculties of the production process from manual labour and the transformation

¹⁴ “It is not the production line that produces standardization, but rather intrinsic standardization that allows for the production line to exist. An effort to discover the reason for the formation of specific types of technical objects within the transition from artisanal production to industrial production would mistake the consequence for its condition; the industrialization of production is rendered possible by the formation of stable types.” Gilbert Simondon, *On the Mode of Existence of Technical Objects*, trans. Cecile Malaspina and John Rogove (Minneapolis: Univocal, 2017), 29.

¹⁵ Butler, *Erewhon*, 290.

¹⁶ Karl Marx, *Grundrisse: Foundations of the Critique of Political Economy (Rough Draft)*, trans. Martin Nicolaus (London: Penguin, 1973), 693.

¹⁷ Marx, 694.

of such faculties into powers exercised by capital over labour, is, as we have already shown, finally completed by large-scale industry erected on the foundation of machinery.¹⁸

In *Grundrisse*, Marx still lacks both the concept of abstract labor, as well as the concept of relative surplus value, which are presented in *Capital*,¹⁹ and so the fight between man and machine, or in other words, the fight between living labor performed by humans, and dead labor performed by machinery, in the form of fixed capital, still reveals only its direct experimental character. It thus shows only as a diminishing of human labor, being replaced by machinery, but without the concept of abstract work and relative surplus value, the relation between human labor and a machine's work remains unclear. It is through first separating the value of a worker's work from the value of the reproduction of a worker's life, that the capitalist mode of production realizes surplus value. It is thus through the splitting of time in two: to the time that a worker produces the value of his wage—value needed for the reproduction of one's life—and the time he produces surplus value that is being transferred to capital, that the machine enters the stage in the form of fixed capital or accumulated labor. In this sense, for Marx as well, the question is not: What is the machine and what are its origins? In this sense, his treatment of machines coincides with Butler's, insofar as he is more concerned with the question of the accumulation of life in structures that exceed its limitations, while within the same process constraining life within a new temporal structure. It is now machine-measured time that replaces the natural time of celestial cycles and becomes the measure of life:

He regarded my watch not as having been designed, but rather the designer of himself and of the universe; or as at any rate one of the great first causes of all things.²⁰

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¹⁸ Karl Marx, *Capital: A Critique of Political Economy, Volume One*, trans. Ben Fowkes (London: Penguin, 1976), 548–49.

¹⁹ Michael Heinrich contributed on this topic in “The ‘Fragment on Machines’: A Marxian Misconception in the *Grundrisse* and its Overcoming in *Capital*,” in *In Marx's Laboratory: Critical Interpretations of the “Grundrisse”*, ed. Riccardo Bellofiore, Guido Starosta, and Peter D. Thomas (Leiden: Brill, 2013), 195–212.

²⁰ Butler, *Erewhon*, 85.

Time transformed from the natural cycle of the sun's rising and setting as eternal motion from which eternal time emerges, into the man-measured time of the clockwork spring, which must be wound in order for it to flow. Time thus becomes one with the unwinding of the spring and can therefore itself be extinguished. The concept of eternal time, which is now to be measured by a wound clockwork, is in this way replaced by the universal spring that unwinds through time, just as a machine does in a production process. Time thus becomes a measure of use and therefore a measure of work (Marx), which is set against the unwinding of the universal spring. Carnot's second law of thermodynamics, which states the irreversibility of time, by tying its concept together with an increase in entropy, puts the machine on the side of life in its struggle against time, which is now becoming hostile to life, by determining it as that which will inevitably die out or unwind:

The machine, being the work of organization and information, is, like life itself and together with life, that which is opposed to disorder, to the leveling of all things tending to deprive the universe of the power of change. The machine is that through which man fights against the death of the universe; it slows down the degradation of energy, as life does, and becomes a stabilizer of the world.²¹

It is difficult to trace a line of demarcation between the human and the machine as the relationship is not only one of opposition, although it does evolve through rivalry, but also a game of mimesis and supplementation that takes hold before the machine takes on the role of the inanimate other.

Technē and Epistēmē Between Myth and Platonic Operation

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If we follow the history of ideas, we can easily recognize the relationship between man and machine as ambivalent, oscillating between fear and hostility, on the one hand, and almost childlike enthusiasm in play, on the other. As in the myth of Hephaestus—the blacksmith of Olympus and forsaken son of Hera and Zeus—technology or the art of craft appears as something divine and greater than man, but at the same time the one who handles it must pay the price, as if tainted by the power that makes it so. Hephaestus was cast out of Olympus because of his lameness, as he was also named “The Lame,” but he was

²¹ Simondon, *Technical Objects*, 16.

raised by the goddesses Thetis and Eurynome, where he continued to work on his technological creations. With his skillful hands, he built automatons, hand-maidens to support him in place of his weak legs, helping him with his work and thus supplementing his disability with their “cunning handiwork.” When Thetis pays him a visit, Homer describes the scene with Hephaestus’s automatons like this:

But there moved swiftly to support their lord handmaidens wrought of gold in the semblance of living maids. In them is understanding in their hearts, and in them speech and strength, and they know cunning handiwork by gift of the immortal gods. These busily moved to support their lord, and he, limping nigh to where Thetis was, sat him down upon a shining chair [. . .].²²

Technē, when it is cast out of the realm of the gods and thus thrown down to earth among mortal beings, is also separated from *epistēmē*, which is set against *technē* in the same way that reason is set against mere skill. But mythos also offers the other side of the story, in which *technē* as the “gift of the immortal gods,” is the reason and the driving force of a mythological narrative, as in the myth of Prometheus. The son of Iapetus and Clymene was known for his cunning. As Hesiod describes in the Theogony, he managed to anger Zeus by taking part in a sacrificial ritual in which he tricked him into picking the offering that was more pleasing to the eye—ox bones covered in beautifully molded fat—compared to the other, which was tastier but more unpleasant to look at—ox hide with meat and fat.

“Son of Iapetus, clever above all! So, sir, you have not yet forgotten your cunning arts!” So spake Zeus in anger, whose wisdom is everlasting; and from that time he was *always mindful of the trick*, and would not give the power of unwearying fire to the Melian race of mortal men who live on the earth.²³

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In Hesiod’s version of the myth, Zeus took fire away from mortal man as punishment for Prometheus’s deceptive maneuver, but this was not the only pun-

²² Homer, *The Iliad*, trans. A. T. Murray (Harvard: Harvard University Press, 1924), bk. 18, lines 415–25.

²³ Hesiod, “Theogony,” in *Homeric Hymns and Homeric*, trans. Hugh G. Evelyn-White (Harvard: Harvard University Press, 1914), lines 555–65.

ishment that the wisest of the gods inflicted on mankind, for there was more than one trick played by Prometheus. After the fire was taken away by Zeus, Prometheus used a trick to hide it in a hollow fennel stalk and gave it back to mankind. Angered by Prometheus's second trick, Zeus instructs Hephaestus to mold a creature out of clay that resembles a shy maiden with the appearance of a goddess, but with a "shameless mind and a deceitful nature."²⁴ In this way, Zeus punishes man with the same trick as Prometheus, who triggered the quarrel: he gives man a desirable image, but with repulsive content, just like the one they gave him when they joined Prometheus in his offering. In *Works and Days*, this creature is named Pandora. By giving her to the human race, Zeus traps mankind in a dead end from which there is no escape:

Son of Iapetus, surpassing all in cunning, you are glad that you have outwitted me and stolen fire—a great plague to you yourself and to men that shall be. But I will give men as the price for fire an evil thing in which they may all be glad of heart while they embrace their own destruction.²⁵

The price of cunning can only be cunning itself, through which Zeus restores the rule of wisdom over it. By giving Pandora to mankind, the wisest of the gods reminds them of this relation of power, but to do so he must prove that cunning skill can only do what wisdom does better. Pandora allows no right answer: if one desires her or turns away from her, one pays the price. Being the price of fire means that we can expect fire to carry a similar mythical sense. If we read fire as an allegory for the mastery of skill, this evokes the myth of Dedalus and the labyrinth of Crete, in which he escapes with his son Icarus by employing his skill to construct wings of feathers and wax, which melt when Icarus flies too high and consequently plunges to his death. Mastery of the arts is thus something which leaves one with no choice or no safe distance. The division made above must therefore be further elaborated: *technē* is not opposed to *epistēmē*, just as the gods are not opposed to the world of mortal men, but resides in it as an ever-present danger of which one must always be wary. The relation between these two categories is in fact a kinship relation and a generational rivalry between the children of the old titanic gods. Prometheus's challenge of Zeus

²⁴ Hesiod, "Works and Days," in *Homeric Hymns and Homeric*, lines 65–70.

²⁵ Hesiod, "Works and Days," lines 55–65.

is almost compulsive, as he cannot exercise his mastery without encroaching on foreign territory.

There is a certain charm in mastering a skill, but there is one skill which stands out from the others and elevates its master to the realms of justice and politics above all other craftsmen. The skill of discourse, which takes center stage in the Platonic conflict with the sophists, is central to the political life of the Athenian polis and must therefore deal with questions of justice and sovereignty. The sophists possess knowledge through their mastery of technique or at least they seem to possess it. Their artistry lies in being able to perform knowledge of the highest form as a representation. As Châtelet puts it in *Plato*:

Among the techniques, however, there is one—insisting on this point—whose role is singular; the technique of speech. [...] Also, this art, which learns to persuade others and which requires such general and diverse knowledge, is considered the supreme art which groups in itself all the particular sciences [...].²⁶

The art of discourse is not only the art of the highest form, but for the same reason its domain extends over and encompasses all particular sciences by way of performing a representation of them. This division between representation and concept, or in other words, the division between technique and knowledge, is at the center of the Platonic conflict with the sophists.

Unlike Plato, who constantly strived to separate knowledge from know-how and highlight the vanity of the arts, the sophist closely links “polymath” and “polYTECHNICS” and echoes this new culture in which the artisan takes up more and more space.²⁷

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Plato’s need to separate knowledge (Fr. *savoir*) from know-how (Fr. *savoir-faire*) stems from the fact that the two are easily misrecognized and therefore one is often mistaken for the other. In order to understand his critique of the arts in terms of the critique of appearances, we must view it, in terms of producing through it a divide between philosophy and sophism. It is through this operation of negation, that Plato makes the philosopher the master of knowledge by

²⁶ François Châtelet, *Platon* (Paris: Gallimard, 1989), 60; my translation.

²⁷ Châtelet, 61; my translation.

making him the one who is able to produce the difference between truth and appearance. By dethroning the sophist, Plato also diminishes the status of the sophist's skill, since his operation of division and negation transforms the necessary conditions that one must fulfil in order to be considered to possess true knowledge. As we can read in *Phaedrus*, someone who possesses the mastery of discourse without possessing knowledge can produce discourses [*logoi*] by means of which “one can make out as similar anything that can be so assimilated, to everything to which it can be made similar.”²⁸

He thus operates following the logic of addition, plurality, and partiality. The wide expansion of the sophist's art that can encompass all others—described by Châtelet—is based on the sophist's ability to perform the sciences without knowing their truth. It is from the “outside” that the sophist takes hold of knowledge and not from within by recollecting it, as Plato's theory of *anamnesis* instructs.²⁹ As wisdom is something belonging to the gods, man can only be considered a lover of wisdom that recollects it from the time when the soul was still dwelling with the gods. Here the Muses step in by guiding the philosopher in his practice of remembrance. The sophist, on the other hand, does not have the same affiliation with the Muses and therefore has no memory of the eternal ideas. He manages to produce the appearance of them by mastering the skill, but he has no knowledge of the truth as a whole, so he also does not know how to assess the true value of his own discourse and consequently produces contradictory conclusions, regardless of what is “true” and “good.”

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Here we again encounter the division between the wisdom of the gods and cunning, which had to be banished from the realm of the gods despite its divine origin, already mentioned in our discussion of the myths of Hephaestus and Prometheus. In this sense, we must expand on what Bernard Stiegler says at the beginning of his book *Technics and Time* where he states that this division between philosophical *epistēmē* and sophistic *technē* “had not yet been

²⁸ Plato, “*Phaedrus*,” trans. A. Nehamas and P. Woodruff, in *Complete Works*, ed. John M. Cooper (Indianapolis: Hacket, 1997), 538, 261e.

²⁹ “But a soul that never saw the truth cannot take a human shape, since a human being must understand speech in terms of general forms, proceeding to bring many perceptions together into a reasoned unity. That process is the recollection of the things our soul saw when it was traveling with god, when it disregarded the things we now call real and lifted up its head to what is truly real instead.” Plato, 527, 249b–c.

made in Homeric times.”³⁰ Here we should point to a possible genealogy leading from the Platonic division between knowledge and skill, to the role that the Muses play in Hesiod’s *Theogony* when they say “we know how to speak many false things as though they were true; but we know, when we will, to utter true things.”³¹ As we can see from a careful reading of their speeches, the Muses are, in the first part, saying what Plato says about sophistic skill: in short, that they can state something that they may negate in the next statement and thus only give the appearance of truth. But apart from the naked mastery of their skill, the Muses are also able to tell the truth when they want to. This last part, telling the truth when they want to, is something that the sophist cannot do, since he does not possess the knowledge of the whole and thus of the truth. The Muses themselves enact the division between knowledge and skill by being able to tell both the truth or a lie that takes the appearance of truth. Of course, a Muse lies when she does not tell the truth, but we cannot say the same about the sophist, who while he does not know the whole truth, cannot really lie either, but instead utters a simulacrum of a true discourse as a consequence of his lack of knowledge and excess of technique.

In the *Sophist*, Plato puts the following observation into the mouth of the Visitor from Elea: “So the sophist has now appeared as having a kind of belief-knowledge about everything, but not truth.”³² The question starting the dialog in the *Sophist* is: How do we tell the sophist apart from the statesman and the philosopher? We know that the difference between the appearance of knowledge and true knowledge is based on the theory of *anamnesis*, which places the truth within the soul, where it can be accessed only through the recollection of ideas shared with the gods, while mastery of skill has only an exterior relation to the soul, and thus the truth, but that hardly helps spectators listening to public discourses to tell one from the other. The belief-knowledge bears no sign by which it could be distinguished from the knowledge of truth or true knowledge:

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Theaetetus: But there’s a similarity between a sophist and what we’ve been talking about.

³⁰ Bernard Stiegler, *Technics and Time, 1: The Fault of Epimetheus*, trans. Richard Beardsworth and George Collins (Stanford: Stanford University Press, 1998), 1.

³¹ Hesiod, “Theogony,” lines 25–30.

³² Plato, “Sophist,” trans. Nicholas P. White, in *Complete Works*, 254, 233c.

Visitor: And between a wolf and a dog, the wildest thing there is and the gentlest. If you are going to be safe, you have to be especially *careful about similarities* since the type we're talking about [the sophist] is very slippery.³³

The sophist is thus a master of similarities who can make everything similar to everything else and thus pose as a philosopher and statesman. Here again we can examine a common genealogy of archaic myth and ancient Greek political modernity. As Zeus needed to be “always mindful of the trick,” the interlocutors of Platonic dialogues need to be “careful of the similarities,” because the sophist is “a kind of a magician”³⁴ who can perform a likeness of truth by “weaving that which is not with that which is.”³⁵ Instead of trying to distinguish the sophist from his rival figures of the philosopher and the statesman on the basis of their differences, we should follow Deleuze and rather ask the question of the motivation of Platonism and its will to differentiate “the ‘thing’ in itself from its images, the original from the copy, the model from the simulacrum.”³⁶ Here we have two processes going in opposite directions: while the sophist, the master of similarities, moves from the singular art of discourse to perform other arts, that of statesman and philosopher, the philosopher goes in the direction of the differentiation of arts, while making himself the master of the art of differentiation. But the Platonic operation does not end here; rather, by producing—through the dialectical method of dialogue—the criteria for the separation of knowledge from its representations, it places the philosopher himself in the position of the master of knowledge, who must have an ear for the voice of the Muse that “permits the construction of a model according to which different pretenders can be judged.”³⁷ In the construction of this model, the philosopher himself becomes the master of the art—the artist—of judging simulacra and thus claims the place of the thing itself.

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Plato discovers, in the flash of an instant, that the simulacrum is not simply a false copy, but that it places in question the very notations of copy and model. The final definition of the Sophist leads us to the point where we can no longer

³³ Plato, 251, 231a.

³⁴ Plato, 255, 235b.

³⁵ Plato, 261, 240c.

³⁶ Gilles Deleuze, *The Logic of Sense*, trans. Mark Lester and Charles Stivale, ed. Constantin V. Boundas (London: Athlone Press, 1990), 253.

³⁷ Deleuze, 255.

distinguish him from Socrates himself—the ironist working in private by means of brief arguments. Was it not necessary to push to that extreme? Was it not Plato himself who pointed out the direction for the reversal of Platonism?³⁸

The Trope of the Machine

We have followed the logic of the machine within the history of ideas to point out the ambiguity of this category, representing the combined wealth and artistry of our civilization and at the same time marking out the sinister contours of our demise. By being able to represent life better than life itself, thus supplementing its faculties and strengths that have accumulated over time in the form of modes and means of production, scientific discourses, or governmental structures, etc., the machine threatens us with the loss of the thing itself—life, knowledge, freedom. But in the cracks of these discourses on the alienating power of the machine, another current of thought emerges, a reversed Platonism, as Deleuze calls it, which questions the philosophical conditions of the concept of the machine as representation:

It is at work everywhere, functioning smoothly at times, at other times in fits and starts. It breathes, it heats, it eats. It shits and fucks. What a mistake to have ever said *the id*. Everywhere *it* is machines—real ones, not figurative ones: machines driving other machines, machines being driven by other machines, with all the necessary couplings and connections.³⁹

Anti-Oedipus by Gilles Deleuze and Félix Guttari is a philosophical project for reconfiguring the relation between representation and production and, consequently, the relation between machine and life. The life that bears the machine and the machine that bears life are both phases of production proper and therefore cannot be conceptually separated from each other, just as desiring-machines cannot be separated from mechanical, digital, or even thinking machines. The latter represent the former neither as synecdoche nor as metonymy, but instead couple and connect with them to form ensembles of systems, by

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³⁸ Deleuze, 256.

³⁹ Gilles Deleuze and Félix Guttari, *Anti-Oedipus: Capitalism and Schizophrenia*, trans. Mark Hurley, Mark Seem, and Helen R. Lane (Minneapolis: University of Minnesota Press, 1983), 1.

adding and subtracting flows of desire, money, commodities, etc.; they are real machines, as Deleuze and Guttari argue, not metaphorical ones:

We make no distinction between man and nature: the human essence of nature and the natural essence of man become one within nature in the form of production of industry [. . .]. Production as process overtakes all idealistic categories and constitutes a cycle whose relationship to desire is that of an imminent principle.⁴⁰

Buttler's statement that the soul of man is a machine-made thing takes on a different meaning at this point: even "before" man is subjugated by machinery and thus recreated in a new form of existence subsumed under capital, the machine is already at work, coupling and connecting desire-flows and investing organs in its production process. In *The Myth of the Machine*, Mumford argues that those interested in the origin and history of the machine should look for it long before any machine of modernity was brought into existence by the expanding scientific forces of industrialization.

I found that what economists lately termed the Machine Age or the Power Age, had its origin, not in the so-called Industrial Revolution of the eighteenth century, but at the very outset in the organization of an archetypal machine composed of human parts.⁴¹

So, there was a machine in hiding using its cunning ways to conceal itself inside human minds and bodies, in societal institutions and modes of production, and only came out of its hiding place when its process of emancipation from the limitations of human life left any possibility of reversal far behind.

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This machine escaped notice and so naturally remained unnamed until our own day, when a far more powerful and up-to-date type, utilizing a congeries of subordinate machines, came into existence.⁴²

⁴⁰ Deleuze and Guttari, 4–5.

⁴¹ Mumford, *Myth of the Machine*, 11–12.

⁴² Mumford, 188.

It is in the production of industry⁴³ that the strongest opposition between life and machine expresses itself and it is therefore easy to make the mistake of thinking of the authenticity of pre-industrial life as if it were free from the alienating power of the machine, thus constructing an idealism of pure origin. Before we accuse Mumford of using the term machine anachronistically or metaphorically, we should read *The Myth of the Machine* as a theoretical gesture of negating traditional categories in order to give space to this new category of the machine, to emancipate it from the inanimate world of rationalist mechanics, its opposition to life, to thought, to knowledge, and so on. This new conceptual space that Mumford has created for himself and his readers allows for associations of concepts that are neither new nor revolutionary, but are presented in a bold way, and so cross not only conceptual divides but also historical ones, allowing us to think the machine “before” and “after” the machines of modern modes of production:

When utilized to perform work on highly organized collective enterprises, I shall call it the “labor machine”: when applied to acts of collective coercion and destruction, it deserves the title, used even today, the “military machine.” But when all the components, political, economic, military, bureaucratic and royal, must be included, I shall usually refer to the “megamachine”: in plain words, the Big Machine.⁴⁴

We could also broaden the critique of Mumford by placing it in a historical context: the theoretical procedure of crossing the conceptual divides between life and machine can be followed throughout modernity, from the materialisms of the Age of Enlightenment to the advent of thermodynamics, taking place within the nineteenth century as the paradigm that is rapidly expanding its domain of application, the birth of Darwin’s theory of evolution, motivating a whole field of philosophical and scientific discourses inscribing life with the “technics” of natural selection, to the general science of cybernetics, whose emergence immediately after the World War Two and its unprecedented military ensembles of man and machine was hardly unexpected.⁴⁵ All of the above-mentioned theo-

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⁴³ We should understand this term in the broadest sense.

⁴⁴ Mumford, 188.

⁴⁵ “In constructing machines, it is often very important for us to extend to them certain human attributes which are not found among the lower members of the animal community. If the reader wishes to conceive this as a metaphoric extension of our human personali-

retical developments paint an even less revolutionary picture of Mumford's conceptual approach. Nevertheless, we should argue in defense of his bold theoretical gesture, which unites theories across theoretical disciplines into a paradigm that presents the machine in a way that opens up a need for its own genealogy.

What we feel that lacks in Mumford's treatment of the "Big Machine" we find in Emile Zola's novel *The Ladies' Paradise*, in which a young provincial named Octave Mouret, following a fortunate marriage and soon after an equally successful widowhood, opens a large department store in Paris during the reign of Napoleon III. Mouret is what we would today call an entrepreneur, seizing on the city's desires with the determination of a bold military commander while retaining the manners of a well brought-up bourgeois with a sense of everything that escapes the rigid mind of an economist. He expands his small drapery shop with astonishing speed, takes out loans that exceed his capital many times over, buys stocks of goods that enter into his shop like a flood, ruining all the traditional shops in the neighborhood and throwing his customers into fits of amazement in order to take hold of their desires and extract "money from their very flesh."⁴⁶ He knows very well that his machine runs on desire, which it consumes just as it consumes money and goods:

And these passions in the street were giving life to the materials: the laces shivered, then drooped again, concealing the depths of the shop with an exciting air of mystery; even the lengths of cloth, thick and square, were breathing, exuding a tempting odour, while the overcoats were throwing back their shoulders still more on the dummies, which were acquiring souls, and the huge velvet coat was billowing out, supple and warm, as if on shoulders of flesh and blood, with a heaving breast and quivering hips. But the furnace like heat with which the shop was ablaze came above all from the selling, from the bustle at the counters, which could be felt behind the walls. There was the continuous roar of the

ties, he is welcome to do so [. . .]." Norbert Wiener, *The Human Use of Human Beings: Cybernetics and Society* (London: Free Association Books, 1989), 77. Later in the chapter Wiener himself takes advantage of his own offer to the reader: "In a certain sense, all communication systems terminate in machines, but the ordinary language systems terminate in the special sort of machine known as a human being." Wiener, 79.

⁴⁶ Emile Zola, *Ladies' Paradise*, trans. Brian Nelson (Oxford World's Classics, 1998), 105, Kindle.

machine at work, of customers crowding into the departments, dazzled by the merchandise, then propelled towards the cash-desk.⁴⁷

The Ladies' Paradise is a machine that turns life into capital while at the same time infusing capital with life. This is the secret of Mouret's stroke of genius: he knows that the machine must be let loose to devour the city with its passions and desires, while his role is to ensure that the flows of desire do not die out or even settle down for just a moment. In this way, he himself becomes an organ of the machine, is coupled with and consumed by it, just like his customers, employees, and creditors. He himself is invested by the city's desire, keeping a high-profile mistress in his grasp to gain access to the higher echelons of Napoleon III's financial machine.⁴⁸

While Mumford's machine is one of the memorization and organization of information shaping both life and inanimate matter, Zola's machine is first and foremost a desire-machine that couples together people with forms of capital and makes them so similar that it is no longer possible to distinguish between the rationality of capitalist production and the rationality of human desire. Denise, a poor girl from the provinces, immediately falls in love with Mouret, while at the same time she falls in love with the rationale of the economic liberalism of the triumphant bourgeois class taking hold of the state under Napoleon III.

It is "The Woman," as Mouret calls her, that he is after, while his machine is "the machine for devouring women."⁴⁹ The Woman is the object of his conquest, for it is she who couples different machines into a "megamachine" with her warm saloons, where every corner offers a new business opportunity, the possession of a new flow of money or desire, and it is there that Zola conducts a great portion of his analysis. But it is also she who, through this conquest, becomes a machine herself; a machine for coupling other machines by allowing the desire-flows to run freely through the couplings or withdrawing them back, and thus stopping the cycle of production and consumption. The roles

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⁴⁷ Zola, 16.

⁴⁸ The *Ladies' Paradise* takes place during the vast construction projects entrusted to Georges-Eugène Haussmann, also commonly known as Baron Haussmann, who while serving as the prefect of Seine from 1853 to 1870 extensively changed the face of Paris and put in motion a vast financial enterprise.

⁴⁹ Zola, 77.

can therefore always be reversed, because “it’s always the lamb that ends up eating the wolf.”⁵⁰

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