

## Chapter 4, All Tail

### Close Encounters of the Fourth Kind

Welcome my son, welcome to the machine.

Where have you been?

It's alright we know where you've been.

You've been in the pipeline, filling in time,  
provided with toys and "scouting for boys."

—PINK FLOYD, "Welcome to the Machine," 1975

### Z The Crime of the Millennium

4.22.2002. In my wife's hospital room, the morning after the birth of our son. On the cover page of Montreal newspaper *Le Devoir* I read three headlines (here translated): *Genetic Therapy: The Lack of Funding Is Slowing Down Research, Is the Universe Digital?*, and for the Monday Interview section, *We Ought to Forbid the Patentability of the Human Being: We Are Not a Source of Commodities, Claims Maureen McTeer*. Late modernity enters the next millennium: welcome to the next level, echo Sega™ and Heaven's Gate™. Later in the interview column, I read about the recent decision of Canada's Health Research Institutes (IRSC) to authorize research on embryos before the project of the law aiming at regulating these activities is even discussed in parliament. Mrs. McTeer is upset. She thinks that it is not "a democratic way to proceed." She seems surprised, and unhappily so, that IRSC (which she calls "a lobby, which uses public funds, with a vested interest in such a high public priority question") can anticipate the law, and, more important, public opinion. Yes, how can scientists dare anticipate popular consensus on such a high public priority, affecting, *dixit* Mrs. McTeer, "the rights of the person"? Hello, Mrs. McTeer, smell the coffee.

9.18.2002. When hacking the genome becomes a garage activity. A few months later, a friend of mine sends me a copy of a newspaper article by Yves Eudes from *Le Monde* titled "Les pirates du génome." While Mrs. McTeer was still lamenting over the official decisions of instituted science, some "rogue" scientists were giving her real reasons to despair, creating genetically modified

organisms . . . in their garages. In the French article, I read this quote from Eric Engelhard, the rogue scientist interviewed, the master pirate of the genome, the maker of venomless bees: “Here in Davis, there is a strong community of ecology activists, and I don’t know what they will make of my bees. I can also fear the reactions of the conservative Protestant churches, which are violently opposed to any kind of genetic engineering. But I too am ready to fight for my ideas. I believe in absolute scientific freedom and I will carry on with my project.” I decided to investigate further. I found the confirmation of what I had expected in the following post on Wired.com:

Eric Engelhard is bioengineering a honeybee. In his garage. He’s part of a new generation of bioinformatics brainiacs—people improvising with computers and molecular biology—who are making it possible to move genomics out of the lab and into your spare room.<sup>1</sup>

Science ought to be free, like computing. I do Linux on recycled CPUs, why shouldn’t I engineer organisms on the same machines? Aren’t they universal, after all? Junk is looming on my mind, that day, as I read this, in awe. *Code Redux*.

12.26.2002. Rael and his goons announce the birth of the first human clone, Eve. A couple of weeks later, Rael himself confirms that he has stopped all testing on baby Eve, by fear of legal action from a Florida court.<sup>2</sup> Don’t act. The media frenzy around the original announcement had made it pretty sure anyway that the performative power of the Logos would be at work here. Enters the false prophet, and I remember the laconic comment of the Bible of Jerusalem, Apoc. 13:18, “According to Saint Irénée, the number 666 symbolizes the totality of evil from the fall of the devil to the coming of the Antichrist. *His worshipers will therefore be human-numbers, lifeless mechanisms, victims of a permanent manipulation.*”

11.12.2003. The Crime against the Species Has Officially Begun.

One more debate in the Higher Chamber, and the French nation will have innovated the notion of crime against the species, thereby acknowledging that the genocide of *Homo sapiens sapiens*, the autogeddon, as Ballard calls it, has officially started. That same day, an ad in the December issue of *Wired* attracted my attention: it described a new toy, a DNA sequencer for kids ten years and older:

My First DNA Sequence

The same tech megatrends that are reshaping grown-up gadgets are revolutionizing kids’ toys. Nowadays, youngsters can race nitro-powered remote control trucks, fiddle with programmable robots, and guest-star in the latest sitcoms. If

those aren't sophisticated enough for your brainiac tykes, the Discovery Kids DNA Explorer helps junior scientists extract and map real deoxyribonucleic acid. As third-grade science projects go, this is light-years beyond the ol' baking soda volcano. Next step: cloning Fido.<sup>3</sup>

The genomics cottage industry is well on its way to shaping our future, and our kids will be ready for it. Ethics and law will follow, as usual, twenty years later. In the legislative process, the notion of "genetic identity" was repeatedly put forward. Now, what could this notion mean when more than 98 percent of the DNA bases still evade our understanding?

### **U Post-Scripta**

The legal committee of the United Nations' General Assembly voted on Friday (February 18, 2005) by a slim majority in favor of a non-legally binding agreement that asks member states to prohibit reproductive cloning and adopt legislation to respect "human dignity" and "human life." But the text, which one diplomat said was intentionally ambiguous, does not define when life begins. The final declaration asks member states to "prohibit all forms of human cloning inasmuch as they are incompatible with human dignity and the protection of human life." If adopted and approved by the General Assembly, the declaration is not legally binding, so there would be no penalties for countries that do not implement relevant legislation.<sup>4</sup>

As I read these lines, I am reminded of the image that made the strongest impression on me during the long night of the 2004 U.S. presidential election. In the wee hours of the morning on the East Coast, it was a picture from California. At that time, the election was still undecided, and yet here he was, full screen, radiant with joy, Arnold Schwarzenegger, the governor of the state. His whole state had voted Democrat, and still, here he was, overwhelmed with joy, in front of a huge wall of video screens where the dominating icon was the word *WON*. As with all elections, this one had served several purposes, including the referendum on multiple propositions. If Arnold was so happy, in spite of his state's voting for the opposing party, I guess it was because it had passed many propositions that would effectively change the future of his state, and, most important, the future of business in his state. The commentary insisted on one proposition among the many that were approved that night: a proposition to encourage and fund research and development on stem cells.<sup>5</sup>

So it seems that global capitalism has now entered its genetic phase, the phase of our encounters with machines of the fourth type. After the simple machines of the old societies of sovereignty, the motorized machines of the

disciplinary societies, the information machines of the control societies, human beings now face—or will soon face—*genetic machines*. I follow here Gilles Deleuze's footsteps in his famous "Postscript on the Societies of Control," where he matches the first three types of machines with their corresponding types of society.<sup>6</sup> Deleuze insists that machines do not determine the becoming of societies, but rather "express those social forms able to give birth to them and to use them."<sup>7</sup>

In *A Thousand Plateaus*, Deleuze and Guattari already distinguished machinic enslavement and social subjection and related them to different machines: the former happens when "human beings themselves are constituent pieces of the machine that they compose among themselves and with other things (animal, tools), under the control and direction of higher unity"; the second occurs when "the higher unity constitutes the human being as a subject linked to an exterior object, which can be an animal, a tool, or even a machine."<sup>8</sup> The focus of this distinction is on the regulatory unit and its feedback on the human constituent/subject.

The human being is an alienated slave to the machine when the regulatory unit of the machine maintains him or her in the state of a component, expandable part of a higher unit; he or she is socially subjected to the machine when she reconfigures him or her as a subject. In this opposition lies the original alternative between "overcoding of already coded flows" and "organizing conjunctions of decoded flows as such" that Deleuze and Guattari attribute, respectively, to the imperial state/machine (first type) and the motorized machine of the modern nation/state (second type). Cybernetic machines, as machines of the third type, construct a generalized regime of subjection that aggregates machinic enslavement and social subjection as its extreme poles.

The latest episode in the modern civilization described by Deleuze and Guattari is the cybernetic decoding and organizing of the flows of human nature itself, DNAs and bits, to the point that one now feels compelled to complete their enumeration, be it "an animal, a tool, a machine . . . or a human being." What about these machines, then, which reconfigure humans as both a subject and an "exterior object"? And which decoded flows are they trying to organize? Deleuze and Guattari say that it is what cybernetic machines do, and they are right. But there are cybernetic machines and there are genetic machines. While the former regulate components as such without being able to actually build them, the latter both regulate and build its components. The autopoietic machine, or second-order cybernetic machine, is no mere motorized, regulated, cybernetic machine. It is no mere computer. It is tomorrow's biocomputer; it's an egg able to count.

In the same way that the prototype of the cybernetic machine of the third type, James Watt's governor, was born with the first fully functional motorized machine, the steam engine, genetic machines were born with the first fully functional computers, that is, personal distributed computing machines. Genetic machines differ from computers as the regulator differs from the steam engine: by one order of magnitude in a series of logical types.

(Re)genesis is taking over control. One might argue here that if it is the case, the "societies of control" will have been dominant for an instant only, especially when compared to the previous societies, that is, the societies of sovereignty and the disciplinary societies so well diagnosed and described by Michel Foucault. Several answers are possible here.

The first involves the argument of "the acceleration of history." Without even considering the hypothetical fourth type of society that I am advocating here, this phenomenon is quite obvious. When Deleuze writes about the societies of control and opposes them to the disciplinary societies, he gives various chronological references that could be interpreted as showing this acceleration: (1) Foucault locates the disciplinary societies in the eighteenth and nineteenth centuries, (2) the Napoleonic regime seems to mark the transition between societies of sovereignty and disciplinary societies, (3) the latter "reach their height at the outset of the twentieth century," and (4) they have "ceased to be" after World War II. So, whereas societies of sovereignty have lasted for centuries or even millennia, disciplinary societies had a life span of at the most a century and a half. Deleuze rightly credits Foucault for having already noticed the "brevity" of the latter.

A better answer might be, however, that these societies are not "stages" (à la Rostow),<sup>9</sup> but instead "becomings": each new type of society does not abolish the preceding type, but supersedes it. Deleuze even writes that "it is possible that old means, borrowed from the ancient societies of sovereignty, will return to the fore, but with the necessary adaptations."<sup>10</sup> In fact, it is crucial to understand that, as such, the establishing of new social forms (i.e., societies) does not belong to history: they are events in their becoming, and as such they are, as Nietzsche says, "untimely" (*intempestif*). Deleuze is very clear about this point in an interview with Antonio Negri that composes the preceding chapter of *Pourparlers*:

History retains of the event its effectuation in states of things, but the event in its becoming eludes history. History is not the experimentation, it is only the almost negative set of conditions that make possible the experimentation of something which eludes history . . . Becoming is no history; history only refers

to the set of conditions, as recent they may be, that one turns away from to “become,” that is to say, to create something new.<sup>11</sup>

In this perspective, societies of control might appear as a phase transition in the becoming of capitalism. I employ “phase” here not in the sense of “stage” (“a distinguishable part in a course, development, or cycle” says *Webster’s*), but rather in its sense in the philosophy of Gilbert Simondon, as the *overtaking of the opposition between being and becoming*:

One conceives of a phase only in relation to another or several other phases; there is in a system of phases a relation of equilibrium or reciprocal tensions; it is the actual system of all the phases considered together that is the complete reality, not each phase in itself, a phase is a phase only in relation to the other phases.<sup>12</sup>

Deleuze insists, and rightly so, that what is at stake here is the analysis of capitalism and its developments, that is, a political philosophy centered on the individuation(s) of capitalism.<sup>13</sup> Societies of sovereignty, disciplinary societies, societies of control, and, I argue, “genetic societies” are phase transitions in the becoming of capitalism. The actual reality of capitalism deals simultaneously with sovereignty, discipline, control, and soon enough with generation (of its *subjects*). It is not *only* a question of production (as in the disciplinary societies) or overproduction (as in the control societies, claims Deleuze),<sup>14</sup> but also a question of reproduction (or generation). “Machines,” says Deleuze, “explain nothing; we ought to analyze the collective apparatus [les agencements collectifs] of which machines are a part.”<sup>15</sup>

Rather than being mere anachronisms, several components of the collective apparatus of control described by Deleuze are in fact better understood, I claim, as transitions for the “next” phase of capitalism, that is, “genetic capitalism.” This is the case of Burroughs’s diagnosis of control itself, its peculiar way of turning human beings into addicts, “unnecessary” junkies (according to *the algebra of need*).<sup>16</sup> Burroughs was even more right on the money than he thought: junk *is*, indeed, “the mold of monopoly and possession.”<sup>17</sup> This is also the case, according to the same logic, that “*Man is no longer man incarcerated, but man indebted*,”<sup>18</sup> and soon enough, man annexed as capital itself (see chapter 5), living money, the genitalia of capital (which is why this next phase of capital could also be called “genital capitalism”).

Machines might explain nothing, but they are the engines of these phase transitions. It was once the world was untimely enfolded in a global network of personal (albeit “pumped-up”) computers that the human being could be

described as a genetic database (see chapter 2). The decrypted genome is the equivalent of the meter kept in the museum, an *etalon*. It is both metal and silicon, dollars and gold: a new universal equivalent. Gene banks are indeed the financial institutions of the machine/state of the fourth kind.

For twenty years at least, we have heard about nanomachines, artificial intelligences, artificial forms of life. For more than twenty years now some human beings have been busy building them. In the past fifty years we have described the structure of DNA, and decoded the genome base by base. Human beings, flies, mice, and some worms are now officially databased.

Here is my question: What becomes of ethics—if, as Foucault had it, ethics is the reflected practice of freedom—when we have already left behind the era of mass production of cadavers declared by Heidegger, and entered the era of mass production of genetic *goylemes*? First steps, baby steps in the slow process of commoditization of Man™ . . .

The process of genetically modifying a human being and growing it out of stem cells will, in all likelihood, be developed to scientific success in the next twenty-five years or so, what we used to call a generation.

Some groups, sects, and laboratories have already started talking about their attempts to clone a whole human being. A guy alone in his silicone garage has effectively done some species-changing genetic manipulations, and released into the wild the resulting monsters.

The French parliament has already invented the legal notion of a crime against the species, superseding the crime against humanity, and therefore acknowledging that the crime has already begun.

By the time that my son (or your daughter, or their sons and daughters, it doesn't matter) will reach his reproductive potential, there might be machines to produce superbabies (and, no doubt, underbabies).

In the meantime, today's kids will play with their brand-new DNA sequencers for children under ten years old.

So, what do you think about freedom now?

Freed(o)m is still the name of the game. And nowadays too, experience as much as reason teaches us that men think they are free because they are conscious of their actions and ignorant of the causes that determine them (Spinoza, *Ethics III, prop 2. scolium*). Here in Quebec freedom is (and is not) a brand of yogurt. Hell, the whole world, down to its micropolitics, is pro-freedom (even yogurt manufacturers). Freedom of choice, pros and cons. Could you be against freedom?

And yet, do you feel free? Have you been liberated, lately? Or do you, like most late moderns, live in anguish before the magnificent power of the machine of

the fourth kind, its haecceity slowly spelling: I can make you . . . I can make you . . . (this was Dr. Stern's diagnosis already in 1956). Do you feel obsolete? Expendable? (Please swallow your Prozac now if you feel depressed, and get back to work.)

Philosophy is no tranquilizer, it does not cure or alleviate: it is at best creative for both its author and its readers (I know they are supposed to be dead, but who isn't, these days?). What would be today's concept of freedom? How can we build it, in spite of the fact that it may soon be able to build us? My attempt at a starting point for an answer will be: search in junk! And, more accurately, start in our own junk DNA.

What we now understand of DNA through the so-called genetic-code metaphor is the message coding for the human survival machine, the material body. Orthodox neo-Darwinism claims that it is all there is to it. Actually, in the most obvious nominalist fashion, it has *ruled* (for a while, as long as rules last) that it is all there is to it. DNA coding for protein synthesis represents approximately 1 to 3 percent of the whole DNA. Junk DNA is a common name for the rest, more or less. What if, indeed, the quest for the Body without Organs should start, quite literally, in our own junk?

### V (Bio)Ethics

By the time these few words will be put in print, it will be well over ten years that the human entity usually called Gilles Deleuze has been dead, and unfortunately for him, he did not put his faith in transcendence. So we are left with this open question: what remains of an ethics of immanence after his matter is gone, fed back to the pre-individual field?

We are left with questions. Ethical questions, because it was, after all, his trademark.<sup>19</sup> With Slavoj Žižek,<sup>20</sup> I agree only on this, no hyphen ethics, just ethics. There is no biogenetic ethical question per se: the ethical question remains the same albeit in new—and potentially extremely crucial—modalities. So today's question is still *what do you do with your freedom?* And Žižek is right indeed in raising the question of its modality: *how do these new conditions compel us to transform and reinvent the very notions of freedom, autonomy, and ethical responsibility?*<sup>21</sup>

The rest of Žižek's development, posturing so-called Catholic counterarguments to better dispel them, I am sorry to say, however, is just good for scrap, straw men and company: it leads, unfortunately, through Lacanian psychoanalysis, to the revelation that we were never free in the first place. Either Žižek has not heard of the Fall or he is quite happy to make it last. Indeed, he must be when he proposes to finish the Enlightenment project and "follow



the logic of science to the end . . . waging that a new figure of freedom will emerge.”<sup>22</sup>

Reading these lines, I was reminded of the end of the Appendix to *Foucault*, where Deleuze too makes the wager of “the advent of a new form,” in relation to the same new modalities: the *superman*, neither human nor God, “which it is hoped, will not prove worse than its previous two forms.”<sup>23</sup> There is hope in the overhuman, this form that stems from a new play of forces located outside of the human, in the revenge of silicon over carbon, of the genetic components over the organism, of the agrammaticalities over the signifier. Outside of the human?

In which ways did silicon supersede carbon? How did the genetic components supersede the organism? On their own? Did the sands suddenly express a new life force? No no no: man is still in charge, and overman is the compound form of forces in man with these new forces. Overman is the man *taking charge* of the animals, of the rocks (the inorganic life of silicon), of the being of language. Deleuze wrote, following Rimbaud,<sup>24</sup> “*l’homme chargé des animaux même (un code qui peut capturer d’autres codes).*”

Keith Ansell Pearson is right to point back to the magnificent formula of *Anti-Oedipus*, “man as the being who is in intimate contact with the profound life of all forms and all types of beings, who is responsible for even the stars and animal life . . . the eternal custodian of the machines of the universe.”<sup>25</sup> But he follows the original English translation of “*chargé*” by “responsible.” In *Anti-Oedipus* too, however, Deleuze and Guattari wrote “*chargé*” as if something or somebody (God, this previous form?) had loaded the human being with the stars and the animals,<sup>26</sup> had put man in charge of the machines of the universe as a “custodian” (*un préposé*). Man is held responsible for the earth, like a *préposé*, with the machines of the universe in his custody, a kind of super-Noah (or a free-floating ass).

All here is in the passive form, cryptic allusion to the rainbow of the covenant: “this is the token of the covenant which I make between Me and you and every living creature that is with you for perpetual generations: I have set my Bow in the cloud, and it shall be a token of a covenant between me and the earth” (Genesis 9:12–13). Note this: the covenant is with the earth, and all that is made of it, the living creatures, and man is its custodian, not for all eternity (as Deleuze and Guattari have it), but for *perpetuity*.

Note also that in this version of the story, man was never in charge of the rocks and stars, but only of what he gave names to (Genesis 2:19), of what was “delivered into his hands,” more bluntly, of what he can eat (Genesis 9:2–3). Deleuze and Guattari thus extrapolated the original story, giving man

charge of all the rocks and stars, whose sole custody was that of the angels, so far. No more need for angels; thanks to his technology, man has become a star eater, “has plugged an organ-machine into an energy machine, a tree into his body, a breast into his mouth, the sun into his asshole.”<sup>27</sup>

In other words: when did man develop an appetite for the inorganic? When did man start consuming matter as such, not only living matter (albeit deprived of its running blood)? When did man start to watch over the celestial spheres? Forget about the “start,” the origin, and let me rephrase the question in a better Deleuzian fashion: what about the starworm-becoming of man? Do you need to be schizophrenic to know the starworm in you? Do you feel the sunshine in your asshole?<sup>28</sup>

What do *you* think that you are made of anyway? Water, earth, wind, and fire? Stuff dreams are made of? Carbon, oxygen, hydrogen, nitrogen, salts, and metals? Star dust? From the biotic soup of a pre-individual magma, undifferentiated and monophased? The genes of your ancestors plus chance? *Hasard et nécessité*? Many voices talking in your head?

Are these mutually exclusive options? May I risk a synthesis?

Overman (transhuman, extropian, cyborg, ribopunk, name your brand): custodian of the machines of the four kinds, hybrid carbon/silicon life-form of the future, organizing flawlessly the conjunctions of decoded singularities (Deleuze and Guattari), group individual twice dephased and open to the multitudes of his *milieux* (Simondon). Overman, master of DNA, breeder of men (Sloterdijk, after Nietzsche and Heidegger). Overman, the next phase of the becoming-starworm of man.

Superman, the next proper name of the autogeddon, equipped with the best logic science can provide. To the end! Let us get into abstract sex,<sup>29</sup> let us go capture other codes . . . Let there be monsters and chimeras, parthenogenic babies and clones. Let the better over(wo)man win!<sup>30</sup>

## G The End of a Common Nature

Žižek also wrote:

The main consequence of the scientific breakthrough of biogenetics is the end of nature. Once we know the rules of its construction, natural organisms are transformed into objects amenable to manipulation. Nature, human and inhuman, is thus “desubstantialized,” deprived of its impenetrable density, of what Heidegger called “earth.”<sup>31</sup>

This fiction holds all in its “once”; it is a false premise today and still will be for a while. All that this alleged biogenetic breakthrough does is make you

believe that man indeed knows the rule of the construction of a natural organism. Or could know it soon. Yes, man has started to decode the fluxions and superfolds of DNA. But today this knowledge is still rudimentary, mechanistic, and dogmatically (and centrally so) oriented.

Let me summarize and complete the picture: there is junk in life.

First man ate earth and re-created earth;<sup>32</sup> it was the becoming-earthworm of man. Then man plugged an organ machine into an energy machine, and started watching over the stars and sands, building machines to reach them, and be touched by their profound life. Soon earth was covered with machines and sands were clocked in megahertz. Man started to eat machines and created other machines, organ machines, engines and batteries. Man plugged the organ machine and the energy machine into a metamachine, an information machine. Man plugged all the information machines together and started a decoding feast upon himself: man started eating man and creating overman. Unfortunately, overman soon realized that eating man was the wrong name for incorporating humanity: it only consumed the material body, one at a time, even if by greater numbers as the centuries passed. The earthworm was left with ashes, longing to eat the stars and his mouth full of junk: is it in the ether where a worm should live?

In the ether of number?

Here is a reminder: At the beginning of the fourteenth century, this is what Duns Scotus considered the ineluctable consequence of nominalism: *If all real difference is a difference in number, the difference between genus and species is a mere distinction of reason.* Therefore, an individual could not generate another individual of the same nature, and generation and the unity and fixity of natural species would be a concept without foundation in the mind.<sup>33</sup>

If all real difference can be encoded and decoded in numbers in a difference engine, each singular becomes his own species according to number. Just like angels, following Aquinas, and in spite of his matter, this time. Just as data would decide a programmer. When the difference engine turned into the universal machine, difference in number became all there was to it: singulars living in discrete time, simulacra. If the computer is indeed the universal machine and man the custodian of the machines of the universe, soon the computer will remake man in its own image (and vice versa): it will be the end of generation as we know it. This could mean one end of nature all right, but not the end of all nature.

Here again Duns Scotus had a very convenient distinction to make sense of the present situation. Of which nature exactly would the consequences of

the biogenetic breakthrough be the end? A nature and not Nature (be it *natura naturata* or *naturans*).

*The God who made the world and all that is in it, the Lord of heaven and earth, does not dwell in sanctuaries made by human hands* (Acts 17:25).

If, for Deleuze, Spinoza is the “prince of philosophers,” Duns Scotus should be their king: he is the one who gives to being his only voice, this voice that makes *the clamor of being*, his univocity.<sup>34</sup> Deleuze insists; Duns Scotus represents the first of the three principal moments on the philosophical elaboration of the univocity of being:

In the greatest book of pure ontology, the *Opus Oxoniense*, being is understood as univocal, but univocal being is understood as neutral, *neuter*, indifferent to the distinction between the finite and the infinite, the singular and the universal, the created and the uncreated. Scotus therefore deserves the name “subtle doctor” because he saw being on this side of the intersection between the universal and the singular. In order to neutralize the forces of analogy in judgment, he took the offensive and neutralized being itself in an abstract concept. That is why he only *thought* univocal being. Moreover, we can see the enemy he tried to escape in accordance with the requirements of Christianity: pantheism, into which he would have fallen if the common being were not neutral . . . With the second moment, Spinoza marks a considerable progress. Instead of understanding univocal being as neutral or indifferent, he makes it an object of pure affirmation. Univocal being becomes identical with unique, universal, and infinite substance: it is proposed as *Deus sive Natura*.<sup>35</sup>

In this strategic reading, Deleuze thus qualifies as “progress” the way Spinoza fell into the trap that Duns Scotus wanted to avoid: pantheism. Clearly, for Deleuze, pantheism was no trap in the first place, it was merely a (dogmatic) “exigency” of Christianity to avoid it. When he argues further that Spinoza’s progress is incomplete, he makes it clear that “such a condition can be satisfied only at the price of a more general categorical reversal according to which being is said of becoming . . . Nietzsche meant nothing more than this with the eternal return.”<sup>36</sup>

Here are the three moments of the elaboration of the univocity of being according to Deleuze: Duns Scotus and the first, “indifferent,” ontology, Spinoza and the first dispelling of indifference into “an object of pure affirmation,” and finally Nietzsche with the eternal return that “is the univocity of being, the effective realization of this univocity.”<sup>37</sup> From Duns Scotus’s indifferent being to pantheism in Spinoza to the death of God in Nietzsche: “in other words, creation, ‘being’ which was understood by nominalism as the radical dependence of all things on the will of God, now becomes (in valuation, in

the concern with the Nothing) the radical dependence of all things (for their meaning, their existence) on *me* as subject."<sup>38</sup> This is a necessary digression, but this is not my point. I'll stick with Duns Scotus here.<sup>39</sup> Because it is not only with the univocity of being that Duns Scotus is useful here, but also with his notion of individuation.

For Scotus, individuality is what is such that it can only be in the subject in which it is, that is, in this-subject; a nature is what is such that it can be in this-subject and that-subject. A nature is thus a common nature, individuable and nonpredicable. The concept of this nature, like all concepts, is predicable and nonindividuable.<sup>40</sup>

A nature is not reducible to its concept: it exists out of the mind (as Philip K. Dick used to say, reality is what is still there when you stop believing in it). Duns Scotus's ontology (like Deleuze's) is realist.

So, which nature is going to end—according to Žižek and many others—with the advent of the machines of the fourth kind (i.e., the biogenetics breakthrough)? *The common nature born out of sexual generation.* (As we've known it so far.)

The question *Is this-subject genuinely alive?* could become an actual ethical question for some. Some others will enjoy the opportunity to decide that this-subject, not being genuinely alive or, later, being genuinely alive, should be considered as an underman. And the same war will return again (between the ancients and the moderns). Up to the next level of the eternal return!

Or then again, maybe not: there is junk. Does junk DNA entail another common nature, of a kind not yet imagined? Some hypotheses beyond the selfish doctrine already exist. Some argue that crucial regulatory functions are buried in junk DNA; others have more challenging theses in the works. Today's truth is that nobody knows what junk DNA can still hide.

*For Junk DNA is the black matter of the ontogenesis of the machine of the fourth kind.*

The dunce concept that I have in my guts is that DNA is a whole unity, and not only by numbers, continuous or discontinuous quantity, matter or bare existence. That the pre-individual could after all be in each individual; that each singular DNA participates in a whole DNA ecology. And all living beings are connected by the powers of junk.

### **T Individuation, without a Principle**

7.25.2006. There never was an individuation *principle*. Many searched for one, though, and for a long time. Some felt that they had found one: in matter, form, number or quantity, space or else. The brightest, the subtlest, ended up

with some twisted tautologies. *Hic et nunc*, I know one when I see one. Some argued against nominalism but resorted to a lexical innovation when cornered. Eventually, at the sunset of modernity, some others concluded that the question was surely badly put if there were still no answers to it after centuries of effort. Hence, the inversion: there is no individuation principle, because . . . there are no individuals. Back to square one, that is, pre-Socratics (or, more precisely, ante-Aristotelians). Not twice the same river, no identity principle valid in this quest, and no sense for an excluded third. Instead: a process, a never-ending process; no individuals, only individuations, and time comes back with a revenge that some call *eternal return*.

Gilles Deleuze, after Whitehead, Bergson, and Simondon, synthesized this process philosophy. No Being but one being, relentless becoming. Univocity of being was not a choice, but the only logical solution, the only way to hear the “clamor of being.” Then Desire expressed itself, down to the eternal return spiral. A dangerous spiral at that: there is no comfort in spirals, confirmed Trent Reznor, whose nails are actually longer than those of the Master himself. The truth is, we do not need an individuation principle, and *principle* is usually the name we give to our desperate attempts to bring back some order in the equation. Order is but an exception: always fragile, doomed. So, instead of stability, one started to talk about *metastability* (Simondon) and dissipative structures (Atlan, Prigogine). All right, then what? Ah, the comforting feeling of a lexical invention. OK: pockets of order, against all odds, against the dreaded entropy: chance and necessity. This pocket of order I call myself, I, this individual decision to recognize myself as such, an individual. Let me choose my becoming. For I do have this freedom, don't I? No, you might say it's just an illusion. Well, watch me (and eat it). Period. Why keep arguing?

Anyway, it's not my problem, and let me be bold and claim it ain't OUR problem no more. Individuals happen to be no more or less (un)certain today than they were yesterday (next, I will claim, only more dis-affected; see chapter 5). If one resorts to the *hic et nunc*, the Scotist solution, *haecceity*: they are still there, where else could they be? Today's most thorough investigation,<sup>41</sup> impeccably logical as it should be, led to the most obvious, it seems: what's an individual? Some noninstantiable being (yes, you can multiply a colon, but not an individual)? Haecceity is not instantiable, there can be one and only one instance of this particular *hic et nunc*. Suffice it to say, it works enough for me, but it is not my problem, it ain't OUR problem no more.

OUR problem, our urgent, extremely critical problem, is named: *common nature*. Or lack thereof. Yes, or lack thereof. Dreadful, isn't it?

At first, you resorted to the nice stories your parents had told you: baby

boys are born in coleslaw, girls in roses; then came the charming metaphors, Daddy the gardener, with his little seeds, Mommy the garden . . . Then, once a teenager, you looked at the naked truth, first with revulsion, then with fascination (or vice versa). You had to just do it. Sex, that is. You started to notice it was everywhere. Tempting, alluring, dirty or not, with or without meaning, but *there*. Some chose to acknowledge it, some not. Some devoted themselves to it, some not. Some gave fancy names to it—Love, Desire—and some just did it. Some actually tried to reinvent it, some not. Everybody thought about it, it seemed. But whatever all this business amounted to, there was something you never doubted, whether you practiced it or not: this, for us humans, is where individuals are coming from. Rational animals maybe, but sexual beings for sure.

I was born in the early 1960s. I never knew a world where sex wasn't everywhere. It wasn't taboo anymore and almost anyone could answer the question "What's an individual?" with "The result of Daddy and Mommy making it."

Sure, animals do it too. But we humans *think* about it: what's a human being? Freud answered: some sex-obsessed creature, and developed a nice-sounding theory about triangles, with a charmingly tragic name. People started referring to *their* Oedipus . . . My very own Oedipus . . . Daddy, Mommy, I, and Oedipus, our silent partner in crime, in the crime that is MY life. Oedipus, the partner of my individuation and the measure of its relative success: this blind and limping character whom, knowingly or not, my parents created along with me. Oh, yes, he's real. Like a ghost floating over my cradle, like a personification of Daddy and Mommy's relation leading to me. I and Oedipus, Oedipus and I, we're best pals, again, unconscious partners in the murder of my father.

In the twentieth century, this came to be known as the unconscious tainted side of the individuation mirror. Physical entities may be individuated; living entities may be individuated as physical entities plus something else; and we humans may be individuated as living entities plus something else yet: Oedipus. Aristotle, his cultural contemporary, called him our "noetic soul," this something else that made us human apart from other living beings. Rational animal, that is, animal endowed with a noetic soul. Oedipus is the name of the archetypical (because individuated) noetic soul, tainted with desire. Oedipus is the stigmata of the third tier of our human individuation, the reflective feeling that there is something not so clear about the whole business of being human.

Oedipus is a name, hence a linguistic creature. There might have been an individual once named Oedipus, who was self-blinded, and limping. But most important, Oedipus came to be known as the protagonist of a human tragedy.

His tragedy became our lot, constitutive of our being human. Under this name, by some insight of one inquisitive noetic soul, Oedipus became a technology. In fact, Oedipus became the brand name of the late-modern technology of the self.

Simondon said that all individuation proceeds by transduction, propagation . . . *prise de forme*.<sup>42</sup> He picked up his physical paradigm with a lot of caution. The crystal. He argued from analogy up, with this paradigm (this instance) as a starting point. He moved to living entities as a second tier of individuation, and picked a coral colony as a second instance. Then, when it came to us, he added the last tier: psychic and collective, in other words, the noetic soul that makes us rational animals. A lot of other people pondered about that, silently, while he remained unknown. Then many came to the same conclusion at the same time: language and technology are the two distinct modes of expression of the noetic soul (its *grammatization*). Maybe, even, the noetic soul is language technology (it expresses itself self-sufficiently).

At approximately the same time, the latest revolution happened. Away with discipline! First: I do not need a Daddy and Mommy to censor me all my life. Drop out! No more policing my share of the noetic soul. Fuck Oedipus. Let there be freedom. Let me choose my parents, my friends, my community. I won't work anymore under some laws that were actually never convincingly explained to me. No more necessity? Pure chance? No, no, pure potential, chance *and* necessity. I don't care where I come from, I can still develop into something else, but something else I chose to be myself. Deliberately, in a definite gesture of self-expression, of self-production: *let there be me. Potential*, the latest big word of the latest revolution. A liberating metaphor: I am that grows. I do not need to ever be myself, just become myself. I am in control of my own becoming. Self-centered, self-sufficient, albeit altruistic and well-wishing revolutionary individual becoming, with many aspirations. Everybody's an artist when art becomes your very own life. Why not? Why not, indeed?

Simondon said, with a quite a dose of enlightened anticipation: *Nature is the reality of the possible*. Late-modern human beings took him at his word. In Duns Scotus's terms: this *haecceity*, this ultimate actuality, became, in Simondon's terms, the resolution of a metastable state, charged with potential. The individuation tautology had somehow become the quasi-tautological chiasm of modal singularity: common nature is virtual singularity, and the actual singularity is common nature in act. Or, as Paolo Virno puts it: the individual singularity adds something to the common nature, but without ever exceeding its perfection.

Duns Scotus's common nature had become Simondon's pre-individual, this virtual reservoir of singularity. Quite a successful quasi tautology indeed!



Virtuality, this Aristotelian intuition, came back to the rescue of the actual conundrum. If the actual was so decidedly aporetic, let the virtual be its tainted side, and so dispel the aporia, like any vulgar paradox. Everything that was a substance so became a process: from the Virtual to the Actual (actualization) and back, from the Actual to the Virtual (virtualization). Virtuality is pure potential, fields of potentialities. Some get actualized, others don't. Yes, but what about the possible? The possible is not the potential. Deleuze, after Bergson, concurred: the possible is only retrospective, it comes after the fact, as the name of this potential that did actualize (THE possible) and that could have been actualized (but was not, the possibles).

THE possible becomes Nature . . . by some process of individuation, by multiple processes of individuation. Because, as science has held since it has existed as *experimental* science, nature only knows individuals (bare, concrete individuals, particulars, singularities). The reality of the possible, nature, is and is only made of actual singularities, that is, of these possibles that individuated (these potentials actualized). All right.

But what about the old idea of a common nature, then? Could there still be such a *thing*? Nominalism would deny it as a mere concept (*une vue de l'esprit*), or worse, a name that would only describe something (nonexistent) by virtue of human convention. This nominalist perspective would insist that a common nature is what we agree it to be (no more, no less). Or, more classically put, "common natures are formally distinct aspects of entities that are the primary significate of a common noun." In this perspective, common natures are real in the sense that these formal distinctions are expressed in actuality, where they refer to some actual being; but they are not real in the sense that a common nature cannot be physically separated from these actual beings they refer to, and which only express the common nature imperfectly. In other words, a common nature can only be virtual (but virtuality is a mode of reality).

There used to be such a common nature of human beings: Daddy and Mommy must have done it. One could not conceive of a human being without him or her having been conceived first by the sexual encounter of his or her genitors. Crucially, in this old way, the common nature of human beings stemmed from the "natural" reproductive behavior of human beings, and this is why human beings were living entities sharing this with any other sexual forms of life (be it animal or vegetal). In other words, the third tier of individuation, the noetic soul, depended first on the second tier: the human animal was an animal first, and rational second.

But then sex became the main figure of irrationality. Oedipus showed his true face: that of a tyrant, ruling over sex without ever showing his monstrous

face. You thought you were free, but you were actually governed by this faceless tyrant. This, Freud said, was the third (and maybe last) narcissist wound. No, not only you humans are not the center of the universe (Copernicus inflicted this one); no, not only you humans actually do not essentially differ from other forms of life, you are the mere results of evolution (Darwin inflicted that second one), but you humans are not conscious of what actually governs what you consider the most free of your acts. Alas.

These, after all, were the modern times, and modernity had found a way to deal with tyrants: behead them! Ah, sacred dialectics, which can make a servant out of a master! Let not Oedipus be your tyrant, recycle him into your servant: make a technology out of him. Make him a conscious actuality, and he will be your best friend. Oedipus is your parents' creature. He is not you, you can actually get rid of him and still be you, a freer you. Find your true self through the perfect technology of *oedipectomy* (also known as Freudian psychoanalysis). Domesticate your Oedipus, tame him or you will forever be his toy, his child victim (yes, Oedipus is a child molester). Seize control over your Oedipus. Yeah, more power to you.

Better yet: reclaim control over the Generalized Oedipus, because, you guessed it, everybody has his own little Oedipus. Oedipus is a social thing, a collective individual. Yes, everybody's his victim, even your Daddy (and, Melanie Klein added, even your Mommy), even your boss, even the cops—hell, even your psychoanalyst. Even more power to you if you understand this. But you do not need to be a victim forever: be your own Oedipus (instead of having an Oedipus complex). The revolutionaries said: liberated men are their own Oedipus, they are today's overman. Their model might have been schizophrenic and incensed for that reason, but, most important, he self-proclaimed: "I, Antonin Artaud, I am my son, my father, my mother and myself; leveler of the imbecile trip where begetting tangles itself up."<sup>43</sup>

How else do you think that the last revolution could be invented, other than over the ashes of a potent mix of Freudianism and Marxism? Fortunately, when this revolution was brewing, science came to the rescue, and at last found a perfect candidate for some sense of continuity. Yes, there was a new basis for heredity, a new characterization of forms of life that could restore some sense of belonging to the realm of the living. Let there be DNA, this material universal. No more need for Oedipus, then, DNA will do:

The unconscious is not fundamentally a repository of submerged feelings and images as in the vulgar Freudian model. Neither is it fundamentally a Lacanian dialectic between the Imaginary . . . and the Symbolic . . . It can be made to be

these things, on two of its levels. More broadly, though, the unconscious is everything that is left behind in a contraction of selections or sensation that moves from one level of organization to another: *It is the structuration and selections of nature as contracted into human DNA.*<sup>44</sup>

To be honest, I must confess that I truncated the quote here. What follows is a series of “levels,” “syntheses,” and “thresholds” that articulate the specific form of becoming that the unconscious is. I forgot the rest of the series because I want to stress the first “level,” the “molecular stratum,” and note that, in agreement with their time, Deleuze and Guattari found this level in DNA. Following François Jacob and Jacques Monod,<sup>45</sup> they offered that the unconscious syntheses, at this molecular level described by “microscopic cybernetics,” have no regard for the “traditional opposition between mechanism and vitalism.”<sup>46</sup> Only desiring machines and molecular unconscious, no more castration and Oedipus: here is Deleuze and Guattari’s new *mot d’ordre*. But it is a dangerous *mot d’ordre*, especially if you equate the “molecular” with the “genic,” DNA with the genome.

The central assumption is that molecular biology has “proved” that DNA is the medium of a universal code characteristic of all forms of life. Mitosis and meiosis, the two basic operations of, respectively, asexual and sexual reproduction, were shown to be processes involving DNA. Like all forms of life, humans were understood as DNA-based. The old processes of embryogenesis and development were (and are still) translated into subtle hypotheses about the mechanisms of gene expression and regulation. In the early 1960s, Francis Crick and Sydney Brenner held, no doubt, that molecular biology would soon have solved the “last two problems remaining in biology”: development and consciousness. Simondon’s second tier of individuation had found a new basis. Sex as we knew it was recast into *one* strategy to perpetuate DNA, along with asexual reproduction, which soon became the post-Oedipian phantasm of choice for late-modern individuals.<sup>47</sup>

In this new scheme of things, DNA became equated to a—maybe even *the*—common nature: all forms of life have DNA; DNA defines life, and the genetic code is universal to life. On earth, life is carbon-based, and atoms of carbon are the building blocks of proteins. Proteins are the stuff of life, and DNA is the blueprint for protein synthesis. This materialist synthesis was actually perfectly in tune with the mix of Marxism, Darwinism, and Freudianism that came to signify all kinds of liberatory narratives. The new watchword could soon become: “Take control over your DNA.” The old and intense fight between materialism and spiritualism took a new shape: between those who would look for genes encoding behaviors, and those who would deny

such a depressive possibility. Altruism, homosexuality, and all kinds of human manners became recast as molecular operations on the stuff of life (and especially hormones and neurotransmitters).

Suddenly, you did not need to be proud of your ancestors anymore, only rejoice about “the quality of your genes.” Mommy and Daddy are mere DNA providers, and Oedipus has become a fairy tale for idealists unaware of this basic truth: *there must be a molecule for everything*. The third tier of human individuation, psychic and collective, was next in the line of “problems” awaiting a molecular explanation. For the realm of the living, DNA was Simondon’s “pre-individual,” a mode of the universal inside each of our cells, the whole evolution transcribed into a master molecule. If individuation was Simondon’s name for the universal mechanism of evolution (according to Anne Fagot-Largeault), DNA would be its material embodiment. Next, DNA could take over the noetic soul: after all, the genetic code was “the code of code,” the very archetype of language.

Yes, DNA so became the closest thing ever to a common nature for the living—the common nature that is protein-based, that is.

Individuation, then, at the molecular level, has found its nearest thing to a principle in matter, as the Thomists would have thought. It is actually ironic that Thomists and molecular biologists would agree on this issue. In this scheme of things, DNA is a common nature: members of the same species share the same genes (virtual reservoir), but express (actualize) them singularly.

Well, this picture seems a bit flawed. If indeed people share 99.9 percent of their bases in the coding part of DNA, the noncoding parts are so variable in size and location that we could invent DNA “fingerprinting.” By now it is common knowledge that humans are genetically identical at 99.9 percent *and* that each DNA is unique (you’ve seen it on *CSI*). How could it be?

Could it be that the genome (coding DNA) is a common nature, and that the noncoding part—that is, junk—as to do with individuation? And I don’t mean by that the simple idea that the genome is the common nature and the junk is solely responsible for the individuation. There is, after all, variation not only in genes (at a rate of one to a hundred to one to a thousand single nucleotide polymorphisms), but also in their expression (not only among individuals, but obviously within the “same” individual through his or her development).

Could it be, rather, that DNA is the expression both of a common nature and of the singularity of a given individual? Could DNA be both the software and the junkware of life, always common and singular? Could it all be network, a web of life in every plan, molecular and molar?

## Chapter 5, *Lysis and Replication*

### **Homo nexus, Disaffected Subject**

Human nature, essentially changeable, unstable as the dust, can endure no restraint; if it binds itself it soon begins to tear madly at its bonds, until it rends everything asunder, the wall, the bonds and its very self.

—FRANZ KAFKA, “The Great Wall and the Tower of Babel”

“Homo nexus” is the name that I give to today’s transitional form toward overman, this “new form” whose advent might make current human beings (*Homo sapiens*) obsolete: or, in the programmers’ lingo, posthumans might eventually make *Homo nexus 404 compliant*.<sup>1</sup>

#### **S A Philosophical Fiction**

Alfred Elton van Vogt (April 26, 1912–January 26, 2000) was a Canadian-born science-fiction author, and one of its early pioneers.<sup>2</sup> Born in Winnipeg, the son of a lawyer, van Vogt grew up in a rural Saskatchewan community. Without money for education (like many children of the Great Depression, his father lost a good job), he did not attend college. He worked at a series of jobs and then started writing true confessions, love stories, trade-magazine articles, and radio plays. In the late 1930s, he switched to writing science fiction, influenced by his teenage passion for fairy tales. In December 1939, he published his first SF story, titled “Discord in Scarlet,” in John W. Campbell’s *Astounding Science Fiction*, the ultimate science-fiction serial of all time. In the same issue appeared Isaac Asimov’s first *Astounding* story, “Trends”; Robert Heinlein’s first story “Lifeline” appeared a month later, and Theodore Sturgeon’s “Ether Breather” a month after that. Van Vogt thus participated in the first generation of the golden age of SF in the United States.

“Discord in Scarlet” depicted a fierce, carnivorous alien stalking the crew of an exploration ship in outer space. In 1950, van Vogt incorporated the story into his novel *The Voyage of the Space Beagle*.<sup>3</sup> The plot of the story, in its various versions, always revolves around a “close encounter of the third kind,” a malevolent one, that is. Its alien menace—Coeurl, a big, black, enigmatic,