

Living in the End Times

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Today's historical situation not only does not compel us to drop the notion of proletariat, of the proletarian position; on the contrary, it compels us to radicalize it to an existential level well beyond Marx's imagination. We need a more radical notion of proletarian subject, a subject reduced to the evanescent point of the Cartesian *cogito*, deprived of its substantial content. There are three processes of proletarianization going on: the looming threat of *ecological* catastrophe, the inappropriateness of *private property* for the so-called "intellectual property," and the socio-ethical implications of *new techno-scientific developments*. These processes relate to the domains of what Hardt and Negri call "commons,"¹ the shared substance of our social being:

—*the commons of culture*, the immediately socialized forms of "cognitive" capital, primarily language, our means of communication and education, threatened by privatization (if Bill Gates were to be allowed monopoly, we would have reached the absurd situation in which a private individual would have literally owned the software texture of our basic network of communication);

—*the commons of external nature* threatened by pollution and exploitation (from oil to forests and natural habitat itself);

—*the commons of internal nature* (the biogenetic inheritance of humanity); with new biogenetic technology, the creation of a New Man in the literal sense of changing human nature becomes a realist prospect.

What all these struggles share is the awareness of the destructive potentials, up to the self-annihilation of humanity itself,

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if the capitalist logic of enclosing these commons is allowed a free run. Nicholas Stern was right to characterize the climate crisis as “the greatest market failure the world has ever seen.”² So when Kishan Khoday, a U.N. team leader, recently wrote: “There is an increasing spirit of global environmental citizenship, a desire to address climate change as a matter of common concern of all humanity,” one should give all the weight to the terms “global citizenship” and “common concern”—the need to establish a global political organization and engagement which, neutralizing and channeling market mechanisms, stands for a properly communist perspective.³ It is this reference to “commons” which justifies the resuscitation of the notion of Communism: it enables us to see the progressing “enclosure” of the commons as a process of proletarianization of those who are thereby excluded from their own substance.

For this reason, the new emancipatory politics will no longer be the act of a particular social agent, but an explosive combination of different agents. What unites us is that, in contrast to the classic image of proletarians who have “nothing to lose but their chains,” we are in danger of losing *all*: the threat is that we will be reduced to an abstract empty Cartesian subject deprived of all substantial content, dispossessed of our symbolic substance, with our genetic base manipulated, vegetating in an unlivable environment. This triple threat to our entire being in a way makes us all proletarians, reduced to “substanceless subjectivity,” as Marx put it in *Grundrisse*. The ethico-political challenge is to recognize ourselves in this figure—in a way, we are all excluded, from nature as well as from our symbolic substance. Today, we are all potentially a *homo sacer*, and the only way to prevent actually becoming one is to act preventively.

If this sounds apocalyptic, one should retort that we effectively live in an apocalyptic time—it is easy to note how each of the three processes of proletarianization refer to an apocalyptic point: ecological breakdown, biogenetic reduction of humans to manipulable machines, total digital control over our lives... At all these levels, things are approaching a zero-point, “the end of time is near.” Here is Ed Ayres’s description: “We are being confronted by something so completely outside our collective experience that we don’t really see it, even when the evidence is overwhelming. For us, that ‘something’ is a blitz of enormous biological and physical alterations in the world that has been sustaining us.”⁴ At the geological and biological level, Ayres enumerates four “spikes” (accelerated developments) asymptotically approaching a zero-point at which the quantitative expansion will reach its point of exhaustion and will have to change into a different quality: population growth, consumption of resources, carbon gas emissions, the mass extinction of species. In order to cope with this threat, our collective ideology is mobilizing mechanisms of dissimulation and self-deception which add up to a direct will to ignorance: “a general pattern of behavior among threatened human societies is to become more blindered, rather than more focused on the crisis, as they fail.”⁵

The recent shift in how those in power react to global warming is a blatant display of such dissimulation. On June 27, 2008, the big media reported that, according to scientists from the National Snow and Ice Data Center in Boulder, Colorado, the Arctic sea ice is melting away much faster than was predicted.⁶ Till recently, the

predominant reactions to similar news were ominous calls for emergency measures: *we are approaching an unthinkable catastrophe, the time to act is quickly running out...* Lately, however, we hear more and more voices which enjoin us to warm to global warming. The pessimistic predictions, so we are told, should be put into a more balanced context. True, the climate change will bring increased resource competition, coastal flooding, infrastructure damage from melting permafrost, stresses on animal species and indigenous cultures of the region, all this accompanied by ethnic violence, civil disorder and local gang rule. But we should also bear in mind that the hitherto hidden treasures of a new continent will be disclosed, its resources becoming accessible, its land becoming suitable for human habitation. Already in a year or so, cargo ships will be able to take a direct northern route, cutting the consumption of fuel and reducing carbon emissions... Big business and state powers are already searching for new economic opportunities, which do not concern only (or even primarily) “green industry,” but much more simply and directly the exploitation of nature opened up by climactic changes.

The contours of a new Cold War are thus appearing on the horizon—and, this time, it will be literally a conflict fought in very cold conditions. On August 2, 2007, a Russian team planted a titanium capsule with a Russian flag under the ice caps of the North Pole.⁷ This assertion of the Russian claim to the Arctic region was done neither for scientific reasons nor as a political-propagandistic bravado. Its true goal was to secure for Russia the vast energy riches of the Arctic: according to today’s estimates, up to one quarter of the world’s untapped oil and gas sources may lie under the Arctic Ocean. Russia’s claims are, predictably, opposed by four other countries whose territory borders on the Arctic region: the U.S.A., Canada, Norway and Denmark (through its sovereignty over Greenland).

While it is difficult to estimate the soundness of these predictions, one thing is sure: an extraordinary social and psychological change is taking place right in front of our eyes, a change described a century ago by Henri Bergson. In his “Two Sources of Morality and Religion,” Bergson describes how on August 4, 1914, when war was declared between France and Germany, he experienced a strange “feeling of admiration for the facility of the passage from the abstract to the concrete: who would have thought that such a formidable event can emerge in reality with so little fuss?”⁸ Crucial here is the modality of the break between before and after: before its outburst, the war appeared to Bergson “*simultaneously probable and impossible*: a complex and contradictory notion which persisted to the end”;⁹ after its outburst, it all of a sudden become real *and* possible, and the paradox resides in this retroactive appearance of probability:

I never pretended that one can insert reality into the past and thus work backwards in time. However, one can without any doubt insert there the possible, or, rather, at every moment, the possible inserts itself there. Insofar as unpredictable and new reality creates itself, its image reflects itself behind itself in the indefinite past: this new reality finds itself all the time having been possible; but it is only at the precise moment of its actual emergence that it *begins to always have been*, and this is why I say that its possibility,

which does not precede its reality, will have preceded it once this reality emerges.¹⁰

An event is thus experienced first as impossible but not real (the prospect of a forthcoming catastrophe which, however probable we know it is, we do not believe it will effectively occur and thus dismiss it as impossible), and then as real but no longer impossible (once the catastrophe occurs, it is “renormalized,” perceived as part of the normal run of things, as always already having been possible). The gap which makes these paradoxes possible is the one between knowledge and belief: we *know* the (ecological) catastrophe is possible, probable even, yet we do not *believe* it will really happen.

And is this not what is happening today, right in front of our eyes? A decade ago, the public debate on torture or the participation of the neo-Fascist parties in a West European democratic government was dismissed as an ethical catastrophe which is impossible, which “really cannot happen”; once it happened, we immediately got accustomed to it, accepting it as obvious... Or, recall the infamous siege of Sarajevo from 1992 till 1995: the idea that a “normal” European city of half a million inhabitants would be encircled, starved, regularly bombed, its citizens terrorized by sniper fire, etc., and that this would go on for 3 years, would have been considered unimaginable before 1992—it would have been extremely easy for the Western powers to break the siege and open a small safe corridor to the city. When the siege began, even the citizens of Sarajevo thought this was a short-term event, trying to send their children to safety “for a week or two, till this mess is over.” And then, very fast, the siege was “normalized”...

This same direct passage from impossibility to normalization is clearly discernible in how state powers and big capital relate to ecological threats like the ice meltdown on the poles. The very same politicians and managers who, till recently, dismissed the fears of global warming as the apocalyptic scare-mongering of ex-Communists, or at least as premature conclusions based on insufficient evidence, assuring us that there is no reason for panic, that, basically, things will go on as usual, are now all of a sudden treating global warming as a simple fact, as part of the way things are “going on as usual”... In July 2008, CNN was repeatedly showing a report called “The Greening of Greenland,” celebrating the new opportunities that the melting of ice offers to Greenlanders—they can already grow vegetables in the open land, etc. The obscenity of this report is not only that it focuses on a minor benefit of a global catastrophe; to add insult to injury, it plays on the double meaning of “green” in our public speech (“green” for vegetation; “green” for ecological concerns), so that the fact that more vegetation can grow on Greenland soil because of the global warming is associated with the rising of ecological awareness... Are such phenomena not yet another example of how right Naomi Klein was when, in her *Shock Doctrine*, she described the way global capitalism exploits catastrophies (wars, political crises, natural disasters) to get rid of the “old” social constraints and impose its agenda on the slate cleared by the catastrophe?¹¹ Perhaps, the forthcoming ecological disasters, far from undermining capitalism, will serve as its greatest boost.

What gets lost in this shift is the proper sense of what is going on, with all the unexpected traps the catastrophe hides. For example, one of the unpleasant paradoxes of our predicament is that the very attempts to counteract other ecological threats may contribute to the warming of the poles: the ozone hole helps shield the interior of the Antarctic from global warming, so if it is healed, the Antarctic could quickly catch up with the warming of the rest of the Earth. One thing at least is sure. In the last decades, it was fashionable to talk about the predominant role of “intellectual labor” in our postindustrial societies—however, materiality is now reasserting itself with a vengeance in all its aspects, from the forthcoming struggle for scarce resources (food, water, energy, minerals...) to environmental pollution.

So while we should definitely exploit the opportunities opened up by global warming, we should never forget that we are dealing with a tremendous social and natural catastrophe, and that these opportunities are the by-products of this catastrophe which we should fight with all our means. In adopting a “balanced view,” we act like those who plead for a more “balanced view” on Hitler: true, he killed millions in the camps, but he also abolished unemployment and inflation, built highways, made trains run on time... This new constellation provides the starting point for Dipesh Chakrabarty’s elaboration of the historico-philosophical consequences of global warming, the main being the collapse of the distinction between human and natural histories: “For it is no longer a question simply of man having an interactive relation with nature. This humans have always had... Now it is being claimed that humans are a force of nature in the geological sense.”¹¹

That is to say, the fact that “humans—thanks to our numbers, the burning of fossil fuel, and other related activities—have become a geological agent on the planet,”¹² means that they are able to affect the very balance of life on Earth, so that—“in itself” with the industrial revolution of 1750, “for itself” with global warming—a new geological era began, baptized by some scientists as the “Anthropocene.” The way humankind is forced to perceive itself in these new conditions is as a *species*, as one of the species of life on Earth. When the young Marx designated humanity as a *Gattungswesen* (species being), he meant something quite different: that, in contrast to animal species, only humans are a “species being,” i.e., a being which actively relates to itself as a species and is thus “universal” not only in itself, but also for itself. This universality first appears in its alienated-perverted form with capitalism, which connects and unites all of humanity within the same world market; with modern social and scientific development, we are no longer just a mere species among others or yet another natural condition. For the first time in the entire human history, we, humans, collectively constitute ourselves and are aware of it, so that we are also responsible for ourselves: the mode of our survival depends on the maturity of our collective reason... However, the scientists who talk about the Anthropocene are saying something quite the contrary. They argue that because humans constitute a particular kind of species they can, in the process of dominating other species, acquire the status of a geologic force. Humans, in other words, have become a natural condition, at least today.”¹⁴ The standard Marxist counter-argument here is that this shift from Pleistocene to the Anthropocene is entirely due to the explosive development

of capitalism and its global impact—and this confronts us with the key question: how are we to think the link between the social history of capital and the much larger geologic changes of the conditions for life on the Earth? As Chakrabarty suggests:

If the industrial way of life was what got us into this crisis, then the question is, Why think in terms of species, surely a category that belongs to a much longer history? Why could not the narrative of capitalism—and hence its critique—be sufficient as a framework for interrogating the history of climate change and understanding its consequences? It seems true that the crisis of climate change has been necessitated by the high-energy-consuming model of society that capitalist industrialization has created and promoted, but the current crisis has brought into view certain other conditions for the existence of life in the human form that have no intrinsic connection to the logics of capitalist, nationalist, or socialist identities. They are connected rather to the history of life on this planet, the way different life-forms connect to one another, and the way the mass extinction of one species could spell danger for another.... In other words, whatever our socioeconomic and technological choices, whatever the rights we wish to celebrate as our freedom, we cannot afford to destabilize conditions (such as the temperature zone in which the planet exists) that work like boundary parameters of human existence. These parameters are independent of capitalism or socialism. They have been stable for much longer than the histories of these institutions and have allowed human beings to become the dominant species on Earth. Unfortunately, we have now ourselves become a geological agent disturbing these parametric conditions needed for our own existence.¹⁵

In contrast to nuclear war, which would have been the result of a conscious decision of a particular agent, climate change “is an unintended consequence of human action and shows, only through scientific analysis, the effects of our actions as a species.”¹⁶ This threat to the very existence of humanity creates a new sense of “we” which truly encompasses all of humanity:

Climate change, refracted through global capital, will no doubt accentuate the logic of inequality that runs through the rule of capital; some people will no doubt gain temporarily at the expense of others. But the whole crisis cannot be reduced to a story of capitalism. Unlike in the crises of capitalism, there are no lifeboats here for the rich and the privileged (witness the drought in Australia or recent fires in the wealthy neighbourhoods of California).¹⁷

The most appropriate name for this emerging universal subject may be species: “Species may indeed be the name of a placeholder for an emergent, new universal history of humans that flashes up in the moment of the danger that is climate change.”¹⁸ The problem is that this universal is not a Hegelian one, which arises dialectically out of the movement of history and subsumes-mediate all particularities:

it “escapes our capacity to experience the world” so it can only give rise to a “negative universal history,”¹⁹ not the Hegelian world history as the gradual immanent self-deployment of freedom.

With the idea of humans as species, the universality of humankind falls back into the particularity of an animal species: phenomena like global warming make us aware that, with all the universality of our theoretical and practical activity, we are at a certain basic level just another living species on the planet Earth. Our survival depends on certain natural parameters which we automatically take for granted. The lesson of global warming is that the freedom of humankind was possible only against the background of the stable natural parameters of the life on Earth (temperature, the composition of the air, sufficient water and energy supply, etc.): humans can “do what they want” only insofar as they remain marginal enough, so that they don’t seriously perturb the parameters of life on Earth. The limitation of our freedom that becomes palpable with global warming is the paradoxical outcome of the very exponential growth of our freedom and power, i.e., of our growing ability to transform nature around us up to destabilizing the very basic geological parameters of life on Earth. “Nature” thereby literally becomes a socio-historical category, but not in the exalted sense of the young Lukács (the content of what is for us [counts for us as] “nature” is always overdetermined by a historically-specified social totality which structures the transcendental horizon of our understanding of nature). It becomes a socio-historical category in the much more radical and literal (ontic) sense of something that is not just a stable background of human activity, but is affected by it in its very basic components. What is thereby undermined is the basic distinction between nature and human history: nature blindly follows its course, it just has to be explained, while human history has to be understood. Even if its global course is out of control and functions as a Fate which goes against the wishes of most of the people, this “Fate” is the result of the complex interaction of many individual and collective projects and acts based upon certain understanding of what our world is—in history, we confront the result of our own endeavors.

Chakrabarty seems to miss here the full scope of the properly dialectical relationship between the basic geological parameters of life on Earth and the socio-economic dynamic of human development. Of course, the natural parameters of our environment are “independent of capitalism or socialism”—they are a threat to all of us, independently of economic development, political system, etc. However, the fact that their stability was threatened by the dynamic of global capitalism nonetheless has a stronger implication than the one allowed by Chakrabarty: in a way, we have to admit that *the Whole is contained by its Part*, i.e., that the fate of the Whole (life on Earth) hinges on what goes on in what is formally one of its parts (socio-economic mode of production of one of the species on Earth). This is why we have to accept the paradox that, in the relation between the universal antagonism (the threatened parameters of the conditions for life on Earth) and the particular antagonism (the deadlock of capitalism), the key struggle is the particular one: one can solve the universal problem (of the survival of the human species) only by first resolving the particular deadlock of the capitalist mode of production. In other words, the common-sense reasoning which tells us that, independently of our class position or of our political orientation,

we all will have to tackle the ecological crisis if we are to survive, is deeply misleading: the key of the ecological crisis does not reside in ecology as such.

Perhaps, the key to this limitation is Chakrabarty's simplified notion of Hegelian dialectics. That is to say, is the idea of a "negative universal history" really anti-Hegelian? Is, on the contrary, the idea that a multiplicity (of humans) totalized (brought together) through a negative external limit (a threat) not Hegelian *par excellence*? Even more, is not for Hegel every universality ultimately a "negative" one, in the precise sense that it has to appear as such, in its opposition ("negative relationship") to its own particular-determinate content—recall Hegel's theory of war. Hegel may appear to celebrate the *prosaic* character of life in a well-organized modern state where the heroic disturbances are overcome in the tranquility of private rights and the security of the satisfaction of needs: private property is guaranteed, sexuality is restricted to marriage, future is safe... In this organic order, universality and particular interests appear reconciled: the "infinite right" of subjective singularity is given its due, individuals no longer experience the objective state order as a foreign power intruding onto their rights, they recognize in it the substance and frame of their very freedom. Gerard Lebrun asks here the fateful question: "Can the sentiment of the Universal be dissociated from this appeasement?"¹⁹ The answer is clear: yes, and this is why war is necessary—in war, universality reasserts its right over and against the concrete-organic appeasement in the prosaic social life. Is thus the necessity of war not the ultimate proof that, for Hegel, every social reconciliation is doomed to fail, that *no organic social order can effectively contain the force of abstract-universal negativity*? This is why social life is condemned to the "spurious infinity" of the eternal oscillation between stable civic life and wartime perturbations.

In other words, Chakrabarty's dismissal of the Hegelian universality would only hold if we were to reduce what Hegel calls "concrete universality" to the organic-corporate model of a universal order within which every particular moment plays its determinate role, contributing to the wealth of the All. If, however, we bear in mind that the Hegelian "concrete universality" designates a universal which enters into a dialectical tension with its own particular content, i.e., that every universality can only assert (posit) itself "as such" in a negative way, then the idea of nature as not only the self-evident stable background of human activity, but as the unity of the invisible background of and apocalyptic threat to the human species, appears profoundly Hegelian.

There are at least three different versions of apocalypticism today: Christian-fundamentalist, New Age, techno-digital-posthuman. Although they all share the basic notion that humanity is approaching a zero-point of radical transmutation, their respective ontologies differ radically: techno-digital apocalypticism (whose main representative is Ray Kurzweil) remains within the confines of scientific naturalism, and identifies at the level of the evolution of human species the contours of its transmutation into "posthumans"; New Age apocalypticism gives to this transmutation a spiritualist twist, interpreting it as the shift from one to another mode of "cosmic awareness" (usually from the modern dualist-mechanistic stance to the stance of holistic immersion); and, finally, Christian fundamentalists read apocalypse in strict biblical terms, i.e., they search (and find) in contemporary world signs that the final

battle between Christ and anti-Christ is near, that things are approaching a critical turn. Although this last version is considered both the most ridiculous and the most dangerous as to its content, it is the one closest to the “millenarist” radical emancipatory logic.

Let us first take a look at techno-digital apocalypticism. If there is, even more than Bill Gates, a scientist-capitalist who perfectly exemplifies the third “spirit of capitalism” with its non-hierarchic and anti-institutional creativity, humanitarian-ethical concerns, etc., it is Craig Venter with his idea of DNA-controlled production. Venter’s field is synthetic biology: a life which is forged not by Darwinian evolution but created by human intelligence. Venter’s first breakthrough was to develop “shotgun sequencing,” a method for analyzing the human genome faster and more cheaply than ever before; he published his own genome, the first time any individual person’s DNA had been sequenced (incidentally, it revealed that Venter is at risk of Alzheimer’s, diabetes, and hereditary eye disease).²⁰ Then he announced his next great project: to build an entirely synthetic organism, which could be used to save the world from global warming. In January 2008, he constructed the world’s first completely synthetic genome of a living organism: using laboratory chemicals, he recreated an almost exact copy of the genetic material found inside a tiny bacterium. This largest man-made DNA structure is 582,970 base pairs in length; it was pieced together from four smaller (but still massive!) strands of DNA by utilizing the transcription power of yeast, and is modeled on the genome of a bacterium known as *Mycoplasma genitalium*. (*Mycoplasma genitalium* is a bacterium common to the human reproductive tract; it was chosen purely because it has a relatively tiny genome).²¹ The lab-made genome has not so far resulted in a living microbe that functions or replicates; but Venter said it is just a matter of time before they figure out how “to boot it up” by inserting the synthetic DNA into the shell of another bacterium. This success opens up the way for creating new types of microorganisms that could be used in numerous ways: as green fuels to replace oil and coal, digest toxic waste or absorb greenhouse gases, etc. Venter’s dream is effectively to create the first “trillion-dollar organisms”—patented bugs that could excrete bio-fuels, generate clean energy in the form of hydrogen and even produce tailor-made foods:

Imagine the end of fossil fuels: a cessation of ecologically devastating drilling operations, deflation of the political and economic power of neoconservative oil barons, and affordable, low-emission transportation, heating, and electricity. The impact of this technology is profound, and it doesn’t stop there. By discovering the details of biochemical and metabolic pathways, we can more closely mimic their elegance and efficiency to solve problems that plague industrial civilization. Maybe we’ll engineer a primitive, self-sustaining bio-robot that feeds on CO₂ and excretes O₂. Perhaps we could remove mercury from our water supplies. The limitations are not known, but the possibilities are awe-inspiring.²²

There are, as Venter admits, also more sinister possibilities: it will also be possible to synthesize viruses like Ebola, or to build new pathogens... But the problem is

deeper: such extreme genetic engineering will bring about substantially different organisms—we will find ourselves in a new terrain full of unknowns. The problem is our limited understanding of how DNA works: even if we can put together a sequence of synthetic DNA, we cannot predict how this sequence will actually perform, how its components will interact. That is to say, DNA communicates with a cell by prompting it to make proteins, and we are far from fully understanding the relationship between a given DNA sequence, the proteins it generates and the final properties of an organism.

These dangers are strengthened by the absence of any public control over what goes on in bioethics—outside any democratic oversight, profiteering industrialists are tinkering with the building blocks of life. Venter tried to allay the fears of an emerging *Blade-Runner*-society:

The movie [*Blade Runner*] has an underlying assumption that I just don't relate to: that people want a slave class. As I imagine the potential of engineering the human genome, I think, wouldn't it be nice if we could have 10 times the cognitive capabilities we do have? But people ask me whether I could engineer a stupid person to work as a servant. I've gotten letters from guys in prison asking me to engineer women they could keep in their cell. I don't see us, as a society, doing that.²³

Venter may not see it, but the requests he is bombarded with certainly prove that there is a social demand for the creation of a serving sub-class. Ray Kurzweil offered a different rebuttal of these fears:

The scenario of humans hunting cyborgs doesn't wash because those entities won't be separate. Today, we treat Parkinson's with a pea-sized brain implant. Increase that device's capability by a billion and decrease its size by a hundred thousand, and you get some idea of what will be feasible in 25 years. It won't be, 'OK, cyborgs on the left, humans on the right.' The two will be all mixed up.²⁴

While this is in principle true (and one can here vary endlessly the Derridean motif of how our humanity always already was supplemented by artificial prostheses), the problem is that, with the decrease by a hundred thousand, the prosthesis is no longer experienced as such, but becomes invisible, part of our immediate-organic self-experience, so that those who technologically control the prosthesis control us in the very heart of our self-experience.

The paradox is that, insofar as the recreation of artificial life is the accomplishment of (one of the strands of) modernity, it is Habermas himself who abstains from accomplishing the project of modernity, i.e., who prefers modernity to remain an "unfinished project," setting a limit to the unfolding of its potentials. There are even more radical questions to be raised here, questions which concern the very limit of our desire (and readiness) to know: what will prospective parents do when they are

informed that their child will have Alzheimer's genes? The recent new buzzword "previvor" (a person who does not have cancer but possesses a genetic predisposition to develop the disease, a "pre-survivor") renders perfectly the anxiety of advance-knowledge.

Chinese scientists at the Beijing Genomics Institute (BGI) have completed the fourth human genome to be sequenced worldwide; they plan to use their genome database to "solve problems related to Chinese-specific genetic diseases"²⁵ as well as to improve diagnosis, prediction, and therapy. Such phenomena are just the tip of the iceberg of a process going on in China of which not much is heard in the media preoccupied by the Tibet troubles, etc.: the expansion of biogenetic revolution. While in the West, we are bothered with endless debates on ethical and legal limits of biogenetic experiments and procedures (stem cells, yes or no; how far should we be allowed to intervene into a genome—only to prevent diseases, or also to enhance the desired physical and even psychic properties in order to create a new born that fits our desires...), the Chinese are simply doing it without any restraints, and in a model example of the smooth co-operation between their state agencies (say, their Academy of Sciences) and private capital. In short, both branches of what Kant would have called the "private" use of reason (state and capital) joined hands at the expense of the absent "public" use of reason (a free intellectual debate in the independent civil society on what is going on: how does all this infringe on individual's status as ethically autonomous agents, etc., not to mention the possible political misuses). Things are proceeding fast on both fronts, not only towards the dystopian vision of the state controlling and steering the biogenetic mass of its citizens, but also towards the fast profit-making: billions of dollars are invested in labs and clinics (the biggest one in Shanghai) to develop commercial clinics which will target rich Western foreigners who, due to legal prohibitions, will not be able to get this kind of treatment in their own countries. The problem is, of course, that in such a global situation legal prohibitions are becoming meaningless: their main effect will be the commercial and scientific advantage of the Chinese facilities—to repeat a cliché, Shanghai has all the chances of becoming a dystopian megalopolis like the anonymous city (L.A.?) in *Blade Runner*.

The time is approaching when we will have to turn around the standard complaint of how are our relations to other people are more and more mediated by digital machinery, so that, within every face to face meeting, there is an interface: the prospect of the near future is the explosive development of the direct links between computers (and other media) themselves, so that they will communicate, make decisions, etc., presenting us just with the final result of their interaction. (Say, when we withdraw money from a cash machine, the machine informs our bank, whose computer sends the information to our PC via email...) Already today, there are more connections between computers themselves than between computers and their human users—one could apply Marx's formula and state that, here also, relations between computers-things are replacing relations between persons. What if, out of this interaction, a self-organization emerges which can impose its own agenda, so that the human users no longer control and dominate the digital network but are

themselves used by it? The recent techno-thriller *Eagle Eye* (2008) deals with this prospect in all its ambiguity—no wonder the film flopped at the box office for interesting ideological reasons. Here is a brief outline of its plot, courtesy of Wikipedia: it starts with a standard accident in the “war on terror”: the U.S. Army has a lead on a suspected terrorist in the Middle East, but as the man is a recluse, getting a positive ID proves difficult, and the computer system which processes all military data recommends that the mission be aborted. The Secretary of Defense agrees, but the President orders the mission be carried out anyway. This turns into a political backlash when all those killed turn out to be civilians, and retaliatory bombings are carried out in response.

Now the two heroes of the film are introduced, two ordinary U.S. citizens, Jerry Shaw (a Stanford University dropout) and Rachel Holloman (a young single mother whose son Sam is a trumpet player). One day, when Jerry returns home, he finds his apartment filled with a large amount of weapons, explosives, and forged documents. He receives a phone call from an unknown woman, who explains that the FBI is about to apprehend him in thirty seconds and that he must escape. Not believing her, he is caught by the FBI, but the unknown woman again arranges Jerry’s escape over a phone and has him join up with Rachel, who is coerced by the same unknown woman into assisting Jerry, by threatening to kill her son. The woman-voice helps the pair to avoid the Chicago Police and FBI units, demonstrating the ability to remotely control virtually any networked device, such as traffic lights, cell phones, and even automated cranes.

Jerry and Rachel are led to an electronics store where the woman-voice introduces herself to them: she is a top-secret supercomputer called “Autonomous Reconnaissance Intelligence Integration Analyst” (Ariia), which gathers intelligence from all over the world and can control virtually anything electronic—she has been monitoring both their lives and brought both Jerry and Rachel to her. In light of the mistake made by the President at the beginning of the film, Ariia has decided that the executive branch is a threat to the public good and must be eliminated. Ariia plans to destroy the President’s Cabinet, leaving the Secretary of Defense, who agreed with the recommendation to abort the mission, as the successor to the presidency. She explains to Jerry or Rachel that she is trying to help the people of the United States... Is Ariia not simply and truly a rational agent, is she effectively not acting in the interests of the people of the U.S.? Would it not be the best for the U.S. if her plan were to succeed? Ariia is ready to sacrifice dozens of innocent bystanders in the Capitol—but so did the President when he okayed the killing of the dozens of Arab civilians. The ambiguity of the film is that it remains unclear if this irony is intended or not.

(At a more visceral level, one cannot resist the fairy-tale logic that underlies the scenes in which Jerry and Rachel repeatedly succeed in escaping the FBI. It is as if they move in an enchanted universe in which they are not simply confronting enemies against a neutral background of reality—the very texture of reality is guided by a magic hand which twists it to their profit: when the cars pursuing them get too close, cranes block their way; when, running from police, they enter a subway station, the timetable display tells them which direction to take... Is this not the

ultimate paranoid dream, the dream that reality is not made of neutral inert stuff indifferent to our struggles, but is an artificial mechanism guided by a benevolent intelligence? The logic which (in its less strong version) is usually turned against the hero (recall *Enemy of the State* (1998), in which, due to complex satellite etc. system of surveillance, the enemy always seems to know where Will Smith is), works here for the heroes—with the inevitable implication that, since the controlling agency is by definition evil, the heroes must be unaware coerced instruments of an evil big Other which controls our reality.

Arguably the most poetic scene in the film occurs when the heroes enter Ariia: the inside of a big round cupola with blinking “neurons”—as if they entered the head—the very brain—of the feminine voice that was addressing them. The charm (and, simultaneously, key ideological manipulation) of the scene is that, although we see the impersonal-mechanical “brain” working, the computer remains subjectivized, the spectral feminine voice continuous to address humans as a partner in a dialogue.)

How, then, does the digitalization of our lives affect the hermeneutic horizon of our everyday experience? According to a CNN report from May 2008, monkeys with sensors implanted in their brains have learned to control a robot arm with their thoughts, using it to feed themselves with fruit and marshmallows: in an experiment at the University of Pittsburgh School of Medicine, a pair of macaque monkeys were fitted with electrodes the width of a human hair that transmitted signals from areas of the brain linked to movements.²⁶ Scientists behind the experiment say it will lead to the creation of brain-controlled prosthetic limbs for amputees or patients with degenerative disorders. The first prototype is already operative: a wheelchair-mounted robotic arm controlled by thought alone has been created at the University of South Florida.²⁷ The device gives people with amyotrophic lateral sclerosis (ALS) or full body paralysis—who have fully functional brains, but have no way to express their thoughts—the ability to perform simple day to day functions that would otherwise be impossible. EEG scans offer one way for patients with ALS to communicate with the outside world; by fitting patients with a head cap equipped with electrodes and filled with an electrically conductive gel, scientists can monitor particular kinds of electrical impulses coursing through the brain. In this case, the scientists monitor a brain wave called P300; reading P300 waves is like reading a person’s thoughts, but only in the coarsest kind of way. For the wheelchair-mounted robotic arm, the person in the wheelchair looks at directional arrows flashing across a small screen; when the arrow points in the direction that they want to go, their brain lights up on the EEG, and the wheelchair or robotic arm moves accordingly. Even the proverbial Stephen Hawking’s little finger—the minimal link between his mind and the outside reality, the only part of his paralyzed body that Hawking can move—will thus no longer be necessary: with my mind, I can *directly* cause objects to move, i.e., it is the brain itself which will directly serve as the remote control machine.

Recent researches all point towards the uncanny fact that the U.S. secret defense agencies are involved in a wide and long term project to develop means to control human emotions and attitudes from outside, by way of attacking brains by precise electromagnetic signals. Since it is already possible to identify the brainwaves that

provide the material support for particular emotional attitudes (fear, hatred, courage...), the idea is to bombard the brain with similar artificially generated waves in order to produce or thwart the targeted emotion. A similar procedure was already tested to cure veterans of post-traumatic effects: by way of identifying the material support of traumatic memory traces in the brain and then exposing the brain to specific waves, one can erase these memory traces from the brain, with limited short-term memory losses as an undesired side effect. While the scope of these practices is unknown, there are sufficient grounds for a paranoid-sounding surmise that secret agencies are engaged in large efforts to exploit the prospects of collapsing the difference between “inside” and “outside,” i.e., of the direct “wiring” of brain processes to external technologically manipulated material processes.

The ideal that regulates this process is the full control of past and future at the psychic level. The strategy is always the same: an invention is first presented as a crucial remedy for some extreme illness (so that no one can oppose it), and is then universalized. There are already extensive researches into genetic and bio-chemical interventions which would selectively erase the subject’s traumatic past and thereby enable, say, the victims of brutal torture or rape to regain normalcy²⁸—the problem arises, of course, when this procedure is universalized into a more global control of the traces of the past. Or, rich prospective parents can already afford to have their unborn child’s brain scanned for traces of possible future mental weaknesses (low IQ, criminal tendencies...)—and, again, which are the consequences of the possible universalization of this procedure? One has to avoid here the double trap: the utopian dream of benevolent “cleansing” of the brain, of protecting it from illnesses and (the traces of) past traumas, but also the false doomsday perspective which sees such interventions into the brain as the “end of humanity.”

The “World Transhumanist Association” (founded in 1998 by Nick Bostrom and David Pearce) set itself the task to deal with these problems. It describes itself as “an international nonprofit membership organization which advocates the ethical use of technology to expand human capacities.”²⁹ Its premise is that human development, in evolutionary terms, has not reached anything like an endpoint: all kinds of emerging technologies—neuropharmacology, artificial intelligence and cybernetics, and nanotechnologies—have the potential, it says, to enhance human abilities. As Bostrom put it: “...a few years ago, the discussions would typically revolve around the question, ‘Is this science fiction? Or are we dealing in realistic future possibilities?’ Now the discussions tend to start from the position that, yes, it will be increasingly possible to modify human capacities. The issue now is whether we should do it. And, if so, what are the ethical constraints?”²⁹ In contrast to Nietzsche’s notion of “overman” which aims at a “moral and cultural transcendence” (a selected few endowed with strong willpower and great refinement would throw off the shackles of traditional morality and convention, and so rise above the rest of humanity), the transhumanist idea of a “posthuman” aims at a society in which everybody will have access to enhancement technologies:

...transhumanists advocate increased funding for research to radically extend healthy lifespan and favor the development of medical and technologi-

cal means to improve memory, concentration, and other human capacities. Transhumanists propose that everybody should have the option to use such means to enhance various dimensions of their cognitive, emotional, and physical well-being. Not only is this a natural extension of the traditional aims of medicine and technology, but it is also a great humanitarian opportunity to genuinely improve the human condition.³⁰

Consequently, the main ethical concerns are those of accessibility and those of who is transforming whom: “It’s one thing if we are talking about adult, competent citizens deciding what to do with their own bodies. If, on the other hand, we are thinking of modifying children, or selecting embryos, then there is another set of ethical questions that arise. There is a further set of ethical questions relating to access. If some of the technologies, as they well might, turn out to be very expensive, then what mechanisms should be in place to ensure fairness?”³¹ To prevent state or private institutions deciding our fate, the choice whether to avail oneself of such enhancement options should generally reside with the individual—but is this enough of a protection?

For all their warnings about how we are on the brink of a posthuman era, transhumanists effectively remain too humanist. That is to say, when they describe the possibility of intervening into our biogenetic base and changing our very “nature,” they somehow presuppose that the autonomous subject freely deciding on his/her acts will still be here, deciding on how to change his “nature.” They thus bring the split between the “subject of the enunciated” and the “subject of enunciation” to its extreme: on the one hand, as an object of my interventions, I am a biological mechanism whose properties, up to the mental ones, can be manipulated; on the other hand, I (act as if I) am somehow exempted from this manipulation, an autonomous individual who, at a distance, can make the right choices. But what about the prospect of the loop getting closed, so that my very power of autonomous decision is already “meddled with” by biogenetic manipulation? This is why there is effectively something shallow, boring even, in all transhumanist meditations: they basically ignore the problem and, like their critics, also avoid the core of the question with which they seem to be dealing all the time: how will biogenetic and other interventions affect the very definition of humanity? Bostrom emphasizes that the choice whether to avail oneself of such enhancement options should generally reside with the individual—but will this individual still be here? Both transhumanists and their critics thus unproblematically cling to the standard notion of a free autonomous individual—the difference is that transhumanists simply accept that it will survive the passage into the posthuman era, while their critics see posthumanity as a threat and therefore want to prevent its rise.

Brought to this extreme, techno-digital apocalypticism assumes the form of so-called “tech-gnosis” and passes over in New Age apocalypticism. One of the preferred Janus-faced notions which are mobilized by the New Age spiritualists is the quantum physics notion of synchronicity (the link between two events or elements which is instant, i.e., faster than the time the light needs to travel between the two): the precise quantum notion of synchronicity (two separated particles are interconnected so that

a spin of one of the two affects the spin of the other faster than their light connection) is read as a material manifestation/inscription of a “spiritual” dimension that links events beyond the network of material causality: “Synchronicities are the jokers in nature’s pack of cards for they refuse to play by the rules and offer a hint that, in our quest for certainty about the universe, we have ignored some vital clues.”³²

In the New Age cognitive mapping, “Left” stands for the unconscious unknown, and “Right” for consciousness and wakefulness; the tragedy of the political Left in the last two centuries is that it limited itself to social justice and economic equality, forgetting about the need for a “deeper” shift from mental-rational consciousness to the recognition of the hidden dimension accessible only to intuition: “The Left fought for the ‘rights’ of man, while ignoring the ‘lefts’ of man and woman.”³³ In the radical version of New Age spiritualism, the looming material crisis (ecological catastrophe) is reduced to a mere “material expression of a psycho-spiritual process, forcing our transition to a new and more intensified state of awareness.”³⁴

This brings us back to the three “spirits of capitalism” which effectively form a kind of Hegelian triad of “negation of negation”: the individualist Protestant-ethic subjectivity of the entrepreneur, surpassed by the corporate “organization man,” returns in the new guise of the infinitely plastic “creative” capitalist. It is crucial to note how the two shifts are not at the same level: the first shift concerns the normative content within the same symbolic form (of the Ego-Ideal and ideal-ego), while the second shift abandons the very form of the symbolic Law, replacing it with the vague superegoic injunction. Is there a fourth “spirit” of capitalism, the one which would repeat the move from the individual to the collective, from the Protestant ethics to the “organization man” at the level of the “third spirit,” i.e., which would do to the “third spirit” what the “second spirit” did to the first one? One can argue that this “fourth spirit” is precisely no longer a spirit of capitalism, but already a name (one of the names) of Communism. Here is the New Age spiritualist description of the new social order which is expected to emerge as a secondary effect of the more substantial spiritual shift:

If we are graduating from nation-states to a noospheric state, we may find ourselves exploring the kind of nonhierarchical social organization—a ‘synchronic order’ based on trust and telepathy—that the Hopi and other aboriginal groups have used for millennia. If a global civilization can self-organize from our current chaos, it will be founded on a cooperation rather than winner-takes-all competition, sufficiency rather than surfeit, communal solidarity rather than individual elitism, reasserting the sacred nature of all earthly life.³⁵

Does this description—if we scratch away its spiritualist coating—not render a kind of Communism? How, then, are we to get rid of this coating? The best antidote to this spiritualist temptation is to bear in mind the basic lesson of Darwinism: the utter contingency of nature. Why are bees dying massively, especially in the U.S. where, according to some sources, the number reached up to 80%?³⁶ This catastrophe could have a devastating effect on our food supply: about one-third of the human diet

comes from insect-pollinated plants, and the honeybee is responsible for 80% of that pollination... This is how one should imagine a possible global catastrophe: no big bang, just a small-level interruption with devastating global consequences. One cannot even be sure that all we have to do is to return to natural balance—to which balance? What if the bees in the U.S. and Europe were already adapted to a certain degree and mode of industrial pollution?

There is an air of mystery in the massive dying of bees: although the same thing is happening simultaneously all around the (developed) world, local investigations point to different causes: the poisonous effects of pesticides on the bees, their loss of the sense of spatial orientation caused by electronic waves of our communication machines, etc. This multiplicity of causes makes the link between causes and effect uncertain—and, as we know from history, whenever there is a gap between causes and effects, the temptation to look for a deeper Meaning arises: what if, beneath the natural causes, there is a deeper spiritual cause? How else are we to account for the mysterious synchronicity of the phenomenon which is, from the standpoint of natural science, due to different causes? Here enters the so-called “spiritual ecology”: are not beehives a kind of slave colonies, concentration camps where bees are ruthlessly exploited? So what if Mother Earth stroke back at us for our exploitation?

The best antidote to this spiritualist temptation is to bear in mind the lesson of Rumsfeld’s theory of knowledge—the term, of course, refers to the well-known accident in March 2003, when Donald Rumsfeld engaged in a little bit of amateur philosophizing about the relationship between the known and the unknown. In a (probable) reference to David Thoreau (“To know that we know what we know, and that we do not know what we do not know, that is true knowledge”), Rumsfeld said: “There are known knowns. These are things we know that we know. There are known unknowns. That is to say, there are things that we know we don’t know. But there are also unknown unknowns. There are things we don’t know we don’t know.”³⁷ What Rumsfeld forgot to add was the crucial fourth term: the “unknown knowns,” things we don’t know that we know, all the unconscious beliefs and prejudices which determine how we perceive reality and intervene into it. Rumsfeld thought that the main dangers in the confrontation with Iraq were the “unknown unknowns,” the threats from Saddam about which we did not even suspect what they may be. As we now clearly see, the main danger was, on the contrary, the “unknown knowns,” the disavowed beliefs and prejudices which made the U.S. Army commit all the mistakes in Iraq.

In the case of the dying bees, there are also things we know that we know (their vulnerability to pesticides) and things we know that we don’t know (say, how the bees react to human-caused radiations). But there are, above all, the unknown unknowns and the unknown knowns. There are dimensions of how bees interact with their environs which are not only unknown to us, but which we are not even aware of. And there are many “unknown knowns” in our perception of bees: all the anthropocentric prejudices that spontaneously color and bias our study of them.

The most unsettling aspect of such phenomena is the disturbance in yet another type of knowledge, in what Jacques Lacan called “knowledge in the real”: the “instinctual” knowledge which regulates animal and plant activity. This obscure knowl-

edge can run amok. When Winter is too warm, plants and animals misread the hot weather in February as the signal that Spring already began and start to behave accordingly, thus not only rendering themselves vulnerable to late onslaughts of cold, but also perturbing the entire rhythm of natural reproduction. In all probability, something of this kind is happening to bees.

The theory of complex systems discovered that such systems display two opposite features: a robust stable character and extreme vulnerability. They can accommodate themselves to great disturbances, integrate them and find new balance and stability—up to a certain threshold (a “tipping point”), above which a small disturbance can cause a total catastrophe and lead to the establishment of a totally different order. For long centuries, humanity did not have to worry about the impact on the environs of its productive activity—nature was able to accommodate itself to deforestation, to the use of coal and oil, etc. However, one cannot be sure if, today, we are not approaching a tipping point—one really cannot be sure, since such points can be clearly perceived only once it is already too late. In such a situation, the talk about anticipation, precaution and risk control tends to become meaningless, since we are dealing with “unknown unknowns.”

This situation again confronts us with the deadlock of the contemporary “society of choice.” We pride ourselves for living in a society in which we freely decide about things which matter. However, we find ourselves constantly in the position of having to decide about matters that will fundamentally affect our lives, but without a proper foundation in knowledge. Such a situation is properly frustrating: although we know that it all depends on us, we cannot ever predict the consequences of our acts—*we are not impotent, but, quite on the contrary, omnipotent, without being able to determine the scope of our powers.* While we cannot gain full mastery over our biosphere, it is unfortunately in our power to derail it, to disturb its balance so that it will run amok, sweeping us away in the process.

Or take the recently discovered vast frozen peat bog in western Siberia (the size of France and Germany combined): it started to thaw, potentially releasing billions of tons of methane, a greenhouse gas twenty times more potent than carbon dioxide, into the atmosphere...³⁸ This hypothesis should be read together with the report, from May 2007, that researchers at the Albert Einstein College of Medicine have found evidence that certain fungi have the capacity to use radioactivity as an energy source for making food and spurring their growth.³⁹ Their interest was aroused five years ago when a robot sent into the still-highly-radioactive Chernobyl reactor had returned with samples of black, melanin-rich fungi that were growing on the ruined reactor’s walls. The researchers then set about performing a variety of tests using several different fungi. Two types—one that was induced to make melanin and another that naturally contains it—were exposed to levels of ionizing radiation approximately 500 times higher than background levels; both of these melanin-containing species grew significantly faster than when exposed to standard background radiation. Investigating further, the researchers measured the electron spin resonance signal after melanin was exposed to ionizing radiation and found that radiation interacts with melanin to alter its electron structure—an essential step for capturing radiation

and converting it into a different form of energy to make food. Ideas already circulate for the radiation-munching fungi to be on the menu for future space missions: since ionizing radiation is prevalent in outer space, astronauts might be able to rely on fungi as an inexhaustible food source on long missions or for colonizing other planets... Instead of succumbing to terror at this prospect, it is in such cases that one should keep the mind open to new possibilities, bearing in mind that “nature” is a contingent multifaced mechanism in which catastrophes can lead to unexpected positive results, like in Altman’s *Short Cuts* in which a catastrophic car accident brings about an unexpected friendship.

Such openness for radical contingency is difficult to maintain—even a rationalist like Habermas was not able to sustain it. His late interest in religion breaks with the traditional liberal concern for the humanist, spiritual, etc., content hidden in the religious form; what interests him is this form itself: people who *really* fundamentally believe and are ready to put at stake their lives for it, displaying the raw energy of belief and the concomitant unconditional engagement missing from the anemic-skeptic liberal stance—as if the influx of such unconditional engagement can revitalize our post-political drying-out of democracy. Habermas reacts here to the same problem as Chantal Mouffe in her “agonistic pluralism”: how to reintroduce passion into politics? Is he, however, thereby not engaged in a kind of ideological vampirism, sucking the energy from naïve believers without being ready to abandon his secular-liberal basic stance, so that full religious belief remains a kind of fascinating and mysterious Otherness? As already Hegel showed apropos the dialectic of Enlightenment and faith in his *Phenomenology of Spirit*, such an opposition of formal Enlightenment and fundamental-substantial beliefs is false, an untenable ideologico-existential position. What should be done is to fully assume the identity of the two opposed moments, which is precisely what the apocalyptic “Christian materialism” can do with its unification of the rejection of divine Otherness and unconditional commitment.

How are we to combine such radical openness with the apocalyptic certainty of the end of time approaching? Apocalypse is characterized by a specific mode of time, clearly opposed to the two other predominant modes, the traditional circular time (the time ordered and regulated on cosmic principles, reflecting the order of nature and the heavens—the time-form in which microcosm and macrocosm resonate in each other in harmony) and the modern linear time of gradual progress or development: the apocalyptic time is the “time of the end of time,” the time of emergency, of the “state of exception” when the end is near and we are getting ready for it. It is here that one should bear in mind the properly dialectic reversal of contingency into necessity, i.e., of the retroactive nature of the necessity of the forthcoming catastrophe. In such a constellation, the standard probability-logic no longer applies; we need a different logic of temporality described by Jean-Pierre Dupuy:

The catastrophic event is inscribed into the future as a destiny, for sure, but also as a contingent accident: it could not have taken place, even if, in *futur antérieur*, it appears as necessary... if an outstanding event takes place, a ca-

tastrophe, for example, it could not not have taken place; nonetheless, insofar as it did not take place, it is not inevitable. It is thus the event's actualization—the fact that it takes place—which retroactively creates its necessity.⁴⁰

Dupuy provides the example of the French presidential elections in May 1995; here is the January forecast of the main polling institute: “If, on next May 8, Ms. Balladur will be elected, one can say that the presidential election was decided before it even took place.” If—accidentally—an event takes place, it creates the preceding chain which makes it appear inevitable: *this*, not the common places on how the underlying necessity expresses itself in and through the accidental play of appearances, is *in nuce* the Hegelian dialectics of contingency and necessity. In this sense, although we are determined by destiny, we are nonetheless *free to choose our destiny*. This, according to Dupuy, is also how we should approach the ecological crisis: not to “realistically” appraise the possibilities of the catastrophe, but to accept it as Destiny in the precise Hegelian sense: like the election of Balladur, if the catastrophe will happen, one can say that its occurrence was decided before it even took place. Destiny and free action (to block the “if”) thus go hand in hand: freedom is at its most radical the freedom to change one's Destiny.

So if we are to confront properly the threat of a (cosmic or environmental) catastrophe, we have to introduce a new notion of time. Dupuy calls this time the “time of a project,” of a closed circuit between the past and the future: the future is causally produced by our acts in the past, while the way we act is determined by our anticipation of the future and our reaction to this anticipation. This, then, is how Dupuy proposes we confront the catastrophe: we should first perceive it as our fate, as unavoidable, and then, projecting oneself into it, adopting its standpoint, we should retroactively insert into its past (the past of the future) counterfactual possibilities (“If we were to do that and that, the catastrophe we are in now would not have occurred!”) upon which we then act today. Therein resides Dupuy's paradoxical formula: we have to accept that, at the level of possibilities, our future is doomed, the catastrophe will take place, it is our destiny—and, then, on the background of this acceptance, we should mobilize ourselves to perform the act which will change destiny itself and thereby insert a new possibility into the past. For Alain Badiou, the time of the fidelity to an event is the *futur anterieur*: overtaking oneself towards the future, one acts now as if the future one wants to bring about is already here. The same circular strategy of *futur anterieur* is also the only truly efficient one when we are confronting the prospect of a catastrophe (say, of an ecological disaster): instead of saying “the future is still open, we still have the time to act and prevent the worst,” one should accept the catastrophe as inevitable, and then act to retroactively undo what is already “written in the stars” as our destiny. ■

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