

Part Three Autoevolution and Posthumanism

17 Themes of Lampoon of Evolution

In Part Three of this book I will discuss the last chapter of ST, and then some of the currents in contemporary philosophy and sociology, which in one way or another seem to be akin to Lem's project of autoevolution. These are mostly convergences rather than any kind of genetic affinities, and will partly be constructed through my interpretations. The aim is to show that Lem's work, especially ST, has great albeit so far unacknowledged significance for the contemporary problems of our civilization.

The last chapter of ST is titled "Lampoon of Evolution." It includes a description of the project of autoevolution of human species, the very description to which the rest of ST is but a set of introductory studies, as I have suggested earlier. The word "lampoon" ought to be taken with a grain of salt, just as other rhetorical devices Lem uses in the titles of his chapters and sections of ST. It is a testimony to Lem's personal and internally diverse attitude to bioevolution. He both admires the phenomenon, which he often hypostatizes, and is critical and hostile to it. The admiration comes from the fact that bioevolution has produced such amazing beings as a biological cell and rational humans.¹⁸⁰ The criticism and hostility stem from the fact that for Lem the rationalist the process is unbearable in how blindly random it is. This randomness has had a huge impact on the emergence of our species, on its physical and physiological shape and, more implicitly, on our minds, our culture and our history.

Autoevolution is to be, among other things, our response to this randomness. The fate, incarnated in stochastic mutation and selection processes, led to a situation where we, as the only form of life to our knowledge, have the ability to transform our mode of existence. It can be seen as the highest form of autarky.

The difference between "the artificial" and "the natural" thus begins to blur because "the artificial" is capable of exceeding "the natural" within any range of parameters that are of importance to the Designer ... Man [as a bodily creature – PM] remains the last relic of Nature, the last "authentic product of Nature" inside the world he himself is creating. This state of events cannot last for an indefinite period of time. The invasion of technology created by man into his body is inevitable. (299–300)

180 In ST as in other texts Lem sings praises of the genius with which organelles are designed and how they can adapt. In *Lampoon*, in the section titled "In the Eyes of the Designer" (335–346) there is a whole catalogue of Evolution's flaws as seen by Lem.

Lem is again giving voice to his credo, as heavy as it is with implicit anthropological assumptions: we do not choose autoevolution; it is an inevitable result of a choice made centuries earlier. As it happened many times before in history, chance becomes necessity.

How will the process develop? In “Reconstructing the Species” section there are three alternative scenarios offered. In the first one autoevolution happens “only” through biotechnology – in its stage we already know today.

In this case, biotechnology’s tasks will consist in eliminating diseases or preventing them and also in replacing waning functions or defective organs with their biological substitutes (such as transplants, tissue grafts) or with technical ones (prostheses).
(300)

According to Lem “this is the most traditional and shortsighted approach” (300), and it is based on an assumption that “the human organism is given and thus fixed in its overall design” (300). This entails accepting the basic postulate – in the context of the public debate on biotechnology – presented by contemporary social and political humanism, that is, the inviolability of the biological structure of our species. But even this “traditional and shortsighted approach” already represents an excessive intervention into the human condition for many scholars and commentators today. The contrast is a clear testimony of how foreign all forms of humanism are to Lem, whether right-wing/conservative or left-wing/liberal. This issue will be discussed separately later.

The second option is “a plan for creating ‘the next model’ of *Homo sapiens*” (301), in which “while doing everything as described earlier [i.e. in the first option] it is possible to combine those actions with a superior one, which will involve replacing Nature’s evolutionary gradients with man’s purposefully regulatory activity” (300). This variant is then all about replacing evolution with construction, and chance with a plan. Describing those scenarios, Lem was constantly aware how controversial every sentence is from the point of view of standard humanist and anthropological values. In the early 21st century this tension between the humanist framework and projects of autoevolution did not decrease, but it actually became stronger – as we shall see when analyzing contemporary discussion on the subject. It is because now the potential for actually realizing these ideas is much bigger than when Lem wrote ST. This means that “the threat to humanity” – as the defenders of *status quo* put it – became more imminent. So it is necessary to look very carefully at how Lem referred to potential criticism directed at his ideas.

To the question about the purpose of the autoevolutionary activities described in option two, Lem offers the following answer:

It may focus on eliminating all those harmful consequences caused by the absence of natural selection, which destroys the inadequately adapted, from the artificial environment of that civilization. Alternatively, it may replace a modest program with a comprehensive one: that of biological autoevolution. The aim of the latter is to form an ever greater number of perfect human types (through scientifically changing hereditary parameters, e.g., mutability, susceptibility to cancers, body shape, inner- and cross-tissue correlations, and, last but not least, parameters that regulate life span or even the size and complexity of the brain). In other words, this would be a plan for creating 'the next model' of *Homo sapiens* extended in time over hundreds or perhaps even thousands of years. It would take place through slow and gradual changes rather than a sudden leap – which would smooth out intergenerational differences. (300–301)

The first two sentences of the passage describe an alternative. The first segment seems to be a declaration from a supporter of aggressively eugenic practices – this is what the mention of “eliminating all those harmful consequences caused by the absence of natural selection” might suggest. I believe, however, that this is simply an effect produced by the clumsy structure of the sentence. Its actual meaning would be: “a moderate” version of autoevolution should eliminate those factors from human biology that cause diseases and feebleness of the body – so it would not so much replace natural selection in its eliminating function, but rather finally free the human species from qualities that this selection would be eliminating in the past. This way we would get rid of dilemmas of keeping alive people who are fully paralyzed or incurable and suffering, or the elderly, or children with serious developmental defects. In natural conditions, or even as late as in the first half of the last century, all these people would have no chance of survival. However, the progress in medicine and other sciences led to a situation in which the possibility (and medical obligation) to keep them alive begins to clash with other ethical principles, resulting in the discussion about euthanasia (I will be discussing that later). “The second scenario” Lem presents has a strictly utilitarian goal: engineering human bodies, independently from their biological heritage in order to improve them, so that no flaw in our bodies interferes with us benefiting from the fruits of scientific growth.

This second scenario is “the maximum program” (the first one is “the modest option”). It goes beyond even the most liberal contemporary criteria regulating biotechnology, but for Lem this is not the last word. Soon after he writes:

Third, perhaps the whole problem should be treated in a far more radical way. We can consider as inadequate both Nature's design solution to the problem of 'What is an Intelligent Being to be like?' and the solution that could be reached by autoevolutionary means learned from Nature. Instead of improving or 'patching up' the model that exists within a certain set of parameters, it is possible to set some new arbitrary values for them. Instead of a relatively modest biological life span, we could demand quasi-immortality.

Instead of strengthening the design provided by Nature within the constraints set by its building material, we could demand the highest strength that the existing technology can offer. In other words, we could replace reconstruction with a total rejection of the existing solution and then design a completely new one. (301)

This passage carries a barely concealed postulate to reject humanity. People who would be so radically transformed, so completely designed anew on their own, would no longer be people. They would become a form of intelligent life completely foreign to us. I suggest that for now we put aside the most immediate reactions to such an idea: shock, laughter or indifference. Let us focus on this “foreignness.” Here and further on Lem sees it mostly as a physical difference. Posthumans would be tougher, stronger, more immune to things. Yet, it is also possible – and, I think, necessary – to ask about the intellectual difference. It is true that we cannot say anything about it with certainty – even if we assume this is all more than just an irresponsible vision of an intellectual suffering from ennui. However, on behalf of the possible future posthuman, we can consider those trends in our human world and the way we think about the world, which seem to lead toward the posthuman condition. This part of my book will be devoted to those trends exactly.

Very aware of how unobvious his vision is, Lem devotes subsequent pages to a critique of it. He begins with the arguments in support of his position, mostly repeating what he has said earlier (301–303). And then, he gives the floor to an opponent of autoevolution. It is worth quoting his opinion in its entirety, as it proves that, despite the appearances, Lem was actually very sensitive to humanism – even though he rejected it.

In reply, we say that the supporter of the revolution in human redesign does not probably realize what the consequences of his postulates may be. We are not just talking about some narrowly conceived attachment to man’s present body. The whole of culture and art, including some of its most abstract theories, is saturated with corporeality the way it was formed and shaped by Nature. Corporeality has informed the canons of every historical aesthetic, of every existing language, and, through that, of the totality of human thought. Our spirit is corporeal too: it is not that this word derives from respiration. Contrary to what it may seem, there are no values that could have emerged without the presence of the corporeal factor. Love itself is entirely corporeal—in its least physiological sense. It would be an act of extreme madness if man really was to undergo a transformation owing to the technologies that he himself has created and if he would consider a robot with a perfect crystalline brain his successor. It would actually amount to a collective suicide of the human race, even though such a suicide would be covered up by the apparent continuation of humanity in thinking machines – which are part of the technology created by man. In this way, man would ultimately allow the technology he himself has brought about to push him out of his place of existence, of his ecological

niche. Having removed a less adapted species from the stage of history, technology would thus become a new synthetic species. (303)

No opponent of biotechnology and autoevolution could put it better. This passage also shows Lem's attitude to body, albeit from different angle than in the analyses I presented earlier. Here it is clear that Lem's hatred of the body stems not only from aesthetical criteria, but also from his view of the omnipotence of body and corporeality over human existence as a whole. Therefore his reference to humanism is quite peculiar, as no version of humanism in the European culture has ever emphasized the corporeal character of our existence quite so much, even though, as I shall show later, there are numerous covert similarities between the autoevolutionary project and some versions of humanism. Lem is not a naturalist here though, as for him "Body" is not identical with genotype or phenotype, or with any other physiological factor, which contemporary naturalist reductionists see as the factor, that determines our lives in full. "Body" is just a figure here, as "Designer" or "Nature" were in the earlier chapter. It expresses Lem's rejection of this particular element of our being that is painfully limiting, as it does not allow us to reach the heights of existence, which we have discovered through our minds. It could be said that at this point in his thinking – paradoxically – Lem is something of a "technological spiritualist," awaiting not the enslavement of the soul in a machine, but a liberation of it from the body by machine.

The terms "robot" and "thinking machines" that Lem uses are not exactly accurate here – they are meant to emphasize that the opponent is an amateur. As I have already shown, the thing is not to transform people into copies of C3PO from *Star Wars*, nor to move human minds into computer networks the way extropians suggested. If we are to analyze Lem "seriously," it is necessary to remember that a robot is one thing, an android is another, and a cyborg yet another type of entity – and none of these has much to do with computers. These terminological differences will be clarified in Chapter 23.

The response from the supporter of the project of reconstructing the species (303–305) is based on negating the importance of the past, so if we were to locate the discussion on a scale between conservatism and liberalism, this position would be on the liberal side. So what, he says, that our biological body determines our being, experience and understanding of the world? So what, given that the body itself, born from a million of accidental mutations and selections, has multiple flaws and disadvantages? Evolution shaped them for the sole purpose of survival, while we have long been pursuing other goals. "I do not believe in any solutions that would be final" (305) – which means: it is merely

accepted custom and our limited imagination that lead us to believe that our current material form is the only one possible. And anyway, this form – Lem repeats his favorite theme – is a source of constant suffering for us, because, for instance, the proximity of sexuality and the excretory system disgust and shame us, giving rise to numerous dilemmas of our culture. Its defender would say that this is why it is valuable. But is it worth it to pay such a high price for this value? – Lem asks.

Today we believe that it is possible to create a symphony ... via a conscious mental effort. At the same time, the thought of “composing” a successor for ourselves ... seems like a terrible heresy. Yet the desire to fly ... also used to be seen as heresies in the past ... If we are to behave like intellectual cowards, we can, of course, remain silent on the topic of any probable future developments. But in that case, we should at least make it clear that we are behaving like cowards. Man cannot change the world without changing himself. We can take the first steps on a given path while pretending we do not know where it leads. Yet this is not the best strategy. (305)

“Yes,” the defender would say, “but is this exploration from flying to autoevolution always legitimate, or are there limits to it?” In other words, is there a point beyond which a thought of change does become a heresy? Heart transplant was supposed to be it, and then artificial insemination – but after the fact we have accepted them. Now we are facing the possibility of cloning and label it a “heresy.” What about radical autoevolution? Lem does not see the objection because he is an ardent supporter of progress, a true child of Europe, with its mysterious desire to constantly exceed its limits. It has to be said very clearly here, that writing about “culture” and “civilization,” and their transformations inspired by the posthuman utopia, I am only writing about the culture and civilization of the West; I would not get into a discussion about how it could affect the whole world through globalization, which, by the way, has become problematic, to say the least, in light of the events of the first 15 years of the 21st century. The utopian character of Lem’s utopia is based on the fact that it is really a u-topia, as we do not know where it will be fulfilled (if it is to be fulfilled): on the entire planet, or in one of its parts. In short, Lem’s whole thinking about technology is deeply rooted in the type of thinking that is characteristic of the Western culture, as its fundamental premise is that people **will always aim to fulfill their whole potential**, following the credo “if something can be done, let us do it.” The cultures of the East, of Mesoamerica or Africa, did not know this type of thinking. But for Lem the richness of cultures and their philosophical and anthropological foundations have no significance. It is important because he treats the Western thought – especially in the realm of technological progress – as the only possible way of approaching these issues. For him a culture whose members would consciously refuse to fulfill their entire technological potential would likely be flawed. Those

supercivilizations that have been mentioned here before, which are concealing their presence in the universe, have not and would not withhold progress, they simply hid its results, or would hide them.

His position can then be categorized as “Eurocentric liberalism” – if we were to measure Lem against the contemporary spectrum of worldviews. However, looking at it from a different angle, at no point does Lem want to pass for a hardheaded anti-humanist; he knows this would make him an adherent of the “ideology of scientist technocracy,” as Kołakowski labeled him. So, before he responds to the charge of lack of specifics laid by his imaginary opponent with a detailed presentation of biotechnological parameters of autoevolution, he again expresses some general opinions about his own bold project:

[The autoevolutionist] before he moves on to discuss the position adopted by his rationalist opponent,¹⁸¹ he reveals that the first standpoint is actually not that alien to him. It is because, deep down, he feels the same strong objection to any plans for species reconstruction that the person who has condemned it in absolute terms does. But the autoevolutionist sees such future transformation as inevitable, which is why he is looking for all kinds of reasons that would support it, so that the necessary action overlaps with the outcome of the decision made. He is not an a priori opportunist; he does not think that what is necessary *must* at the same time be good. At the same time, he hopes that it at least *may* turn out to be good. (307)

One is almost tempted to add: freedom is the recognition of necessity. There is a degree of fatalism in Lem’s thinking that finds expression in this sort of declarations. But perhaps it should rather be called intellectual heroism, as it is also true that it takes great courage to look into the future of our species. So far it seems that there is indeed no escaping technology, no stopping its progress. We need to be thinking about what is next; otherwise we will just be carried by it. We shall soon see, though, that for Lem there is apparently no difference between thinking and doing.

To bring out the opposition between bioevolution and autoevolution even more, Lem writes at the beginning of the next chapter (“Constructing Life”):

To design a dynamo machine, one does not need to know the history of its invention process. A young engineer can do very well without it. The historical circumstances that

181 Calling the defender of humanity “a rationalist” is quite a perfidious device, which allows Lem to, on the one hand, emphasize the specificity of the charges against autoevolution, but, on the other hand, to suggest that his opponent is somehow too earthly. Lem seems to be using the colloquial understanding of the word, which he would have probably used with a different meaning when referring to himself.

shaped the first generations are, or at least can be completely irrelevant to him ... This kind of separation from developmental history is unknown in biology. (307)

It is unknown in biology – and therefore the process of bioevolution is inevitably burdened with the past, largely affecting our physicality. Our mind is also historical, albeit for somewhat different reasons. “Separation from history” will be an advantage of autoevolution – which is nothing less than an engineered construction. This is another reason why humanism, burdened with history,¹⁸² is so irrelevant to projects of autoevolution.

It needs to be added here that historicity of bioevolution and historicity of humanism are two very different phenomena, which can be put next to each other here only because, as I have shown, Lem seems to have a tendency to identify reality with discourse about it, and he does so permanently for the reality of bioevolution. Bioevolutionary processes are historical insofar as each subsequent form of life retains certain qualities of its predecessors. Historicity of humanism is based on a system of values established within the Western culture and accepted throughout most of its existence. One of its major characteristics is the desire to remember the past (which is a characteristic the West happens to share with most human cultures). Both types of historicity lose their meaning in the face of autoevolution. It will explain why a bit later.

On the following pages of ST, Lem discusses those aspects of biological evolution, which can be perfected in autoevolution. The long section “Constructing Life” (307–319) includes a description of the basics of the “species technology,” which again subtly weaves together the discourses of biology and engineering, while the author uses cybernetic notions for instance to explain processes of cellular metabolism. A detailed analysis of this section of ST is not necessary for the purposes of this book. Lem uses rhetorical devices here that I have already discussed in the context of the entire ST, producing the same effect: a strong suggestion that it is possible to identify biotechnological engineering with the process of bioevolution, or at least an easy shift from bioevolution to bioconstruction is possible. The following paragraph merits particular attention:

Seen in this way, human evolution deserves both a positive and a negative evaluation. Negative, since ... it deprived **its final and highest products, that is, us**, [emphasis – PM]

182 I am not invoking the title of Hayden White’s famous essay (*The Burden of History*) by accident. Narrativist historians pay great attention to the very process of accumulation of narratives making up “history.” This accumulation leads to increasing difficulties in grasping the possible meanings organizing history and human culture on all levels. Yet humanism cannot reject “the burden of history,” without rendering itself meaningless.

of the opportunity to continue in a steady manner the work of progress on the biological level. Biotechnological as well as moral aspects stop us from simply continuing with the evolutionary methods: biotechnological because we are too *determined* as a particular design solution by Nature's causal forces, and moral because we reject the method of blind trials and that of blind selection. (314)

The passage I have quoted in bold above should probably be treated as a *lapsus calami*, as it is a mark of a teleological approach to bioevolution, which was something science started being accused of in the mid-20th century at the latest, and which Lem usually carefully avoids.¹⁸³ It is quite possible though that this “crack in the text” actually reveals Lem's belief in human superiority over other forms of life. This would fit his utopian anthropological assumptions and would be yet another proof of his implicit humanism that he is striving to eradicate from his discourse on technology. The rest of the passage on the other hand is about the qualitative change that the shift from bioevolution to bioconstruction necessitates. Lem does not describe the character of the change precisely; it is related, however, to all of the premises of the autoevolution project.

Later in the text, especially in the section “Constructing Consciousness” (322–327) Lem again returns to problems he has already discussed, above all the issue of consciousness and the theory of information in the context of bioconstruction. After a number of detailed remarks on these subjects he produces another powerful general declaration. It is as follows:

One of the Nobel laureates, who received the prize precisely for his studies on heredity, and thus may be said to be directly interested in similar [i.e. biotechnological] achievements, declared that he would not want to live to see them actualized owing to the terrifying responsibility man would then have to take on.

Although creators of science deserve the greatest respect, it seems to me that the preceding point of view is not worthy of a scientist. One cannot simultaneously make discoveries and avoid taking responsibility for their consequences ... The scientist tries in vain to narrow down his research so that it takes the form of information gathering, which is protected with a thick wall against problems to be covered by its application. Evolution ... acts ruthlessly. In gradually getting to know its engineering activities, man cannot pretend that he is gathering solely theoretical knowledge. (335)

“The Nobel laureate” is James Watson, and his words are a leading theme in discussions on bioethics today. Lem's commentary on one hand justifies autoevolution (but in what sense?), but on the other it contradicts the separation between science and social practice that has been articulated many times throughout ST. It is another point when Lem's persona as a scholar is in conflict

183 See Chapter 6 about narrative in evolutionary biology.

with his persona as a utopian humanist. And as to the sense of justification of autoevolution – I have put it into question in the parentheses above as Lem does not distinguish – here or elsewhere – between predictions about autoevolution from the practice of it. That is, he does not see that in the context of the social role of thinking there is a difference between thinking about a possibility of a certain development leading to autoevolution and thinking about autoevolution as if it were certain to happen. Confusing those two modes is another feature of Lem’s discourse, which locates it in the utopian realm.

The last paragraph from the section “Reconstructing Man” is a testimony of to what extent Lem’s thinking remains determined by implicit assumptions that are fundamentally “Western”:

What is therefore possible? Almost everything, with just one exception. Having considered in advance, people could decide one day, many thousands of years from now, “Enough! Let things be the way they are now; let them remain like this forever. Let us not change, seek, or discover anything new, since things cannot be better than they are now, and even if they could, we do not want it.”

Even though I have outlined many unlikely things in this book, this one seems to me the most unlikely of them all. (348)

It is clear: we do not stop discovering and creating, because this is just what we are, and it is so obvious that we do not even ask why we are like that. Contemplative attitudes are fundamentally alien to Lem.¹⁸⁴ This conviction of his, which he does not seem to be aware of, but treats it as a given of reality, is the same one as the conviction that is the foundation of the entire posthumanist utopia, which I will be analyzing on the following pages.

In the eighth chapter of ST, Lem mentions cyborgs in passing as well. A short section “Cyborgization” (348–350) begins with a statement that:

Separate consideration needs to be given to the only project of human reconstruction proposed by scientists with which we are familiar today – a project that is still purely hypothetical. Yet this is not a project for universal reconstruction. It is supposed to serve some particular goals, that is, an adaptation to the Universe as an “ecological niche.” It goes under the name of “cyborg” (which is an abbreviation of the term “cybernetic organization”). (348–349)

Lem certainly has in mind the first scientific text about cyborgs, which is now the classic article on the subject by two Americans, Manfred E. Clynes and Nathan S. Kline, “Cyborgs and Space,” which was published in *Astronautics* journal in

184 Yet, see later the discussion of “The Twenty-First Voyage” in my chapter “Introduction to Autoevolution.”

1960. (I will discuss it in more detail in Chapter 23.) Approaching the idea of cyborgs as a purely technological concept is characteristic of the early discourse on the subject. For Lem, it is only one of the possible routes autoevolution could take (but the only one explicitly articulated at the time). In today's discussions it plays a much more eminent role, as we shall see soon.

This is really where ST ends.¹⁸⁵ The final two sections of "A Lampoon..." ("The Autoevolutionary Machine" and "Extrasensory Phenomena", 351–358) contain only side notes to the main theme. The first one is devoted to a peculiar kind of eugenics. Lem floats an idea of a machine that would match couples to marry each other in such a way that they produce offspring with the best possible phenotype. Those critics, who mentioned the idea, approached it with skepticism, to say the least.¹⁸⁶ For Lem, however, it seems not to have had any ethically dubious qualities, as the last sentence of the passage states:

"Cutting up people's brains and bodies" [i.e. "strong" autoevolution] evokes disgust, whereas "machinic marriage counseling" seems to be quite an innocent intervention – yet these are just two paths of different lengths that can both lead to analogous results. (354)

In the conclusion of ST, the author emphasizes how important it is to focus the autoevolutionary activity on the molecular level of life and he again invokes comparisons between "natural language" and "language of the genetic code":

From twenty letters of amino acids Nature constructed a "pure" language, which expresses – via a slight rearrangement of nucleotide syllables – plagues, viruses, bacteria, T-rexes, termites, hummingbirds, forests, and nations, as long as it has bought time at its disposal. This language, so perfectly atheoretical, anticipates not only the conditions at the bottom of the oceans ... but also the quantum character of light, thermodynamics, electrochemistry, echolocation, hydrostatics – and many other things we still know nothing about. It does so only "practically," because, though it causes everything, it does not understand anything – yet its lack of intelligence is much more productive than our wisdom.¹⁸⁷ ... It truly makes sense to learn such a language – because it constructs philosophers, while ours constructs only philosophies. (360–361)

This declaration would explain why Lem paid so little attention to cyborgs whose possible construction happens on the level of entire bodies and organs, not molecules. Lem was a real enthusiast of biotechnology, and if one wanted to

185 I am not including here the "Afterword. Twenty years later," which was added to the fourth Polish edition of ST. I do not think it adds anything new to the whole work.

186 Cf., for example, Szpakowska..., 75–76.

187 Cf. the conclusion of Chapter 13.

follow his path, a history of genetic engineering and discussions about it should be written. I will do something different though. I have been trying to show here that ST as a whole is a project of autoevolution. According to Lem autoevolution can happen in different ways. I am most interested in the one, which entails far-reaching spiritual consequences. Even the most advanced uses of biotechnology do not, I believe, lead to a qualitative change in the human condition. People do not cease to be people. Cyborgization does cause such a leap. I will present the arguments in favor of these strong theses later in the text. At this point I just want to preliminarily explain my choice. Moreover, I have suggested many times that ST is a utopia, but the ideas regarding cyborgs today are no less utopian (as opposed to bioethical discussions), and that is another link here. I want to focus now on the utopianism of ST and Lem's thinking about technology as a whole.

18 Utopia in ST

While describing and analyzing the content of ST, I pointed to those qualities of the work that can be seen as utopian. It is important because if it can be proved that ST is a kind of utopia, it would have bearing on all types of thinking about social practice that repeat the model of ST – that is, autoevolutionary ideas. Again, I have to emphasize methodological difficulties one encounters studying (not to mention producing) a discourse that is somewhere in between four different domains: humanism and posthumanism; theory and social practice. It is extremely difficult to determine the relationship between such a discourse and its subject. It is hard to tell where a description ends and a manifesto begins; what is a theoretical concept and what is an actual plan of action.

I treat the utopianism of ST as one of the implicit anthropological assumptions Lem accepts. He rarely and marginally formulates them overtly (and I have quoted many of such passages here). A deep conviction about **human rationality** is a recurring thread. The thought is usually an axiom for Lem, which does not need to be justified. It does come into conflict though with the opposite view, which he has been articulating from the very beginning of his writing and which is the dominating one. However, we can omit that contradiction here, as it has no bearing on the current argument. It is an element of conflict between naturalism and culturalism in Lem's thought.¹⁸⁸

Human rationality is the necessary condition for autoevolution. Science and technology, which make autoevolution possible and, in fact, necessary due to unstoppable progress,¹⁸⁹ have no necessary rationale for themselves. Even “information farming” does not produce one for itself, and “pantocreatics” is but a set of Designer's internal rules, which have nothing to do with the “User.” In short, science and technology can never answer what it is that they exist for and what the purpose of their products is. Therefore, if there is no obvious pragmatic

188 Commentators have been pointing out for a long time that Lem's fictions and discursive texts are swarmed with contradictory assumptions. See, for example, N. Katherine Hayles, “Chaos as Dialectic: Stanisław Lem and the Space of Writing,” in: idem, *Chaos Bound: Orderly Disorder in Contemporary Literature and Science* (Ithaca and London: Cornell University Press, 1990). The author (who is one of the leading theoreticians of posthumanism) outlines an interpretation of Lem's work as constant attempts to marry various contradictory statements about man and the world.

189 The conviction about the “inevitability of progress,” which has been discussed here before, is another element of his discourse that contributes to its utopianism.

criterion (applicability of medications, practical usefulness of technical devices), the question of purpose becomes problematic. What makes it even more difficult is that the availability of a pragmatic criterion entails a question about whether the achievements of science and technology are always used for a common good (and we know they are not). Lem rarely says any of these things, as they are problematic from his point of view. He would rather that the meaning of science was implicit to it, as is the case with art that is separated from social issues. However, he knows this is not the case, he assumes human rationality is what gives meaning to science.¹⁹⁰ Rational people – and only they – can make such a use of the fruits of the growth of technology based on science, that it will not turn against them and will not degrade the progress itself. Lem realizes how risky such a thesis is – and that is why he conceals it beneath the surface of the text of ST.

Yet, the social reality contradicted this thesis already when ST was being written. Today this contradiction is even more striking. And I do not just mean those versions of thoughtlessness, stupidity and bad intentions, which we witness daily on the web, nor am I thinking about the deep separation between pragmatics and ethics in how technology is used. The thing is also that – despite the claims of “third culture” enthusiasts – science and technology do not help introduce order into the exponentially increasing amounts of meanings available in our culture, while they themselves keep adding on meanings. One of the diseases that destroy the Western culture today is *semiotitis*¹⁹¹ – excessive growth of chaotic meaning, which cannot be put into “grand narratives.” A thoughtful person is drifting today on the surface of an infinite and bottomless ocean of meanings, with no navigation tools, and with every move or gesture, every word, even accidentally dropped, immediately becoming meaningful in any number of ways. Scholars and intellectuals work compulsively producing new meanings. But this whole infinitely chaotic field of meanings makes no sense. (And the distinction between sense and meaning comes more from Sartre than Frege here.) Lem understood that a long time ago – I believe that his *Memoirs Found in a Bathtub* (1961) is one of the most powerful descriptions of *semiotitis*, if we only go beyond the level of political readings. *Memoirs...* are a startling description of

190 I am using the term “rationality” in its standard meaning, as shaped by the thought of the Enlightenment and Positivism.

191 By creating this neologism, I am referring to the book by Constantin Noica *Six Maladies of the Contemporary Spirit*, where the Romanian intellectual described *catholitis*, *horetitis* and *todetitis* and their opposites: *acatholia*, *ahoretia*, *atodetia* – they are an original diagnosis of the crisis of culture in the second half of the 20th century.

a desperate work on sense, a futile work with no grounding in any kind of lasting foundations.

Autoevolution, seen as a product of science and technology, is devoid of sense, even if we assume that it does include a pragmatic criterion, which is not self-evident at all. To give it sense, Lem has to introduce an anthropological premise. And it is the thesis about human rationality. It is a utopian thesis. This means that the idea of autoevolution is utopian itself.

But what are we speaking about when we use the word “utopia”? Studying two of the best discussions of the problem that have been written in Polish,¹⁹² one could come to a conclusion that nearly every conceptual system referring to social and cultural reality, which is not a straightforward description, is a utopia. Any such discourse includes either certain assumptions about human nature or postulates about how the social world should be arranged. Wishing to avoid getting into vague discussions, I accept the understanding of the concept of utopia presented by Karl Manheim: utopia is a system of thought, discourse or narrative, which calls for a change of the existing social order; as opposed to ideology, the aim of which is to preserve such order. The important point is that Manheim does not assume that utopia describes the perfect state – which was a characteristic of old utopias, from Plato’s republic, through More, to Wells’s positivist projects.

I believe ST is a utopia, which does not assume **perfection** of the project it presents, but its **inevitability**. Lem emphasizes that on many occasions. The utopianism here is not about claiming that autoevolution is a *telos* for the humanity, a paradise or any other such ultimate point of arrival. (It is different in some of the newer concepts, e.g., for the extropians, but that’s another story.) At its core, however, there lies an assumption of human rationality that in fact makes ST similar to projects of enlightenment, positivism and liberalism (the differences between Lem’s thought and the former two has already been analyzed here). There are two options then: Manheim’s utopia of change and liberal utopia of rationality. They are complementary with each another. Lem believes that any description of future changes of humanity is only justified when one accepts some basic assumptions about human nature, which would inform the

192 These are: Aleksander Świętochowski, *Utopie w rozwoju historycznym* (Warszawa: Gebethner i S-ka, 1910), 347; and Jerzy Szacki, *Spotkanie z utopią* (Warszawa: Sic!, 2000), 240 (new edition). Świętochowski is of course outdated now in his interpretations, but most of the book is a description of tens of utopian systems, and it has lost no value as a compendium.

changes. Otherwise such description would be pure fantasy. We have already seen how the view materialized in “metatheory of autoevolution,” which determined its technological scope. Now I am trying to show that the utopian assumption of rationality is what determines the autoevolutionary pragmatics in Lem’s discourse. Pantocreatics determines the Designer; rationality determines “the User.” However, while the former is “real” as an essential component of the autoevolutionary project, the latter is an *ad hoc* assumption with a status of an axiom, which cannot be treated as a practical rule.

The difference between the two can be illustrated as follows: let us imagine that a computer at an IT store comes with two user’s manuals. The first one is a regular manual on how to use it, install software and so on; while the latter is a manual of virtuous use of the computer, which, for example, includes a directive that the computer cannot be used to browse pornographic websites, and anyone who does that will be naughty. In the autoevolutionary project pantocreatics is the manual of the first kind, whereas rationality – of the second. Pantocreatics is essential for autoevolution to happen, rationality – unfortunately is not. And that is also a reason why rationality is what makes the project utopian.

It is a complex issue. We have here: Lem’s explicit discourse in ST and other “essays,” with all its difficulties; Lem’s fiction, which largely corresponds with the discourse¹⁹³; Lem’s project of autoevolution; we have the twofold utopian character of the project as I am presenting it; the implicit and contradictory anthropological assumptions accepted by Lem; the evolution of his thinking between the 1960s and the end of his life; and finally there is the issue of how it all relates to the social and political practice, especially the contemporary state of biotechnology and surrounding debates. It is a conundrum that is difficult to analyze and I shall not disentangle it on every possible level. However, later in this chapter I will be describing sections of the contemporary (post)humanist discourse that have something to do with Lem’s utopia. I want to emphasize here that the thesis about the utopian character of the autoevolutionary project is applicable to **all** concept I will be referring to on the following pages.

A few more general remarks need to be made about the utopian character of autoevolution. We already know that the main ethical condition for

193 I am only referring to those connections marginally so as not to make my own analyses even more complicated. Lem’s novels, especially *Wizja lokalna* [“Observation on the Spot”] and *Eden* have been studied in search of their utopianism both by Szpakowska and Jarzębski. Cf. also Mariusz M. Leś, *Stanisław Lem wobec utopii* (Białystok: Towarzystwo Literackie Im. Adama Mickiewicza, Oddział Białostocki, 1998).

autoevolution is human rationality. Without it, autoevolution may become what Internet can be: a trifle for entertainment only. Yet, this liberal and meliorist assumption that makes Lem resemble many of the “old” utopians drawing visions of humanity without law and violence, governed by natural virtues, conflicts with another assumption, equally, if not more important than this one. As the author of the autoevolutionary project, Lem rejects – he wants to and has to reject – the entire humanism. Autoevolution is unhistorical, as it reveals the entire past of the species, not only biological past, but historical and cultural too. This may seem not to contradict the earlier characteristic, especially as it is shared by most liberal social theories that assume people are independent from the past and are almost infinitely malleable in their humanity. However, therein lies the problem: such thinking requires that we reject the notion of “human nature,” and treat it as a “naturalistic fallacy.” Meanwhile, the assumption of rationality does imply the existence of human nature – one that would include rationality. If I am right in seeing an aporia here, it is one that Lem shares with most liberal and posthumanist thinkers – it will be evident as I discuss the notion of identity in contemporary (post)humanist discourse.

The fact that in *ST*, Lem almost never ponders on whether people will actually want to subject themselves to autoevolution may be an evidence that he does not deem the notion of “human nature” necessary. It clearly does not cross his mind that people could be willing to retain their current condition. Most likely it is simply because he sees this condition as extremely meager, but partly also because he shares a liberal conviction that this condition can be freely shaped, that it is independent from all that is past – and so that there are no imponderables that used to be seen as “human nature.”

A psychoanalyst would certainly wonder about the impulse that leads Lem to change everything. But even in this case our author is not consistent. In 1978 the monthly *Znak* asked scholars and intellectuals about their views on science and faith. Here is an excerpt from Lem’s response:

The newer extremists on the other hand dream about a real “etorevolution” involving redesigning a human that would be in every respect “better” than *Homo sapiens*. The biggest risk lies in the fact that this whole designing endeavor unwittingly goes beyond real history of the humanity. The thing is that every social or philosophical system, every religion, every historical time accepted and assumed all the qualities and values present in the natural man. The natural man was and is “a constant,” an unchangeable element in its own history. It is easy to speak generally about a “better human,” but in no tradition of earthly cultures, no philosophical and religious systems, no ethical codes can one find any directives what would suggest what this “perfected” man would be like. By stepping beyond the state of things we have, we are losing any normative, legal, axiological and

theological ground, we are left with no compass – this whole meliorist concept is left in a vacuum. But one day it will be possible to carry out psychological and bodily changes of great scope, and there may be no shortage of fanatic supporters of the process then. This is likely the biggest threat ahead of us.¹⁹⁴

It looks like Lem in 1978 is criticizing Lem's ideas from 1964. It will not seem odd if we take into account how unstable his anthropological views were. However, the evolution of Lem's anthropology is not my concern here – it would make my argument too complicated. In the quoted excerpt Lem emphasizes the problem that has now become the main argument for the opponents of biotechnology: the rejection of history as a road sign, and of ethics grounded in history – even though he did not mind it back in ST at all. It needs to be added that the issue itself is still valid, because, as I shall try to show later, posthumanism is the first period in our history when the content of the past in no way helps us understand the present. The disconnect is too radical.

In another short text, written somewhat earlier, Lem described various “effects” occurring within futurology. Among them there is “Archimedes effect.”

The ARCHIMEDES EFFECT is the search for support for thought. It is nonsensical to claim that full freedom, that is, lack of limits, is what gives wings to thought. Weightlessness only **seems** to give cosmonauts full freedom of movement (if they weigh nothing, they do not pull, so they have no limitations), because in reality it **paralyzes** orientation and turns man like a wriggling baby; similarly thought with no support in known templates does not fly infinitely but it holds on to anything it can, at random.

Our era invalidates all the traditional supports, including the experience of previous generations, customary prohibitions and the belief in unconditional benefits of economic growth, and thus it takes away the tested structure that the thought ruling action could lean on. That is why the Archimedes effect occurs so spasmodically today. The more things happen, that even yesterday seemed impossible, the more dramatically thought turns to the past, searching for directions.

Hence the popularity of historical parallels, hence the imposing tendency to remind us we come from apes, hence the discussions about the inescapability of inborn qualities – and hence the sudden interest in history and ethology. Perhaps we can be saved by studying the behavior of Romans at the time of the fading empire? Or maybe rather we should focus on anthropoids? Maybe the behavior of rats, lemmings and predators will be our compass? Or maybe man is

194 Stanisław Lem, [A response], *Znak*, no. 291 (1978), 1148.

a domesticated animal that domesticated itself? And we should look for a solution in a cow or a ram? Why does the enlightened audience now read all the bestsellers on its apish qualities, while a century ago similar revelations would provoke anti-Darwinian fury? Because the limits posed by apes are better than none.¹⁹⁵

Here is yet another approach to the matter: the past (biological rather than cultural, but not only) is a remedy to the instability of an era of great changes. But it is not a sure remedy, it is straw that a drowning man clutches at. It can fail us because the connection with the past is no longer organic, the past is, so to say, brought back artificially. The wave of sociobiological books on “ape roots” of human social institutions, which started in the 1990s, confirms Lem’s thesis. The remark about “cosmonaut’s baby-like helplessness” coincides with his normative attempts in ST (“pantocreatics”) and Lem’s dislike of “wild sci-fi.”

All these different views Lem expressed about the past share one thing: the past as understood by the classical, 19th- and 20th-century humanism, that is, the past that contains the meaning of the present, is irretrievably gone.

195 Stanisław Lem, “Refleksje 1974,” in: *Rozprawy i szkice* (Kraków: Wyd. Literackie, 1975), 335.

19 Introduction to Autoevolution

Małgorzata Szpakowska titled one of the chapters in her book “Lem i trzy ewolucje” [“Lem and three evolutions”].¹⁹⁶ In it she discussed his views on biological evolution, evolution of technology and evolution of culture. She skipped a fourth evolution though, which is the most important one for this work: autoevolution.

The word occurs in ST the same way “Nature” and “Designer” do – as a primary notion, which is never defined with any precision. Until today it has gained no strong presence in the language of science and humanities. It is therefore necessary to attempt to define it and its scope. What is human autoevolution, what can it be? Is it just an idea, or is it a tangible process, or one that is close to becoming tangible?

In light of ST, the main theme of which, as has been shown earlier, is the call to “rationally exceed Nature,” autoevolution is a rational, planned process of transforming human genotype and phenotype, as well as his sensorium until biological forms of existence are completely rejected; the aim of the process is to achieve physical and intellectual prowess that is higher than a human can ever achieve within the potential provided by the random process of biological evolution. Going beyond the discourse of ST, it also needs to be said that the theoretical reflection on autoevolution has to include an analysis of its possible implications for human and posthuman spiritual, social and political life. Posthumanism is the discursive correlate of autoevolution. The analysis that follows here will be based on this definition.

In Lem’s fiction there are two scenarios of autoevolution present: serious and grotesque. The former can be found in *Golem XIV* (1981), the latter in “The Twenty-First Voyage” in *The Star Diaries* (1971).

Golem, a supercomputer built by people, which achieved intellectual independence and became something of an oracle, in its *Inaugural lecture* discusses in brief the entire history of life on Earth and the human species from the point of view of Lem’s interpretation of biological evolution. It predicts the further development of humans, claiming that unsolved contradictions that torment us and our cultures will eventually push us to reject the current form of existence – the body – and to transition to other forms of existence¹⁹⁷:

196 *Dyskusje...*, 54–89.

197 Here and further on I skip the issues of the nature of the relationship between consciousness and body (mind–body problem, self-awareness, etc.), which have not been

Can you remain in place standing stubbornly at the crossroads? But then you will lapse into stagnation, and that can be no refuge for you! ... So you will embark on the expansion of Intelligence, abandoning your bodies, or you will become blind men led by one who can see, or – ultimately – you will come to a halt in sterile despondency.

The prospects are not encouraging, but that will not hold you back. Nothing holds you back. Today a disembodied Intelligence seems to you just as much a catastrophe as a disminded body, for this act of resignation entails the totality of human values and not merely man's material form. This act must be to you the most terrible downfall possible, the utter end, the annihilation of humanity, inasmuch as it is a casting off, a turning into dust and ashes of twenty thousand years of achievements – everything that Prometheus attained in his struggle with Caliban.

I do not know if this will comfort you, but the gradualness of the change will take away the monumentally tragic – and at the same time repellent and terrible – significance contained in my words. It will occur far more normally, and to a certain degree it is already happening: areas of tradition are beginning to bother you, they are falling away and withering, and this is what so bewilders you ...

You will manage to neither perish nor triumph as of old.

I feel that you are entering an age of metamorphosis; that you will decide to cast aside your entire history, your entire heritage and all that remains of natural humanity – whose image, magnified into beautiful tragedy, is the focus of the mirrors of your beliefs; that you will advance (for there is no other way), and in this, which for you is now only a leap into the abyss, you will find a challenge, if not a beauty; and that you will proceed in your own way after all, since in casting off man, man will save himself.¹⁹⁸

Golem's words resemble contemporary posthumanist manifestos (see Chapters 21 and 22 here), but have much higher artistic and intellectual standing. The description of autoevolution in "The Twenty-First Voyage" is much more elaborate, if a lot less lofty. Here¹⁹⁹ again, as in other grotesque writings by Lem, he describes "the other side of the coin," mirroring his own "serious" texts, but with a lot less serious effect.

definitively solved and to which Lem devoted a significant part of *Dialogues*. Within the radical approaches I am discussing now, it is assumed that this problem will be solved through technology, or that it is merely a result of the limited humanistic imagination, or an erroneous interpretation of reality (i.e., the so-called Cartesian mistake). In fact, if it is to be taken as a real problem (i.e., if the human consciousness is really essentially and inextricably related to human body and senses), there could be no moving or extracting the mind out of the body.

198 Stanisław Lem, "Golem XIV," in: *Imaginary Magnitude*, trans. by M. E. Heine (San Diego-New York-London: A Harvest Book, A Helen and Kurt Wolff Book, Harcourt Brace & Company, 1984), 41–43.

199 Stanisław Lem, *The Star Diaries*, trans. by M. Kandel (London: Secker & Warburg, 1976), 66–219; paging further on follows this edition.

Golem's version of autoevolution is similar to the extropians' idea, although unlike them Lem's Golem knows what shock it would be to culture. And this is one of the main conceivable versions of autoevolution. Ijon Tichy, on the other hand, having arrived on the planet of Dichotica, has a chance to learn about a new version in which humans²⁰⁰ do not abandon their bodies, but begin to radically transform them.

Szpakowska meticulously analyzed one of the themes in "The Twenty-First Voyage": the religiosity of monks-machines, which are the last creatures on this planet who believe in transcendence. Yet, she completely ignored autoevolution, even though the two topics are complementary. The name of the planet resembles the word "dichotomy" – and the very dichotomy in this case lies in the growing "transcendental spirituality" of machine on one hand and "wild" autoevolution of humans, devoid of any higher meaning on the other.

Tichy makes no contact with the Dichoticans. He learns about the autoevolution which has been going on for more than ten centuries from books, provided by Demolitian Friars living in hiding (they and the Prognosites are two orders of machines). The autoevolution on Dichotica started with a rejection of mortality, which was turned into action through the progress of technology. It started modestly with biotechnology and intelectronics, which spread cloning, designing and resurrecting people, quickly leading to deconstruction of the truth and dogmas of the (Christian) faith, especially the immortal soul and the personal identity. Then

I learned that in the year 2401 Byg Brogar, Dyr Daagard and Merr Drr threw open the gates to limitless autoevolutionary freedom; these scholars earnestly believed that Homo Autofac Sapens, the Self-made Man, made possible by their discovery, would achieve the ultimate in harmony and happiness, endowing himself with those aspects of form and qualities of spirit he judged to be most perfect ... For such hopes usually attend the appearance of any great and new technology.

At first autoevolutionary engineering, or – as they called it – the Fetalistic Movement, burgeoned in a way that seemed to accord with the expectations of its illustrious inventors. Ideals in health, congruity, spiritual and physical beauty became universalized, by constitutional law every citizen was guaranteed the right to acquire whatever psychic or somatic attributes were deemed the most desirable ... But progress has this about it, that it is driven ever onward by its own advance, hence things did not stop there. The transformations that followed seemed innocent enough at the outset. Young women

200 Actually it is Dichoticans but the masque is very transparent in this case. The drawings that Lem places in the text and the words of the narrator make it very clear what species the author had in mind.

beautified themselves by the cultivation of epidermal jewelry and other efflorescences of the flesh ... young men sported side and back beards, cockscomb crests, jaws with double bites, etc.

Twenty years later the first majority parties came into being. It took a while before I realized, reading, that “majority party” meant something different on Dichotica than it did to us. In opposition to the majority party platform, they called for the proliferation of anatomies, there was the minority group, which advocated reductionism, that is, the elimination of those organs considered by the minority leaders of various factions to be non-vital. (180)

Biopolitics is thus born on Dichotica – political views and programs are linked with autoevolutionary practices. We should add that people on Earth are close to this stage, even though they are not there yet in terms of technology. What else are the discussions on euthanasia, cloning and applied genetics that have been growing since the early 1990s if not just such biopolitics? Later in his readings,²⁰¹ Tichy learns the details of autoevolutionary propaganda and the subsequent stages of autoevolution, its meandering development and its gradual degeneration, which produces changing trends in increasingly odd transformations of bodies; a state institution called SOPSYLABD (the Soma and Psyche Planning Board), itself disintegrating into bureaucratic subinstitutions such as LA (Lip Administration), BUFF (Beautiful Figure Foundation) and NIFTY (the National Institute of Fingers and Toes) is striving in vain to control such tendencies. Without renouncing the grotesque aesthetics, Lem also shows that autoevolution can fall prey to the same social, political and bureaucratic processes that harmed all utopian and revolutionary ideas of transforming existence.

Later on in the process of autoevolution the existing notions of gender and sexuality are destroyed. This grotesque destruction seems today like a caricature of the discourse of gender and queer studies:

201 In the structure of the text of “The Twenty-First Voyage” two motifs, human autoevolution and machines’ faith, correspond with two different layers of the plot. Tichy’s reading of books on autoevolution is interrupted by conversations on faith which he is having with Fathers-Robots. There are also some external interruptions as well. A detailed analysis of the structure of the plot is not my subject here, although one could make some interesting observations about it, for example, that Tichy’s contact with Dichoticans is almost entirely mediated by text, while his contact with machines is direct (bringing to mind a Turing test in *a rebours*). The scene in which friars are checked by a Dichotican patrol is equally subversive: people play the part of heartless oppressors, while machines are presented as the delicate, spiritual victims.

Showing their contempt for all things utilitarian, they set eyes in their armpits, and one group of young biotic activists made use of innumerable sound organs ... Then came the fashion – the mania rather – for long tentacles ... And, since no one could lift those piles of coils by himself, so called professionals were attached, caudalettes ... In the textbook I found illustrations depicting men of fashion, behind whom walked tentacle-bearing professionals on parade; but this was already the decline of the protest movement, or more precisely its complete bankruptcy, because it had failed to pursue any goals of its own, being solely a rebellious reaction against the orgiastic baroque of the age.

The baroque had its apologists ... who maintained that the body existed for the purpose of deriving the greatest amount of pleasure from the greatest number of sites simultaneously. Merg Brb, its leading exponents, argued that Nature had situated – and stingily at that – centers of pleasurable sensation in the body for the purpose of survival only ... Brb received the enthusiastic support of a group of talented young designers from SOPSYPLABD, who invented brippets and gnools ... ecstasy centers, of course, were implanted in the brain ... Thus were created the brippive and gnoolial drives, also activities corresponding to those instincts, activities which a highly rich and varied range, for one could gnool and brip alternately or at the same time, alone, in pairs, trios and later – after noffles were tacked on – in groups of several dozen individuals as well. Also new forms of art came into being, master brippers appeared, and gnool artists, but that was only the beginning; towards the end of the 26th century you had the mannerism of the marchpusses ... and the celebrated Ondor Stert, who could simultaneously gnool, brip and surpostulate while *flying through the air* on spinal wings, became the idol of millions. (194–196)

Behind the mocking style of the passage, we can read a certain vision of a continued Copernican revolution. In the process of the increasingly all-encompassing autoevolution the very notion of what it means to be human – at least in a physiological sense, which, as we know, is particularly important for Lem and the contemporary anthropological thought – begins to lose its uniqueness. It becomes relative by being placed on a broad scale of forms of existence that can be designed or assumed. Our planet is not in the center of the universe, nor is our galaxy, we are not the ultimate goal of creation, and our universe is not the only universe – and if that were not enough, it turns out that body and sex, through which we define our humanity, are not the only possible option of corporeality and sexuality, but only one of the possible options drawn from a nearly unlimited spectrum. It is one of the possible consequences of autoevolution in its “somatic” version, especially when there no longer is any hierarchy of higher values. The writings of Judith Butler, describing “a gender continuum” replacing the binary opposition of “masculinity-femininity,” contains a similar thought, except articulated in all seriousness.

Further on in “The Twenty-First Voyage” there is a scene that corresponds even better with gender studies, and that also feeds into Lem’s taste for the

macabre.²⁰² Tichy and the friars go out on the surface of the planet. They come across a small building, and then Tichy says:

I heard groans issuing from that place, and a throaty rattle so dreadful, my hair stood on end. The voice, undeniably human, chokes and moaned in turn. I knew for a certainty that this was the cry of someone being tortured, being murdered perhaps; I looked at my companions, but they paid absolutely no attention to those grisly sounds ... There on a blood-spattered table lay a naked figure, surrounded by machines that had sunk gleaming tubes or tongs into its body, which was now dead, and so contorted by the final throes, I couldn't tell arms from legs ... I stood, overcome by the horror, the ghastliness, the mystery of the scene, for the corpse was alone – I could look into all the corners of that mechanized torture chamber ...

The shining bell lifted and I beheld a face, an inhuman face; by now all the machines were working at once, and so rapidly, that I saw only a blur and the motion of glass pump beneath the table, inside which a red liquid churned, till finally in the middle of this confusion the chest of the corpse began to rise and fall; before my eyes his wounds sealed up, he twitched all over, he yawned.

“He's come back to life?” I asked in a whisper.

“Yes,” said the prior. “In order to die once more.”

The one lying flat looked around and with a limp, seemingly boneless palm gripped a handle that stuck out on the side, gave a pull, and the bell slid back over his head, the slanting pincers, emerging from their sheaths, clutched the body, and a scream rang out, the same scream as before ...

it was the prior explaining that the pavilion was a special service station, where one could live and relive one's own death. The purpose here is to experience sensations as powerful as possible, and not necessarily suffering, for with the aid of the stimuli transformers pain becomes an excruciating pleasure. All this derives from the fact that thanks to certain types of automorphosis Dichoticans can enjoy even the pangs of death ... This particular method bears the name of “Agonism.” (204–206)

The description of the execution of Robert Damiens, which opens Foucault's *Discipline and Punish*, is very similar. In both cases we are dealing with a typical sadomasochist phantasm: surrendering to pain and torture till death. Except in the autoevolutionary world of *Dichotica* such dream can be fulfilled more than once, while in our world it can happen only once.²⁰³ For Lem this image is a

202 Such themes can be found in nearly every work of fiction that Lem produced, starting with the collection of monstrous fetuses in Kauters's apartment (*Hospital of the Transfiguration*), to the pornographic X-rays in *Imaginary Magnitude* (which are perhaps a distant echo of the exchange of X-rays between Castorp and Clavdia Chauchat in *The Magic Mountain*). I have pointed to possible reasons behind this tendency in the article “Lem fantastyczny czy makabryczny?”

203 In 2001 in Germany 40-year-old Armin Meiwes used an Internet forum for cannibals to contact Bernd Brandes, who agreed that Meiwes would kill him (by cutting off his

testimony to the degeneration of the Dichoticans. Absolutizing the bodily and sensual experiences is a substitute for the lost faith in transcendence. Again, it is impossible not to notice such substitution today. The entire huge realm of gender studies, largely shaped by Foucault's influence and the feminist thought, focuses on the very question of the body – the problems of older metaphysics are considered musty and irrelevant. The body and gender perform the function of a center of thought – detached from their biological qualities and reduced to symbols of their social functions. Moreover, such theory of gender favors all these forms of the bodily and the sexual, which were previously not mentioned, were repressed as “nonnormative,” beginning with the trivial homosexuality, through all forms of transgender to sadomasochism and other highly nonnormative phenomena. By making them the center of its attention, gender studies largely contribute to the destruction of the existing way of understanding the issues of bodily and sexual identity, and hence to the rise of posthumanism.

However, if in “The Twenty-First Voyage” we can find so many traces of our contemporary reality of the 21st century, does it make sense to treat the text as a description of future autoevolution? Perhaps autoevolution is only one of the grotesque masks that Lem gave to our world, so the description of our problems becomes less straightforward? Yes and no. Yes, because “The Twenty-First Voyage” can be read as a critique of the current situation, just as any other of Lem's grotesque texts. No, if we assume that the autoevolution in “The Twenty-First Voyage” is the same autoevolution that he discussed in ST, seen from a different point of view. These interpretations are equally acceptable and are not contradictory. In light of the latter it is visible that autoevolution of the “somatic”

genitals and bleeding to death) and eat him. In 2004 Meiwes was sentenced to 8 years in jail, but his trial triggered a hot discussion whether he should be punished for killing and eating someone who expressly wished that to happen. And it is by no means the only such case.

A desire for extreme sensual experiences and absolute domination and submission have the main role in S&M phantasms. Such practices are usually highly conventional and can take up the form of a ritual or highly complicated and staged game. The emotional bond is absent or reduced to a minimum, while pure, depersonalized bodily experience is absolutized. Having such practices performed by machines, as it happens in Lem's writing, might be a well-conceived literary idea. It can be put in the same realm as other mass culture products that raise the issue of sex between men and machines or cyborgs – for instance David Cronenberg's films or video clips made by Chris Cunningham.

type will not liberate us from the problems of the body and gender, or other social issues.

The following stage of autoevolution on Dichotica focused on the mind and produced wisdomites, who settled down due to the size of their brains. Later, it turned to another extreme:

The reaction, when it came, was violent. Our medieval woodcuts, offering representations of dragons and monstrosities from other lands, are child's play alongside the physical abandonment that then beset the globe ... This was also when *agonanism* came into vogue. Civilization retrogressed ... In the parks all overgrown with table weeds and wild china there lay basking, between clumps of napkill, *hullocks* – veritable mountains of breathing meat. The majority of these monstrous forms did not arise through conscious choice and planning, but rather were the ghastly consequence of breakdowns in the body-building machinery: it produced not what had been ordered, but degenerate and crippled freaks. (207–208)

Even though in the 20th century, dictator Dzomber Glaubon temporarily introduced “unification, normalization and bodily standardization,” as well as desexualization, soon after the Dichoticans returned to autoevolutionary practices, biopolitics and multiplicity of sexes. As a result, during Ijon Tichy's stay on Dichotica the only humanoid creatures were Fathers-Robots. In his last conversation Tichy finds out that their credo is “non agam” (“I will not act”). This point reveals the radical difference between the Dichoticans who were in the process of constant autoevolution and the machines-believers, as the covert credo of the Dichoticans is the opposite sentence: “semper agam,” and they share the attitude of people that I mentioned in the previous part of this book: “if we can do it, let us do it!”

So it turns out that Lem can criticize even the most fundamental of his own beliefs. While analyzing the implicit assumptions behind the ST, I emphasized on many occasions, that one of the necessary conditions for the project of autoevolution to make sense is the assumption that people sooner or later will fulfill their entire intellectual and technological potential. In Lem's discursive works this assumption is unquestionable. Meanwhile in his grotesque texts this very assumption is questioned, which implies that they can be understood as an internal critique within Lem's work.²⁰⁴

204 “The Twenty-first Voyage” is similar in that regard to the short story “Altruizine” in *The Cyberiad*. In this story Trurl sets off to the planet of H.P.L.D. (Highest Possible Level of Development; in Polish, however, the creatures are described as N.F.R., abbreviation from Najwyższa Forma Rozumu, but with clear political allusion to German Federal Republic, in Polish Republika Federalna Niemiec), where he deals with creatures

The analyses presented so far show that Lem allows for three types of autoevolution, which I here call: “somatic,” “cyborg” and “mental.” Somatic autoevolution is a biological manipulation of the form of the body through genetic engineering (“The Twenty-First Voyage”; “the weak variant” in ST); the cyborg autoevolution is about a far-reaching synthesis between body and machine (cyborgization in ST); the mental autoevolution is about radical separation of mind from the body and placing it in another “vehiculum,” for example, a computer network (*Golem XIV*, “the strong variant” in ST). Further on I shall trace those themes in contemporary culture, which include these three types of autoevolution in one way or another.

There is also a short text by Lem from 1969 called “Autoewolucja.”²⁰⁵ The theme of the text is as follows: any autoevolutionary practices (which for Lem include, e.g., contraceptives) are “a clash between faith and empirical knowledge.” The autoevolution itself – a thorough transformation of the entire species – will be the biggest of those clashes and religion (at least Roman Catholicism) will never come to terms with that. In broader terms the question about the possibility and acceptability of autoevolution is for Lem a question about the limits of human freedom. He sees here the problem of discrepancy between the performative power of technology and its sensible use. But, as I have mentioned before, such doubts only come up marginally in his works. They are completely absent from ST.

degenerated by their own omnipotence. It includes a discussion of the contradiction entailed by the notion of omnipotence for a human being who is finite in time and space (Borges’s short story *The Immortal* has the same message). The sentence from “Altruizine”: “whether one thinks in metal or jelly is completely irrelevant,” is a paraphrase of Turing’s thought.

205 *Argumenty*, no. 34 (1969), 7, 14.

20 Around Autoevolution

It is easy to trace themes that anticipate autoevolution within the culture of the West. Of course, we cannot speak of autoevolution up until the end of the 20th century in a sense in which it was discussed in Chapter 19. Nevertheless it is possible to consider which of the persisting themes in history do pertain to a radical transformation of humans.

It needs to be said that physical transformations of the body – which lie at the center of one of the variants of autoevolution – have been performed by people from the very beginning of the existence of the species. In this perspective, all beautifying techniques have a lot to do with autoevolution. This includes deformations of the body known in many cultures, including changing the shape of feet in Chinese culture, transforming skulls among the Maya, transforming necks among the Sub-Saharan tribes, permanent forms of skin decoration among the native tribes of the Amazonian jungle (as well as permanent makeup and piercing in the contemporary Western culture), the entire art of tattoos, from the Maori culture to subcultures of today – the list goes on and on. If we disregard the differences in the symbolic meanings of such practices, what they have in common is that they all involve applying various forms of mechanical techniques to the surface of human body, in order to change its “natural” shape. They differ from the “real” autoevolution insofar as they do not involve manipulating the very biological process of producing bodies. The procedures are “superficial” in that sense.

If we consider other effects of human desire for beautification and improvement, we should include here the entire history of fashion and clothing, as well as, for example, the contemporary cult of youth, beauty and physical fitness, which is a significant element of the mass culture. It would not be sensible to engage in such a broad search for harbingers of autoevolution. Similarly, it would be interesting but hard to treat various improvements in everyday life, deriving from the centuries of progress in technology and medicine (such as cars and vaccines) as “autoevolutionary” phenomena.

When it comes to cultural *topoi* that correspond with autoevolution, three in particular seem important: the cabalistic *topos* of Golem, the alchemical *topos* of a homunculus and the romantic *topos* of Frankenstein. All three of these are versions of the myth of an artificial human, which has been present in the Western culture since antiquity (Daedalus and Talos,²⁰⁶ Pygmalion and Galatea,

206 Talos – a robot made of bronze by Daedalus (or Hephaestus) for Minos. As a sentinel of Crete, he would make rounds of it thrice every day in full armor, catching intruders

Prometheus and Pandora). “The artificial man” of the past tends to be linked with the issues of robots and cyborgization today, but I believe that the essential difference between literary myths and *topoi* on one hand, and technological developments on the other makes such links somewhat artificial (in the negative sense of the word), even if the comparisons juxtapose representations of robots and cyborgs in contemporary art and culture.

Half between literature and technology there lies the history of technology, and in our case the history of humanoid automata, which could be described as proto-androids. Such constructions flourished in particular in the 18th century, with the rise of works such as those by Pierre Jaquet-Droz, which I mentioned in Part One. The growth of precision mechanics coincided with the enlightenment’s preference for practical displays of the power of Reason, dominating matter and transforming its laws.²⁰⁷ Mechanism, vitalism and the 18th-century philosophy of biology are all part of this group of issues, as they constitute important stages in the development of philosophy of the human body. This, however, decidedly exceeds the limits of this work.²⁰⁸

Beautifying techniques correspond with the somatic autoevolution. The theme of “artificial man” corresponds with the cyborg autoevolution. What then would be analogous with mental autoevolution?

I believe it would be the persistent theme of “spiritual transformation” and “self as a project” in the Western culture. It starts with Socrates’s ethics, and is then developed within Hellenistic philosophy, especially Stoicism. It includes the

and fugitives (that is why Daedalus needed to fly out of Crete). Talos would throw stones at them or he would burn them flaring up himself. He was indestructible except for the lower part of his leg, where one of his veins ended capped with the handle. It was only the Argonauts who, with the help of Medea’s magic, managed to open that vein.

207 Cf. Roland Carrera, Dominique Loiseau, Ollvier Roux, *Androides. Les Automates de Jaquet-Droz* (Lausanne: Scriptor, 1979); André Doyon, Lucien Liaigre, *Jacques Vaucanson, mécanicien de génie* (Paris: P.U.F., 1966); Alexandre Koyrè, *Les Origines de la science: Les philosophes et la machine* (Paris: Armand Colin, 1966); John Cohen, *Les Robots humains dans le mythe et dans la science* (Paris: Vrin, 1968); Philippe Breton, *A l’image de l’homme. Du Golem aux réalités virtuelles* (Paris: Seuil, 1995).

208 In Polish, an extensive monograph of the 18th-century philosophy of biology is available: Andrzej Bednarczyk, *Filozofia biologii europejskiego Oświecenia: Albrecht von Haller i jego współcześni* (Warszawa: PWN, 1984). A very good analysis of the image of modern experimental biology in the mass culture can be found in: Jon Turney, *Frankenstein’s Footsteps: Science, Genetics and Popular Culture* (New Haven, London: Yale University Press, 1998).

figures of Prometheus and Faustus – the characters who break out of any subordination and who display creationist ambitions.²⁰⁹ (Prometheus’s name comes up often in posthumanist manifestos.) Nietzschean project of an *Übermensch* is a crucially important stage here. All these ideas are based on an assumption of human independence from the external world, especially the cultural world, as well as on a human desire to consciously shape one’s own being. This absolute existential independence is what makes all such “projects of self” resemble “mental autoevolution” in which “I” is emancipated from everything, including the body.

Nietzsche can even be seen as the founding father of posthumanism, as he is the first modern thinker to have questioned the system of values that defined modern humanism on such a grand scale. In hundreds of monographs and studies of his philosophy, scholars have traced its impact on the thought and history of the 20th century. Nietzsche’s refutation of the significance of the past and institutions of humanist culture for the *Übermensch* not only did not lose its power – actually, as I shall try to show, today it is stronger than ever.

The “care of the self,” to which Foucault devoted the third volume of *The History of Sexuality* and which came as such a surprise to his readers, accustomed to the vision of the “end of man,” may perhaps be seen as a Nietzschean attempt to reconstruct the significance of an independent “I” in face of the post-structuralist destruction of the subject. This “I” would no longer be an issue of abstract post-Cartesian philosophical discourse, but would actually be shaped in a real project, a script for existence laid out by the ancient Stoics.²¹⁰ In the time of

209 Aeschylus’s *Prometheus Bound* grasps the essence of the motif of Prometheus. Cf. Carl Kerényi, *Prometheus: Archetypal Image of Human Existence*, trans. by R. Manheim (Princeton, NJ: Princeton University Press, 1991); Louis Sechan, *Le mythe de Promethee* (Paris: P.U.F., 1951). The theme of Faustus (from the German folk literature, through Marlowe and Goethe, to Thomas Mann and very abstract philosophical and discursive works) has been taken up in hundreds of texts; cf. Paul A. Bates, *Faust: Sources, Works, Criticism* (New York: Harcourt, Brace & World, 1969); Frank Baron, *Doctor Faustus: From History to Legend* (Muenchen: Wilhelm Fink, 1978); Andre Dabezies, *Le mythe de Faust* (Paris: Armand Colin, 1973); Harold Stein Jantz, *Goethe’s “Faust” as a Renaissance Man: Parallels and Prototypes* (Princeton, NJ: Princeton University Press, 1951); Philip Mason Palmer, Robert Patterson More, *The Sources of the Faust Tradition from Simon Magus to Lessing* (New York: Frank Casa, 1936).

210 Cf. Didier Eribon, *Michel Foucault*, trans. by B. Wing (Cambridge, MA: Harvard University Press, 1991), chapter 3.9 “Life as a Work of Art.” See also: Michel Foucault,

posthumanism – if it ever comes – the “care of the self” will become a common duty, a necessity, as the past, history and cultural tradition, which serve as existential framework today, will cease to exist. The potential consequences of these phenomena are discussed here in Chapters 25 and 26.

“Technologies of the Self” in: *Technologies of the Self: a Seminar with Michel Foucault*, ed. by L. H. Martin, H. Gutman, P. H. Hutton (London: Tavistock, 1988). Nietzsche’s life has been interpreted as a work of art by Alexander Nehamas.

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21 What Is Posthumanism?

*Transhumanizing could not be expressed
by words; let this case, therefore, him suffice,
for whom Grace holds experience in reserve.*

Dante, Paradiso, I, 70–72, trans. by Courtney Langdon

Unlike “autoevolution,” “posthumanism” is a word widely used today. It is applied to a few different but corresponding intellectual currents: one of them born from a discussion of the impact of science and technology of the late 20th century on the social life; another from certain threads of the poststructuralist thought, while yet another is an ideology built on them. In fact, the entire posthumanist discourse is permeated by ideology. Reading posthumanist texts from the 1990s and later, it is difficult to distinguish between knowledge and information on one hand, and manifestos and declarations on the other. The reason for that is that posthumanism is an intellectual formation situating itself somewhere in-between science, philosophy and social critique, and its authors and advocates remain nearly completely oblivious of their own historical background, which I have discussed here, and generally they ignore all past in a manner typical of liberal thought. Posthumanism fulfills the criteria of utopianism, which I have described in the context of ST, and some of its premises or theses actually look like quotes from Lem. All kinds of posthumanism call for autoevolution of one of the three types listed here before, but the term “autoevolution” itself never comes up. Posthumanists prefer such terms as “post-Darwinian era.” Posthumanism also attracts all sorts of believers in pseudoscientific, parareligious and “esoteric” doctrines (“cosmism,” “Prometheism,” “transtopia,” “cosmotheism,” “Church of Virus”), as well as political radicals (“anarchotranshumanism”) – these phenomena will be omitted here. Again, I need to emphasize I will not be interested in posthumanism read in the context of contemporary rejection of anthropocentric positions within the academia – so, for example, I will not be referring to the many currents of animal studies.

The term “posthumanism” in the sense assumed here has a synonym – “transhumanism,” but sometimes the two notions are treated as different, that is when authors take transhumanism to be an earlier stage of posthumanism, an intermediary period (*trans*) between humans and a completely posthuman entity. I will not, however, be using these two terms in such a way here.

The word “transhumanism” was first used by Julian Huxley in 1957, when he vaguely defined it as a situation when “man remaining man, but transcending himself, by realizing new possibilities of and for his human nature.”²¹¹ In the 1980s though the definition changed significantly. To illustrate a typical contemporary understanding of posthumanism, we can quote Max More, the guru of Extropy Institute, who was mentioned in Part Two:

Transhumanism is a class of philosophies that seek to guide us towards a posthuman condition. Transhumanism shares many elements of humanism, including a respect for reason and science, a commitment to progress, and a valuing of human (or transhuman) existence in this life ... Transhumanism differs from humanism in recognizing and anticipating the radical alterations in the nature and possibilities of our lives resulting from various sciences and technologies.

The short quote above shows clearly the main characteristics of the entire posthumanist discourse. It is a “philosophy,” but one that “tries to lead us toward a posthuman condition,” so it is a philosophy of action – a type of thinking that is characteristic of most utopias of change. “It includes numerous elements of humanism,” but these elements are “respect for reason and science” and “appreciation for progress,” so it is clearly the humanism of the enlightenment rather than, for example, renaissance or neoclassicist humanism – so it is the only type of humanism that disregards the past. As all versions of humanism, posthumanism places man at the center of the entire system of thought and action, endowing him with supreme value, but the similarity will reveal itself as superficial as soon as we remember that the main premise of posthumanism is to go beyond the humanist understanding of humanity. It is clear that the posthumanist discourse is deeply entangled in the dilemmas of its predecessor and that its authors remain largely unaware of it. Emphasizing the role of science and technology in the process of “transhumanization” is a constant feature of posthumanists’ declarations. It brings them closer with the 19th-century positivists, but, again, as was the case with the discourse of ST, the resemblance is superficial; not because of constantly distancing itself from its own arguments, as was the case with Lem, but because of posthumanists’ conviction that the current psychophysiological shape of human beings is neither the only one possible nor the final one.

According to the posthumanists “there is an ethical imperative leading people to strive for progress and improvement.” It is an exact, albeit unintentional, copy

211 In this context it is telling that Michel Houellebecq refers to Julian Huxley in his description of posthuman utopia at the end of his *The Elementary Particles* (see more on this later).

of one of the main theses of ST, which I have described many times: that people will sooner or later fulfill their entire potential, including in technology. Further on we read: "If the human kind enters the post-Darwinian stage of existence, in which people will take over the control over their evolution, random mutations will be replaced with rational, morally and ethically justified changes." This in turn is a faithful copy of an implicit contradiction in Lem's work between what I called "the Designer's rationality" and "the pragmatics of the User." There is no necessary reason for autoevolution to follow any rules or ethical imperatives. As one would expect of utopian authors, neither Lem nor the posthumanists think about issues as prosaic as the impact of the current sociopolitical situation or even the mass culture on the practical application of their ideas.

We might be tempted to formulate a generalized proposition here. For Lem and the posthumanists, autoevolution above all involves rejecting the randomness of biological evolution, on which people have no influence, because it takes place outside the realm of human actions and human time, and that is the source of our psychophysical incapacities. This is certainly true. However, it entails a risk. Introducing autoevolution into the global social system would most likely lay it open to the threat of all destructive and random process to which all other institutions, as well as scientific and technological endeavors, are subjected. Only very naïve people still believe in the independence of science and technology from economy, politics and social issues, as well as from the impact of influential lobbies, provisional solutions and finally from passing fashions. As I have tried to show, in ST Lem ignored this entire issue, accepting implicitly that introducing "pantocreatics" will somehow solve it. This is exactly what posthumanists do today. Yet, it is quite certain that if autoevolution ever goes out of the pages of utopian musings, it will soon yield to such processes **and hence it will become a random process**, just as Lem described it in "The Twenty-First Voyage." The only difference is that its randomness will not come from the laws of genetics and evolution but will have its sources in the laws governing social life, and these laws, as history teaches us, override all reforms. On the other hand, it will touch not the institutions of our life, but the very material form of our existence, which will make it more dangerous than any of the previous "errors and distortions" of the civilization. This is the argument of the opponents of biotechnology.

According to Lem (as the author of both ST and *Golem XIV*) and the posthumanists, autoevolution will automatically mend all the evil in the world and so there is no reason to fear it. Earlier centuries have seen at least a few projects implying similar inevitability and their authors probably had the most noble of intentions. Some of them were only confined to libraries, while others

have been implemented, taking the lives of millions of people. So it is good to retain some skepticism when studying such radical vision.

The historical beginnings of posthumanism in its technocratic version are connected with the circle of scholars and visionaries who gathered in the early 1980s at the University of California Los Angeles (UCLA).²¹² Apart from Max More and his extropians other important figures were, for example, Feridun M. Esfandiary and Nancie Clark (a couple in their private life), who attracted a group of enthusiastic students and followers. Esfandiary (1930–2000), a son of an Iranian diplomat, is an emblematic figure for the entire subcurrent of American posthumanism. He began as a futurologist and an author of sci-fi novels. He then moved on to prophetic reflections on the beautiful future of the human species which he laid out in a series of books, including the most famous one: *Are You a Transhuman?* (1989). He adopted a pen name FM-2030 and claimed that he feels “a deep nostalgia for the future.” Before he died he asked to be hibernated and his body is now in a certain posthumanist center in Arizona, while his ideas are being propagated by his widow (known as Natasha Vita-More). Esfandiary’s writings, just as those of his fellow posthumanists and many experts in advanced technology, are characterized by untamed enthusiasm for rapid technological progress of the late 20th century. Again, as 200 years earlier, during the industrial revolution, the swift changes in the technological sphere have produced a group of fervent followers, as well as fierce opponents, whose arguments I will recount later.

1986 is particularly important in the development of posthumanism. This is when Eric Drexler’s book *Engines of Creation* came out, which included a description of the potential of nanotechnology which was just being born at the time. For the posthumanists it was proof that it is technically possible to fulfill their ideas. We should point out that the entire “Californian” current of posthumanism, permeated with a belief in high technology, focused on this particular type of autoevolution which I termed “the cyborg autoevolution.” Its authors imagined posthuman to be a hybrid of biological body and a variety of machines, which is hardly surprising, given that they worked and thought in a close proximity to the Silicon Valley at a time when the “dominating technology” (using J. David Bolter’s term) was IT, and not yet biotechnology. This was a time of intellectual osmosis between the posthumanists from the UCLA and the artificial intelligence (AI) experts from Silicon Valley – distant successors of

212 A lot about them can be learned from Erik Davis’s book, *TechGnosis*, which I referred to in the earlier part of the book.

Turing's idea. There is therefore a connection of sorts between the "Californian" posthumanism and the realm of AI, and it lies in the conviction that it is possible and sensible for people to create a nonhuman form of intelligence, with the one difference (often unnoticed) that for the posthumanists these forms should be derived from human bodies²¹³ – and replace them; whereas the theoreticians of AI, such as Marvin Minsky or Ray Kurzweil aim for a full autonomy of those forms, trying to build "intelligent machines." The difference is particularly significant if we take into account the problems with defining consciousness discussed in Part One and Part Two of this book. No one would doubt that a posthuman being will, at least in the initial stage, have a consciousness similar to ours – because it would be inherited from us. At the same time no one knows for sure what kind of – if any – consciousness a computer will have (although authors such as Roger Schank believe that they know for sure what it will be like).

213 It is common among the posthumanists and AI experts to despise or even hate the human body as an aesthetically disgusting and nonfunctional lump of easily rotting organic matter. This is another thing that is similar with Lem. In AI parlance we often encounter terms such as "meatware" and "flashware" – which are again symptoms of treating the current physical form as a primitive version or an initial stage of the development of computer mechanism (in an analogy to "hardware" and "software"). See also Chapter 25.

22 Posthumanism as a Theoretical Discourse

In the late 1980s the ideas of the Californian posthumanists permeated some of the American postmodern and gender discourses finding there a favorable breeding ground. The “inhuman” character of posthumanism seemed to correspond well with the poststructuralist destruction of the subject, bringing some fresh breeze of technocracy into the stale climate of academic musings about the “death of man.” The deeper implications of these links are analyzed in Chapter 25. Here it is enough to briefly discuss the most representative authors. Among them, the ones who should most particularly be mentioned are, I believe, Donna Haraway, N. Katherine Hayles, Chris Hables Gray and Robert Pepperell. Each of them uses the posthumanist ideas in their own ways and connects them with different elements of the contemporary intellectual puzzle of the West. Also, each of them prefers one of the three models of autoevolution I have listed. This means that all these authors are in some sense (usually unintentionally) continuing Lem’s thought, albeit with a difference, as they use the same ideas as the ones he presented but for completely different purposes.

The moment when Donna Haraway’s *A Cyborg Manifesto*²¹⁴ was published in 1985 can be seen as the moment when the idea of cyborgs shifted from the realm of technological and “technognostic” musings to the realm of imagery of postmodernism and gender studies. Haraway’s text, which lies at the center of feminist polemics of the 1980s, uses the word “cyborg” as a metaphor describing the fall of the distinction between the Natural and the Artificial in science and the humanities, which implied the fall of the system of values and social roles, especially feminine social roles, founded on that distinction. According to Haraway, “a cyborg” can be a symbol of these changes, as it is a hybrid of the “natural” (body) and the “artificial” (machine), and hence, by its very existence, it dismantles the divide between these two areas.

214 Donna Haraway, “A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century,” *Socialist Review*, no. 90 (1985), 65–108; the essay was then included in Haraway’s most famous book *Simians, Cyborgs and Women: The Reinvention of Nature* (1991). Early on, Donna Haraway’s work focused on the imagery of biological sciences and links between natural studies and the humanities. Her published works include also, for example, *Crystals, Fabrics and Fields: Metaphors of Organicism in Twentieth-Century Developmental Biology* (1976).

What can be said about the idea? Above all, Haraway, just as other authors mentioned here, pays no attention to the fact that cyborg as an advanced hybrid of a biological body and a machine has so far not gone beyond theory. Her disregard for facts and narrow interest in theoretical concepts is characteristic of the entire postmodernist thought. In this particular case, it takes an unusual shape as purely theoretical entities – which are expected to become reality in the future – are being discussed as if they were real. Moreover, we are dealing here with a complex mixture of social theory and political demands, which is also typical for many types of postmodernist thought. Yet, at the very beginning of the text, Haraway introduces the notion of irony, which implies that she is aware of the paradoxical character of her argument and she uses irony to distance herself from it.

Such description might suggest that Haraway partly talks about the same thing as Lem in *ST* – especially when it comes to rejecting the distinction between the Natural and the Artificial. But it is an illusion. The feminist author is not interested in either this distinction or the cyborgs for themselves, for the pure intellectual interest of probing the limits of human potential. She has no positivist faith in the independence and selflessness of science and technology. Quite the opposite: as all authors representing this type of thinking, she sees the practices of producing and distributing knowledge primarily as an element of a network of social, political and symbolic relationships, and not a leading one either. That is why the figure of a cyborg, which is nonhistorical, apolitical, nonbiological and nonsexual and free from oppression of norms, is the perfect starting point for her discussion of the social situation of women.

It needs to be added that these interpretations do not derive clearly from Haraway's text, which is written in a language that is a peculiar mix of scientific terminology and poststructuralist lingo, and most of the notions there are used as loose metaphors. These characteristics, which strongly resemble the language of social cybernetics which I have discussed in Part One, are typical of nearly all texts written by posthumanist theoreticians, and it is possible that the similarity has stronger foundations – if we accept that posthumanism plays the same role today as cybernetics did half a century earlier, and before that: organicism, evolutionism and scientism. It is a role of a mystical and utopian social ideology, based on misread scientific premises.²¹⁵

215 A good example of the increasing effects of Haraway's "blurring" textual strategy in the 1990s is the article by Gary Lee Downey, Joseph Dumit, Sarah Williams, "Cyborg Anthropology," *Cultural Anthropology*, no. 2 (1995). "Cyborg anthropology" is to be a new incarnation of anthropological theory, located somewhere in-between an

N. Katherine Hayles, professor of literary studies at the University of California Los Angeles (UCLA), combines posthumanism with a political discourse in a completely different manner. In her book *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Information* (1999), she tries to apply the language of the humanities to analyze the consequences of the spread of the imagery of cyberspace in the contemporary intellectual diction, especially within postmodernism. As other authors Hayles emphasizes especially the independence of cyberspace and the type of thinking about reality it entails from the methods of understanding the world available so far and developed by the Western philosophy. She claims that thinking in terms laid out by Aristotle, Descartes, Kant and Hegel, which dominated our views on the nature of reality until recently, and which was particularly impactful in shaping our understanding of our own bodies and their symbolic roles, is losing its function in light of the growing domination of thinking in terms of “IT” and “cyberspace.” Bolter expressed similar views earlier in *Turing’s Man* and both these authors refer to the same earlier thinkers (Turing, Wiener). But Bolter does not go quite as far in designing a new way of thinking, mostly because when *Turing’s Man* was published, there was no notion of cyberspace yet. Unusually for posthumanists, Hayles points out that the growth of posthumanism as a theory and social practice will require rethinking and redefining the notion of humanity. She brings up numerous literary examples (and her book was awarded the Rene Wellek award for the best work in literary studies).

Chris Hables Gray, a professor of science studies at the University of California Santa Cruz, is the creator of “cyborg studies,” one of the editors of the volume *The Cyborg Handbook* (1995) and the author of *Cyborg Citizen: Politics in the Posthuman Age* (2001). His main goal is to create a theory of a cyborg society, with the word “cyborg” used more or less the same way as Haraway uses it – as a metaphor of a certain possible social option, that is, a society of posthuman creatures devoid of historical and political tradition. Gray postulates, among other things, compiling a “Cyborg Bill of Rights,” which would define their social rights, as well as those of other intelligent creatures, which are not biologically human. The idea can be placed in the context of the historical growth of rights given to different groups in modern Europe: from the Declaration of the Rights

academic discipline and social practice; “a cultural project rather than an elite academic practice.” A *Cyborg Manifesto* has also become the founding text of a separate current on feminism called “cyberfeminism,” which gained some traction at the end of the 1990s.

of Man and of the Citizen through rights of women, people of color, children, sexual minorities and animals. If we step beyond theoretical posthumanism for a moment, we might notice that the growth of biotechnology, which is gaining pace every year, will soon force us to face a discussion of the legal status and rights of clones and genetic chimeras.²¹⁶ It does not take much of an imagination to see what would be the next stage in that process: machines' rights, especially if they can be equipped (even if unintentionally) with some sort of higher intelligence.²¹⁷

It all poses tremendous challenges to our established ways of thinking and therefore the ideas of Gray and other posthumanist theoreticians do indeed have some value – they may be quite fantastic, but as thought experiments they can help us understand situations in which we can find ourselves very soon. Even if we will not all become cyborgs.

In 1995 Robert Pepperell (born in 1962), a British multimedia artist, published a book titled *The Posthuman Condition: Consciousness beyond the Brain*, which quickly became one of the most important declarations for the entire movement.²¹⁸ It includes *The Posthumanist Manifesto* as an appendix and it is worth it to quote a few sentences from it here. The first sentence is: “To understand how the world is changing is to change the world.” For a reader acquainted with the history of utopian doctrines this will certainly bring to mind Marx’s 11th thesis on Feuerbach, and indeed, in its power and concise character Pepperell’s *Manifesto* does not fall far behind the writings of the German philosopher. Its content sums up postmodernist views, combining acceptance of extreme cultural and academic relativism with declarations borrowed from theoreticians of both “strong” and “weak” versions of artificial intelligence and general system theory. In the first part (“General Statements”) it states:

1. It is now clear that humans are no longer the most important things in the universe. This is something the humanists have yet to accept. ...

216 Chimera is a creature that has genes of more than one biological species.

217 On this subject, see, for example: James Shreeve, “The Other Stem-Cell Debate,” *New York Times*, April 10, 2005; Erik Beard, “Cyborg Liberation Front,” *The Village Voice*, July 30–August 5, 2003 (article about the World Transhumanist Association Conference). The same motif can be found in Lem’s fiction in “The Washing Machine Tragedy” (in *Memoirs of a Space Traveler: Further Reminiscences of Ijon Tichy*), the subject of which is a casuist dispute about the legal status of intelligent humanoid washing machines.

218 The book was reprinted twice and excerpts from it are now used in classrooms in many US university courses on posthumanism and artificial intelligence.

4. Human beings, like gods, only exist inasmuch as we believe them to exist.
6. All humans are not born equal, but it is too dangerous not to pretend that they are.
7. In the posthuman era, machines will no longer be machines.

The text manipulates elements of philosophical and scientific discourse with great liberty. In the following parts of the manifesto, there are numerous statements about science and technology articulated in the same tone: they are highly ideologized, while at the same time detached from their own deeper significance. The aim of the text as a whole is to prove the main thesis of posthumanism: that human beings as products of the process of biological evolution are not the only possible form of intelligent life on Earth. Very similar phrases can be found in the 1999 *Transhumanist Declaration*, which also includes some intuitions as to the social and legal status of the alleged posthuman creatures:

- (4) Transhumanists advocate the moral right for those who so wish to use technology to extend their mental and physical capacities and to improve their control over their own lives. We seek personal growth beyond our current biological limitations.

It is hard, however, to find texts written by post- and transhumanists that would present a higher awareness of the philosophical and social implications of their views. This is probably largely due to their own rejection of the past which is implicit to the idea of going beyond what is human. It is also significant that nearly all posthumanists are either scientists or represent the humanities, but were shaped by the anti-historical version of postmodernism – and the fact that nearly all of them are American.²¹⁹

The authors quoted here are most interested in the “cyborg” autoevolution, but there are “mental” autoevolution aficionados among posthumanists too (e.g., the extropians). They pay least attention to the “somatic” type of autoevolution, probably because in their eyes it does not guarantee complete rejection of the old “biological” form of humanity.

An overview of positions ends here. The literature on posthumanism, which piled up in the last decade of the 20th century and in the early years of the current one, is vast. It includes at least a few dozens of books, hundreds of articles

219 The term “posthumanism” comes up in some of the versions of European poststructuralism, but in this case it is always linked with philosophical theories, especially the school of Foucault (“death of man”) and Derrida. This version has no connection with the ideas I am discussing here and I believe it is altogether a misunderstanding to use the term in such contexts. See, for example: Stefan Herbrechter, Ivan Callus, “What’s Wrong with Posthumanism?,” *Rhizomes: Cultural Studies in Emerging Knowledge*, no. 7 (2003).

and many more texts, which refer to the notion of posthumanism only marginally or use it for embellishment. Most of these works have been published either in renowned publishing houses or in prestigious (mostly American) journals, which should dispel any doubts there may be about the status of ideas and doctrines of posthumanism, at least in the American academia. There have been numerous conferences held there since the 1990s on posthumanism, cyborgs and other similar topics, often combined with theories of new media, gender studies, psychology of the Internet, and so on. Only time will tell the real value of these intellectual productions.

23 Cyborgs, Androids and Robots

Based on the contemporary use of the word “cyborg,” one could think it has always been a vague theoretical concept, a means of utopian and highly abstract musings. It would not be true, however. Before posthumanism was born, the word signified quite a concrete entity, albeit also theoretical.

As was said before, in the final part of *ST*, Lem mentions in passing an article about cyborgization of man, and he most likely means the founding text of the entire “cyborg studies.” It is a short, few-pages-long text penned by two American scholars, Manfred E. Clynes and Nathan S. Kline, published in an issue of the journal *Astronautics* from September 1960, under the title “Cyborgs and Space.” Referring to the laws of cybernetics (which was at its peak of popularity at the time, we should remember), the authors presented the possibility of transforming the body of an astronaut through surgery in a way that would allow him to function efficiently during space travel and on the surface of other planets. The means to that goal would be to perform surgeries to eliminate body parts, which could not function properly outside Earth (e.g., the respiratory system) and replace them with machines, which are “normally” outside the human organism. Other organs would only be supported mechanically. Let us look at this text in more detail now.

The first sentence goes as follows: “Space travel challenges mankind not only technologically but also spiritually, in that it invites man to take an active part in his own biological evolution.” The similarity with Lem’s thinking on autoevolution is quite clear here, but in this case autoevolution happens for utilitarian reasons: it is to facilitate space travel rather than to improve human condition, as it is meant to do for Lem. Further on the authors offer a definition of a cyborg: “For the exogenously extended organizational complex functioning as an integrated homeostatic system unconsciously, we propose the term ‘Cyborg.’” It is followed by an expert discussion of “psychophysiological problems,” such as the functioning of various senses and organs of a cyborg during space travel. These issues are largely pertinent to “normal” cosmonauts as well (long periods outside earthly gravity, psychoses, changing metabolism, etc.). There is no discussion of possible emotional changes in a cyborg, however. Interestingly enough, Lem does not ask that question either, even though the stories about Pirx the Pilot prove that he understood well the psyche of a cosmonaut exposed to loneliness in extreme conditions for long periods of time. Lem is very rarely interested in how a cyborg or any other form of “artificial life” may “feel in the world.” It

may seem odd in the context of the autoevolutionary project, but I have already tried in Part Two to show that this is really a grand-scale project. And then, Lem is generally against psychologizing, even though there are a few important exceptions to this rule.

I will return later to questions raised by psychology of posthuman creatures. Here I will only add that they can generally be seen as the opposite of Turing test. We are (potentially) in **direct** contact with a creature about which **we know for sure** that it is self-aware and intelligent. But we cannot know what their profile will be like. It will certainly differ from humans more than individual human minds differ from each other. Therefore any known standards of psychology based on conventions derived from human interactions are bound to fail us.

Clynes and Kline's article was written in the period of the highest enthusiasm about the "conquest of the universe," which soon faded away. Therefore the text became an inspiration not for science and technology but for sci-fi literature and then, as we have seen, for posthumanist theories. The evolution of the thinking on cyborgs is an interesting example of how a strictly scientific idea, marginalized by the growth of science, can gain new vigor in literature and the humanities.²²⁰

"Cyborg" is not the same as "android" or "robot." Cyborg, as is clear from above, is a creature combining elements of a biological organism and a machine system, and the machine part can consist of macroscopic servomechanisms or microchips. The word "cyborg" is a compound of "**cybernetic organism**." "Android" on the other hand is a machine created in the image and likeness of humans – which means it is a peculiar type of "robot" – the term covering all machines capable of movements. The word "robot" was first used by Karel Čapek in his play *R.U.R.* from 1920 – and the Czech neologism is now used all over the world, thanks to its pronunciation, which is easy for non-Slavs. Cyborgs, androids and robots crowd the worlds of sci-fi literature and films, but there is no need to go into detail in that regard here, even though their role in mass culture is huge and one could certainly investigate the links between them and the

220 A valuable summary of the history of the theme of cyborgs in science and art can be found, for example, in Craig M. Klugman's article "From Cyborg Fiction to Medical Reality," *Literature and Medicine*, no. 1 (2001). The author points out to the importance of the idea of cyborgization for medicine, especially prosthetics. He also emphasizes that the notion of a cyborg in the philosophical discourse is "non-Cartesian," which means that it is not subject to the duality of body and mind. This thesis, very popular among the posthumanists and those interested in cyborg studies, is a clever way to neutralize the "mind-body problem," which, as I have pointed out many times earlier, is the main challenge to the entire intellectual field discussed here.

“serious” posthumanism, especially as the theoreticians of posthumanism are very often fans of science fiction.

Frederik Pohl's *Man Plus*,²²¹ clearly inspired by Clynes and Kline's foundational text can serve as an example of the theme of “cyborg in literature.” The protagonist of the novel is subjected to cyborgization, which is to allow him to live freely on Mars, but which also turns him into a monster resembling the medieval ideas of the devil. It is a rare version – in most cases, when the aesthetic aspect of cyborgization is taken into account, it is presented in a vision of an elegant figure of chromed steel. There is a whole separate current of “cyborg art,” which draws on just such fetishizing imagery. Pohl, however, models his hero differently, as this allows him to emphasize the physical and psychological pain the transformation causes. The author's ambition is to create a psychological portrait of a man turned into a cyborg. Given the difficulties it entails, he succeed to a significant degree, even though the main source of Roger Torraway's internal conflicts lies in the fact that his wife is having an affair with his friend, who happens to be one of the people carrying out the project of cyborgization. In the end Torraway-cyborg adapts fully to the conditions on Mars and becomes its first settler, no longer missing Earth or people (Pohl hence admits that cyborg becomes a form essentially alien to man and *vice versa*). One interesting aspect of the novel is that it turns out that the whole plan to colonize Mars with cyborgs has been devised for people by computers, which became intelligent unnoticed, through cumulating of computing power and the growth of network. In terms of its literary value, Pohl's novel does not differ much from most US sci-fi productions, but it is an important impulse to understand, how the idea of a cyborg functioned in the mass culture of the late 1970s and early 1980s. Soon after cyborgs would become big in films, mostly through *Terminator* and *RoboCop*. This, however, goes beyond the scope of my argument.²²²

221 Frederik Pohl, *Man Plus* (New York: Baen Publishing Enterprises, 1976).

222 To complete the necessary information, I need to point out that the most famous androids of literature and cinema are the characters of Dick's novel *Do Androids Dream of Electric Sheep?* (1968) and its film adaptation *Blade Runner* (1982) directed by Ridley Scott, whereas the fullest picture of a robot was drawn by Isaac Asimov in his *Foundation Series* (1951–1953, and then continued in 1982–1986). In all these works the ethical, psychological and social issues connected with the existence of nonhuman protagonists are thoroughly investigated. These important texts of the late-20th-century mass culture featuring cyborgs, androids and robots call for an exhaustive discussion but it would fill a separate book. Between 1980 and 1990, cyborgs often come in military contexts, as enhanced soldiers.

Some scholars differentiate between cyborg in a sense used here before and phenomena that we can today describe as cyborgization. If we assume that any kind of enhancement of human organism by installing external devices is a form of cyborgization (and Clynes and Kline's definition allows that), then we should say every human with a pacemaker, prosthesis or even contact lenses is a cyborg. If we treat cyborgization as a form of Hall's extension – and it is acceptable given the broad scope of the latter term – then any man wearing glasses or talking on a cell phone would be a cyborg. In order to avoid such absurd conclusions, in 1995 an American scholar Alexander Chislenko came up with a word “fyborg” (a compound of “**functional cyborg**”), different from a “real” cyborg, and signifying a person who uses technological devices extensively in order to increase their own psychological and physical capacities. Many technology aficionados embraced the term, declaring themselves as fyborgs.²²³

Let me finish this topic with a brief discussion of the connection between cyborgs and cyberspace. The two terms are frequently uttered together, most often by theoreticians and critics of art engaging the modern media, who are excited by the new possibilities in that domain. I believe, however, there is a vast difference between the theory and the practice of cyberspace and cyborg or somatic autoevolution. It lies primarily in the fact that cyberspace is not tactile. Speaking about it, we usually have in mind something resembling a Platonic idea²²⁴ rather than matter; it is *res cogitans* rather than *extensa*. The only material thing a cyberspace user comes in contact with, the only sensory experience is the keyboard and the interface of the computer, occasionally with other peripheral devices, and then, if he or she is in virtual reality, they may interact with a number of simulators. Cyborgization on the other hand involves transformations

223 Kevin Warwick, a professor at Coventry University (UK), declared himself to be a real cyborg, as he had electronic chips implanted a number of times since 1998, allowing him to control some devices from a distance. Warwick became quite popular with the media and came to be an icon of cyborg studies, but his projects are often criticized as scientifically worthless tricks for publicity. His endeavors have little to do with theories discussed here. But they can contribute to progress in making the lives of people with various impairments easier.

224 See, for example: Michael Heim, “The Erotic Ontology of Cyberspace,” in: idem: *The Metaphysics of Virtual Reality* (New York: Oxford University Press, 1993). Heim's thesis that cyberspace is “a practical incarnation” of the notion of idea in Plato's thought can only be treated as a loose metaphor. In another text Heim claims that cyberspace fulfills Leibniz's concept of monadology (strict separation of subjects, communicating solely through highly mediated codes).

of the actual matter, not a simulated transformation. The degree of the subject's autonomy is another issue here. In cyberspace "I" can be misled freely by whoever provides the simulation of reality. We could see intuitions about the process in Dick's novels, the precise description in the chapter of ST on phantomatics, as well the cinema rendition of this in *The Matrix*.²²⁵ In cyborg utopia on the other hand it is the machine that is subordinated to man rather than the other way round, and ultimately man and machine are to form a harmonious one.

Given the above analysis of the two phenomena, cyberspace and cyborgization should, I believe, be carefully differentiated. The fact that all these more or less fantastic projects and ideas tend to get confused with each other comes from all of them somehow pertaining to people and having a radical transformation of man as their aim. And the most radical variant of autoevolution, which I have classified as mental autoevolution, suggests no less than to completely shift human mind into cyberspace. All these ideas are internally connected, but many authors seem unaware of the complexity of those connections and the huge intellectual difficulties they entail.

225 Slavoj Žižek offered an interesting philosophical interpretation of cyberspace in his essay *The Matrix, or, the Two Sides of Perversion* (1999). He sees it as a fulfillment of Malebranche's idea of occasionalism: every act of will of a subject is mediated and carried out by computer software. This and the previous footnote are examples of how many philosophical associations the notion of cyberspace can produce.

24 A Critique of Posthumanism

In the last three chapters, I presented a brief description of posthumanism, its premises and how they have been put to work. I will now proceed to the charges laid against posthumanism. In Chapter 25, I will reconstruct the implicit premises of posthumanism and the contradictions they entail.

In 2006 one of the online dictionaries (www.findword.org) defined “transhumanism” as: “Transhumanism can be interpreted as a progressive libertarian ethics going beyond humanism,” and then the entry continued: “In many ways transhumanism aims at fulfilling goals and hopes traditionally articulated by religion.” The combination of libertarianism and quasi-religious spirituality²²⁶ (symptoms of which have already come up in previous chapters here) can be seen as an extremely dangerous coupling, resembling other social utopias in the Western thought of the last two centuries. Undoubtedly, without a second thought posthumanists accepted one of the most fateful premises of the modern worldview: that a man can be God to himself. This thought and its possible consequences haunted many a philosopher and writer – but it does not seem to bear any particular significance for posthumanists. This embracement shows for the first time that posthumanism can have something to do with contemporary theory and, more importantly, with current social practice. I will discuss that connection.

Posthumanists themselves distinguish between two types of criticism of their ideas: the practical one, targeting the possibilities of actually achieving its declared goals; and the moral one, targeting its sense. There are then two main versions of the practical critique. The advocate of the first one, Steve Jones, claims that the development of technology will never lead to the kind of potential that posthumanists talk about; there will be no such advancement that would turn us into cyborgs and transfer our minds into a network; there will not even appear a possibility to genetically enhance our bodies. This is the simplest possible charge

226 I would rather not devote much attention to the links connecting posthumanism and artificial intelligence (AI) with religion here, although there are many. The concept of the mind as a computer program, universe as a computer and consciousness “immortalized” in a computer network, finally the idea of a human “deified” into a machine clearly do tickle the religious instinct in many people. But the effects of such impulses (especially textual effects) exceed the realm of this work. The Raëlist sect has been particularly interested in posthumanism.

and not a particularly serious one, as given the current level of technological development it is equally impossible to prove that the autoevolutionary scenario will or will not come true.

In its second version, the practical criticism is much more significant. In 1989 Max Dublin, a sociologist from the University of Toronto, published a book *Futurehype: The Tyranny of Prophecy*, in which he brought back a number of completely failed futurologist predictions about the development of technology. He claimed that the theses put forward by posthumanists run a risk of being equally imprecise. Indeed, there are a lot of similarities between posthumanism and futurology of the 1960s and 1970s, and it is quite likely that the technological growth in the 21st century will go in a completely different direction than the one outlined in the autoevolutionary scenario. Yet, there are important differences between the two intellectual currents as well. Laying aside the political applications of futurology, it was essentially a science free from ideology. The futurological predictions were not meant to create utopian visions, but merely extrapolate the existing state of things. Futurologists never claimed that humanity would make a leap toward posthuman forms. There was no talk of autoevolution as means of salvation. There were no attempts to combine technological predictions with a social theory (the purpose of the predictions was practical: to regulate the functioning of the social system). Technological ideas did not become symbols in cultural and political discourse. In brief, the difference lies in intentions, even if the effects are superficially similar.

In the book I have mentioned, Dublin himself emphasizes these differences, claiming that transhumanists tend to be fanatic and nihilistic, while their views resemble religious ideologies and Marxism. Posthumanists oppose such an interpretation, pointing out that those ideologies are not consistent with rationality, which lies at the core of their entire current. Here again it becomes clear that they cannot see how rationality itself can easily become an ideology.

Sir Martin Rees, the British Astronomer Royal and the author of many splendid popular educational texts on contemporary cosmology, points out in his book *Our Final Hour* (2003) that the development of advanced technologies poses as many risks to our civilization as it produces benefits – which echoes the theses of the Frankfurt School created several decades earlier. Rees draws a picture of another stage of the 200-year-old argument surrounding technology. He calls for not so much halting its growth (which would be a utopia even less realistic than the mental autoevolution), but for a careful consideration of its effects and for limiting the openness of the structure of science. Thus he positions himself in proximity with “the principle of responsibility” of Hans Jonas and

moderate environmentalists, making yet another attempt to somehow level the diverging currents of technology and ethics within our civilization.

The one criticism that was certainly the most important for posthumanists themselves was presented in 2000 by Bill Joy. It is important not only due to the intellectual heavy weight of arguments used, but also because the author is not one of those “ignorant” humanists, “loony” environmentalists or academic theoreticians – he comes from the very core of technocracy. William N. (Bill) Joy is a cofounder of Sun Microsystems, one of the main players of the computer industry. He is also the main developer of the very popular Java computer programming language. His essay *Why the Future Doesn't Need Us* came out in the prestigious IT journal *Wired* (April 8, 2000) and sparked a big discussion, which brought the author even bigger fame – albeit somewhat ambivalent in nature. Joy's theses mostly echo the views that many authors expressed in the 1940s and 1950s, during the discussion around the ethical implications of nuclear research – and Joy invokes those arguments directly. Yet, for the posthumanists hypnotized by their own bright visions, this resonated suddenly as powerful memento. Joy wrote openly that the uncontrolled technological growth of the 21st century may lead to the destruction of our species, which will either eliminate itself accidentally, manipulating it like a sorcerer's apprentice, or it will be eliminated by AI (this option, however, is actually met with enthusiasm by many posthumanists who seem to hate humanity for many more or less idiosyncratic reasons). Joy's revelations are quite obvious for anyone who is looking at posthumanism and technophilia from the outside, but – as is evidenced by the rhetoric of his text – they must have seemed quite original to Joy himself. He even quotes Nietzsche and one of his attacks on “science” and “truth,” pointing out that it can be reiterated with regard to the contemporary world. He also discovers the meaning of the notion of social utopia, thanks to Jacques Attali's books on the ideals of the French Revolution. One of the last sentences of the essay is: “This all leaves me not angry but at least a bit melancholic. Henceforth, for me, progress will be somewhat bittersweet.” What else can we say?²²⁷

Joy sees one more thing that none of the authors of utopias saw, not only the posthumanists, not even Lem in *ST* (although he did notice it in his novels). Joy writes: “And even if we scatter to the stars, isn't it likely that we may take our problems with us or find, later, that they have followed us?” This incredibly fateful sentence puts all efforts of posthumanists into question. Indeed, even if, as

227 In 2003, Joy resigned all of his positions at Sun Microsystems and announced that he was withdrawing from the IT industry.

Lem's Golem XIV prophesized, we do make the autoevolutionary leap, in order to, "by rejecting man, save man," **there is no guarantee, that what is most valuable in man, will in fact be saved.** This dramatic dilemma will be discussed here again.

One more remark from Joy's essay ought to be mentioned here. At the very beginning of the text, the author juxtaposes two names and two figures of people who symbolize two opposed extreme viewpoints regarding technological progress. The first one is Ray Kurzweil, already discussed here. The other one is Teodor Kaczynski, better known as Unabomber, a terrorist, who provoked fear among US scholars in the last years of the 20th century by sending explosives to science labs. Joy claims that both these men have their point – and this must have been enough to shock most of Joy's readers – and he calls Kaczynski and other such radical opponents of technocracy "Neo-Luddites" (Kurzweil used the term too). This name, which caught on well, points to the fact that the discussion around new technologies in the late 20th and early 21st century is yet another stage of a process that has been going on for more than 200 years, from the very beginning of the industrial revolution, which was the first among many phenomena triggered by modern science and technology and strongly affecting the social order. We could list Luddites, humanists such as Matthew Arnold (in a polemic with Thomas Henry Huxley), defenders of the classic model of education against grammar schools, Frankfurt School philosophers, those opting for the "classics" in the two cultures debate, and ideologists of the counterculture of the 1960s – all of them opposed the progress of science and technology not only because they were fearful conservatives or humanists, but also because they saw in it a risk of losing human sovereignty. It is paradoxical that the same fear can be caused by posthumanism – a theory and an ideology, which aims to ultimately elevate human beings beyond the randomness of their condition. But it is enough to remember the fate of other emancipatory ideologies, to understand how noble ideals can become the opposite.

Let us now move on to the moral critique (although Reese and Joy's criticism included numerous such elements as well). Posthumanists are aware of the problem that has been mentioned here many times already when discussing the implicit premises of ST. It is the discrepancy in the development of technology and ethics. In 2005, a Wikipedia entry on transhumanism included the following passage:

Technological solutions may be compatible with other improvements, but some worry that strong advocacy of the former might divert attention and resources from the latter. As most transhumanists support non-technological changes to society, such as the spread of political liberty, and most critics of transhumanism support technological

advances in areas such as communications and healthcare, the difference is often a matter of emphasis.

It all seems easy then: we speak different languages, but at the end of the day we have the same goal: to make people's lives better. Posthumanists observe that there is a difference between the positive value of technological innovations themselves and the practical use to which particular people or groups put them. The polemic about technology and ethics between technophiles and Neo-Luddites is just one of the versions of the debate on human nature between liberals and conservatives. The former believe that common sense and untamed entrepreneurial spirit can guarantee the right use of technology. For the latter, unlimited technological innovations are like offering a razor to a child. At the heart of posthumanism, there lies liberal or even libertarian philosophy – although not all posthumanists realize that. Yet, for them it is obvious that technological progress – just like individual liberty – do not need to be controlled at all; and the problem of discrepancy between technology and ethics is a result of a misunderstanding or an effect of bad will on the part of some people and groups.

Another form of moral critique of posthumanism is the eugenics charge. Indeed, autoevolutionary concepts in all their versions might bring to mind the 20th-century ideas to “improve” man. It should be reminded here that in view of eugenics' creator, Francis Galton, it was meant to be a means of improving humanity as a whole. Yet, even this early premise included a seed of the later segregational and racist interpretations. Galton would admit that the aim of eugenics is to intensify the most valuable features of the species (as judged by the modern industrial society). It automatically necessitated conceptually distinguishing its “best” representatives. Does not posthumanism conceal the same risk? Likely so, but posthumanists generally reject any such affiliations. Posthumanist texts do not pose the question, **who** would really be subjected to autoevolution. (Perhaps posthumanists, too, imagine it to be the entire human kind).²²⁸

The third and final example of a moral critique of posthumanism is Francis Fukuyama's *Our Posthuman Future*,²²⁹ which accuses posthumanism of destroying the notion of human nature. Fukuyama claims that posthumanism can undermine the ideals of a liberal society, which are the very foundation of

228 There are several extremely right-wing subcurrents to posthumanism that embrace the heritage of the 20th-century segregational ideologies. But the mainstream group is definitely separating itself from such views.

229 Francis Fukuyama, *Our Posthuman Future: Consequences of the Biotechnology Revolution* (New York: Picador – Farrar, Straus and Giroux, 2002).

posthumanism itself, as it calls for reframing both the notion of human nature and the premise that all people are equal. He represents a position now known as “bioconservatism,” according to which every attempt at transforming the biological status of people (and thus any attempt at autoevolution, as well as cloning and other forms of biotechnology) is by necessity immoral because it has to lead to the fall of “human nature.”

Fukuyama’s book merits a closer look, as it is a good example of a degeneration of some versions of humanism. Francis Fukuyama and Alvin Toffler are seen in the United States and many other countries as great intellectual authorities. Their main books are Fukuyama’s *The End of History and the Last Man* – an attempt to read the 1989 transformation through a vulgar Hegelianism – and Toffler’s *Future Shock* – a book in which data from statistical yearbooks are to prove universalist theses on transformations of the human culture as a whole. The reasonings applied by the two authors are very similar. They use the simplest sets of notions, including popular received opinions and based on that they build interpretations of the most important civilizational dilemmas. While most contemporary European thinkers can be rightly blamed for getting stuck in academic subtleties and drowning under the burden of their philosophical tradition, Americans Fukuyama and Toffler represent the opposite extreme: their writings are depressingly straightforward. This is why Fukuyama’s charges against posthumanism are probably the weakest of those invoked here, even though he is also the only critic who tries to phrase them using professional philosophical diction, which allows him to actually touch upon some truly significant issues.

How does Fukuyama understand the notion of human nature, which is to be threatened by biotechnology? For him it is not a product of any type of Western philosophy. He writes: “The definition of the term human nature I will use here is the following: human nature is the sum of the behavior and characteristics that are typical of the human species, arising from genetic rather than environmental factors” (130). This definition is taken straight from sociobiology (which, surprisingly for a European, suddenly becomes here an ally of conservatism) and it allows Fukuyama to fight posthumanism at its own game. If he defined nature the way speculative philosophy does, posthumanism could see it as pointless speculation. Choosing sociobiology as his starting point, he makes it seem like his counterarguments are backed by science. This, however, is where he is wrong because just like his opponents he treats science as if it had the power to determine the objective truth about humanity.

As I have suggested earlier, one of posthumanism’s main weaknesses is the simplified treatment of what it means to “be human,” which derives from naïve rationalism. Hoping to beat posthumanism at its own game, Fukuyama repeats

the error. Moreover, his attempt to define “human nature” through behavioral and quantitative characteristics reveals a more general dangerous weakness of all attempts at “scientific” justification of general propositions about “humans” as such. We come across such attempts in every press note that starts with “Research has shown that...” followed by a thesis such as: “consuming large quantities of carrots reduces the risk of colon cancer by 17%.” Fukuyama tries to use similar sentences to prove that people have to retain the principles of their existence laid out by the liberal and conservative thought of the West in the last 200 years (not to mention this is for him the only possible mode of such existence), because if they stray from those principles, for instance by allowing cloning or autoevolution, they will destroy “the natural order.” He does not understand that this line of argument falls apart due to its contradictions. The development of science in the 20th century created a situation in which producing general unconditional statements about the physical world (and especially man as its element) based on experimental facts is no longer possible. There are likely links between the functioning of the human organism on the genetic-molecular level and the emotional-mental one. But with the current knowledge we cannot describe them with any precision. We lack data that would allow us to say how exactly phenotype translates into someone’s character and what is the impact of the external environment (in the polemic between nativism and environmentalism, Fukuyama positions himself as a nativist). We may never be able to find that out precisely, given the immense complexity of each human organism and the countless reactions and relationships that occur inside it, as well as between the organism and world. Scholars who have done research on a random sample of a few hundred people and claim that listening to Wagner’s operas has negative impact on blood levels of hemoglobin (and the lack of any qualifiers suggests the thesis is to pertain to the population at large) are simply ridiculous. Fukuyama, who uses similar arguments to support conservative social policies, is just sad. It is as if a chef calculated ingredients for dishes in millimoles, hoping such precision would produce better flavors.

The problem with Fukuyama’s book is that while his arguments are weak, the problems he takes up are vital. Fukuyama is better than Silicon Valley technophiles at seeing dangers that come with the growing potential for implementing autoevolution. In his own naïve and naturalistic way, he is trying to warn against the same thing Lem was warning against in his own internal polemic with the autoevolutionary project in *ST*. He sees the utopianism of autoevolutionary ideas. He is also right to notice that within the perimeters he has himself laid out it is possible to manipulate “human nature” just wish pharmaceuticals. But by grounding his notion of “human nature” and “dignity”

in sociobiological premises, he deprives his own arguments of any value and reduces them to the kind of rationalist utopia he was trying to avoid.

Fukuyama's fear is not merely a conservative's fear facing the fall of morality caused by technocracy and permissiveness. He is asking about humanity not only in the context of evolutionarily determined genotype and phenotype. He is also interested in historical characteristics, which determine humanism in the posthumanist context. He is trying to answer whether autoevolution would turn us into the characters from *Brave New World* or *1984*. In brief, again we hear anxiety about whether posthumans will retain what is best in people: free will, subjectivity and self-determination. Will they not lose what made their predecessors human, once they improve their bodies? In other words, will they become the Nietzschean *Übermensch*? (Fukuyama resents Nietzsche for his bold rejection of tradition.) Posthumanists do not ask themselves this strictly philosophical question, because even when they do use such old-fashioned terms as "free will," they see it as a product of an oppressive social system, or an old-fashioned metaphysics at best. Lem on the other hand, who understood the significance of such notions much better (and who showed the consequences of "castrating improvement" in *Return from the Stars*), saw them as always linked with the painful and irrefutable dilemmas of the human condition, from which he hoped to liberate us. Golem's message, which I have quoted in Chapter 19, is clear: whatever we become, it will be better than what we have been so far, it cannot be any worse. Even if we take up a form in which the categories of old anthropology will lose their meaning, they will be replaced by a "better existential system," although we may not be able to imagine it now.

We can see here that the discussion about the ethical determinants of human and posthuman existence is theoretically unsolvable. Questions about the ethnicity of these two forms of existence most clearly show how radically different from each other they are. It is easier to produce visions of a cyborg society or a humanity "downloaded" to a computer than to answer questions about emotions, which will organize their world. It is in fact a matter of faith rather than knowledge, because – and it needs to be stated clearly – we are dealing with transcendence here. The posthuman world can be either paradise or hell, but only those who enter it will know. This is one of the reasons why posthumanists avoid such questions – they realize their "rational" ideas will acquire characteristics of religious faith.

25 Hidden Premises Behind Posthumanism

The subject of this chapter has already been started on the final pages of Chapter 24. But it is not the hidden similarity between posthumanism and religious faith that is the most important in order to understand the crucial problems of the doctrine. On the following pages, I will further develop the discussion of philosophical, social and psychological problems implicit to posthumanism and autoevolution.

1 Philosophy

If posthumanists read Kant, or at least Isaiah Berlin, they would probably say: “Since the crooked timber of humanity cannot be fixed, it ought to be cut down, rooted out, and then new planted. The new one will certainly be straight.” The posthumanist utopia is extremely liberal, and its critique is a conservative critique. It is obvious and it is equally obvious what are the main characteristics of liberal and conservative thinking, seen very clearly in the discussion I have just described here. But it is worth it to investigate closer some characteristics, which, I believe, are peculiar to posthumanism only, or at least of all the contemporary types of thinking about the society here they are most evidently present.

Posthumanism unconditionally rejects historicity of the human condition. It rejects the notion of identity of an individual as correlate to tradition and history. In brief, it rejects the historical temporality of human existence. In that respect, it resembles other liberal currents, but it is more radical in one regard. This is because of autoevolution, of course – none of the liberal doctrines assumes that people will reject their history so much, that they will cease to be people. What is it then that is happening with the earlier definitions of human identity?

The notion of *Übermensch* in Nietzsche is connected with a rejection of the past. *Übermensch* constructs his identity on his own, with no reference to tradition, social and moral norms or any kind of models derived from the past. His “amoralism” does not imply a lack of rules, but adopting rules he himself sets up, independently of the consensually determined social norms. Nietzsche was not interested in the possible social consequences of the idea of *Übermensch* nor in the intellectual challenges it poses.

An amoral *Übermensch* is thus also antisocial, because his rules are not created in communication with other people. “A society of *Übermensch*” is a contradiction in terms, because there is no agreement between them about the form of

social existence, which would only be a constraint. If culture is to be understood as correlate to interpersonal communication – *Übermensch* have no culture. They are strictly monadic.

Being an *Übermensch* poses immense intellectual and ethical challenges for anyone who would like to become one. An *Übermensch* needs to create himself anew, build his identity with no support from the outside and independently from the entire “methodology of identity” so far, based on layers of the past. And once he achieves that, all that remains is absolute loneliness. Unless he realizes the gravity of these challenges, his self-determination will be merely a caricature of Nietzsche’s ideas.

At the end of the 20th century, Pierre Hadot, a French historian of philosophy, suggested an understanding of the ancient philosophy, especially Stoicism, as an “existential project.” In his book *What is Ancient Philosophy?* (2002), he claimed that it was only the emergence of Christianity that led to philosophy no longer being treated as a “way of life” and becoming an abstract discourse. The Hellenistic philosophy, understood in the way suggested by Hadot, offers an existential project that is similar to the Nietzschean project of *Übermensch*. In both cases, human identity is understood as **task**, not a **heritage**. In Hellenistic thought, this detachment from past models was caused by a vast change in the condition of existence after the conquests of Alexander the Great and the creation of a universalist monarchy, and then of Hellenistic states. These developments destroyed the Greek notion of social life, shaped by the classical period, almost entirely.

This way Nietzsche and the Stoics are placed on the same continuum: they all call for man to design his own identity independently from any external circumstances, which could determine it. These philosophies are radically anti-social and this is the difference between them and the 19th- and 20th-century emancipatory doctrines, which were to achieve their goals through rules pertaining to the community at large.

What does it all have to do with Lem and posthumanism? I believe that the project of autoevolution is in some ways similar to these philosophies. Completely neglecting the past, tradition and historicity makes posthumans the equivalent of Nietzschean *Übermensch* – if they are to have any identity other than the physical one, they need to create it themselves, with no reference to the external factors. I will leave the question whether an *ex nihilo* identity is possible at all unsolved – it goes beyond the sphere of discourse available here.

Posthumanism can then be described as the most radical emancipatory project. Through it, not only people are to be liberated from the constraints of

history and social norms, but they will also be free from Culture and Nature, and eventually from being human altogether. Deification and self-salvation will happen through renunciation of humanity. It is implicitly assumed that the only way to eliminate the kind of issues that are inherent to human condition is to give up on being human. However, as the veracity (or falsity) of this proposition can only be determined *in actu*, the utopian character of posthumanism seems all the stronger.

In a famous opening passage of *Politics*, Aristotle writes that animals and gods live in solitude, while people have to live in a group, because this is their nature. Posthumanism confirms this view in a peculiar way. As I have tried to show posthuman beings will be unable to live in a group, because rejecting tradition, past and history – and, consequently, rejecting culture and society as well – precludes any kind of group mode of existence. This isolation is not caused by closing oneself in cyberspace, as it was predicted by some popular thinkers (and which Lem describes with more subtlety in his analysis of phantomatics), but by the very core principles of posthumanism. It seems, however, that posthumanists are unaware of these consequences.

What can we compare this state to? Is Stoic “ataraxia,” the eternal “present” without time known to mystics or the Buddhist nirvana something similar? I believe such speculations are pointless. We can have no idea what a self-aware, rational being detached from any past or community would be like. Our entire existence depends on them.

Polish sociologist Jan Strzelecki opens his book *Próby świadectwa* with the following: “If we were – ultimately, with no appeal, no chance and no one to save us – a product of a meaningless explosion of existence bustling in a thousand forms; if we were pure existence...” Contemporary science led us to just such state. This is what we are exactly in science’s light. People thinking in terms of science cannot understand what a work on sense is – and this is what Strzelecki believed to be the most important goal of our existence. But they do understand that man – whether a purely biological creature, or maybe even a product of history and its meanings – is certainly imperfect and does not fulfill the ideals humanity placed in front of him; a man is torn by contradictions that are the essence of humanity. All utopias were born from this perspective. But the posthumanist utopia is unique – because it is science that is to lead to salvation; the very science that first took away the meaning of our existence. The deification is to happen in a machine. Thus scientism becomes mysticism: cyborgs will step out on the banks of the river of time. They will forget Homer, Kant and the Second World War. Forty centuries will still look down on them, but they will no longer be feeling the weight of that gaze.

2 Society

It would not be true to say that all authors interested in posthumanism agree on such radical consequences I have described earlier as entailed by its hidden premises. They are a result of somewhat irresponsible thinking of some theoreticians who treat autoevolution as a process independent from external factors. Many authors try to outline those factors. Because of how “fanatic” posthumanism generally tends to be, most such attempts happen within sci-fi literature. Such writers as James Gunn, Greg Egan or Jacek Dukaj think about the possible **social stratification** autoevolution may lead to. The question is simple: who will be affected? What social groups will have the possibility and willingness to subject themselves to autoevolution and what social tensions may result from that? The problem can be seen as another stage of biopolitics (similar to what Lem describes in parody in “The Twenty-first Voyage”). Some such intuitions can be found in Fukuyama as well, when he considers the negative economic results of biotechnology.

It seems clear that if autoevolution happens in practice on a bigger scale, the first level to be involved will be economy; simply speaking: the costs. At least at the beginning it will be a luxury available only to the wealthiest. As there will gradually be more and more posthuman beings, there will certainly occur a difficult legal and public discussion on their legal status in coexistence with people. All the social process that took place when introducing any important technological innovation will take place. Autoevolution will shift from a purely rational idea (which it is both in ST and in posthumanist texts and which in its pure form could lead to what I have described earlier) to the level of social practice, brimming with random difficulties I have mentioned.

James Gunn (born in 1923), an admired American sci-fi writer, is the author of the novel *The Immortals* (1964), which develops the theme of advanced somatic autoevolution, limited to political and financial elites, isolated from the rest of the society. The most sought-after social role is working in the biotechnological and medical sectors. As a result of the elites’ isolation, the social order is disrupted and individuals mutated through flawed autoevolutionary interventions form a cast of outlaws and criminals. At some point in the novel, it turns out that the members of the social elite did not achieve any kind of perfection through autoevolution – quite the opposite; just like Lem’s H.P.L.D.’s and Borges’s immortals, they became mentally and physically degenerated by the feeling of their omnipotence.

Jacek Dukaj presents a completely different version of events in his book *Perfekcyjna niedoskonałość* (2004).²³⁰ The complex novel is set in the 29th century

230 Jacek Dukaj, *Perfekcyjna niedoskonałość. Pierwsza tercja progresu* (Kraków: WL, 2004).

in the world in which people and posthuman forms coexist in relative harmony within a technosphere permeated by nanomatic devices and controlled by computer software. There is a network of connections between living creatures and computer programs, which allows for complete virtualization of reality. Dukaj gives detailed descriptions of social hierarchies and economic and status competition between the *stahs* (standard *Homo sapiens*) and *phoebes* (posthuman being; the names are honorific). *Phoebes* can program their personality and forms of existence at will. There are higher autoevolutionary forms in this world as well: *inclusions*, similar to the old notion of omnipotent gods. Within my typology they correspond to the category of advanced mental autoevolution. In the novel it is often emphasized that the consciousness and the experiences of the *phoebes* (not to mention *inclusions*) are unavailable to *stahs*. Undergoing autoevolution depends on financial capacity, which is only available to a small percentage of people, and the conventions governing that reality have been laid out 600 years earlier by the industrial and political establishment. Posthuman beings do not fulfill the definition of gender, and Dukaj created a special grammatical conjugation for them.²³¹ Lem's influence is clearly visible in Dukaj's prose, including *Perfekcyjna niedoskonałość*, but there is no place here for a detailed textual analysis to prove it. Yet the vision of autoevolution in this novel can be seen as a literary rendition of the discursive project of ST; the difference is that Dukaj is fully aware how this project is impacted by other factors (i.e., economy, rivalry between individual subjects in fight for higher stages of development, the politics of symbols, etc.). In Dukaj's text, the element of the "ultimate" version of autoevolution, which I have described earlier, takes up the form of complete inaccessibility of the internal life of posthuman beings to people. The problem of retaining identity in a situation when it is possible to shape and transfer it with no limit is illustrated here by the characters' meticulous use of proper forms and rituals.

Ray Kurzweil also allows for dividing people into humans and posthumans. In his *The Age of Spiritual Machines*, he outlines a scenario of how civilization will develop in the 21st century, and under the year 2099, he puts the emergence of a cast called MOSH (Most Original Substrate Human) – as a relic of sorts. The 800 years between Kurzweil's and Dukaj's versions is no accident. The former, in a manner characteristic of American posthumanists, does not

231 It brings to mind Lem's teasing descriptions from "The Twenty-First Voyage," but the problem is completely serious for Dukaj, which is something that connects him with queer theory.

think much about the persisting social issues that have been troubling civilization from the very beginning. So for him, it is not impossible that we will deal with ignorance, poverty and violence within one century. Despite appearances, Dukaj is more of a realist and assumes it will take eight times longer, and even then for him autoevolution will only apply to a small section of the population.

Australian writer Greg Egan (born in 1961) also elaborates on themes of autoevolution in his works. He is currently highly admired in the sci-fi and posthumanist circles (accidentally, Dukaj is a fan as well). His fourth novel *Distress* (1995)²³² is set in 2055, when as a result of advanced somatic and cyborg autoevolution, as well as advanced biopolitics, human population is divided into seven biotechnologically modeled sexes. These are: u-, n- and imen; u-, n- and iwomen (prefixes meaning, respectively, “ultra,” “normal” and “infra”); the seventh sex consists of asexes – individuals renouncing sexual life to avoid being entangled in the “politics of gender,” determining social life. The plot focuses on the announcement of the final version of the physical Theory of Everything and related cognitive complications. Egan weaves into the plot a number of thorough descriptions of political and social conflicts, which occur in the context of advanced biotechnology, “migration of sexes” and possible cultural factors impacting science. The image of the struggle of “two cultures,” which I have described in Part Two of the work, is here led to its radical consequences, and the author strongly opposes the old humanism. Proponents of “traditional” culture are a group of demagogue extremists in Egan’s world. Similarly to posthumanists, but with more understanding of the complex nature of the world, Egan is convinced that the forms of humanism, which have framed our understanding of ourselves for centuries, fail completely when we gain the possibility to determine our identity through pharmacology, surgery and nanotechnology. It is the exact same problem that Fukuyama warned against, except Egan treats it as obvious (just as the rejection of old norms is obvious). In other works, Egan often describes the world of mental autoevolution.

I should also mention an author who is far from science fiction in his work, but who offers his own version of autoevolution. I mean Michel Houellebecq and his novel *The Elementary Particles* (*Les particules elementaires* 1998),²³³

232 Greg Egan, *Distress* (New York: Harper Prism, 1995).

233 Michel Houellebecq, *Atomised*, trans. by F. Wynne (London: Heinemann, 1999); published in the United States as *The Elementary Particles* (New York: Vintage, 2001). Quotes from: *The Elementary Particles*...

which triggered a discussion in Europe on a subject that can be described as follows: are the ideals of modern Western civilization irrevocably over, or can they still be raised from the dead? Houellebecq himself believes the first option to be true and that is why one of the protagonists of the novel, a distinguished biochemist, is working on a project of a “genetic reform” of the human species, after which people would stop reproducing sexually. The project is implemented in the epilogue.

Houellebecq’s novel is interesting to me for a number of reasons, although the project of autoevolution as such has a marginal role in the plot. The asexual utopia of the French writer is a type of *cri de coeur*, inspired by the complete emptiness of the emotional life of the inhabitants of postindustrial Europe; and Houellebecq is deeply convinced that this is the state of Europe. *The Elementary particles* is the only case of a literary description of autoevolution (a somatic one here, with an emphasis on physiology rather than morphology) that is not set in a science fiction environment, but in a tradition of realist novels. The disgust with body and sexuality constantly demonstrated by the narrator and the characters makes Houellebecq resemble Lem and Turing with their obsession of human existence freed of the bodily aspect. (It is no accident that Slavoj Žižek begins his 2001 essay “No Sex, Please, We’re Post-human!” by invoking Houellebecq, Foucault and Turing. Similarly to my own argument, Žižek emphasizes that humanity and human identity are rooted in notions such as historicity, trauma and Heideggerian temporality.) A conversation between two brothers is also significant – the two protagonists of the novel – in brothers Julian and Aldous Huxley. The former, we should remember, is the author of the term “transhumanism,” and the latter – the author of one of the most famous antiutopias based on the concept of technological improvement of man. Houellebecq suggests that both these thinkers were right in predicting a spiritual crisis in the postmodern society and the possibility of overcoming it through autoevolution. In the novel, he includes a number of statements on reducing the role of the past and the disappearance of the sense of existential and cultural continuity in contemporary society, which is to be a harbinger of the posthuman era. Finally, the epilogue tells the story of implementing the project of autoevolution, under the aegis of UNESCO, ending with a success in 2029. The posthuman narrator says around 2075:

There remain some humans of the old species ... Their reproductive levels fall year by year, however, and at present their extinction seems inevitable. Contrary to the doomsayers, this extinction is taking place peaceably ... It has been surprising to note the meekness, resignation, perhaps even secret relief with which humans have consented to their own passing.

Having broken the filial chain that linked us to humanity ... Men consider us to be happy; it is certainly true that we have succeeded in overcoming the forces of egotism, cruelty and anger which they could not ... Science and art are still a part of our society; but without the stimulus of personal vanity, the pursuit of Truth and Beauty has taken on a less urgent aspect. To humans of the old species, our world seems a paradise. (263)

All posthumanists would likely second those words that grasp the very essence of the utopian dreams of autoevolution.

3 Psychology

We can now ask what psychological premises stand behind posthumanist thought? Why some people want to stop being human so much that they write books about it and come up with entire theories? What is the psychological background of posthumanism and autoevolution?

I believe there are at least six possible impulses for the development of such thought. I shall list them starting with the ones I deem most important:

1. **Hatred** of one's own species, caused by its imperfect physical and spiritual form. I have tried to trace it in Lem and Turing. It is also visible in many authors writing on artificial intelligence (AI) and information technology (IT). These are "Turing's men" in a sense proposed by Bolter, accustomed to the precision and "purity" of machines. The "blurriness" of human mind, the indeterminate emotions and all bodily experiences (from illnesses, through age and death, to everyday soiling and secretions) must seem most disgusting to those people, and they often express that. A hundred years ago they would not even have theoretical chances to go outside their race and "oppose nature," but the progress of technology, which made the project of autoevolution possible, also allowed for an "inhuman" plan to free them from the abominable "meat machine." It brings to mind a comparison with the anchorites of the late antiquity who tortured their bodies in a way that would have seemed pathological to us, because they deemed them an obstacle on their way to sanctity. Again, posthumanism becomes an analogue of religious mysticism.
2. **Powerlessness**, or a sense of powerlessness rather. It is caused by a Pascalian disproportion between our bodies and minds and the scale of the physical reality that was unveiled to us by the 20th century science (see Chapter 11). This feeling is most visible in authors who draw visions of omnipotence of posthuman beings (Jacek Dukaj is among them).
3. **Frustration**. The source of it is the sense of ultimate waning of the life force in the Western civilization and a conviction that there is no "normal" way out of the situation. It is most visible in Houellebecq's work. It is also connected

with a sense of fatigue with the questions of body and sexuality in the postindustrial era, as for Elfriede Jelinek who “asked whether she would rather have a different body [hating her own], responds: ‘No, I wouldn’t want a dick like men either. I wish I didn’t have anything. Angels don’t have genitals too.’”²³⁴

4. **Curiosity** – as is well known, it has always been one of the main impulses driving the civilization’s growth. Today, too, it pushes authors to think about “what will happen, when we stop being human?”
5. **Play**. The motif can be found in the writings of some American posthumanists. If technology allows us to carry out autoevolution – let us do it, “just for fun.” Such thinking comes from a complete ignorance about all the issues related to autoevolution, which I have been discussing here. Clearly, the fact that AI experts mostly see people as “meat,” as do gender studies authors (to which I will return again) is mostly a result of a rejection of historicity.²³⁵ If the network of symbols through which we have been explaining our existence to ourselves for centuries has no more meaning, all that is left is the body, that is, as the poet Sekułowski observed in *Hospital of the Transfiguration*, “a pile of meat.”
6. **Fatigue**. This motif is similar to the previous one, but it derives more from an unpleasant feeling that people have already fulfilled their entire existential potential and, if they do not do something spectacular with themselves, they will be facing an eternity of *ennui*. Such approach is typical for people who are constantly hungry for new experiences. This hunger is intensified by most

234 Anna Rubinowicz-Gründler, “Elfriede Jelinek. ‘Nie umiem się niczym cieszyć,’” *Wysokie Obcasy*, October 23–24, 2004.

235 A particularly telling example of such ahistorical (and psychologically ignorant) thinking can be found in Kurzweil’s *The Age of Spiritual Machines* (163–166). He writes about “cybernetic poetry,” that is, poems generated by computer programs. For Kurzweil such poems are in no way different from poetry written by people. It means that he does not understand the role of cultural tradition and the psyche in the creative process that goes into producing a work of art (which could ingratiate him with extreme structuralists). And Roger Schank, a distinguished expert in AI, writes: “I’ve been able to find remarks on the subject by Thomas Aquinas, Montaigne and Aristotle... These people have a vague, hand-waving notion of what consciousness is about, with a religious tinge to it. Their work wouldn’t fly at all in modern academics” (*Third Culture...*, 28). Schank’s arrogance is made even deeper by his certainty that it is him and his colleagues, for example, Daniel Dennett, have actually discovered the essence of consciousness. (By the way, if Schank did not underestimate the old authors so much, he might have a little less regard for his own achievements.)

kinds of contemporary mass culture, which imposes on consumers a desire for ever-new experiences.

This list could go on, but I believe that the six psychological motifs are enough to answer the question posed.

Why does Lem create the project of autoevolution? I believe the first four motifs are the most important for him, and most particularly the first two. This should be clear from the analyses included in Part Two of this book. The question about deeper psychological reasons will have to remain unanswered. Lem is careful to obliterate traces of his own biography and psyche. Yet, some traces can be found in his earliest works and in the novel *Wysoki Zamek*. His negative way of seeing humanity was certainly influenced by his wartime experiences and his medical studies.

Here I end the analysis of the hidden premises behind posthumanism. In Chapter 26, I will be showing the links between posthumanism and some types of postmodernist thinking.

26 Posthumanism and Gender

In the multitude of contemporary intellectual currents, gender studies are now among them most important. As I have suggested a number of times already, placing sex, gender and human body at the center of philosophical and social thought may be caused by the fall of metaphysics and historicism. “Body,” both “sex” and “gender,” as well as “sexuality” are used in this discourse as primary terms describing fundamental elements of the human condition. A full account of gender studies or even its intellectual genesis, even a brief one, goes beyond the scope of this work. By “gender studies,” I mean some types of contemporary feminism – LGBTQ+ studies and queer theory. I believe the way these social theories conceive of history and identity is very similar to how posthumanism understands them. How is it so?

One of the main theses of the gender studies discourse since at least the early 1990s is the “construction of gender,” best laid out by Judith Butler. The thesis is that gender and even biological sex is not a given characteristic we are born with (a “core” of our condition), but a product of complicated norms, conventions and social roles implemented through performance; it is not an element of “nature” and can therefore be modified in all sorts of ways.²³⁶ To prove the thesis, Butler and other authors focus on those forms of human sexuality which have so far never been mentioned or have been treated as odd exceptions because they did not abide by those norms, roles and conventions, by violating and confusing them. This includes above all some “borderline” forms: androgyny; homo-, bi- and transsexuality; hermaphrodites; transvestites; including especially camp and drag – as cultural phenomena; and also all “non-standard” sexual behaviors described medically as paraphilias. Gender studies’ authors analyze these phenomena in detail on many levels (sociology, psychology, political studies, literary studies, media studies, etc.). The fact that “gender games” are the focus of gender studies is the inevitable result of making body, sex and gender main instances of human identity understood in a Nietzschean way. Just as in posthumanism, we are dealing here with the task of constructing an identity without reference to

236 This premise implicitly contains the thesis about invalidation of the opposition between what is Natural and Artificial – and it may be no accident that it is so (if we accept Donna Haraway’s influence on Judith Butler). Thirty years earlier Erving Goffman wrote that social being is a performance, but it probably never occurred to him that this perspective could include biological sex...

tradition, which has been rejected as a source of limitations and repression. If so, if identity is no longer determined by cultural past – it cannot be built with the existing set of cultural symbols (which was still done by early postmodernists), and the only available means of constructing identity is sexuality, especially those kinds of sexuality which were forbidden before. Gender studies can be seen as a “quest for the limits of humanity,” but the quest only happens in the absolutized sphere of sexuality (just as in Sade’s works interpreted by Bataille), because the “spiritual” sphere, which had determined the shape of the Western civilization for at least thirty centuries, was pronounced to be a construction governed by hegemonic discourses, which ultimately boil down to body and sexuality too. In light of gender studies, the only reality directly available to us is the materiality of our bodies (and especially the surface of our bodies) and sensory experiences; and this reality is “most real” when it is vague and is not governed by any norms.

Of all subfields of gender studies, I believe the queer theory is most similar to posthumanism. In this theory, first created in the 1990s, mostly through Judith Butler’s inspiration, both principal premises of gender – that sexuality determined our identity and that sexuality is not conditioned in any way – are developed to the limits of their consequences. Queer theory rejects both the notion of heterosexuality and homosexuality – both are equally fictitious and do not represent the infinite complexity of the real libido. They are replaced by the concept of identity as a continuous process, with final form as its goal. According to theoreticians of queer, human identity should be constantly changing, never fully graspable, always *in statu nascendi*. On the discursive level, this is represented by using the methods of deconstruction in the analysis of the social reality.

How does such premise translate into practice? Can normative identity be truly rejected? It seems that a man who would do that would also face the same problem that appeared when we were considering the consequences of the notion of *Übermensch* and posthuman: **how to create oneself anew?** How to be more than a desiring surface of a body? And just as in the other cases, “a queer human” should have an immense intellectual and spiritual potential in order to face the existential challenge of a “self-made man” and not reduce their odyssey of continuously creating identity to what we see today in mass culture: thoughtlessly adopting the newest ephemeral trends and “serial individualism.” Life as a work of art is a much harder task than one would think. Few can afford to fulfill this ideal.²³⁷

237 In “The Twenty-First Voyage” by Lem, which I have analyzed here, there is a sentence that describes one of the stages of autoevolution of Dichoticans, which expresses the

The assumptions behind the queer theory are the same as the theses of the noblest liberalism: each individual should have a right to freely search and shape their identity. But in a situation when the process of shaping can never end; when each individual is to have their very own, unique identity (and blurred at the same time); when there is no norm pertaining to many, nor even any scale for comparison; finally, when identity is to be constructed based on “blurred” bodies and sexes only, then the very notion of identity loses its meaning. The protagonist of Dukaj’s *Perfekcyjna niedoskonalość* talks about just that when he is speaking about posthuman forms:

These phoebes, who modify themselves... How does it happen? They decide that they’d rather be different and reprogram themselves. And having reprogramed themselves, with the new network of fears and desires, they choose yet another type of phren. And so on, and so on, with no end; and all very honestly. Can they predict and simulate the state of their minds after X modifications? When in the state N they hope for N+1, but do they also want N+1-, N+100? ... Where is identity in this process? Or maybe it is no longer a state but the process itself? (363; translated by OK)

And Greg Egan describes asexes as follows:

Asex was really nothing but an umbrella term for a broad group of philosophies, styles of dress, cosmetic-surgical changes, and deep-biological alterations. The only thing that one asex person necessarily had in common with another was the view that vis gender parameters ... were the business of no one but verself ... What a person actually did in response to that attitude could range from as little as ticking the ‘A’ box on census forms, to choosing an asex name ... all the way to full physical and/or neural asexuality, hermaphroditism, or exoticism. (34–35)

Theoreticians of queer intended to create a model that would best fit the infinitely complex social reality. But when the authors of *queer theory* started to confuse theory with social activism, they forgot about the difference between a description and the phenomenon described, and about Max Weber’s remark that no theory can describe any reality in full and thinking otherwise is one of the biggest mistakes that can be made in the humanities. Just like gender studies, posthumanism and partly like Lem in ST, queer theory forgets that lesson. And, as I have tried to show, in all these cases forgetting it has the same effect of confusing theory and practice, thought and a manifesto, philosophy and ideology – and with best intentions. This is why the anthropological premises adopted by those authors, their belief in the existential independence of an individual, lead

issue well: “when you can be anyone and have any conviction, then you are no one and have no conviction.”

to such extraordinary consequences. Posthumanism, gender studies and queer theory all represent the challenge of absolute egoism: negating all forms of social existence combined with fetishism of individual beings. The result is a loose group of monads.

Authors such as Dukaj and Egan realize what kind of problems are caused by constructing identity independently from all tradition, based only on gender – or lack thereof – and biotechnology. But in their novels they carefully avoid describing the internal life of posthuman beings, especially those aspects of it which for humans are shaped by nonbiological factors. They do not suggest that posthumans are determined solely by their physiological qualities, however imaginatively designed. Hence they produce an impression in the readers that posthuman identity is just as diverse as ours, except it is not revealed in full. But the theoreticians of queer want to grasp identity in its totality – and that is how, without realizing it, they contradict themselves.

The practical aspect of the queer theory is occasionally reduced to complex plastic surgeries today, changing sex or combining male and female features. Of course, in many cases, this is a life-saving option for people who are transsexual and whose “body” is tragically unfit for their “soul.” Sometimes, however, it is more about manifesting one’s power over one’s body, a liberty in shaping it and hence a liberty to shape the most basic elements of identity at will.²³⁸ “Self-creation” even includes sex here (although the word “even” suggests a traditional humanist point of view – in light of the queer theory there is not much more left to be shaped). Another type of such practice is voluntary castration²³⁹ or asexuality – a complete rejection of sexual life caused by a lack of sex drive or a lack of a desire to follow it.²⁴⁰ The emancipatory quality of the queer theory invites such

238 For example, Pedro Almodovar’s films illustrate the transgender problematic. Among such “manifestations of power over one’s body,” we could also mention plastic surgeries in general, especially the radical cases, such as “human lizard” (with green skin and split tongue), “human cat” (with moon-shaped pupils and fur) or “human enigma” (with skin covered in a checkered pattern). This is probably a passing trend, but the very fact it occurred has a lot to do with the theories I am discussing here.

239 This is the subject of a documentary *American Eunuchs*, Italy 2003, directed by Gian Claudio Guiducci. It shows that a significant number of men are getting voluntarily castrated in the United States (a few hundred every year). The main cause is fatigue with one’s sex drive.

240 So far it remains unclear whether asexuality is a psychosomatic disorder, or fourth sexual orientation (although the theoreticians of queer would reject both terms and would likely see it as just a point on the continuum of sexual identities). Egan describes it as one of the forms of existence. It might include cases that would have been

experiments and it is clear we are dealing with a specific type of autoevolution here, limited to surgical and hormonal treatments, and certainly primitive in eyes of “serious” posthumanists. It turns out they were not the only ones who came to the conclusion that it is time for freedom from the chains of biology.

It may seem somewhat surprising that the technological utopia of Stanisław Lem and gender theories have something in common. These two very different areas of thought are dominated by the same conviction that, just as Baron von Münchhausen, we can pull ourselves by hair from the swamp of humanity.

Philosophical and social theories that have been discussed here have their equivalent in visual arts. Body art has existed since the 1960s and the late 1980s brought abject art, the “art of disgust.” Human body, body of an artist or dead body of an anonymous human is the material of art in these currents. Bodies are injured, cut, subjected to all kinds of mechanical and surgical treatments, exhibited as anatomic preparations and finally combined with machine installations. Art theoreticians emphasize the rich intellectual background of such works, derived, among other sources, from accepting body as the only foundation of human condition as imposed by gender studies.

Thus we reach an interesting paradox – a strong desire to become independent from our “natural” conditions leads to a focus on a body deprived of a cultural meaning, treated as a lump of matter – so a focus on this element which is the most “natural” in us. The most abstract philosophical discourse takes as its subject the most material being, rejecting the richness of mediating symbols created by the Western culture. Is it not similar to the “wild” autoevolution, deprived of any supreme meaning, of the Dichoticans in “The Twenty-First Voyage,” where the faith in transcendence was rejected at the beginning?

In the conversations with Stanisław Bereś Lem, lamenting the fall of contemporary art, he said that soon galleries would be exhibiting human stomachs.

described as “frigidity” in the past. J. M. Barrie (the author of *Peter Pan*), Salvador Dali, Glenn Gould, Maurice Ravel, Immanuel Kant, Isaac Newton, John Ruskin, Nikola Tesla and Antonio Salazar are among historical figures deemed today to have been asexual. “Asexuality” is another term that introduced into discourse a phenomenon that had existed in reality for a long time. There are many such terms in contemporary social discourse, including “domestic violence,” “sexual harassment,” “pedophilia,” etc. A thorough analysis of their evolution, similar to what Foucault did for the 18th and 19th centuries, could give us a valuable image of the mutual influence between social and theoretical reality of the late 20th century, of how new notions “discover” previously unnoticed phenomena, and of the extent to which these “discoveries” are projected back on history, impacting the social theory as well.

As usual, this was a correct prophecy. He did not take into account the truly shocking fact that these stomachs will be a result of premises not very different from his own. We may only wonder where the deep belief in our own power of self-creation may lead us.²⁴¹

241 Another possible interpretation of these phenomena is that they signify finally accepting the body as the last element of “nature” in the context of the “artificial” world, or treating it as a sphere of struggle between Nature and Culture. The problem of the body in the Western philosophy dates back, of course, at least to Descartes, and becomes particularly poignant in Merleau-Ponty’s phenomenology. However in this continuum, “body” is the link between the external and the internal world of man, not the center of human identity.

27 Posthumanism and Bioethics

There are a number of dilemmas in the contemporary social theory and practice that can be read through the terms proposed by posthumanism. They are ethical issues related to euthanasia, cloning and all other forms of genetic engineering, as well as gay marriages, and, to some extent, abortion and suicide (although these are much older than the other ones and, like gay marriages, are not a result of technological growth).²⁴² All these practices imply a deep intervention into human identity, as it has been understood in the Western philosophy so far. Following the debates between proponents and opponents of cloning people, one can notice that the main arguments against these practices focus on the question whether people are entitled to determine who is human. Conservative humanists such as Fukuyama claim that the very possibility that such a line could be drawn should be rejected, because human identity is a given determined by the supreme laws of biology. The discussion about abortion is similar in that regard, although the question is somewhat narrower in this case and it is as follows: when does a human embryo receive an individual identity (the extreme position is that it happens the moment a spermatozoon enters an egg cell). In the case of euthanasia²⁴³ and suicide, the discussion is whether people can decide when to end the life of other people (or their own) – it again touches on the issue of individual human identity, as it entails assuming that at some point in life, as a result of physical or spiritual suffering, the existence itself (i.e., continuing an individual's identity) loses its supreme value. Gay marriages on the other hand (as opposed to civil unions) undermine sexual identity in a way similar to what I have described in Chapter 26, because their very existence deprives the traditional understanding of it and its meaning as a union of two people of opposite sexes.

I have already mentioned here that some of these issues arise from the juxtaposition of new technologies with traditional ethical norms rooted in the historical process. In an article that was quoted here at the end of Chapter 19, Lem described this juxtaposition as a “collision between faith and empiricism.” It is

242 I am treating all these issues only peripherally here. Therefore I am not going into any more specific distinctions (e.g., between passive and active euthanasia).

243 For an overview of various perspectives on the subject, see: Marta Zimniak-Hałażko, “Bez bólu. O dobrej śmierci,” in: *Ból* (Gdańsk: słowo/obraz terytoria, 2004), 271–276 (it includes a variety of references).

probably best seen in the cases of euthanasia and cloning. Now these problems can also be described in terms of posthumanism: procedures such as cloning or euthanasia radically undermine the meaning of identity as known so far. One could even claim that the entire cultural heritage does not provide us with clues on how to classify them. And this is not because we do not have enough exempla of these procedures – they are abundant in both history and literature – but because they undermine the very categories this culture has come up with. The “prefigurative” quality of our culture (in a sense proposed by Margaret Mead) touches on the most fundamental categories here: What is a human? Who is human? What does it mean to be human? Of course, those questions have always been asked – but only in a purely philosophical way. These were often decided in practice too – but always arbitrarily. Now, we are expected to answer them practically in a democratic and liberal discussion and procedure. And history cannot help in that, because in the first two centuries of its existence liberal democracy has never taken up those issues either as a philosophy or in policy.

I would suggest that the ethical dilemmas discussed here are a result of the collision of humanism and posthumanism. The default understanding of human identity presented by the supporters of cloning, euthanasia and gay marriages (as well as suicide conceived as a morally neutral deed) is in my view fully posthumanist. The implicit assumption is that individual’s identity is self-created, that it is independent from external factors (and especially from social and moral norms) and that autarchic identity can be freely shaped, created or destroyed with arbitrary convention or individual will – without looking back on the group, intersubjective or social sphere.

I do not wish to limit these issues to pure theory though. In the recent years, there have been many cases when euthanasia was not just a matter of conservative or liberal understanding of identity, but of an actual deep suffering. For example, in 2000, a 20-year-old French fireman Vincent Humbert was paralyzed as a result of a car crash; he also lost sight and ability to speak. However, he remained completely conscious (apart from a few months in a coma). With his right-hand fingers (which were the only ones he could still move), he wrote a book *Je vous demante le droit de la mort*,²⁴⁴ in which he was arguing for his right to terminate his own life. The authorities refused to allow this, but in 2003 Humbert was killed by his own mother (who was subsequently treated in a psychiatric hospital), which sparked a national discussion in France on the admissibility

244 Vincent Humbert, *Je vous demante le droit de la mort* (Paris: Le Grand livre du mois, 2003).

of euthanasia. This case, as many other similar situations, shows that the technological advancement of medicine as an art of keeping people alive is actually in conflict with its own ethical principles – and it has been so for a long time, but up until a few years ago, such cases were not a subject of a broad discussion, because, as with asexuality, there had been no **term** that would make the discussion of the **phenomenon** possible.²⁴⁵ Perhaps it is a temporary situation and we will soon achieve the kind of knowledge that will allow us to return power over their bodies to people who suffer from paralysis (but will we return youthfulness to the elderly without stepping on the way toward cyborg autoevolution?). But even then the dilemmas born on the borderline between humanism and posthumanism will not disappear. They are not just connected to the state of technology, but are a result of how we understand our existence and its limits.

For Aristotle, an object combining categorial features of a few different objects was monstrous. The mythological chimera was an example of such a monster for him – but so was woman. We can now observe this monstrosity on other examples: cyborgs, transgenders, clone, genetic chimeras – the entire posthumanism in theory and in practice is about constantly mixing categories hoping for new better ones to emerge. I will invoke Dukaj here again. His other novel *Inne pieśni* (2002) is set in a world governed by Aristotelian ontology. The protagonists of the novel start a war with *adynatoses* – creatures combining opposite categories in a way inconceivable for “regular” people (hence their name: “adynatos” in Greek means “impossible”). Is it not a grand metaphor of the conflict between humanism and posthumanism? James Shreeve, an American writer in biotechnology, wrote in an article about genetic chimeras: “When we start to blend the edges of things, we’re uneasy.”²⁴⁶

Here I finish this overview of the possible links between posthumanism and social problems connected with postmodernist thought and bioethics. It is merely an outline of the problematic that can direct further interpretations.

245 Even this drama can be found reflected in Lem’s works (although it may seem cynical to look for literary expressions of the issue). In *Memoirs of a Space Traveler: Further Reminiscences of Ijon Tichy*, there is a story of a scholar who, hoping to achieve immortality for his dead wife, put her “soul” in a small box. Ijon Tichy, mortified by the idea of an active consciousness petrified in eternal immobility and darkness, destroys this monument. (Philosophically, it is a *reductio ad absurdum* of the idea of immortality of the soul.)

246 James Shreeve, “The Other Stem-Cell Debate,” *New York Times*, April 10, 2005.

28 Final Remarks

I started this part of the book by discussing the vision of autoevolution in Lem's works (the project as laid out in the final chapter of ST and in two pieces of fiction: the "serious" *Golem XIV* and the "grotesque" version in "The Twenty-first Voyage"). I then tried to read this project as an example of a liberal rational utopia. The following chapters were devoted to discussion and critique of posthumanism – a social and scientific theory and ideology that emerged in the 1980s. I was arguing that the premises behind posthumanism are very similar to the ones adopted by Lem in ST. In the final chapters, I offered an interpretation of posthumanism and other contemporary emancipatory ideas as fulfilling the Nietzschean motif of *Übermensch*, who rejects the past and the norms derived from it in order to create a brand new identity. I also showed the contradiction and difficulties entailed by radical consequences of such ideas. Most of my analyses were based on revealing hidden premises of these concepts.

The discussion of premises, consequences and affinities of Lem's project of autoevolution led me toward various peculiar areas, but also to some of the major problems of contemporary civilization. I have tried to prove the thesis laid out at the beginning of this part: that Lem's essays, especially *Dialogues* and *Summa Technologiae*, are devoted exactly to these issues, even though they are not explicitly the subject of discussion.

Was Lem a posthumanist? No, but unwillingly he became a precursor of the current. Compared with ST, the entire posthumanist discourse is very simple and entangled in social ideologies, which Lem managed to avoid by carefully separating his project from social issues. Lem and posthumanists are very general in their musings on the human condition. Despite planning to change, they are not in the least bit interested in current problems; there is only a rejection of those issues with one swiping move as problems that posthumanism and autoevolution will immediately solve – as utopias do. I need to emphasize that both Lem and posthumanists have the best intentions. They all honestly hope to improve our condition – even at the price of eradicating our humanity.

Conclusion

One plump schoolgirl (she looked about fifteen), peering inquisitively over her spectacles abruptly asked: "And what is it for?"

Solaris, chapter "The Monsters"

Humanists ought not hide behind a distaste for ideologies to avoid participating in the processes of creating, shaping and fading of ideologies, unless they wish these processes to turn again them and their values.

Leszek Kołakowski, "Wielkie i Małe Kompleksy Humanistów," in: Kultura i Fetysze

In his once controversial essay "Tragizm i maski tragizmu," Jan Kott described the works of Conrad and Malraux in terms of tragedy that is defined by characters facing a world devoid of meaning. Kott claimed that tragedy is overcome when individuals enter the world of communal values. The characters in Lem's novels are tragic in a very similar sense, but they do not find a similar solution. They are unable to find meaning in culturally sanctioned activities because culture barely exists in their world. Culture as a reservoir of the past, history and their symbols cultivated in social communication has no place in Lem's novels. That is why their protagonists are absolutely lonely. Their only haven is science, reason and – especially in his early works – the ethos of male friendship rooted in the former two. But Lem frequently undermines all these sources of meaning. It seems that the very possibility of communication between people, based either on shared symbols or simple empathy, is highly problematic in his eyes. Perhaps this is why it was easy for him to come up with plans of autoevolution and was so eager to dive into the world of machines. For Lem, technology neutralizes culture and history.

Who is Lem as the author of "technological" essays? Is he really a positivist, as many of his critics see him? To answer this question, we should look at the four basic characteristics of positivist thinking, as laid out by Leszek Kołakowski²⁴⁷:

1. The rule of phenomenalism. "This may be briefly formulated as follows: there is no real difference between 'essence' and 'phenomenon' ... We are entitled

247 Leszek Kołakowski, "An Over-all View of Positivism," in: *The Alienation of Reason. A History of Positivist Thought*, trans. by N. Guterman (Garden City, NY: Doubleday and Company Inc., 1968), Chapter 1, 1–11.

to record only that which is actually manifested in experience; opinions concerning occult entities of which experienced things are supposedly the manifestations are untrustworthy. Disagreements over questions that go beyond the domain of experience are purely verbal in character” (3).

This is, of course, about ridding the discourse of unnecessary speculative terms, following the principle *entia non sunt multiplicanda praeter necessitatem*. Does Lem follow this rule? When reading *Dialogues* and *ST* superficially, it may seem so, especially if we believe his own declaration of loyalty to it and hostility toward speculative metaphysics. But a problem occurs when we ask whether the subject of his own inquiries abides by this principle. If we assume that the main topic of *ST* is the project of autoevolution, seen as correlate to human rationality (and I have devoted much of the present work to argue that it is indeed so), then we should also accept that among Lem’s implicit premises there is also at least one that refers to a notion that cannot be empirically verified – the idea of rationality itself. Moreover, in Lem’s theoretical writings there are a number of statements that allow for a possibility of there being an element of human existence that could not be reduced to empirical notions, and some of his novels (*Solaris*, *His Master’s Voice*) actually have this possibility as their main theme. It violates the rule of phenomenalism. I would rather say then that the whole of Lem’s thought is more of a proof that he may have intended to be faithful to the rule, but he was not able to fulfill that intention, because throughout most of his creative biography he was struggling with his own “metaphysical temptation.”

2. The rule of nominalism. “[It] comes down to the statement that we may not assume that any insight formulated in general terms can have any real referents other than individual concrete objects” (5).

Lem breaks this rule all the time. In *ST* there are a number of terms that are used as general terms, even though they have no concrete referents, even though they play a vital part in the book’s argument. It is enough to mention “Nature,” “Science” or “Designer.” At the beginning of Part Two, I showed how Lem mixes elements of an academic text and an informal essay. The tendency to use such terms is among those characteristics of his writings that qualify them as informal essays.

3. The rule “that denies cognitive value to value judgments and normative statements” (7). In *ST* there are dozens of such statements (and I have quoted many of them here). It is hard to say with absolute certainty whether Lem sees any cognitive values in them. It is clear, however, that he uses them as arguments. The validity of the project of autoevolution is based on them.

4. The rule of unity of the scientific method. It is about “the belief that the methods for acquiring valid knowledge, and the main stages in elaborating experience through theoretical reflection, are essentially the same in all spheres of experience” (9). Practically it entails subordinating the humanities to science, which we know well from the history of these two fields. Lem does not share such approach at all. In *Dialogues* and *ST*, which are the subject of my inquiry here, humanities are omitted altogether. They include no methodological declarations on acquiring knowledge of the non-physiological sphere of human existence (except cybernetic sociology in *Dialogues*, but even that is treated with some skepticism). I see this absence as a proof that Lem realized that positivism was helpless in that regard. In *The Philosophy of Chance* and *Science Fiction and Futurology*, Lem tried to build a theory of literature based on scientific premises, but he admitted the effects of those attempts were fruitless (that is the content of those books does not constitute a scientific theory in a strict sense). It is another proof of the difference between Lem’s declared positivism and his concrete thinking on human and biological reality. We should also remember that structuralism, which was originally meant to be a “scientific” theory of culture, was strongly criticized by Lem from the very beginning for its senseless use of scientific terms for the analysis of works of literature and art.

So Lem does not follow any of the four main rules of positivism. Or, to be more precise, he does not follow any of them unconditionally. His writings are so rich and diverse that there is enough material in it to prove the opposite thesis too. I have quoted Lem’s sentences that any genuine scientist could claim as theirs. But I think it would not be fair to see Lem merely as a positivist, as it would require omitting many themes of his works which I deem the most important. As a writer he was aware that there is a sphere of human existence which cannot be reduced to positive knowledge.²⁴⁸ The thing is that he opposes the existence of this sphere, as he believes it to be the source of insufferable and unavoidable contradictions of our condition. In that sense Lem, just as Tolstoy, is a fox who wants to be a hedgehog in Isaiah Berlin’s terms. He knows about the irreducible diversity of the world, but despite his better judgment, he wants to find a Grand Rule that would govern and explain it. As I have pointed out a number of times

248 Jerzy Jarzębski emphasizes this duality in his essay *Przypadek i wartości* [“Chance and values”], which presents a thorough analysis of Lem the scientist and Lem the humanist.

already, the project of autoevolution is a means to overcome these contradictions, and as such it is among many noble utopias that present a vision of man who saved himself from his own flaws. In Lem's version (and in its simplified version that is posthumanism), posthuman beings achieve such level of perfection that the entire struggle between Nature and Culture, which plagues our current social and mental existence, becomes as distant as the polemics between Monophysites and Monothelites. In Lem's view, autoevolution is to give us the opportunity to tame the horses in the Platonic chariot and achieve a dream balance of existence, even if it requires rejecting the heritage of a few dozen centuries of culture, philosophy, art and religion, the achievements of which are but a testimony to this hopeless struggle. In this uncompromising vision, humanity is but a sad episode. The autoevolutionary utopia is only a dream of liberation from "the terrible burden of being human."²⁴⁹

We could shrug it off and just say: what kind of fantasies are these? Would it not be better to do something useful? Probably, yes. But I believe – and I am highly aware this judgment is not particularly significant – that the work of Stanisław Lem is one of the most beautiful adventures of human mind.

249 Maria Janion uses this phrase when discussing Zbigniew Kubiak's *Mitologia Greków i Rzymian* in her volume *Żyjąc tracimy życie* (Warszawa: W.A.B., 2003).