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**BETRIZATION AND ETHICSPHERE—TWO LITERARY  
CONCRETISATIONS OF LEM’S IDEA  
OF TECHNOLOGY OF ETHICS**

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**ABSTRACT**

The aim of the article is to reconstruct, analyse and compare two of Lem’s visions which concern the application of the future development of science and technology in order to construct an enhanced society. In other words, two literary concretizations of his idea concerning the technology of ethics. These are *betrization*—presented in the novel *Return from the Stars* and the *ethicsphere*—presented in the novel *Observation on the Spot*. In the “Introduction,” I discuss the specifics of Lem’s philosophizing, both in terms of its form and content, and I identify its main subject as concerning the problem of the influence of technological development on man, society and the sphere of values. Then in the section “Life in an unfriendly world” I discuss the context which provides the background for the presentation of two Lem’s visions of technology of ethics, namely, the Doctrine of Three Worlds, an integral part of the novel *Observation on the Spot*, but its meaning also explains Lem’s motivation to take up the idea of *betrization*. In the section “Life in a society devoid of aggression and risk,” I discuss a hypothetical society subjected to *betrization*—a procedure that eliminates aggressive tendencies. In the section “Living in a completely safe environment,” I discuss a hypothetical society living in an *ethicsphere*, that is, an “intelligent” environment programmed to care for the safety of its members; I also present a brief comparison of *betrization* and the *ethicsphere*. I conclude the paper by indicating where Lem’s considerations figure within the typology of utopia proposed by Bernard Suits.

**Keywords:** Stanisław Lem, technology, ethics, evil, *betrization*, *ethicsphere*, the Doctrine of Three Worlds.

## INTRODUCTION

Lem's philosophizing, which is present both in his literary work and his essayistics, is philosophizing in the context of science but understood differently than in the case of, e.g., Michał Heller's conception. Lem, drawing on his interest in science studies, takes up the problem of technological development's impact on culture and the sphere of values. Just as the question whether the progress of sciences and arts can contribute to the purification of morals may be viewed as the starting point of Jean Jacques Rousseau's philosophy, a similarly basic question for Lem was whether the future development of science and technology could help minimise evil in the world. Specific in Lem's case was that he undertook his future-oriented reflections in different but connected works, of which many—including some of prior importance—were novels, which for various reasons makes interpretations of his thought difficult. The specificity of Lem's complex work might be described as philosophy, futurology and fantastic prose in the context of science and technology.<sup>1</sup> These three components appear to a varying degree in different works by Lem, usually as parts of a greater whole. This is well illustrated by Lem's own commentary on the writing of *Observation on the Spot* —although it also applies to his other writings, including *Return from the Stars*. Lem said that a novel's job was to address problems “which I take quite seriously since I consider them to be problems that humanity will have to solve in its real future.—But I may not discuss such problems in the abstract way I did in my *Summa Technologiae*,<sup>2</sup> no, everything must be presented as a story, as something that has already happened somewhere. Now then, this is the nature of my work, this is how it looks.”<sup>3</sup> In the case of the two abovementioned novels—the main focus of this article—the problem is the assessment of certain, according to Lem empirically possible, development variants of the technology of ethics. By “the ethics of technology” Lem understands the impact of technological evolution on ethical norms observed in a given society.<sup>4</sup> It is noteworthy that Lem understands ethics as “an unwritten part of the rules of the ‘game of society’,”<sup>5</sup> whereby it appears that this part is more numerous than the set usually held to embrace ethical rules. Lem perceives “the technology of ethics” dually: first, as a search (based on empirical research) for the technical means enabling the construction of

<sup>1</sup> I wrote about these components in: F. Kobiela, *O obliczach twórczości Lema* [The Facets of Lem's Writings], *Znak* 9, 2021, pp. 89–94.

<sup>2</sup> The extensive essay *Summa Technologiae* is, to some extent, a matrix for many of Lem's later reflections.

<sup>3</sup> S. Lem, *On the Genesis of Wizja Lokalna* [Eyewitness Account], transl. by Franz Rottensteiner & Istvan Csicsery-Ronay, Jr., *Science Fiction Studies*, 13 (3), 1986, p. 384.

<sup>4</sup> S. Lem, *The Ethics of Technology and the Technology of Ethics*, in: idem., *Dialogues*, transl. by B. Butko, MIT Press, 2021, p. 242.

<sup>5</sup> *Ibidem*, p. 252.

formal models of ethical phenomena.<sup>6</sup> Secondly, such a programme of ethical phenomena studies<sup>7</sup> could lead not only to the construction of models reflecting the change processes taking place in ethical norm systems<sup>8</sup>, but also, as a technically-reinforced equivalent of applied ethics, “an attempt to harness instrumentalities to serve ethical directives.”<sup>9</sup> The technology of ethics in this second understanding entails the development of a system of directives aimed at creating “the ideal societal structure,”<sup>10</sup> hence one can say it is utopian in character (I will return later to how this utopian character is understood). In Lem’s view technology can function as an “ally” of ethics—at least in minimising evil by preventive measures.<sup>11</sup> The common factor in both of the here-discussed projects—betrization and the ethicsphere—is that they can both be regarded as exemplifications of the technology of ethics in the latter understanding: the technology used in the case of betrization can be described as the “biotechnology of ethics,” and in the case of the ethicsphere as the “nanotechnology of ethics.” Both projects can also be seen as thought experiments serving the assessment of certain technologies of ethics as attempts to create a society less burdened by elements of evil.

### LIFE IN AN UNFRIENDLY WORLD

One of the philosophically more interesting components of *Observation on the Spot* is the Doctrine of Three Worlds (which should not be confused with Popper’s Three Worlds). In the novel, it is explained by Xirax—the Entian Plato and the author of the Ontomision theory,<sup>12</sup> which says the world is unfriendly. I limit my review of the Doctrine of Three Worlds to issues directly related to ethics and technology, and bypass its epistemological and theological elements. Here are the opening words of Xirax’s treatise:<sup>13</sup>

“To be neutral means to be indifferent or just. The neutral gives an equal chance to everything, the just measure everything with the same measure.

<sup>6</sup> Ibidem, p. 243.

<sup>7</sup> Ibidem, p. 242.

<sup>8</sup> Ibidem, p. 270.

<sup>9</sup> Ibidem, p. 243.

<sup>10</sup> Ibidem, p. 278.

<sup>11</sup> Ibidem, p. 272.

<sup>12</sup> This Lem’s neologism is a combination of the Greek “*ontos*”—being, and “*misos*”—I hate.

<sup>13</sup> Lem to some degree distances himself from Xirax’s theory: “If I thought alike in everything, I would have come out with the theory myself instead of inventing a mediator”, S. Lem, S. Bereś, *Tako rzecze... Lem. Ze Stanisławem Lemem rozmawia Stanisław Bereś* [Thus spoke... Lem. Stanisław Lem in conversation with Stanisław Bereś], Wydawnictwo Literackie, Kraków 2002, p. 403.

1. The world is not just, because: it is easier to destroy than to create; it is easier to torment than make happy; easier to lose than save, easier to kill than revive.
2. Xigronaus says that it is the living who torment, lose and kill the living, hence it is not the world that is unfriendly to them, but they to each other. But also he whom no one kills, must die, killed by his own body, which is of the world, because from where else could it be? We will say therefore: the world is unjust to life.”<sup>14</sup>

Here we have the speculative expression of one of Lem’s main pre-philosophical beliefs, one that brings to mind the Buddhist Noble Truth about suffering: the world is not a place that encourages life. Xirax then reflects on the possible types of worlds:

“Can one imagine a world other than this? There are two such worlds. In the neutral one it would be equally easy to destroy as to create, to lose as to save, to kill as to revive. In the generally friendly world, the one that is on the side of good, it would be easier to save, create or make happy than to lose, kill and torment.”<sup>15</sup>

Thus, from the perspective of life, worlds divide into neutral and non-neutral, and the latter into friendly and unfriendly. These distinctions are suggestive and intuitively clear, however the vagueness of some key terms makes defining their meaning in more detail difficult. For example—are unfriendliness and friendliness gradable? If so, then we could say that a world radically unfriendly to life is one that makes its emergence impossible, and as our world does allow the existence of life, it cannot be radically unfriendly to it. Thus, Xirax’s reflections aside, let us assume that, because reducing the world’s unfriendliness is one of humanity’s main pursuits, there are levels to which a world can be unfriendly or friendly. Lem claims that culture transforms the character of the world from unfriendly to relatively friendly,”<sup>16</sup> an example of which are the existing institutional safeguards against contingency.

Many of Lem’s statements support the theory that we are inhabiting an unfriendly world.<sup>17</sup> This is also confirmed by his views on human nature (an anthropological pessimism, in which he linked the inclination to commit evil with human evolution),<sup>18</sup> on the evolution theory (which he compared to the

<sup>14</sup> S. Lem, *Wizja lokalna*, Wydawnictwo Literackie, Kraków 1982, p. 134. Alongside the world’s unfriendliness to life, Xirax’s philosophy also reflects on its unfriendliness to reason in hiding its laws from the mind.

<sup>15</sup> *Ibidem*, p. 135.

<sup>16</sup> S. Lem, S. Bereś, *Tako rzeczy ...*, op. cit., p. 398.

<sup>17</sup> Lem says: “*ad usum Delphini* I am prepared to defend the thesis about the unfriendliness of the world”, S. Lem, S. Bereś, *Tako rzeczy ...*, op. cit., p. 403.

<sup>18</sup> However, some of Lem’s writings carry a different message (e.g. the story “The Inquest” from the Pilot Pirx series) so his anthropological pessimism may not have been all too extreme.

Holocaust) or on human history (which he saw as full of cruelty). An interesting light here is thrown by Lem's own life experiences, like being forced into hiding during the German occupation of Lviv because of his Jewish origin. According to Agnieszka Gajewska,<sup>19</sup> his writings contain frequent references to his wartime life. Very characteristic here is this statement by Lem:

"I wish I could open my eyes one morning and realise with relief, that everything that has happened to me and the world since I finished grammar school was a bad dream. That I had only dreamt about the second world war, the concentration camps, the occupation of Poland and other countries, the 'final solution' to the Jewish problem, the disarmament conferences, the Club of Rome, the nuclear debates, the crises, etc."<sup>20</sup>

Lem adds bitterly, that after waking he would probably feel ashamed for having ascribed such murderous instincts to humanity, and for proving those who accused him of misanthropy right.<sup>21</sup> To conclude the issue, let me quote an important observation by Jerzy Jarzębski: "The horror of war inspired him [Lem – F.K.] to repeatedly attempt to tackle the problem of creating a happy and secure society. Indeed, he saw this as an evident obligation for scientists and philosophers, which can be clearly seen in *The ethics of technology and the technology of ethics*."<sup>22</sup> This does not mean, however, that he viewed such attempts uncritically. On the contrary, he was rather inclined to think that their disadvantages dominate the benefits, and the good intentions of reformers lead to evil.<sup>23</sup>

### LIFE IN A SOCIETY FREE OF AGGRESSION AND RISK

In *Return from the Stars* and *Observation on the Spot*, the starting-point of Lem's reflections on evil are acts of physical violence against other people. This appears to be fully understandable in view of Lem's earlier-mentioned belief in the world's unfriendliness. In the first of these two novels the key term is aggression (or aggressiveness) understood mainly as the disposition

<sup>19</sup> Cf. A. Gajewska, *Holocaust and the stars: the past in the prose of Stanisław Lem*, transl. into English by K. Gucio, Routledge, 2021.

<sup>20</sup> S. Lem, *Moje trzy życzenia* [My Three Wishes], *Przekrój*, 1863–1864, December 21; 28, 1980, p. 17.

<sup>21</sup> This context lends true dramatism to the closing sentence of *Observation on the Spot*, whose protagonist has, despite all efforts, not managed to come awake, and therefore states: "there was no other reality", S. Lem, *Wizja lokalna*, op. cit., p. 308.

<sup>22</sup> J. Jarzębski, *Etyka społecznej technologii* [The Ethics of Social Technology], 2022; [www.komet-lem.de](http://www.komet-lem.de).

<sup>23</sup> This is excellently illustrated in the Lem story *Kobyszcę* [In Hot Pursuit of Happiness]. For more on this problem in Lem's fiction, cf.: M. Szpakowska, *Dyskusje ze Stanisławem Lemem* [Discussions with Stanisław Lem], Open, Warszawa 1997, p. 171.

to commit such acts. The ethical rule that forbids acts of aggression could, for instance, be formulated as follows: “do not commit acts of aggression.” This rule is primarily a moral one and, importantly, present here is also the issue of risk, i.e. action that exposes its subject to physical danger—which is especially evident in *Return from the Stars*. The appropriate rule here, therefore, would be: “do not expose yourself to danger.” This rule is primarily securitological, i.e. aimed at preserving safety. To distinguish it from the above-mentioned moral rule, we can also call it a prudential rule. The two novels provide two different answers to one question: how to plan a society that does not violate such rules.

From the philosophical point of view *Return from the Stars* could be seen as a thought experiment aimed at pinpointing the possible social effects of a hypothetical deprivation of the human population of all aggression and the inclination to take risks (later, I will treat *Observation on the Spot* in a similar way). From this perspective, the cognitive aspirations of the novel might consist in a vivid presentation of certain alleged social and sociological regularities, and thus make a certain contribution to the technology of ethics. Every thought experiment consists of a certain initial situation, a base (in *Return from the Stars* this initial situation are the remarks about betrization, which are not part of<sup>24</sup> the world represented in the novel), and a result achieved from the base by way of certain assumed regularities.<sup>25</sup> What does the base of a thus-constructed experiment look like?

The novel’s main protagonist, the astronaut Hal Bregg, returns to Earth after a ten-year (for him) journey to Fomalhaut and, due to the effects of relativity, finds it 127 years older. The biggest change to take place on his native planet during this time is *betrization*, a commonly administered, obligatory operation which permanently modifies the biology of those that undergo it. Its effect is a blockade on the aggressive inclinations that exist in people, in other words, their “betterment”—which may possibly have something to do with the origin of the term *betrization* (although in the book it comes from the names of three scientists—Bennet, Trimaldi and Zakharov— who were Bregg’s contemporaries and developed his theory)<sup>26</sup>. Its chief aim is the “humanisation of humanity,” betrization consists in acting on “the developing prosencephalon at an early stage in life by means of a group of proteolytic enzymes.”<sup>27</sup> The operation’s effect is “the reduction of aggressive impulses by 80 to 88 percent in comparison with the

<sup>24</sup> A feature of the novel’s represented world in its role as the base of a thought experiment is excessive redundancy—the creator of this world also presents themes that might even collide with the main thread extracted here.

<sup>25</sup> A. Brożek, *Cugle dla wyobraźni* [A Bridle on Imagination], *Filozofuj!*, 3(45), 2022, pp. 12–15.

<sup>26</sup> Lem S, *Return from the Stars*, transl. B. Marszał, F. Simpson, Harcourt Brace Jovanovich, New York, 1980, p. 118.

<sup>27</sup> *Ibidem*, p. 119.

nonbetrized; the elimination of the formation of associative links between acts of aggression and the sphere of positive feelings.”<sup>28</sup> The operation does not modify intelligence or personality, hence people who have undergone are like they were before, only deprived of aggressive feelings: Eighteen percent of the betrized subjects were capable of pretending to commit murder, for example on an effigy, but their belief that they were dealing with an inanimate doll had to be on the level of absolute certainty.”<sup>29</sup> Importantly, alongside eliminating aggression, the operation also causes “a general 87 percent reduction in the possibility of accepting personal risk to life”<sup>30</sup>. Thus, Bregg arrives to find a society in which there is neither aggression nor risk, but, as he finds out from written sources, this is not a matter of prohibition, but non-compulsion. Betrized humans do not kill because “it could not enter his head”<sup>31</sup>.

Thus, one can say that the effect of betrization is the permanent deprivation of subjects of any motivation to undertake action aimed at violating the “do not undertake aggressive or risky action” rule. Presumably, “it could not enter his head” should be taken to mean that possible visualisations of such acts by the subjects do not motivate them to turn vision into reality. A more radical interpretation, according to which the subjects are incapable of even imagining such acts, would impose a cognitive restriction on the subject, which in turn would run against the principle that intelligence and personality remain untouched.

What, then, is the result of this experiment, this vision of a society created by the humans described above? In light of Lem’s programme of the technology of ethics as the art of modifying the influence of technology on ethics, its reliable assessment would be possible through insight into the laws that bind the subjective characteristics of individuals with the properties of social structures. The replacement of such modification by the imagination—as in the case of a literary work—can lead to valuable cognitive findings if the imagination is subject to restriction in the form of correct inference. Thus, a group of astronauts returns to Earth from the stars to find a radically changed society, and it is precisely the description of this society that can be viewed as the result of the thought experiment. To Bregg’s eyes, this society presents a highly unsatisfying picture: it is deprived of cognitive passion, deeper emotions and a meaningful spiritual culture. The suggestion here is that betrization, alongside its evidently positive sides, especially the elimination of aggression and its derivatives (e.g. wars), also has some serious drawbacks. For Bregg, betrization’s key fault alongside its

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<sup>28</sup> *Ibidem*.

<sup>29</sup> *Ibidem*, p.121.

<sup>30</sup> *Ibidem*, p. 120.

<sup>31</sup> *Ibidem*.

downgrading effect on culture is that it restricts human freedom<sup>32</sup>. Contrary to plan, “humanising humanity” has rather led to its dehumanisation: “it occurred to me that this destruction of the killer in man was a disfigurement.”<sup>33</sup>

A good illustration of the discrepancy between the conduct of the astronauts and the betrizated members of this aggression-free society comes in one of the novel’s culminating scenes, when Bregg and Olaf engage in a boxing match.<sup>34</sup> During the fight, Bregg realises that it is being watched by a member of the local community who is not betrizated, hence unprepared for such shocking sights:

“For the next minute he bombarded me with blows. The gloves struck my forearms with an appalling sound, but harmlessly. Once I barely dodged in time, his glove grazed my ear, and it was a roundhouse that would have decked me. Again we circled. He took a blow on the chest, a hard one, and his guard fell, I could have nailed him, but I did nothing, I stood as if paralyzed—she was at one of the windows, her face as white as the material covering her shoulders. A fraction of a second passed. The next instant, I was stunned by a powerful impact; I fell to my knees. ‘Sorry!’ I heard Olaf shout. ‘Nothing to be sorry about ... That was a good one’ I mumbled, getting up.”<sup>35</sup>

Lem’s suggestive prose often makes readers think that the critique of betrization in the novel is based on assumptions about betrization itself—which is debatable. When viewed as a hypothetical human enhancement project and independently of the context it functions in the novel, betrization appears to have as many good sides as faults.<sup>36</sup>

What raises the biggest doubts, however, is the experiment’s initial assumption about a close bond between aggression and the inclination to risk. If there is no necessary connection here—which seems highly probable (even if the inclination to take risks sometimes does accompany auto-aggressive inclinations)—then it is possible to imagine a less invasive betrization procedure, which reduces aggression without eliminating the

<sup>32</sup> For a review of arguments against betrization, cf. F. Kobiela, *Kraina łagodności? Betryzacja w „Powrocie z gwiazd” Stanisława Lema jako filozoficzny eksperyment myślowy* [Land of Gentleness? Betrization as a Philosophical Thought Experiment in Stanisław Lem’s *Return from the Stars*], in: *Filozoficzne aspekty literatury. O różnych porządkach aksjologicznych i ontologicznych* [Philosophical Aspects of Literature. On Different Axiological and Ontological Orders], ed. A. Skąła, Lublin 2022, pp. 36–46.

<sup>33</sup> S. Lem, *Return from ...*, op. cit., p. 39.

<sup>34</sup> For more on aggression in sport in a betrizated society, cf. F. Kobiela, *Can Sport Exist without Aggression? On a Certain Thought Experiment by Stanisław Lem*, *Studies in Sport Humanities*, 29, 2021, 19–25.

<sup>35</sup> S. Lem, *Return from ...*, op. cit., pp. 150–151.

<sup>36</sup> For more on this, cf. P. Swirski: *Betrization Is the Worst Solution ... Except for All Others*, in: idem, *Stanisław Lem: Philosopher of the Future*, Liverpool University Press, Liverpool 2015, also: N. Szutta, *Powrót z gwiazd i projekt udoskonalania człowieka* [Return from the Stars and the Human Enhancement Project], *Filozofuj!* 5 (41), 2021, pp. 32–33.



readiness to take risks. This is important, because the novel's description of the effects of betrization focuses on the benefits of eliminating aggression and the drawbacks of eliminating the will to take risks—at least this is how one may understand this depiction of a world cauterised of emotion and cultural life, to say nothing of risk-entailing ventures like exploration.<sup>37</sup> Would a modified experiment, where the betrization process would only eradicate aggression, be more interesting than the original version in the context of our main issue—the technology of ethics? The answer to this question largely depends on the rank we ascribe to the two earlier-mentioned rules—"ethical" and "securitological". From the point of view of morality understood as concern for the good of others, the first rule is more important and the modified betrization experiment would be a better starting-point for an ethical debate cleansed of "securitological" elements. Quite evidently, though, Lem showed little interest in this perspective, which is also well visible in the case of the ethicsphere. Therefore, it may be assumed that Lem's true concern in *Return from the Stars* is security, and betrization, a procedure that removes inclinations to acts that may endanger security, is a means towards the achievement of an ideally secure society. Contrary to what one may expect, neither aggression as such, nor ethics play any key role in the novel. It is, much rather, a literary representation of the idea that the biotechnological improvement of society through the elimination of its inclinations to tackle danger, though effective in its basic, securitological dimension, incurs very serious axiological costs.

### LIFE IN A COMPLETELY SECURE ENVIRONMENT

Unlike the rather serious-toned *Return from the Stars*, *Observation on the Spot* is part of Lem's philosophical, but also rather humorous Ijon Tichy cycle. Here, Lem develops a theme he began in *The Star Diaries*,<sup>38</sup> and presents an extensive picture of the planet Entia, its inhabitants the Entians, who are intelligent birds, its natural history, as well as the history of its culture and civilisation. While *The Star Diaries* contains—as Wojciech Żelaniec put it—only "ontological crumbs"<sup>39</sup>, *Observation on the Spot* is almost

<sup>37</sup> One has the impression that *Return from the Stars* downplays the benefits of the absence of aggression and underlines the negative sides of the absence of risk. Presumably, this can be attributed to the novel's deliberately "anti-utopian" character.

<sup>38</sup> S. Lem, *The Fourteenth Voyage*, in: idem, *The Star Diaries*. transl. by M. Kandel, The Seabury Press, New York, 1976.

<sup>39</sup> W. Żelaniec, *Okruchy ontologiczne w powiastkach filozoficznych Lema* [Ontological Crumbs in Lem's Philosophical Tales], in: A. Głąb (ed.), *Filozofia i literatura. Antologia tekstów* [Philosophy and Literature. An Anthology of Texts], Wydawnictwo Naukowe Semper, Warszawa 2011, pp. 294–306.

a compendium of Entian philosophical and religious thought, headed by the earlier-mentioned Doctrine of Three Worlds.

The starting-point of *Observation on the Spot* is Ijon Tichy's fourteenth stellar voyage, during which he travelled to the planet Enteropia. However, due to a misunderstanding, Tichy took the planet's moon for the planet, and must now rectify his mistake.<sup>40</sup> In effect, Tichy travels to the planet Entia to carry out an "observation on the spot," and finds a civilisation divided into two mutually hostile states—Kurdlandia and Luzania. This is what Lem said about the novel when he was still writing it: "I intend the tale to be both an allegory on terrestrial conditions (i.e., the East-West conflict), and an attempt to describe how a liberal society might look, which "breeds" a "synthethics"—a synthetic ethics—in the environment, to counter the collapse of ethical norms (italics F.K.)."<sup>41</sup> In its conceptual layer *Observation on the Spot* addresses a very broad spectrum of issues related to epistemology, politics<sup>42</sup> and the technology of ethics. I will focus on the latter. The attempted transformation of an unfriendly world into a friendly one on Entia led to the creation of an artificial environment—the ethicsphere. The ethicsphere is a combination of two conceptions which already appeared in Lem's earlier works: the dispersive-nanotechnological idea<sup>43</sup> and the conception of "naturalising" or "physicalising" rules.<sup>44</sup> The aim of the ethicsphere project is "the eradication from society of crime, poverty, failure, and all other evil."<sup>45</sup> The task of the artificial environment is to behave in the domain of ethics in the same way as the natural environment does in the domain of physics.<sup>46</sup> Therefore, this would, in a sense, "physicalize" the formulation of Kant's categorical imperative known as the Formula of the Law of Nature. The ethicsphere (or synthetic culture—"synthtiture") owes its functioning mainly to the "quickies"<sup>47</sup> or "viruses of goodness," i.e. microscopic logic circuits. The Entians' entire environment is refined by these nanobots, which form an intelligent network capable—in Tichy's eyes—of changing the environment in a truly magical way and with almost immediate effect.

<sup>40</sup> The novel's working title was *Rectification*.

<sup>41</sup> S. Lem, *On the Genesis of Wizja Lokalna ...*, op. cit., p. 382.

<sup>42</sup> For more on this, cf. J. Jarzębski, *Science fiction a polityka – wersja Stanisława Lema* [Science-fiction and Politics—Stanisław Lem's Version], *Pamiętnik Literacki*, 74 (2), 1983, pp. 83–113.

<sup>43</sup> The application of nanotechnology appears in the form of the "necrosphere" in Lem's earlier novel *The Invincible*.

<sup>44</sup> An example of a work in which this issue is addressed is Lem's apocryphal *The new cosmogony*.

<sup>45</sup> S. Lem, *Wizja lokalna*, Wydawnictwo Literackie, Kraków 1982, p. 146–147

<sup>46</sup> S. Lem, *Filozofia przypadku. Literatura w świetle empirii* [The Philosophy of Chance. Literature in the Light of Empiricism], vol. II, Wydawnictwo Literackie, Kraków 1998, p. 158.

<sup>47</sup> Precisely because of the quickies' role in the functioning of the ethicsphere, one could propose the term "quickification" (by analogy to "betrization") to describe the process by which the quickies refine the environment.

Whereas a betrizated society does not violate moral and securitological rules because it has no motivation to do so, the absence of such violations in the ethicsphere should be rather ascribed to the ineffectiveness of attempts to commit them. Each action identified by the quickies as a violation of the rules is neutralised. Thus, the ethicsphere has two tasks: to identify action that infringes on the moral and securitological rules, and, if such action is identified, to neutralise it. In the case of the moral rule identification involves monitoring the physiological symptoms of aggression (in the case of possible perpetrators) and fear symptoms (in the case of possible victims). Theoretically, therefore, a well-matched sadomasochistic couple would have nothing to fear from the quickies. The mechanism by which law-infringing action is neutralised depends on the situation at hand, but in each case involves cooperation between the quickies and Entian solid-body technology. A humorous illustration of how the ethicsphere works is provided in the scene where the Director of the Institute for Environmental Refinement gives Tichy a practical lesson:

“Please be so kind and slap my face.” [...]

I decided to slap his face if that was what he wanted, and we stood facing each other. I swung out somewhat cautiously, because I didn't want to knock him off his feet, and froze with my hand up, because something had stopped me. It was my jacket sleeve, which had petrified into a metal pipe. I tried to at least bend my arm in the elbow, and I partly succeeded with tremendous effort.”<sup>48</sup>

As the intention to deal the blow waned, the sleeve gradually softened and returned to its previous form.

“How does this happen?”, I asked. [...]

“An aggressive intention causes changes in the organism. Adrenaline enters the blood, the muscles contract slightly, the ionic equilibrium changes, and with it the electric charge in the skin,” the Director said.

[...]

“And what would happen—I interrupted moved by a new thought—if I took my jacket off?” [...] “I see... my shirt is stiffening already...”, I concluded brightly. “And if I took off my shirt too?”

“Please be my guest and take off your shirt,” he said in an eager, outright enthusiastic voice, as if I'd uttered a wish he did not dare to express. “Please feel free...”.

[...] I methodically untied my tie and, naked from the waist, hitched up my trousers and asked:

“May I, Director?”

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<sup>48</sup> S. Lem, *Wizja lokalna*, op. cit., p. 246.

He moved his face up too close to me, and I didn't say anything anymore, but swung out on lightly spread legs—which flew out from under me as if the floor were made of oiled ice, bringing me crashing to the floor.”<sup>49</sup>

The specifics of this aspect of the ethicsphere have been aptly described by Adam Grobler: “People can be evil if they want, but only with a powerless evil. They can clench their fists, but these fists Will not reach their target.”<sup>50</sup> However, does the ethicsphere really ensure the impossibility of realising evil intentions? Its main strategy in neutralising acts of physical violence is to transform clothing into a kind of strait-jacket; and the most commonly chosen way to try and circumvent the quickies is to undress. This, however, is doomed to failure owing to the omnipresence of the quickies (outside the confines of the body).<sup>51</sup> Compared to the earlier-mentioned boxing fight between nonbetriated astronauts, the above scene may make it look like a tragicomical scuffle. Lem, however, suggests something else:

a change in the qualification of the act (if undertaken in good will) will be correlated with other physiological reactions, which in turn will enable the “differentiating action of the quickies.” Technology developed from today’s lie-detecting gear will “increasingly develop the ability to differentiate between situations involving play, sporting activity or sexual activity and situations involving the initiation of criminal activity.”<sup>52</sup> The better the quickiesphere becomes in identifying “inappropriate” actions, the fewer areas of life will be exposed to its over-protective and less-desired side. Perhaps, therefore, unlike in a betriated society, boxing or mountain-climbing would be possible, though under full security measures, as alongside the “moral” aspect of the quickies’ functioning there is also the securitological one.<sup>53</sup> The ethicsphere’s securitological functions are even more apparent than they are in betriation, hence all collisions will be amortised, all poisonous substances neutralised, etc.<sup>54</sup> Added to this are the

<sup>49</sup> Ibidem, pp. 247–248.

<sup>50</sup> A. Grobler, *Ulepszyć ludzką naturę?* [Enhance Human Nature?], *Filozofuj!*, 5 (41), 2021, p. 58.

<sup>51</sup> In relation to this, as well as certain aggressive strains in the erotic sphere, Lem wrote jokingly: “Evil tongues said I had supposedly made sex impossible for people, because [...] someone who was too lively in bed would be tied up by his own pyjamas,” S. Lem, *My Three ...*, op. cit. Lem attempts to refute the accusation, and—quite rightly—suggests discarding the pyjamas, as if forgetting that this is not enough to evade the quickies, who are also present in the air.

<sup>52</sup> S. Lem, *Filozofia przypadku*, op. cit., p. 163.

<sup>53</sup> Lem claimed that the motivation to climb mountains without any risk will wane, cf. S. Lem, *The Philosophy of Chance*, vol. II, op. cit., p. 166. The value at stake here is voluntariness in undertaking unnecessary risks; a good illustration is the story *The Accident*, in which a certain robot undertakes to climb an extremely dangerous mountain, cf. S. Lem, *The Accident*, in: idem., *More Tales of Piri the Pilot.*, transl. by L. Iribarne et al., Harcourt Brace, New York, San Diego, 1982.

<sup>54</sup> In a semi-mocking tone, Lem wrote: “weaponry like rockets, grenades, bombs and other missiles move with great speed. So these particles (the quickies—F.K.) will take away the kinetic energy of anything that moves very fast.” This is how the pacifistic quickies will eliminate bomb

prophylactic and medical properties of the quickies—the “positive viruses” (a new idea in relation to betrization), who not only efficiently administer preventive medicine, but can even ensure a certain kind of immortality. If we now view this environment as the base of a thought experiment, we will arrive at the society striving to free itself from the ethicsphere described in the novel. Characteristic here are trips to quickie-free Kurdlandia, which offers a natural environment. The arrival of Tichy, an alien from another planet and a novelty for the quickiesphere, eventually culminates in his kidnapping and attempted murder.

The ethicsphere occupies a special place in Lem's reflections on improving social life. As Jerzy Jarzębski writes: “a technological approach to ethical issues and social health can count on nothing better than the ethicsphere.”<sup>55</sup> Deprived of betrization's main fault—interference into subjectivity—the ethicsphere can be expected to provide more opportunities for creating the friendly world. The ethicsphere shown in *Observation on the Spot* is a subject of debate in the book itself, and is further discussed in Lem's own commentaries (especially in *The Philosophy of Chance*) and comments by Lem's critics and scholars. Similarly as in *Return from the Stars*, Lem's main objection regarding the ethicsphere is that it limits human freedom. In *The Philosophy of Chance* he calls the inhabitants of Luzania “A synthetically incapacitated society,” ruled by “a compulsion coming from the outside and not from internalised morality.”<sup>56</sup> In the novel similar argumentation is used by a computer simulating the personality of Bertrand Russell: the ethicsphere consists of “individual little prisons, invisible strait-jackets in vast abundance. Every sufficiently strong striving towards universal happiness ends in the construction of prisons.”<sup>57</sup> However, it is difficult to fully accept this argument, because prisons take away freedom, while the ethicsphere only deprives “evil” undertakings of their effectiveness. One has the impression that here, similarly as in the case of betrization, Lem downplays the ethicsphere's plus sides and emphasizes its drawbacks in an assumed devil's advocate role. However, there is another

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explosions—the shrapnels will be moving so slowly, that it will be possible to scoop them out of the air by hand, cf. S. Lem, *My Three Wishes ...*, op. cit.

<sup>55</sup> J. Jarzębski, *Technologia i etyka – obustronne wyzwanie* [Technology and Ethics—a Mutual Challenge], *Nova Fantastyka*, 9, 1991, p. 72.

<sup>56</sup> Strongly present in Lem's later essays are comparisons of his earlier predictions with the present-day state of technology. In his article titled, “In the custody of the undershirt” Lem says that his vision of the ethicsphere is partly confirmed by ongoing research on, among others, intelligent clothing capable of performing diagnostics, finding directions, generating energy or suggesting certain behaviours. In the article, he says: “Personally I would do without clothes that take interest in my person to such a degree. I see this as an attempt on our sovereignty and free will. Resigning from adverse conduct under discreet suggestions from your shirt is half so bad. However, it is difficult to mark out the boundary beyond which such suggestions become subtly administered coercion. In *Observation on the Spot* everything appears to be already quickiefied, and ethical decisions do not come from internal moral principles, but from outside,” S. Lem, *Pod kuratelą podkoszulka* [In the Custody of the Undershirt], pp. 261–262.

<sup>57</sup> S. Lem, *Wizja lokalna*, op. cit., p. 176.

voice in the ethicsphere debate in *Observation on the Spot*: “Isn’t it better when no one can make anyone else into a lampshade? [...] making evil impossible is also evil to many people, those who are very unhappy without the unhappiness of others. But let them stay unhappy.”<sup>58</sup> Lem admits that “synthetic goodness has proven very suspect,” but makes no final judgments: “As for ‘is it worthwhile or not’ (to submit to such custody), I think it is impossible to answer this question *in abstracto*.”<sup>59</sup>

When comparing the here-discussed two literary visions of the technology of ethics, it must first of all be said that both are more “securitological” than ethics-oriented—the main objective in both cases is the provision of security and not moral character or other ethical qualifications. The terms “betrization” and “ethicsphere” are, therefore, to some degree misleading, and perhaps “securization” and “securisphere” (or, simply, “security sphere”) would be more fitting. Similarly, “viruses of goodness” could be substituted by “viruses of security.” This, of course, does not change the fact that both visions possess certain ethical aspects which can be a subject of debate. However, neither the mechanisms that drive betrization, nor the ones behind the ethicsphere have much in common with traditional ethics, and the use of the term “evil” in both cases is either not of a moral character (as in “this is an evil pain”) or refers to a very narrow understanding of evil—as physical violence. Just as betrization removes certain inclinations or instincts without interfering with the moral sphere of the subjects undergoing it, the ethicsphere operates purely behaviourally, non-introspectively, and does not strive to “decipher” the mental aspects of actions that are responsible for their moral character.<sup>60</sup> If both visions had really been conceived as primarily moral projects, the above facts could be viewed as their essential drawbacks—a line Lem himself and some scholars actually took in their commentaries to both novels.<sup>61</sup> If, however, we perceive them as projects focused on the application of future technology to ensure the safety of humans, then they are not drawbacks but simply facts relating to the projects. Thus, the betrization and ethicsphere debate may be labouring under a misconception: primarily securitological projects, which should be judged by their effectiveness, and in terms of ethics only in utilitarian categories, are being criticised from moralistic and aretological positions.

<sup>58</sup> Ibidem, p. 187.

<sup>59</sup> S. Lem, *Filozofia przypadku*, op. cit., p. 169.

<sup>60</sup> S. Lem, ibidem, p. 162.

<sup>61</sup> Cf. P. Okołowski, *Materia i wartości: Neolukrecjanizm Stanisława Lema* [Matter and Values. Neo-Lucretianism of Stanisław Lem], Wydawnictwo UW, Warszawa 2010, p. 376; J. Z. Lichański, *Etykosfera czyli poza dobrem i złem. Propozycja Stanisława Lema* (The ethicsphere or beyond good and evil. Stanisław Lem’s proposal), in: T. Dąbek-Wirgowa, A. Z. Makowiecki, *Kategoria dobra i zła w kulturach słowiańskich* [The Category of Good and Evil in Slavic Cultures], UW, Warszawa 1994, pp. 99–105.

One way of expressing the main difference between betrization and the ethicsphere, is that while betrization operates, in a sense, from the inside, where it modifies the subject's motivation, the ethicsphere functions by impacting the subject's environment. If the agent were viewed as a relatively isolated system, the aim of both projects would be to prevent the agent from undertaking actions that endanger it or the others. Betrization brings the agent to withdraw from such action altogether (by altering its structure), while the ethicsphere neutralises the effects of actions that have actually been undertaken, acting as a kind of security filter. Thus, we have here two different paths towards one goal. And this common feature of betrization and the ethicsphere is the reason why both are usually discussed together. This, however, should not make us forget about their essential differences: like all biotechnological projects, betrization interferes directly with the subject (the assessment of this interference is another matter<sup>62</sup>), while the ethicsphere interferes with the subject's actions. Assuming that both projects serve the effective achievement of the goal of creating a secure (less unfriendly) society, one could consider analysing their possible effects on other spheres of life, especially culture. At play here, however, are other factors (e.g. the mastering of gravity in *Return from the Stars*, or the specifics of Luzania's political system), which make it very difficult to treat the critique of both projects in the novels as based exclusively on their characteristics, which is a requirement for correctly-conducted thought experiments.

## CONCLUSION

In conclusion, let us return to the earlier-mentioned utopian element in Lem's reflections. Because of the specific character of Lem's technological utopias it is worth comparing his visions with the typology of utopias (or, rather, of the studies conducted on the subject) developed by Bernard Suits, who is also the author of a technological utopia and had to tackle some of the same problems as Lem. In his typology, Suits first defines a *genus proximum* of utopia, which he sees in reflection on a human condition more perfect than the present one.<sup>63</sup> Because of the distance between the present and ideal human condition, Suits makes his first distinction between the

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<sup>62</sup> Usually the fact that the ethicsphere exerts no direct influence on subjectivity is seen as proof of its superiority over betrization. However, Łukasz Kucharczyk believes that the situation in Luzania is even more morally dubious than in the case of betrization, as the impossibility to carry out an act of aggression effectively (suggestively portrayed in *Observation on the Spot* in the scene of the failed attack in the sandpit) is extremely frustrating. Cf. Ł. Kucharczyk, *Granice ciała: somapoetyka w twórczości Stanisława Lema* [The Limits of the Body: Somapoetics in the Works of Stanisław Lem], UKSW, Warszawa 2021, p. 187.

<sup>63</sup> B. Suits, *Utopias: Summary and Proposal*: University of Waterloo Library Special Collections and Archives, Bernard Suits Fonds. GA 251: File 56, n.d., p. 5.

maximalists, who accept that there is a considerable discrepancy between the real and ideal human condition, and the minimalists, who say the distance between them is negligible. This starting distinction mainly concerns the way utopias are identified. The next one relates to the aims for which utopias are created. In the “techno-utopian” (utopotech) approach utopias are viewed as social change projects; here, it is possible to have a positive or negative view of utopia. In the “speculative-utopian” (utoponous) approach the aim of creating utopias is, so to speak, philosophical—conceptual analysis. The third and final distinction, which chiefly supplements the utopotech reflections, is into the optimists, who predominantly accept utopian ideals and action plans, and the pessimists, who mostly contest them, whereby possible here are various combinations of both attitudes. How does the here-discussed technology of ethics visions fit into this? Both betrization and the ethicsphere are maximalist utopias related to societies that are very different from contemporary society, and one can imagine that from the utopotech perspective the biotechnological enhancement of humans through betrization is a matter of a less-distant future than the ethicsphere. Both Lem visions are distinctly techno-utopian<sup>64</sup> (which is also visible in their futurological layer), but this does not mean they cannot be analysed from a speculative perspective. Least clear is the answer relating to the third distinction—here Lem oscillates between optimism and pessimism, although he ultimately appears to lean towards the pessimistic belief that although science’s calling is to create improved social models, attempts to implement these models tend to bring rather disquieting results. This conviction, however, does not stem from the idea of the technology of ethics itself, of which both discussed novels are literary illustrations.

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<sup>64</sup> In an attempt to refute Leszek Kołakowski’s branding him an “ideologue of a scientific technocracy,” Lem pointed out that his occupation with utopia did not mean he supported it—which in Suits’ terminology can mean that someone who undertakes techno-utopian reflections does not necessarily have to an optimist with regard to the utopias he reflects on.



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