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What does the silent planet tell us? The analysis of selected philosophical themes found in Stanisław Lem's *Solaris*

Summary

The paper analyses selected philosophical aspects of Stanisław Lem's *Solaris*. I argue that there is an interesting similarity between the history of "Solarist studies" – the fictional scientific discipline depicted by Lem and cognitive science. I show that both disciplines go through similar stages as they try to describe their main subject (the planet Solaris and human consciousness respectively). In the further part of the paper, I focus on two problems identified in cognitive science that can be directly related to the themes found in *Solaris*: the problem of the detection of intelligence and the problem of the notion of mental representations.

I finish the paper by looking at the mysterious guests that stalk the main protagonists and show that they can be understood as heuristic models that are taken into account in the theories of mind uploading.

Keywords: Stanisław Lem, *Solaris*, representations, computationalism, upload

Due to its well-deserved international popularity, *Solaris* is often seen through the prism of its adaptations. The novel is therefore seen as a tragic romance in a cosmic setting or as a contribution to theological reflection, depending on whether we fo-

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cus on the American or the Russian adaptation. Of course, these perspectives are not entirely unfounded, as Stanisław Lem's book contains both of these elements. In my analysis, however, I am not going to pursue any of these directions. Instead, I will focus on threads that, although not central to the main storyline, inspire questions that are in my opinion the most philosophically interesting. This dissonance should not come as a surprise. As Filip Kobiela notes,¹ Lem's novel does not contain a narrative-philosophical unity characteristic for some other SF classics, such as works of Philip K. Dick.² Philosophical themes that can be found in *Solaris* are most often contained in parts that are relatively autonomous and could, in principle, be omitted from the summary of the main plot.

From the philosophical point of view, *Solaris* is primarily a story about dealing with the unknown. Kelvin, the main character of the novel, is a trained psychologist, but above all a "solarist". Solarist studies is an interdisciplinary field of research on the eponymous planet Solaris – a globe surrounded by an ocean whose behavior eludes the description of Earth's science. Arriving at the nearby Solaris research station, Kelvin finds the facility in a mess. It turns out that a handful of those stationed became haunted by "guests" – copies of people who mattered to them in their earthly past. The reasons and causes of these visits are not clear to them – the most likely hypothesis is that they are products of Solaris, but their existence does not contribute to a better understanding of the planet. It is not known whether the unexpected visits are a long-awaited attempt at contact or a by-product of some cosmic process.

Lem's novel contains two parts that detail the history of Solarist studies. Both are fascinating from the perspective of philosophy of science, as they can be seen as a tongue-in-cheek analysis of the stages of development characteristic of many existing disciplines. As we learn, initially, only astronomers were interested in the planet's study. This changed when researchers realized that the behavior of the planet could not be fully explained using the well-known laws of celestial movements. It led to the conclusion that Solaris somehow interferes with its trajectory. This finding paved the way for new research and hypotheses – including the boldest ones that attributed intelligence to the planet. The result of accepting this hypothesis was a dramatic expansion of the number of disciplines engaged in the planet's study.

Lem masterfully describes the individual phases of the development of Solarist studies. Initially, the field brims with collective optimism of all researchers. The next stage looks more like a relay race, in which individual disciplines – tired of the lack of progress – pass the baton to others who come to the fore with a new research program. In Kelvin's times the field is in a decline: continuing the analogy,

1 F. Kobiela, *Grzęząc w Solaris*, "Forum: Biuletyn Mensy Polskiej" 2016, no. 4, pp. 29–33.

2 A famous example of skepticism of this kind can be found in L. Wittgenstein, *Tractatus logico-philosophicus*, trans. by B. Wolniewicz, Wydawnictwo Naukowe PWN, Warsaw 2004.

we can say that researchers no longer even agree as to whether they are participating in the same race. They criticize the methodology of their predecessors and undermine all of their findings.

In these parts of the novel, Lem shows not only an excellent knowledge of the history of science but also sensitivity to the institutional, cultural, and economic context of research as the amplitude of scientists' optimism is clearly correlated with the hopes of funding agencies and taxpayers.

Solaristics differs from the real-world disciplines in that its history is a combination of the history of humanities and empirical sciences. Similarly to humanities, Solarist studies go through fads, dramatic attempts to break with the past, and unexpected returns to old threads. The phases of optimism alternate with discouragement bordering on nihilism. Similarly to empirical sciences, Solarist studies oscillate between hopes aroused by new research methods and the disappointment resulting from the lack of hard results. In the humanities and philosophy, in particular, upheavals are sometimes possible because we realize the questions we have been asking led us astray and that ultimately the problem is only apparent.³ In empirical science, certain fundamental questions are much less likely to be simply eliminated or forgotten. This is so even in the case of fundamental cosmological questions, that many researchers are skeptical about. The planet Solaris is a constant remorse – a giant celestial body that is impossible to ignore even though it ignores us. It provides new data but does not correct our hypotheses.

At first glance, Lem's description of the fictitious discipline is unlike any particular field of science in existence – it is a hybrid of sorts. I think that we can, however, try to make one comparison and, as I will try to show, it will not be a superficial one. I believe that, to a large extent, the history of Solarist studies resembles the difficulties faced by cognitive science – in particular the part of the discipline that tries to explore the mystery of human consciousness.⁴

First, let us note that, just like Solarist studies, cognitive science is an interdisciplinary field and that this leads to similar methodological difficulties. Hypotheses proposed in cognitive science must often be tested using vastly different methodologies. Researchers may have problems understanding each other or they may use technical terms in distinctly different meanings. In the case of Solarist studies, this phenomenon is clearly exaggerated, but it does not differ in principle. The paradigm changes that Solarist studies go through are most often the result of the rise of skepticism of one of its sub-disciplines and the explosion of hopes caused by the emergence of a new one. This is reminiscent of the changes in cognitive science,

³ A famous example of skepticism of this kind can be found in L. Wittgenstein, *Tractatus logico-philosophicus*, trans. by B. Wolniewicz, Wydawnictwo Naukowe PWN, Warsaw 2004.

⁴ For obvious reasons, Lem could not refer to cognitive science – a discipline that rose to prominence a decade after the release of *Solaris*.

where different sub-disciplines replace each other at the forefront and try to set the new paradigm for the field. At one point it is computer science, at another point neurology or the philosophy of mind.⁵ The similarity between Solarist studies and cognitive studies is also due to the waywardness of the subjects they study. Solaris experts may disagree profoundly but all of them agree on one fact – the very existence of Solaris. Something similar can be observed in cognitive science. Most researchers – let alone laymen – agree that the phenomenon of consciousness does exist. However, the widespread agreement on this point does not translate to further stages of research. We have enormous difficulties in describing the mechanisms of consciousness. What is more, we often fundamentally disagree on what exactly does the phenomenon boil down to.⁶ The only result of having a common, relatively uncontroversial starting point, is that, just like the planet Solaris, it is an uncomfortable remorse. Even though we all feel tired of the idle discussions and the lack of progress, we cannot withdraw from our research and pronounce that it was all just an illusion.⁷

The analogy between Solarist studies and cognitive science is not limited to similar methodological quandaries and is also sometimes manifested in the very topics they tackle. One of the key questions that trouble solarists is whether they are dealing with an intelligent being or a regular object devoid of intelligence. It is not difficult to see that the answer to this question is essential for the direction of further research of the planet. Our expectations of the behavior of intelligent and unintelligent objects differ fundamentally. Seemingly random behavior of an object can be taken very seriously, provided that we assign intention and purposefulness to this act. And yet, detecting rationality in the world around us is not an easy task. We do not have a clear and unambiguous criterion that would allow us to separate sentient and non-sentient objects. Interestingly, at least two candidates for such a criterion discussed in the literature are directly related to Lem's novel.

The first possibility is based on the assumption that the thinking processes are computational.⁸ Of course, researchers do not assume that any computational process generates human-like thoughts. It is better to employ a more cautious stance and treat computational properties as a necessary condition for thinking. Therefore, using this approach we can break the problem of detecting thinking crea-

5 For a good summary of the upheavals in cognitive science see M.A. Boden, *Mind as Machine: A History of Cognitive Science*, Clarendon Press, Oxford 2008; T. Crane, *The mechanical mind. A philosophical introduction to minds, machines, and mental representation*, Routledge, London–New York 2016.

6 M. Velmans, *Understanding consciousness*, Routledge, London 2009.

7 One of the exceptions is Paul and Patricia Churchland, who promote the reductionist model of explaining the phenomenon of consciousness: P.M. Churchland, *Reduction, Qualia, and Direct Introspection of Brain States*, "The Journal of Philosophy" 1985, vol. 82, no. 1, pp. 8–28.

8 M. Miłkowski, *Explaining the computational mind*, MIT Press, Cambridge (MA) 2013.

tures into two stages. First, we must learn to determine whether computational processes are taking place in a given object at all. Secondly, we need to determine what additional conditions must be met by the computational process to be classified as “thinking”. Unfortunately, as we will see, even the first of these stages (which on the surface may seem relatively easy to implement) generates dilemmas straight from the pages of Lem’s books.⁹ The fundamental difficulty we face is that we need a clear criterion for distinguishing between “ordinary” physical processes and those that perform computations.¹⁰ The bad news is that with a little bit of creativity computational properties can be assigned to any object.

To understand this, we need to realize how ordinary physical processes differ from those that perform computations. The simplest answer to this question is to assume that a given physical process is computational if the sequence of its states corresponds to the sequence of some algorithms. It turns out, however, that this intuitive criterion is easy to ridicule, as shown by the following thought experiment proposed by John Searle.¹¹ Imagine you are looking at a wall. Despite the simplicity of this object, its structure is sufficiently complex in the sense that we can distinguish many of its different states. Now imagine that we are taking a record of a computational process – in Searle’s example it is a text editor running on the computer. Let us note that no matter how laborious and useless this activity may be, there is nothing to prevent us from writing a function that assigns program states to individual wall states. Does this mean that we have successfully launched the text editor on the wall? Should our action be regarded as the pinnacle of emulation, or perhaps as evidence that the wall has always implemented a program (and therefore had computational properties)? Both solutions seem quite absurd. It turns out that defining computational properties in an intuitive way seems to trivialize this concept. This dilemma is practically identical to the problem tormenting Lem’s solarists – their main trouble is, after all, the constant uncertainty as to how much of what they think about the planet counts as a real discovery and how much was only attributed to it by their complex theories.

As the readers probably suspect, the discussion on computational properties did not end with clever thought experiments. In recent years, philosophers proposed additional restrictions aimed at tightening the criteria for computational properties,¹² but we do not have room for further analysis of this issue here. Instead, let us

⁹ P. Grabarczyk, *O niearbitralnym kryterium posiadania struktury obliczeniowej*, “Filozofia Nauki” 2013, no. 4, pp. 31–50.

¹⁰ David J. Chalmers, *Does a Rock Implement Every Finite-State Automaton?*, “Synthese” 1996, no. 108(3), pp. 309–333.

¹¹ J.R. Searle, *Umysł na nowo odkryty*, Państwowy Instytut Wydawniczy, Warsaw 1999.

¹² R. Chrisley, *Why Everything Doesn’t Realize Every Computation?*, “Minds and Machines” 1995, no. 4, pp. 403–420.

look at the second stage of the discovery of sentient beings. As we remember, even if we assume that we have some good method of detecting computational properties, this means that we have only given a necessary condition for the property of being an intelligent being. Most researchers believe that to attribute thinking to an object, it must be characterized by something more than a mere computation, although opinions as to what this additional factor is may be different. One of the most influential proposals for indicating such a factor is to refer to the concept of representation. This theory, most often associated with Jerry Fodor,¹³ postulates that the jump from “ordinary” computing to “thinking” is made because the internal states of an object performing computational operations represent something – they are “about something”. Using this argumentation, we can now say thinking is computation with content – a series of formal operations that refer to something. It is not difficult to associate this idea with John Searle’s Chinese room, the famous thought experiment in which the philosopher argued that even the greatest computational skills will not turn into thinking if it is based solely on a series of purely formal transformations (which is an adequate description of the events that occur in computers).¹⁴ Lem knew this experiment well and referred to it in the title of one of his late collections of essays,¹⁵ although for obvious reasons he could not have it in mind at the time *Solaris* was written. Still, this does not change the fact that the problem of the mystery of the planet coincides, to a large extent, with the riddle of the Chinese room. Having agreed that the behavior of *Solaris* shows signs of logical transformations – the basis of all computational processes – researchers might still not be able to determine whether it is only a manifestation of an idle process, complex transformations “about nothing” or an act of “cosmic thinking”.

The concern of the solarists is philosophically interesting because it does not come from the specificity of the fictional planet. It is the result of a fundamental difficulty we have in detecting representations. How do we know that the state of the object we encounter refers to something – is about something?¹⁶ We don’t have to go into space to fall into the same skeptical trap. Could the image of Churchill engraved in the sand by the accidental wandering of ants still be called *his* image? Does being a representation of something require a properly directed intention of the message sender? If this is the case, then it seems as if we are starting to tread in place. Accepting this assumption requires that we have an external, objective criterion for detecting intentions. After all, we cannot simply ask the candidate for a thinking being if it has intentions. Even if we find a creature more talkative

¹³ J.A. Fodor, *The Language of Thought*, Harvard University Press, Cambridge (MA) 1975.

¹⁴ J.R. Searle, *Minds, brains, and programs*, “Behavioral and Brain Sciences” 1980, vol. 3, issue 3, pp. 417–424.

¹⁵ S. Lem, *Tajemnica chińskiego pokoju*, Universitas, Krakow 1996.

¹⁶ S. Yablo, *Aboutness*, Princeton University Press, Princeton 2014.

than a silent globe, it is impossible to take its words at face value. After all, even the most convincing explanation may turn out to be only a product of clever formal transformations, a syntactic shell.

Let us stick to the mental representations for a moment, because one of the ways in which this concept is understood in modern philosophy of mind fits *Solaris* like a glove. According to the concept of *structural representations* competing with Fodor's theory,¹⁷ the relationship between representations and their reference may be actually based on purely formal properties. In a nutshell, the idea behind this concept is that for us to be able to say that a certain object A represents some other object B, the only thing we need is the existence of a non-trivial homomorphism between them. Maps are a textbook example of such representations. When we say that the map of Warsaw represents the city of Warsaw, what we mean is that it is structurally similar to the city. This concept can be derived from the idea of Peirce's iconic representations, but its roots run even deeper, reaching very old intuitions, according to which thinking consists of mapping or modeling parts of the world. The key consequence of this approach is that it allows us to talk about representations in cases where no intentions are assumed. An example of this can be found in wooden rings, which we say to represent the age of the tree, even though we know very well that no tree has planned to inform us of its age.

This fits the planet *Solaris* perfectly. In one of the detailed descriptions of observations made by the planet researchers, Lem mentions the countless strange creations that the mysterious globe produces and later destroys seemingly without purpose. Some of them resemble simplified versions of human cities, that may be associated with mock-ups or with three-dimensional models generated by modern computer programs. On the surface, this is a useless activity because it does not correlate with any changes in the planet's behavior. The perspective of structural representations, however, allows us to look at it differently – perhaps *Solaris* simply devotes itself to contemplation, dreams, or explores every possibility it can think of. The notion of *structural representations* gives us the license to treat the planet's creations as representation even if they are completely disconnected from their targets. Moreover, if the processes generating them happen to be computational, we could easily say that the planet “thinks”.

It is possible that the “guests” who act as the main driving force behind the plot of the novel are precisely the result of this compulsive need for reflection and imagination. The reader never learns what they actually are, or what purpose they

17 R. Cummins, *The role of representation in connectionist explanations of cognitive capacities*, [in:] *Philosophy and Connectionist Theory*, edited by W. Ramsey, S.P. Stich, D.E. Rumelhart, Routledge, London, pp. 91–114; idem *The World in the Head*, Oxford University Press, Oxford–New York 2010; R. Grush, *The emulation theory of representation: Motor control, imagery, and perception*, “Behavioral and Brain Sciences” 2004, vol. 27, issue 3, pp. 377–396.

were created for. The only certain thing is that they are exact copies of people (and maybe other beings) that the researchers met in their lives and who were very important to them. We get to know well only one of them – Harey, the former lover of the main character, whom he lost in tragic, suicidal circumstances, for which he (most probably rightly) blames himself.

The guests are therefore the embodied memories or even pangs of conscience of those stationed. At first glance, it would seem that such a specific selection of memories has to be interpreted as a deliberate activity of Solaris, the cosmic malice of the planet. However, it is not obvious at all. As Kelvin himself notices, the choice of emotionally burdened memories may result from their formal properties. He hypothesizes that these kinds of memories are simply relatively well isolated in the brain, which makes them better material to recreate. What is interesting, the isolation of these memories is usually not absolute, which is evident at the moment when the copy of Harey casually makes a comparison that the real Harey could not use, because it is based on knowledge of events that took place after her death. At this moment Harey is not a carbon copy of the deceased lover, it is her dynamic simulation.

I believe this to be the most interesting philosophical aspect of the “Phi-beings” (as the station residents call their visitors). Lem’s vision can be interpreted as a perfect illustration of the idea of a “reconstructive upload” mentioned by David Chalmers in his article *Uploading: A philosophical analysis*.¹⁸ To put it briefly, the idea boils down to the possibility of recreating persons by analyzing the records of their memories, views, behaviors, etc. Equipped with such a personality model, artificial intelligence could then use heuristics based on psychological theories and anticipate their new reactions, views, and behaviors with high accuracy.

It is not difficult to imagine the advantages of such an invention. People who have lost loved ones often find themselves wanting to know what the lost people would say in a certain situation, how they would have reacted to their decision, or whether they would have liked the latest film from their favorite director. We often allow ourselves to do an amateur simulation based on our knowledge about the deceased and try to put a statement in their mouths. Dreams, in which we sometimes see absent relatives who give us important advice from beyond the grave, also fulfill a similar function. These types of advice from the dead are hybrid – they are not really their actual view, nor our view that we are trying to attribute to them. They are simulations of their minds based on our knowledge of them. Reconstruction uploads should be understood as a more advanced version of such amateur simulations based on a larger amount of information. Needless to say, reconstructive

¹⁸ D.J. Chalmers, *Uploading: A philosophical analysis*, [in:] *Intelligence Unbound: The Future of Uploaded and Machine Minds*, edited by R. Blackford, D. Broderick, Wiley Blackwell, Chichester 2014, pp. 102–118.

uploads are not meant to function as a continuation of the same person after their death, a digital form of immortality. They serve the relatives of the deceased rather than the deceased himself.

The idea of reconstructive uploads provokes many ethical and epistemological questions, which Lem partially anticipated. First, we can have serious doubts about the accuracy of the simulation. Remember that the reconstruction is based solely on the external products of the reconstructed mind. If the person had many secrets and hidden thoughts that co-determined her reactions (although she never revealed them), then the simulation may result in erroneous predictions from the very beginning. Moreover, since each new reconstructed opinion or behavior is partly the result of prediction, there is a risk that the gap between the new responses and the old personality will increase. This is because all subsequent reactions will have to be based on the totality of the memories of the new consciousness. Over time, most of them will be part of the simulated memories collection. Let us imagine that after a few years the reactions of such a “reconstruct” become very surprising to us, very out-of-character. Should it be considered the result of an accumulation of predictive errors, or is it a perfect simulation of the personality change that our loved one would have experienced if he or she survived the extra few years? This question is difficult to answer, although one can imagine testing it by creating a reconstruction of a living person and allowing it to function alongside the original. After a few years, we could then compare the views of both and check their convergence. The problem is that it would require us to fully synchronize the experiences of the living and simulated person, which would be extremely difficult or maybe even impossible.

Second, as the character of Harey clearly shows, the existence of reconstructive uploads provokes ethical dilemmas that are difficult to solve. This becomes clear when we exert empathy and put ourselves in the shoes of a simulated person. From their point of view, they will simply be a continuation of the original. From the inner perspective of their mind, the moment of activation will be no different from the moment of our everyday awakening. Despite this, they will most likely not be treated the same way as the person they claim and feel to be. It is possible that to get the simulation correct, we will have to lie to the simulated persons and hide their true nature from them, the same way Kelvin does with Harey. It is also possible that having discovered the truth, they will be deeply unhappy and prone to self-annihilation (which, again, happens to Harey in *Solaris*). Are we allowed to create minds that live in falsehood or unhappiness simply because they alleviate our grief?

The perspective of the original – the source of all the memories – also raises ethical problems. Although Lem does not take this into account, we can reflect on how the reconstructed people would have reacted to the prospect of leaving their digital simulations running years after their death. Let us imagine a world in

which this technology is the norm. There is no doubt that this would have a significant impact on all the traces we leave behind. If I know that every opinion I hold and every behavior I display will become a subsoil of the synthetic personality of my reconstruction in the future, then it is easy to predict that I will become much more careful and aware of what I say and do. It will probably limit my will for self-expression and hamper authenticity. Ironically, this may lead to the failure of the whole idea, because the reconstructions will only reflect the personality we wanted to show to the world, not the personality we actually had. We can also imagine that many people will forbid the creation of their reconstructs for fear of the content that will be attributed to them after death. Needless to say, the rules for belief attribution will have to be rewritten as claims will be divided into “genuine” and “heuristically generated”.

Contemporary dilemmas related to the so-called “deep fakes” – a technology that allows one to manipulate people’s images by placing their animated likenesses in any situation are only a foretaste of the problems that the existence of reconstructs may generate.¹⁹ It can be suspected that even if technology similar to that used by the planet Solaris becomes available to us, it will not be accepted for social reasons.

Both of the perspectives I have proposed allow us to see some of the contemporary processes as a continuation of Lem’s story. Even though observing further advances in cognitive science, won’t tell us anything new about Solaris, we will still be able to follow the development trajectory of a discipline with a profile similar to Solarist studies. Looking closely at the reception of technologies such as “deep fake” or “reconstructive upload”, we may find out what would happen to society if the planetary station researchers managed to return to Earth accompanied by their uncomfortable “guests”.

Bibliography

Boden Margaret A., *Mind as Machine: A History of Cognitive Science*, Clarendon Press, Oxford 2008.

Chalmers David J., *Does a Rock Implement Every Finite-State Automaton?*, “Synthese” 1996, no. 108(3), pp. 309–333.

Chalmers David J., *Uploading: A philosophical analysis*, [in:] *Intelligence Unbound: The Future of Uploaded and Machine Minds*, edited by Russel Blackford, Damien Broderick, Wiley Blackwell, Chichester 2014, pp. 102–118.

¹⁹ R. Chesney, D. Citron, *Deep fakes: A looming challenge for privacy, democracy, and national security*, “California Law Review” 2019, vol. 107, p. 1753–1820.

- Chesney Robert, Citron Danielle, *Deep Fakes: A looming challenge for privacy, democracy, and national security*, "California Law Review" 2019, vol. 107, pp. 1753–1820.
- Chrisley Ron, *Why Everything Doesn't Realize Every Computation?*, "Minds and Machines" 1995, no. 4, pp. 403–420.
- Churchland Paul M., *Reduction, Qualia, and Direct Introspection of Brain States*, "The Journal of Philosophy" 1985, vol. 82, no. 1, pp. 8–28.
- Copeland Jack B., *What is Computation?*, "Synthese" 1996, no. 108(3), pp. 335–359.
- Crane Tim, *The Mechanical Mind. A Philosophical Introduction to Minds, Machines, and Mental Representation*, Routledge, London–New York 2016.
- Cummins Robert, *The role of representation in connectionist explanations of cognitive capacities*, [in:] *Philosophy and Connectionist Theory*, edited by William Ramsey, Stephen P. Stich, David E. Rumelhart, Routledge, London, pp. 91–114.
- Cummins Robert, *The World in the Head*, Oxford University Press, Oxford–New York 2010.
- Fodor Jerry A., *The Language of Thought*, Harvard University Press, Cambridge (MA) 1975.
- Grabarczyk Paweł, *O niearbitralnym kryterium posiadania struktury obliczeniowej*, "Filozofia Nauki" 2013, no. 4, pp. 31–50.
- Grush Rick, *The Emulation Theory of Representation: Motor control, imagery, and perception*, "Behavioral and Brain Sciences" 2004, vol. 27, issue 3, pp. 377–396.
- Kobiela Filip, *Grzęznąć w Solaris*, "Forum: Biuletyn Mensy Polskiej" 2016, no. 4, pp. 29–33.
- Lem Stanisław, *Tajemnica chińskiego pokoju*, Universitas, Krakow 1996.
- Miłkowski Marcin, *Explaining the Computational Mind*, MIT Press, Cambridge (MA) 2013.
- Putnam Hilary, *Representation and Reality*, MIT Press, Cambridge (MA) 1988.
- Searle John R., *Minds, Brains, and Programs*, "Behavioral and Brain Sciences" 1980, vol. 3, issue 3, pp. 417–424.
- Searle John R., *Umysł na nowo odkryty*, Państwowy Instytut Wydawniczy, Warsaw 1999.
- Velmans Max, *Understanding consciousness*, Routledge, London 2009.
- Wittgenstein Ludwig, *Tractatus logico-philosophicus*, trans. by Bogusław Wolniewicz, Wydawnictwo Naukowe PWN, Warsaw 2004.
- Yablo Stephen, *Aboutness*, Princeton University Press, Princeton 2014.

Paweł Grabarczyk

O czym nam mówi milcząca planeta? Analiza wybranych wątków filozoficznych w *Solaris* Stanisława Lema

Streszczenie

Artykuł bada wybrane filozoficzne aspekty powieści *Solaris* Stanisława Lema. Twierdzi, że zachodzi interesujące podobieństwo pomiędzy historią „solarystyki” – fikcyjnej dyscypliny naukowej opisywanej przez Lema a historią kognitywistyki. Pokazują, że obie dyscypliny przechodziły przez podobne etapy, starając się opisać swój przedmiot (odpowiednio, planetę Solaris oraz świadomość ludzką). W dalszej części artykułu skupiam się na dwóch problemach zidentyfikowanych w kognitywistyce, które można bezpośrednio odnieść do wątków obecnych w *Solaris*: problemie wykrywania istot myślących oraz problemie reprezentacji umysłowych.

Kończę artykuł przyglądając się tajemniczym gościom, którzy prześladowają bohaterów powieści i pokazuję, że mogą oni być zinterpretowani jako modele heurystyczne rozważane w teoriach uploadu.

Słowa kluczowe: Stanisław Lem, *Solaris*, reprezentacje, komputacjonizm, upload

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