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Lem's *Solaris* and the Human Mental Ceiling

Riley Miller

Honor Scholar's Thesis

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Introduction

Beginning with a man trapped in his own space suit, Lem's *Solaris*, at its most fundamental roots, tells a story of human limitation in the face of an uncaring universe. However, the book simultaneously takes a highly human and humanist perspective through the narrative; it uses the situation of incomprehensibility to gauge humanity's ability to cope with the uncanny. Working in tandem with this uniquely human experimental narrative, xenopsychologist Kris Kelvin's story of guilt and obsession in dealing with his ex-lover's sudden and impossible resurrection further tests the human ability to cope with unearthly occurrences. The titular planet Solaris embodies this unearthliness; it is an anomaly of science, performing impossibilities such as defying gravity and fabricating matter from seemingly nothing. Both in the case of planetary research and the interactions that Kelvin has with his lover Harey, the universe seems to become more dense and incomprehensible the more that the researching parties learn about their subjects. The only suitable explanation for her recreation is the proximity that Kelvin has to the planet Solaris, adding yet another anomaly to an already seemingly supernatural celestial body.

The English translation of *Solaris* that was read for this paper was the 2011 translation by Professor Bill Johnston. This version was chosen over the 1970 Kilmartin-Cox translation for its superior accuracy; the 1970 edition was translated from Polish to French, and then once more from French to English, while the 2011 version was directly translated from Polish to English. Readers of the 1970 version may

also be confused by the name of Kelvin's love interest, which is Harey in the 2011 version, but Rheya in the 1970 translation. These names belong to the same person.

In creating these two related thought experiments, Lem pushes the limits of human psychology, both in the sense of individual cognition and macro-scale social dynamics, to test whether humanity itself is meant to be a self-defeating system. These self-destructive tendencies, trying to understand everything in human terms and the tendency towards guilt and obsession when absolute understanding inevitably fails, create the core issues in the book: Kelvin becomes obsessed at the chance to reconnect with his lover, Harey, towards the end, and the scientific community cannot help but obsess over hypotheses that are unable to progress beyond the theoretical state. Part of this issue stems from the barriers to communication that the planet presents due to its composition. The language of science and measurement, which is vital to the human concept of giving the universe meaning, seems to have no noticeable importance to the alien body: all attempts at communication though transmission and definition have no noticeable effect. *Solaris* shares a common thread with Lem's work in these themes of translation beyond language and the limits of the human brain, yet gives itself unique identity through its proximity to Kelvin's deeply personal issues; the truly alien presence forces the human characters to confront their own relationships with other people, technology, and their human identities.

The novel begins with the protagonist, xenopsychologist Kris Kelvin, arriving at a space station in a geosynchronous orbit around the titular planet, Solaris. Arriving in such close proximity to the celestial body culminates all of the psychologist's work as a

solarist, having previously become a doctor due to his research in comparing the patterns of Solaris' oceans to the electrical patterns in an orgasmic human brain. Upon docking with the space station, however, Kelvin finds the station in ruins. There are only two remaining scientists left: the cyberneticist Snaut, who only speaks in odd, vaguely panicked fragments at the beginning, and the physicist Sartorius, who is so reclusive that Kelvin has trouble communicating with him. A third scientist, Doctor Gibarian, committed suicide the day before Kelvin's arrival.

Upon this revelation, Kelvin takes up an old, familiar book on the history of Solaris, which gives the reader their first introduction to the history of Solaris to human interaction before the events of the novel. Having been discovered over a hundred years ago, the first anomaly that brought it to the attention of the scientific community was its stable orbit around a binary star. Upon closer inspection, the planet, with its globe-spanning ocean, causes the various disciplines of the scientists studying it to break out theories as to why Solaris is capable of such macro scale changes in its orbit. In all of these theories, one of the most common threads that the solarists seem to return to is that the planet could possess some sort of mind. With this idea, the field of solaristics enjoys a boom of popularity, with scientists of all disciplines flocking to make theories on the anomaly. However, these scientists became quickly dismayed to learn that the planet was resistant to all forms of data collection. Attempts at contact were met with failure, and any attempts to resolve the disputes in the scientific community resulted in more questions and anomalies. Shaking the most basic

foundations of human knowledge, Solaris is given the full attention of the scientific community as the number of theories on the planet reach astronomical levels.

Following this look into the history of Lem's world, Kelvin then encounters the first oddity that Snaut and Gabarian have been wary of: the phi-creatures, informally known as "guests." These beings, seemingly arising as the result of the scientist's proximity to Solaris, take the form of the unconscious guilts and desires of the researchers. The first visitor that Kelvin encounters is Gibarian's abandoned visitor: an enormous black woman wearing stereotypical tribal garb. Upon pressing Snaut for further details on her origin and identity, though, the cyberneticist becomes opaque and evades directly answering questions. Frustrated, the psychologist then goes to Sartorius' room, only to be greeted by the small patter of a child's footsteps behind his door. Sartorius himself, when he finally does come out, is as temperamental, standoffish, and secretive as Snaut is.

Kelvin, dumbfounded by the developments aboard the station, rushes to his room, shutting himself off from the rest of his raving peers. While there, he soon learns why everyone has been driven to their distraught states: he wakes up to his own visitor, Harey. Taking the form of a lover who committed suicide after an argument with him over a decade ago, Kelvin initially reacts with disbelief and horror. So much so, that he locks her off in a rocket and fires it into space. The intensity of the takeoff is so great that he burns his face, and realizes that Snaut and Sartorius must have done the same thing to their phi-creatures, as they both have similar burns. With this new information, Kelvin has a slightly more coherent conversation with Snaut on the nature of these

visitor, where the cyberneticist implies that they emerged from the deepest guilty thoughts buried in their minds. Nonetheless, the visitors come from Solaris, and this revelation serves as the greatest implication of intent that the planet has given so far.

Once again looking to make sense of the matter, Kelvin delves into the story of Berton, a pilot who encountered one of the first human-like constructs that the planet produced. In his account, Berton describes a giant child that formed in the thick of a Solarian fog. This child is implied to be a model of the son of a spacepilot who had earlier crashed into the planet's surface. Its movements, inhuman but surprisingly methodical, were off-putting to the pilot, and yet he is convinced that these were true events. The board of scientist interviewing him, however, deem that he must have been hallucinating, and the information that he provides is relegated to scientific heresy.

Considering this, Kelvin falls asleep, only to have a nightmare in which a massive presence consumes him, causing him to become formless, yet pulled to the center of this mysterious immensity. Awaking, he greets a recreated Harey, whom he interacts with only momentarily before falling into the dream. She acts as though he had never fired her into space, and this time he accepts her as an equivalent to the Harey that died years ago. Upon inspecting her cells through a microscope, he finds that she is likely made of neutrinos, far smaller components than the matter that comprises true humans. Furthermore, she displays superhuman characteristics, such as accelerated healing and improbable strength which further complicates her identity. These discoveries push the scientists to consider her further connected to Solaris, even though the planet is not comprised of these same particles.

After learning further about Harey, Kelvin then turns his gaze back to the histories of Solaris. Focusing on the notorious solarist Doctor Giese, the reader learns that he led the study and classification of the surface features of Solaris. Despite the near impossibility of defining the millions of features that take place in the ocean every day, he passionately catalogued the formations of the planet with his own nomenclature, such as “megamushrooms” and “mimoids.” The mimoid, with its wealth of movement and transformation, was a formation of particular importance to the solarist, with the different stages of its development with a certain unquenchable intellectual fervor. In the end, however, Giese and the fleet of scientists that he commanded perished in an explosion when examining a mimoid up close. Following this tragedy, the approach of humanity to the planet became simultaneously more skeptical and fearful: it was suggested that the surface should be bombed, the amount of theories on the planet began to wane, and vast amounts research funding was pulled back.

Meanwhile, Harey begins to sense the oddity of her existence, and begins to question the Kelvin’s love for her. Snaut and Sartorius begin to hatch a scheme to beam powerful x-rays to the surface of the planet, carrying the brainwaves of Kris Kelvin to the surface of the planet. This transmission, which does not affect typical matter, has the ability to destroy the neutrino fields that the visitors are comprised of, and this capability bothers Kelvin, to the point that he brings up the potential deadly effects that the transmission could have on them.

Kelvin then dreams of Gibarian, who claims that Snaut and Sartorius are attempting to build a neutrino field annihilator rather than an x-ray device. Upon waking, Kelvin does his best to push the thought out of his mind while talking to Harey, who shows signs of realizing her alien origins. The following night, Kelvin wakes to find Harey convulsing on the floor, seemingly dying from a quantity of liquid oxygen that she had swallowed in a suicide attempt. Although lethal to any normal human, her Solarian nature has her healing from the wound in moments. Upon waking, she begins to panic, loudly demanding to know why she didn't die and who she is. Kelvin finally opens up that she is a creation of Solaris, informing her of her immortality and her sudden manifestation. Furthermore, he asserts that she has taken the place of the old Harey for him.

Following this, Kelvin has his encephalogram taken by Snaut and Sartorius. Before the procedure, Snaut warns the psychologist to not become attached, as she could very likely fall apart upon leaving the planet's orbit. While going through with the procedure, his fellow scientists encourage him to think about the relationship that humanity has with the planet, but he inevitably thinks of Harey as well. With the snapshot of his brain being beamed into the planet, Kelvin retreats to the library to read up on more theories on the planet, specifically all of the contesting theories of the planet's entire existence that several big-name scientists have presented over the years. One of the final books of scientific theses that he considers are the theories of Grattenstrom, who contests that the limitations of the human body mean that contact with an alien species was a theoretical impossibility. Kelvin then delves into reading a

criticism of solaristics by Muntius, who claimed that the whole discipline was a sort of space-age religion.

Once again, Kelvin is plagued by the dreams of the planet swallowing him up, shrinking him down and incorporating him into its shapeless mass. He sees the image of a woman, and feels both of them devolve into writhing masses of infinite and boundless movement. Upon waking, he becomes frightful of sleep, and the preceding days blend into a tired haze. That is, until Harey finally succeeds in committing suicide. She convinces Sartorius to use the neutrino annihilator, and the realization that she is gone drives Kelvin into a new frontier of despair. He talks about the theology of the planet with Snaut, and eventually decides to mount an expedition to the surface of the planet.

He spends the final moments of the book on a small island, surrounded by the gelatinous sea. Taking in the true scale of the world, he interacts with the ocean, allowing it to form a crude grasping structure that closes over his hand. In this moment, he considers the possibility of Harey's return, and the reasoning behind why the planet would undertake such a seemingly insignificant task as reviving his dead lover. In the end, he figures that it is impossible to answer these questions, but he does feel that Solaris will continue to present more impossibilities for humanity to puzzle over.

The Scientific Community

This novel, a genre-bending example of science fiction, takes the "science" of the genre to heart. Solaris simultaneously lauds and criticizes science, while also depicting various scientists of differing personal philosophies. The human approach to

science seems to both help and hinder the attempts to understand the alien planet; it gives humanity the ability to travel to the planet and begin to establish contact, and yet the planet itself flies in the face of all previously gathered data, actively thwarting any attempts to gather more information on it. The social structure of scientific research, which favors hierarchies and classification to the point of mental balkanization, makes the endeavors of the scientists much more difficult. The different camps of solarists, differentiated only by their disciplines as physicists, biologists, geologists, etc., squabble fruitlessly to explain the planet because their differing specialties invite disparate interpretations of the planet. The novel's primary concern as a science fiction novel, then, is to present this particular situation, which pushes the bounds of what science is capable of, so that the relationship that the human race has with its own structures of understanding can come under scrutiny. *Solaris*, and many of Lem's other works, take this approach to science fiction writing in an attempt to establish a relationship between the public discourse that fiction can establish and modern scientific research, which often runs into ethical discourses that require the attention of a larger audience. Fiction acts as a tool to analyse the logical limits of the scientific method, such as the inability to isolate particular variables on the planet Solaris, and all of the associations and expectations that wider society has of scientific circles, namely a faith in its validity and lack of bias.

The titular planet, having eluded definition for over a century by the time of the novel, causes those who interact with it to question the nature of their own knowledge. These "solarists," as the book describes, have established an institutionalized scientific

field by the time of the novel. Narratively, this grants Lem greater freedom to lambast the present structures of 1960s scientific communities. Solaristics, with established experts, specific rules, and an aversion to questioning authority, can stand for the whole of science because it calls upon universal issues across the entire umbrella of scientific discourse. Furthermore, nearly all of the scientists embroiled in the field come from different disciplines: solaristics is fraught with different scientific branches attempting to confirm their own theories. The scientists, then, act as representatives of their particular subjects in the novel; these individuals are often referred to in group terms, such as “the astronomers” or “the biologists,” rather than individual names. In the case of their hypotheses concerning the planet, the mindsets that come with their distinct subjects color their impressions of what Solaris could possibly be. When given the initial impressions of the entity, “the astronomers and the physicists [...] claimed it must be a highly organized structure” while the biologists proposed that it could be explained as “a single, monstrously grown cell” (Kindle Locations 273-74). The ideas that they have surrounded themselves with in the pursuits of their specializations actively work to drive a wedge between them and the other members of the solarist community, essentially separating their thoughts until no one can develop a true overarching theory of the planet. In this sense, each of the scientists forms a bond with the specialties that they have embedded themselves in; at least in the early days of contact with the planet. By the time of the novel, the sheer age and organization of the solarist community has made the field stagnant. The solarists have settled into their respective theories, and yet these very hypotheses are impossible to study. The nature

of the planet, in seemingly refusing to correlate with established solaristic research, exposes the issues inherent when bias infects science.

As a short aside, it should be noted that the word “seemingly” comes up a lot when discussing the events that take place as a result of the planet Solaris. This is a rather important distinction to make, and the use of the word is highly pointed in the context of the paper and the novel. The planet is fundamentally opaque. There is no talk of thought process in the book beyond a few bioelectric patterns that Kelvin likened to the patterns of the human brain for his doctoral thesis (Kindle locations 2896-2902). Even the validity of these findings are highly contested, and so any intent that the planet could possibly have is implied rather than explicitly stated. As a result when the planet performs a feat such as generating phi-creatures or defying its orbital path, the assumptions that humanity makes as to why the planet does a particular action can never be more than guesses. Rather than the concrete answers that form the fabric of Western science, “the scientists are forced to confront the limitations of their unidirectional world view and must grapple with the possibility that they inhabit a world of multiple, constitutive, and sometimes unalterably alien agencies” (Weinstone 177). For this reason, the word “seemingly” denotes the assumed actions or states of being that this unidirectional scientific worldview would predict: that the planet could only be either mindless or minded, or that it must be teasing the scientists on board the vessel. Think of the word as a bit of self-awareness on the part of a paper analyzing Solaris, a literary figure that by design is impossible to guess the motivations of, make inferences of its psychology, or extrapolate its future actions based on past behaviors.

There are several examples throughout the book of scientists utterly lacking the skill of self-awareness, and their research on the planet becomes a fruitless exploration of a dataless subject field. As such, the only suitable data of any interest is that of the human observers, who, in the process of trying to observe the planet, become observed themselves. It is only when the scientists critically analyse their own reactions to the planet that they are able to make advancements in the field of solaristics. In fact, analyses of the social and psychological reaction to Solaris comprises the whole of research on the planet: “for a while there was a hint of scandal in the matter, since (in the interests of science) attempts were made to blame the results of the observations either on certain people, or on the instruments they employed” (Kindle Location 259). From the outset, the desire does not come from a genuine interest in the planet, but from a desire to find a party to blame for the anomalous readings that would disrupt the scientific method. Rather than treating this phenomenon as a way to strengthen the scientific process by exploring the unknown, it instead becomes a race to defend the foundations of pre-established scientific research. The desire to hang on to the parts of the human experience and mindset are overwhelmingly attractive, and as a result inhibits the ability of the solarist community to become self-critical.

Contrarily, though, humanity is uplifted in the novel as an inherently scientific species, or at least the type to naturally make grand inquisitions for which science is needed. When the mystery of Solaris reaches the public mind, the amount of wild theories concerning the planet reaches astronomical levels. The more untrained speculators of the planet considered that the ocean might be “a gigantic brain more

advanced by some millions of years than our own civilization” (Kindle Location 365). This theory, sensationalist and based on the hopes of the hoi polloi, has merit in showing that humanity as a single entity acts in a similar way to the planet Solaris: arcane, mind-bendingly massive, and haphazardly pouring out information and permutations of the natural world, regardless of formal usefulness. As much as early Kelvin’s (that is, to say, Kelvin before the events of the novel sufficiently change his worldview) narration disparages this hypothesis, countering with “the living ocean certainly does act—it’s just that it does so according to notions other than those of humans” (Kindle Location 367), there is no way for the public’s opinion to be proven less justified in their speculation. The incredulous response Kelvin has to the idea that the planet could be a cosmic superintelligence comes from the voice of the established solarist community, and proposes that such an idea would be hopelessly dreamy despite not having substantial research of its own to disprove such an idea. The force of disapproval early Kelvin, then, comes from the inherent authority given to scientific institutions: a hierarchy that originates only from the human need for authority. This deliberate organization of individuals that defines earthly governments, social relations and scientific research is one of the key differences between the human race and the ocean planet. By contrast, the mass formations that populate the solarian surface exist as unadulterated tests of the environment, pushing the boundaries of Lem’s world in a manner that could be considered experimental. In this scenario, the solarists, who believe that they are the ones conducting research on the planet, instead may be the subjects being experimented on.

The scientists aboard the ship acknowledge that the planet could be observing them just as much as they could be observing it. The presence of the visitors, with their specific appearances that come from the innermost thoughts of the scientists display a capability to examine the scientists in a manner that is beyond their own capacities for data collection. To create the visitors, Solaris must have located “processes separated from the rest of the mind, enclosed, suppressed, walled in, sore spots of the memory. It was treating them as a recipe, as a plan for reconstruction...” (Kindle Locations 1195-1197). By performing this feat, the planet has proven itself to have surpassed the scientists aboard the space station: it examines the mind and areas of guilt closer than the finest psychologist, constructs an approximation of the human form better than any cyberneticist, and demonstrates a control over subatomic particles superior to the most knowledgeable physicist. As a scientist, Solaris seems to have superior skills in every regard, and yet that motive in the planet is never overtly stated. When the astropilot Berton describes his encounter with the massive child on the planet’s surface, he similarly describes the its processes in scientific terms: “Whereas these movements [...] They were methodical. They took place in sequence, in groups and series. As if someone were trying to find out what the child was capable of doing with its arms, what it could do with its torso and its mouth” (Kindle Locations 1350-1351). Taking place before the appearance of the far more refined visitors aboard the space station, Berton’s child appears like a test before the next stages of the planet’s interactions with its human neighbors commences. Although it is impossible to guess the thought process behind such actions, the universal experimentation that can be

traced back to Solaris implies a constant play with the laws of physics and the forms within the universe. This creation of data, even with impossible to discern motives, is a force of discovery so great that it overloads the data collection capabilities of Earth's scientists, and tests the capabilities of the universe in a much more purely scientific manner.

Now, it should be noted that there is a distinct difference between "pure" science and the ideologically tainted version that Lem lampoons in his novel. The scientific method, if executed by an impartial scientist, would be able to take the paradigm shifts that the planet provides in stride: using the negative correlations to bolster areas of doubt, rearranging established fields as the planet breaks them down, and taking a more generalized theoretical stance on the planet as it continues to challenge concepts. The notion that makes Solaris truly challenging is not that it defies the collection of data, but that the revelations that it brings about, when reflected on humanity, could mean the breaking down of institutions, power structures, and long-established modes of understanding. The solaristics community, like most scientific associations, is heavily influenced by funding and profit, and the planet's role as an information black hole is not conducive to financial gain. The logistics of studying a planet that gives nothing in return to a society that is transactional at best, and needs to allocate the resources to study the planet from a place of scarcity. Even communistic or socialistic forces, such as the one that Lem was a part of, would be constrained by the logistics of the mission, and the mission's failure to result in some sort of increase in production that benefits the whole of society. In the wholly utilitarian

east, there would be no reason to sink public funds into a scientific project that would potentially produce nothing. Some of the larger endeavors to make close contact with Solaris are hampered by “a shortage of funding” which “delayed the dispatch of a proper expedition to Solaris for three more years” (Kindle location 264). There is no point for capitalist or socialist forces, always working to produce more prosperity, to fund a project that seems as though it will never leave the theoretical arena of scientific research. The fact that there was money in the Institute of Solaristics at all implies an underlying human desire to discover more about the universe, but the sheer unprofitability of the subject tests this strain between the desire to learn and the beliefs that the human race wants to know. Solaris, rather than rejecting science, forces the field to assume a position of pure discovery, with no advancements in capital or production manifesting as a result. The theoretical is the only way to consider such an object, and the scale of the project that Solaris represents, as an entire planet, guarantees that getting a useful understanding of the planet is far from financially practical.

This lack of practicality in terms of finance, then, serves as one of the many things that keeps the human being from doing science in its purest form, a task that seems to have no practical applications. The planet, on the other hand, exists as an entity completely outside of the binary of useless and useful. Its motives, if it has any, exist beyond the conceptions of the solarists. All of Solaris’ motivations are so opaque that the appearance of the child, the resurrection of Kelvin’s dead wife, and the various formations on the planet that the solarists spend lifetimes studying could be highly

pointed, pointless, or beyond the concept of points entirely. This makes it confounding to the humans trying to experiment with it, as it questions whether usefulness in the human conception of the universe has any point. While the humans researching the planet bicker by spreading their personal explanations of the planet, securing enough money to research the planet, and dealing with their own personal traumas, the planet performs all sorts of seemingly miraculous feats for no human reason. When a pilot named Berton accidentally flew his plane into a foggy portion of the planet's surface, he managed to see one such generation of the planet in the form of a massive child, moving as if it were fluidly testing all of the possible movements that a human body could possibly make: "they took place in sequence, in groups and series. As if someone were trying to find out what the child was capable of doing with its arms, what it could do with its torso and its mouth" (Kindle location 1347). There is no way to tell why the planet would generate such an apparition. It appears, supposedly as the generation of one of the pilots who crashed into the planet, but the reasoning the planet has in creating this structure is completely obscure. We know the basic sense of how the planet gets the image of the child, but, as Snaut observes, "you know as well as I do that science is only concerned with how something happens, not why it happens" (Kindle location 1192). Snaut chuckles at the incomplete nature of scientific inquiry, with the question of "why" the planet would fabricate beings from their memories being a much more relevant question than the "how," particularly because of its social implications. The problems that the visitors have for the scientists are of this social nature, rather than empirical, and so factual problem solving that their hard

scientific backgrounds provide them prove insufficient for the current issue. What is known, however, is that these actions make no sense in terms of human reason.

Science can find no motivation for these seemingly experimental exercises in physical space particularly because of this bias; the planet Solaris is entirely comprised of actions that seem to have no reason behind them, but nevertheless probe at the universe.

Lem teases the scientific community as a whole, presenting a thought experiment through the planet Solaris: what happens if scientists encounter an object that defies data? The solarists behave rather naively in Lem's world; they cannot seem to handle the disruption that Solaris causes to their respective fields, and choose to try to encapsulate it in scientific jargon that is meaningless outside of solaristics.

Otherwise, they may also try to explain the planet in terms of their particular subjects, reducing it to a simplified version of itself. In the case of a historical solarist named Giese, who the narrator smears as a "pedantic classifier... he relied exclusively on the language of description; when words failed him he created new words, often infelicitous ones" (Lem loc. 1800 of 3401), he essentially conjures scientific conjecture from the ether. This type of quick authority and hypothesis production is prized in Lem's version of science, and becomes the common thread for all of the scientifically aligned people that attempt to define the planet. Rather than inspiring progress, this version of the scientific community helplessly flounders, evinced by the recurring mentions to solarist literature. Although the information in them is essentially useless for research of the planet, their immense weight and numerousness becomes

somewhat of a running joke: “I took out the tomes, so heavy they made my hands droop...*Ten Years of Research on Solaris* had appeared in the “Solarania” series as numbers four through thirteen, while the most recent additions to the series were in the four digits” (Kindle Locations 1789, 1792-1794). They are just producing information, without realizing that all of the scientific papers in the world do not constitute contact with the entity at all; the books amount to humanity looking inwards, talking amongst itself. Part of what makes Kelvin’s descent to the surface seem so revolutionary, compared to Giese’s visits or the various probes, is that he does it for nothing other than the planet itself. There is no evidence that he wants to present the rest of his findings to the community, instead realizing that the very way in which people transmit thought is unequipped to manage the sheer glut of information that the planet produces on a daily basis.

With this strict definition of what makes a science pure, it stands to reason that this unfiltered method of applying the scientific method is unattainable. After all, one must form a hypothesis in order to test it, and the formulation of said hypothesis must imply a desire to see (or not see) the outcome. From the human perspective, pure science, free of any bias or desire for ideological confirmation is an ideal, and the best that we can hope for are scientists who endeavor to work towards that goal without truly achieving it. *Solaris*, however, seems to be a creature that embodies such an ideal. It creates with no discernible ideological basis, at least, as far as the readers and human observers can see. The vast array of named and unnamed surface activity that occurs within the globe-spanning ocean is beyond what the human characters are

capable of understanding, and yet they seem to be grand experiments with all possible forms of the universe. Little to no evidence is given to whether there is a goal to this phenomenon, but whether these dancing forms within the planet are intentional or not, the scientist cannot help but be awed during “their ‘creative frenzy’ when they commence an extraordinary hyper-production. At these times they make either their own variations on external forms, more complex versions of them, or even “formal extensions” (Kindle Locations 1877-1879). The planet shapes and molds itself at random, essentially becoming an unwitting factory of information and modulation. Here, exploration of the unknown happens on a scale so massive that the entirety of the planet is involved in the process, and it is the human sense of linear time that makes it impossible to fully examine all minutiae of the content that Solaris produces.

The Evolution of Science

The search for meaning that humanity embarks on proves to ultimately yield the same inconclusivity that defines Lem’s universe. There is no definite answer that can be given to the readers of the novel, or the solarists because one does not exist. As a refutation of the scientific ethos that everything can be explained in a particular phraseology or context, the cloudy resolution of the book implies that the answers to the mysteries of the universe lie somewhere outside of human mentality as we understand it today. Rather than a death of science and human understanding, however, this encounter with the Solaris anomaly has the chance to push science as a whole into a new phase of research. Through the acceptance of the phenomena of Solaris as a check on previously established scientific canon, the field has a chance to

refine its methods to better comprehend the features of the universe beyond the human mind.

The sui generis nature of the celestial body establishes a level of alienness meant to push humanity towards a dissolution of understanding. While several of Lem's other novels express skepticism about contact with alien consciousness, the narrative of *Solaris* pays particular attention to the conception of guilt. Guilt through lack of understanding serves as the common thread that links the story of Kelvin and Harey with that of humanity and Solaris. Both humanity and Kelvin cannot understand the aliens in their midst, as shown by the eventual loss of Harey, an event beyond Kelvin's control. In this instance, his obsession blinded him from the overtones of her attempting to find a way to die, as seen in his reaction to her suicide note: "I couldn't even manage a groan, I could barely speak. "How?" I whispered. "How?"" (Kindle Location 3144). Up until the end of her life, the recreated Harey eluded Kelvin's predictions and desires, choosing to die rather than accompany him to the Earth, a foreign planet where she would remain irrevocably alien. In the case of Kelvin, the trauma of having to revisit his role in pushing a former lover to suicide causes him to flirt with the madness of obsession. The similar madness of infatuation that consumes humanity in trying to understand the planet, which comes in the form of a century-long obsession with planetary research, ends with the rejection of Solaris itself. The planet will not be brought to Earth in the metaphorical sense: the structures and phenomena of humanity's homeworld would never be enough to explain the entirety of the alien planet. As a later period of research is characterized:

Solaristics seemed to be falling apart, and as a kind of accompaniment or parallel to its descent there was a flurry of hypotheses...they all seemed to pass judgment on the ocean, which came to be seen as the final stage of a development which long ago, thousands of years back, had had its period of supreme organization and now, having survived only physically, was disintegrating into a multitude of unnecessary, nonsensical agonal formations.

(Kindle Locations 2775-2780)

In the slow death of solaristics as a field, the desperation and obsession that the human race has in making the planet understandable comes to the forefront; the judgement that humanity places on itself for not being able to understand the planet mutates into a desire to cause some form of harm, whether it be physical or conceptual. The planet, which seems to be completely impenetrable, must be in a state of degeneration because it acts on principles that we could not parse. The actions that it performs, although nearly impossible to discern Harey, meanwhile, acts as the Solaris-like object of Kelvin's obsession, Kelvin himself follows the downward spiral of humanity. As this reborn Harey goes from a terrifying aberration in his life to a part of his natural world, his obsession with her grows, up until the moment of her death.

This is not to say, however, that the sciences are completely trivialized. There are several points in the novel where the usage of scientific methods and processes allow the characters in the book to cope with the mind-bending nature of the planet. Kelvin, who is a psychologist by profession, finds a sense of comfort in reading the tomes of unending theory that the solarists had produced: "the tension had grown to the point

where I didn't want to have open space behind me. I decided to fight it. I moved the chair up to the shelves. I took down a book I knew only too well—the second volume of Hughes and Eugel's old History of Solaris" (Kindle Locations 238-240). Although the information in the novel has no useful information on explaining the planet, the simple documentation of the planet's exploration was enough to give Kelvin the comforts needed to continue studying the planet. One of the most important elements of the human scientific methods in this case, is the psychological act of catharsis. Kelvin constantly refers to these books full of outdated information to release the anxious energy he builds in knowing nothing of the planet. While these books may not have the answers in terms of Solaris, they certainly contain a wealth of information concerning the human aspect of exploring the planet. Written more as histories than scientific journals, the books recount the reactions of scientists to the various mysteries that unfold while conducting research. Even though the psychologist admits that these books are "a mere quagmire of facts, and that we were in the same position as when we'd started to gather this information seventy-eight years ago" (Kindle Locations 349-350), they still supply a wealth of knowledge that forces humanity to consider itself. The history of studying the alien planet acts as a sort of rorschach test, revealing the hopes, dreams, and biases of its onlookers.

This species-wide internal dialogue, which defines the state of science, has the potential to reform the entire process of scientific inquiry. In one of the best cases, this sort of internal conjecture would lead to a breakthrough, not only in the field of solaristics, but in human understanding as well. Successfully making contact with the

alien presence would mean that humanity would have finally gained the ability to “transcend the anthropomorphism and anthropocentrism apparently inherent in human cognition” (*Some Things We Know About Aliens* 7). With this potentiality in mind, science’s nature as a self-improving system becomes apparent. Like all human concepts, the term science can be continuously redefined as successive generations of human thought processes live and work in the name of scientific inquiry. This language-based receptiveness to change allows the breakthroughs that Kelvin experiences in his first pseudo-communications with the planet. Only through constant reinterpretation of the meanings of humanity and understanding, does that first encounter occur. Rather than a process of learning, the final push into his encounter with Solaris was a process of unlearning: “Kelvin is compelled to recognize that in a world defined by the encounter of the human with a non-human intelligence, the most noble human values may be quixotic illusions” (*The Book is the Alien* 8). This stands true for science itself as well. In order to make any sort of contact with the planet, Kelvin must interrogate science as an ideal, and recognise that sometimes the only possible way to get data from the environment is through feeling.

This is not to say, though, that feeling represents a universal truth. Far from it, feelings are reliable because they represent a small truth amongst humans themselves, and are therefore the only meaningful pieces of data for the human being.

The Paradox of Being Human

To exist as human in this world is to live in a constant state of paradoxical confusion. The mindset which characterizes the humans of the book, with their need of

classification, the importance of existing social structures, and the desire for some sort of prevailing justice in the world, belies the true complexity of the universe. As self-aware beings, people must grapple with the impossible questions that Solaris and the rest of the universe present with minds not built to comprehend their breadth, and yet this self-awareness is also humanity's greatest strength. Only through the ability to self-reflect does Snaut get the chance to philosophize on the alien planet's implications for Earth's place in the cosmos, and by extension Lem himself. More so than a test of humanity's reasoning skills, Solaris pushes this self-awareness, testing the limits of our ability for species-wide monologue. The final result of this pushing humanity into a self-reflective fervor was the final contact between Kelvin and the planet, where the psychologist is finally able to divorce himself from this self-awareness and begin to feel the planet as if it were just another part of himself. In that last interaction, Kelvin "had never before been so aware of its vast presence, its powerful, inexorable silence breathing evenly through its waves (Kindle Locations 3375-3376). This feat, which serves as the culmination of all the efforts made to study the planet, represents the true paradox at the core of humanity: self-awareness is required to rid humans of self-awareness. To find a state of mental homeostasis with the universe requires a deep conception of place in the universe, and yet a similar degree of realization that the very elements of the cosmos comprise one's self. One will always be comprised of the same elements of the universe, and that gives one an inseparable connection from the rest of the universe.

Deconstructing the self-awareness of humanity is no easy task, but one of the core strategies to understanding why humanity as a whole are motivated to make the universe digestible is to look at the goals of Earth's society. The desire to expand, propagate, and have increased control over the systems of nature come from the desire to consume the universe, at least as Snaut characterizes human nature in his moments of exposition. To bring a presence such as the ever-changing Solaris down to the human thought process is a reduction, and characterizes humans as conquerors and consumers. Snaut elucidates on this consumptive disposition: "Out of modesty we don't say it aloud, but from time to time we think about how magnificent we are. In the meantime—in the meantime, we're not trying to conquer the universe; all we want is to expand Earth to its limits" (Kindle Location 1170-71). The desire to expand out into the rest of the universe, based on the most primal urge to continue progressing as a species, comes from the pride of thinking that the presence of humans and their ideas are better than their absence. Snaut continues: "Some planets are said to be as hot and dry as the Sahara, others as icy as the poles or tropical as the Brazilian jungle" (Kindle location 1172). This comparison to the biomes of Earth serves a double meaning: both that the conquest of the rest of the universe mirrors the conquest of these two environments that have had a history of being colonized, and that when the ultimate goal of knowledge is to conform the world to the current paradigms of science, it espouses subjugation. The cyberneticist continues his list of contradictions "we're humanitarian and noble, we've no intention of subjugating other races, we only want to impart our values to them and in return, to appropriate their heritage. We see

ourselves as Knights of the Holy Contact (Kindle Locations 1173). In a templareque fashion, the solarists involved in the continued study of the planet remain there because the values of Earth have not been transposed to the planet. Solaris' casual subversion of scientific law and resistance to definition has a two-staged effect on this system of human understanding; first, an influx of speculation, based on the hope that some sort of discovery can lead to a breakthrough in solaristics, and the stage of relative disinterest in the planet from the scientific community. As evinced by the contents of Snaut's quote, the whole of humanity is in a stage of denial in terms of the benefits and costs of defining everything in human terms.

Humanity cannot completely understand all of the information in the universe because it is impossible to comprehend everything that is outside of humanity while still remaining human. We cannot expand beyond the experience of the human because "we are confined by the limits of our own subjectivity, the exact parameters of what it feels like to be human beings" (*Some Things We Know about Aliens* 7). It would be an impossible task to use our human developed terms to describe an entity such as Solaris, which at the very least must have a completely different way of experiencing the universe, and a novel form of subjectivity.

This enduring enigma of an object that seems to act without reason and create with no motivation causes a subconscious discomfort in the humans that observe it; a sort of guilt that causes the researchers to behave irrationally. In finding some way to define Solaris, the research community is looking for some way to annex the planet into the realm of what is knowable. Even greater than the desire to explore Solaris to reveal

truths about the universe, the general research community believes that “this is about us ourselves, about the limits of human cognition” (“solarists”). To define and predict the celestial body is to debunk yet another mystical occurrence and prove the superiority of the human mind. By proving the indomitable nature of the human mind over the rest of universal creation, humanity is also proving a sense of dominion over the universe. However, rather than finding that humanist narrative in contact with the alien, “the inscrutable and opaque planet gradually becomes a macrocosmic mirror of the human image” (*The Book is the Alien* 7). Reflection, in this case, comes from realizing what we are not. While reflection was an expected outcome of having a newfound cosmic sibling to compare ourselves to, the reflection that humanity sees is a demoralizing one. humanity must reason with a reflection of itself that is scared, small, judgemental, and altogether inefficient.

Human understanding itself, and the ideas that we collectively prize, complicate matters, with the scientific community acting as a cacophonous backdrop to the story’s events. The presence of the planet, by the time of the story’s action, has driven the human race to the point of considering a nuclear attack on the planet to provoke some sort of a reaction. This was only after an incident when studying the planet: an eruption on the surface kills 106 researchers, which in turn causes a portion of the solarist community to call for bombings (Lem loc. 2020 of 3401). This emotionally reckless response to an event that could have merely been a natural disaster paints humanity as cosmically irresponsible; it brings into question whether any of scientific research that laid the foundation for studying Solaris is verifiable. Kelvin, before

communing with the planet, mirrors the violent tendencies that the whole human race can have when the planet, in its unconsciousness, causes some sort of misfortune. Harey has just found a way to destroy her seemingly immortal body, and Kelvin lashes out: "We'll bring in antimatter generators. You think anything can resist antimatter? Nothing can! Nothing! Nothing!" (Kindle Locations 3167-3168). Harey and the planet fell outside of his control, and so the only solution that Kelvin's apoplectic mind could muster was destruction. In a similar manner, the parts of the solarist community that wanted to detonate nuclear weapons wanted to do so from an exasperation that could only come from what "is not any of the things that human minds have captured and controlled through our science" (*The Solaris Problem* 6). Destruction via technology, at least, would mean that the planet was brought under control. If science could not understand the planet, it could much more easily destroy it.

Or, perhaps the planet may subvert expectations and avoid destruction. There is no way to tell, but it certainly seems that the planet has the capacity to perform greater impossibilities. The realization of Solaris' implications for humanity imply a reading of the universe that rejects humanist thought or exceptionalism. This philosophy, which pays too little credence to the human race to be considered against the idea of humanity is instead a sort of "ahumanism." Not only is the significance of the human race called into question, but our very existence is minimized in the larger context of the universe. Lem uses the vantage point of being human, then, to further illustrate the damaging effect that the constant message of insignificance that the planet exudes has on the human race. The rapidly dying obsession that the solarists have with the

planet, most vividly embodied in the historical researcher Dr. Giese, was a force that drove most of them to madness and death; in the case of Giese, he died attempting to study a surface feature that he considered himself an expert on (Kindle Location 2022). The fact that he could have never predicted the outcome of a formation that he had spent his entire life doting on serves as a morbid piece of irony, and his death also serves as the event that causes the rest of the scientific community to consider using violent methods to research the planet. On a larger scale, the obsession with the planet that the research community has arises from a need to make the planet understandable. In making the planet bow to human reason, humanity in its essence making the planet conquerable to the minds of earth. Institutes and hierarchies have been built around the subject of solaristics to which a young girl in the narrative questions “What’s it all for?” in return, none of the various solarists “could offer an answer. Because symmetriads are unique, as are most of the phenomena that take place within them” (Kindle Location 1995). Even though the study of Solaris is an institutionalized practice, the methods for studying the planet are all effectively useless. There can be no true methods for a subject that has failed to produce data from its inception.

The contradictory nature of humanity is made evident in the narrative, and by extension the very act of being human becomes one glaring contradiction. Snaut, commenting on the philosophical ramifications of such a planet, observes “Out of modesty we don’t say it aloud, but from time to time we think about how magnificent we are. In the meantime, we’re not trying to conquer the universe; all we want is to

expand the Earth to its limits” (1166 of 3401). In the context of the ahumanist realizations that Solaris causes the lead characters to confront, the humanity-based disciplines that Snaut refers to serve a dual purpose; they show the contradictions inherent in being human, and bring into question the universality of the most basic laws in the Earthly sciences. If Solaris is able to confound gravity, the senses, and tools built in faith of gravity, then what collected data is trustworthy? The only useful information comes from the figures who fully embrace their fallibility and instead dedicate their existences to rumination on the fully human perspective: its benefits, drawbacks, and asking whether there is any point in the theoretically impossible task of looking beyond the veil of human perception.

The book walks on the line of the paradoxical, however, by simultaneously espousing a sort of faith in the human race; if the rest of the universe is uncaring to the human perspective, then the only thing that should matter to humanity is expanding the mind and listening to itself. Even in the sphere of humanist thought, “Lem is drawing on a tradition of skepticism about human limits that goes back at least to the 16th century French thinker Montaigne—a view that holds that we are necessarily limited by the conditions of our human consciousness” (*The Solaris Problem* 7). It is necessary for us to be unable to fully understand Solaris because it is a requirement of being human, this ability to know what we are not, to have a sense of individuality, and to approach the universe with a sense of inconclusive confusion. The idea of knowledge is an ideal, created by the narrative based sense of being that imbues people with a sense of humanity. For example, in the task of translating from one

human language to another is deemed theoretically impossible, because “human tasks are unrealizable. The destiny of Man—his privilege and honor—is never to achieve what he proposes, and to remain merely an intention, a living utopia” (Ortega y Gasset 7). The impossibility in knowing, translating, or any other activity is the suggestion of *completion*, which underlies all tasks that push the human mind slightly past itself. In the face of such a herculean task, there is always the possibility that some element of understanding or enlightenment will be missed simply because of the limitations of an individual mind. That is not to say, however, that such an existence is erroneous. The complexity of Lem’s novel does not allow such a simple maxim. By “chasing of the impossible,” humanity is simply satisfying part of the human experience: “in the effort to realize them, he achieves many things, he creates innumerable realities that so-called Nature is incapable of producing for itself” (18). The interaction with an entity like Solaris, and the resulting obsession, then, may also come from a desire to strive for the ideals of progress and knowledge. The improvement of the human mind, and the expansion of our perceptions through understanding and technology is the ultimate goal of an idealized science. This concept, based in the growth of humanity, lies contrary to the version of science that gets practiced in an imperfect world: trying to reduce the universe’s phenomena to what humans can already perceive.

By juxtaposing the idea of consciousness with Solaris’ knowledge destabilizing effects, Lem brings into question what separates us from the inanimate. In the planet’s deflection of the instruments that the solarist community uses to produce data, they “return physically transformed by Solaris; the researchers can not know what it is they

measured (*The Book is the Alien*, 7). Of all of the instruments sent down to the planet to collect data, the ones that return the most damaged are the human crew. Snaut, Gibarian, Sartorius, and Kelvin are all changed by the repressed memories that the planet opens them up to, and thusly cannot report any of their discoveries to the wider scientific community. They are treated as instruments that the planet once again subverts, with its mere presence exploiting their weak spots and driving them into a state of inefficiency. Csicsery-Ronay states in his piece, *Some Things We Know About Aliens* “the energy of the alien comes from human subjects’ constant desire for a meaning-giving supplement, some new thing that can be recognised and yet be free of the banality of human social experience” (3). The presence of the planet does not merely reject humanity’s attempts to find meaning in an alien presence, but actively seems to delegitimize scientific categories, reasoning, and the very nature of life itself. How can humanity be exceptional in a universe that cannot differentiate it from its inanimate tools? Solaris itself, in making no distinction, thwarts any meaning that humanity would look for in another cosmic alien presence. Just as advancements in planetary science revealed to humanity that Earth was not the center of the solar system, this exobiological discovery muddles the significance that humanity gives to life itself.

The Paradox of Being Solaris

Solaris does not provide any evidence of thought process or predictable methodology, with one of the few things that does seem clear about its alleged “consciousness” being that many of the activities on the surface seem to originate from

processes too opaque to understand. The phi-creatures, the features on the surface of the planet, and the orbit stabilization that allows the planet to exist all arise from unexplainable processes within the planet that seems to require consciousness, and yet the scale on which these events occur implies a force beyond consciousness: a being that is capable of working in absolute detail and macrocosmic scale simultaneously. In the case of a human understanding of the universe, there is no way to consciously work on the level of billions of structures per moment: “we only know, without comprehending [...] beyond the limits of sight and imagination there are multiple, millionfold simultaneous transformations connected to one another (Kindle Locations 1960-1962). In our conception of consciousness, manipulating countless formations on the surface of the planet is far too many for even a coordinated effort on the whole of humanity to track. Planetary scale and occurrence are simply too much to conceive of, and this is merely one example of how monumentally different the perspective of the planet must be from any Earthly mind.

In part, Solaris is capable of such various and numerous cosmic activity because it transcends the corporeal by nature. There is no single “Solarian body” that acts as a center for the ocean. The structures that it forms on the surface, as well as the human super-copies that it forms from the minds of those who get near it, all carry a dreamlike, hallucinatory composition. In the case of the giant child that Berton sees upon coming closer to the planet, it seems to be formed of nothing but slime and fog. In the case of Harey and the other solaristic apparitions that appear on the space station, they are comprised of particles far below the subatomic level, with Kelvin

hypothesizing that “it isn’t mesons. More likely neutrinos” (Kindle Location 1651). Neutrinos, unique in that they existed on the periphery of human understanding in the 1960s, serve to show the level of disconnect between humans and Solaris when it comes to something as simple as constitution. The planet, as a seemingly natural formation, has more command of the universe than the ambitious yet fleshy human being. Human society, especially one encountering an alternative to itself such as Solaris, is a culture insecure about the its own material nature. As Kelvin surmises upon observing the planet in person, “Each of us is aware he’s a material being, subject to the laws of physiology and physics, and that the strength of all our emotions combined cannot counteract those laws; it can only hate them” (Kindle location 3377) There is an underlying spiritual guilt that underlies the discovery of Solaris, and its powers of creation, without the science to understand it, make it seem as though it exists beyond the inferiority of our own forms, where the mind and body inhabit two separate spheres. Behind the scientific materialism of the book lies a history of looking to the stars and formulating gods, and in the strongest moments of self-doubt the scientists revert to this reasoning. This reversion to a religious understanding of the planet is baked into the scientists that encounter it, such as when Kelvin begins to hypothesize that the planet may be some sort of godlike being that must reckon with its own limitations, as Snaut summarizes: “you’re thinking about an evolving god who develops through time and grows, mounting higher and higher levels of power toward the awareness of that power’s impotence?” (Kindle Location 3273). The fact that Solaris as a being is able to easily work in this margin of the alternately physical neutrino world

with no clear goals makes the planet both tantalizing and disturbing to human sensibilities. This manipulation of the universe expands to objects made of mundane material, as well. The planet renders all of the scientific apparatus sent into it useless by this same inscrutable control over the universe, such as when “the ocean did not employ machines or construct them, though in certain circumstances it seemed capable of doing so, since it copied components of some of the devices lowered into it (Kindle Location 352). Although it has no use for such devices, the ocean copies them seemingly as a reaction to their presence. Although it quickly “loses interest” in doing so after a long enough period of time, the narrator is quick to point out. The copies of the machines, people, and experiences that the planet produces of the Earthly objects sent to its surface raise the question of Solaris’ awareness in the most visceral way. Just as any sentient being may model external stimuli, the planet may be understanding the foreign bodies through this neutrino replication. If the planet is creating copies, then it must be acknowledging the presence of the humans. At least, that’s what we’d hope.

The mentality of the planet, if even real, reaches beyond the grasp of the human mind. Oddly, though, the reverse is only partially true. While Harey exists as a physical representation of the incompatibility of the human race and the planet, the simple fact that Solaris was able to recreate the facsimile of a human at all shows a more complete mastery of the physical world. That is, at least, when human beings are keeping score. Even though the planet does not seem to be conscious of the surrounding environment in the same way that our terrestrial, evolution driven intelligence is, the simple fact that

it extracted a sensitive subject from one man's subconsciously guilt-addled brain and materialized it as Harey shows a level of advancement that would seem to defy the planet's geological nature. As Kelvin rants in the end "I didn't believe for a moment that this liquid colossus...lifting me up unwittingly like a speck of dust, could be moved by the tragedy of two human beings" (Kindle Location 3384). This personal drama that the planet caused, based upon the dark desires of a single man, seems too granular for a geological entity, and yet Harey exists: an anomaly of an anomaly. The only thing that can be expected of Solaris is that it will behave unexpectedly, and our attempts at communication all worthlessly bounce off the planet's slimy surface. This failure in communication, which diverts all hopes of contact in the traditional sense, also makes the human experience just as opaque to the planet, which does not seem to have the faculty to consider the human mindset.

Consider, if you may, the "perspective" of the planet. The very concept of perspective, rooted in the trappings of a sense of individuality, and conceived by brains with these inherent senses built in as a function of our bodily forms, already becomes woefully inadequate to describe the state of being that the planet occupies. In Csicsery-Ronay's *Some Things That We Know About Aliens*, Daniel Dennet's theory of human perspective and consciousness is expanded upon: "We can experience ourselves as experiencing subjects because we construct narratives of this state, narratives selected for their putative aptness to our situations from innumerable story fragments that we are continually telling ourselves" (9). The psychic origins of the individual, then, arise as a function of our bodies mingling with the stories that we tell

ourselves, and this acts as one of the most basic roadblocks to understanding the planet. We are bound up in Earthly terms and ancient narratives trying to describe a presence that evolved independently of our biosphere. The planet, on the other hand, may have no concept of individuality, and therefore would also lack the ability to distinguish groups, personality, and presence. Basic concepts of the human experience become alien, and as a result must be disregarded as a constant of the universe. In the taxonomic sectors of science, the complete lack of individuality means that any of the carefully manicured categories that form the basis of identification are irrelevant. This, in conjunction with the way that Solaris generates the neutrino people from the memories of the individualistic humans, may imply that Solaris has little ability to tell itself apart from the extended universe as well.

Solaris is not an individual, and yet it is not many either. There is no way to observe individual actors or actions taking place inside the planet, and yet the scale of the events taking place on the planet forces humanity to observe it from far away, as a single entity. Lem takes jabs at this concept, responding to a classification table made for it with “it was as if we knew goodness knows how many specimens, whereas in reality there was still only one, which admittedly weighed seventeen billion tons” (Kindle Location 311). Both distant and one of a kind, we are left with nothing to compare it to besides ourselves. The main narrative of the novel, rather than taking place on an island that Lem could have easily written into the story, deliberately transpires in space because it forces the humans on the space station to treat the planet as an individual. The physical distance between the Earth and Solaris mirrors the

distance between human understanding and the immensity of a planet just as complex and alien as our own. The various hazards and phenomena surrounding the planet each work to confound the attempts of humanity to mitigate the distance, and yet part of what makes Solaris so alluring is the dangers that it poses. One particularly fervent research group that travels to the surface of the planet is even consumed, with the “Eruption of the One-Hundred and Six” constituting a mass death in the name of passionate research (Kindle location 2022). To the planet, which is described in terms so geological that “the surface of the ocean is no different than any of its other regions” (Kindle location 2022), the very human concept of remembering the specific number of individuals killed in a natural disaster is completely alien from the perspective of the supposedly unthinking planet. Solaris is never a creature of quantifiability, while humanity, in attempting to define the world through science and reason, continuously looks for methods to make the innumerable numbered.

The planet invites these attempts, both from the reader and the characters of the book. As there is nothing to define, the imaginations of the scientists begin to take over the scientific process. With no way to confirm hypotheses, the field of solaristics becomes one giant theoretical battleground. Each of the scientists that propose an opinion have good theories for a potential explanation of the entity on the planet: “the biologists saw it as a primitive being— something that was... a single, monstrously grown, fluid cell” (Kindle Location 204) while the physicists “proposed the paradoxical formation of a ‘plasmic machine’ to refer to a formation that in our sense might be devoid of life, but was capable of undertaking purposive actions” (Kindle Location 281).

Each of these hypotheses, as previously mentioned, cannot be confirmed beyond the initial guess at the planet, due to the scale and unpredictability of the entity. Instead, it is the lack of conjecture that finally generates understanding concerning the planet, but at the cost of making it incompatible with communication and language. The transmission of thought, a task that the human race does with language, math, and technology, is completely incompatible with Solaris, which seems to exist on the margins of these forms of transmission. The closest the planet comes to making contact with us are the neutron-based human constructs, and yet these creations are so different from the planet itself that there can be no hope of intercession.

In dealing with the alien, Lem oddly brings planet Solaris closer to the Earthly biosphere that he contrasts it to. If the planet were some sort of machine intelligence, its supreme alienness would be easier to reconcile as some structural quirk of machinery. Solaris, however, is Earth's universal sibling. Both act as anomalies in a primarily empty universe, having arisen from the randomized process of biological evolution, which Lem critiques in his later works. In his book *Summa Technologicae*, Lem argues that biogenesis is a highly improbable and impractical occurrence, "because two or even four billion years is enough to form a species and its evolution but not to form a living cell by means of a repeated, blind "draws" from the statistical bag of all possibilities" (16). In a universe that is undeniably inhospitable to life or the formation of intelligence, Solaris represents the only chance humanity could have at addressing the emptiness of the universe. Not only does it build structures, but it also seems capable of reacting to its environment in the same way that life does. As Kelvin

reports from the surface: “It looked as if a ductile flower had grown out of the ocean, its calyx encircling my fingers in such a way that it became their exact negative, though without touching them” (Kindle Locations 3366-3367). Yet, that very alienness is undeniable, and the separation from humanity is so great that the planet seems to be an entirely different form of existence. This should be expected, because, in Lem’s theories of the universe “the process of self-organization is not unique but rather typical, while the emergence of life is only one possible enactment of the process of homeostatic organization, which is widespread in the Universe” (*Summa Technologicae* 16). Solaris may exist as one of these potential alternatives to life, and because of that nature as a non-living structure builder, confuses the lifebound humans. This, however, is only one theory in the multitudes of conjecture of what the planet could possibly be. The sheer diversity of possibility in the universe, when it comes to an entity that can change environments to suit itself, are simply so great that some go beyond the human capacity for understanding.

Lem’s later works, while still reckoning with the concept of the human mind’s essential incompatibility with the universe, consider the strangeness of machine intelligence. By refusing to give Solaris the distinction of being a machine intelligence (although, it could be entirely possible that the planet is one giant, planetary computer), the ambiguous nature of the planet entails that scientists simply do not know where to begin in classifying it. The ambiguity, which confounds the taxonomic nature of large portions of the scientific community, highlights the issues inherent in trying to place any subject into a category. The solarists had even given their specimen a type, class, and

order, even though the distinctions mean practically nothing (Kindle Locations 308). In parallel with the way that the entire institute of solaristic research is built on and for very little actual information, the jargon used with the planet reflects an inefficient side to humanity. In this sense, the scientific community does begin to resemble the alien planet in an odd manner: they both create structures for no given reason. While the efforts of the humans seem to make objective sense when given the context of history, progression, and time that have all been created as a result of our society, outside of that explanatory framework, human efforts and products seem to be hopelessly arcane.

The fact that the book offers no way to verify the planet's consciousness further supports the idea that it is too different to understand through traditional means. There is little evidence in the novel to confirm that Solaris has any sort of mind, which the author denies both the audience and the human race within the narrative. Even the appearance of the phi-creatures, which seem to be the result of the planet scanning the scientist's minds, may have potentially been the result of complex behavior rather than intent or intellect. The ambiguity of the planet's intentionality further serves to delegitimize the importance of life in the universe, as it is fully able to challenge the reasoning abilities of the human race while remaining in the margins of thought and un-thought. If it is the case that the planet is an intentional creature, then it shrugs off a hundred years of the most intensive human probing and innovation as a minor annoyance. On the other hand, if the planet is unconscious, then humanity is merely driving itself mad looking for a purpose in the empty vacuum of space. As Snaut

begins to philosophize: “We’re not searching for anything except people. We don’t need other worlds. We need mirrors” (Kindle location 1166). Snaut, acting as the voice of wild conjecture in the narrative framework that the characters occupy, brings the larger philosophical issues that the other characters seem hesitant to address into dialogue. Due to this, he has the unique ability to freely consider the motivations of the leading scientists and the planet itself without the same fear of inconsistency that the other scientists concern themselves with. Making a broad statement on the nature of humanity, Snaut directly comments on the motivations behind scientific discovery. In trying to make the universe understandable, humanity must first reduce the universe to something understandable. In much the same way that converting a file between formats inevitably results in the loss of information, it becomes nigh impossible to convert the language of the universe to the systems that humanity has put in place. The introduction to *Solaris*, while resolving the question “are we alone?,” in certain degrees, introduces a polyphony to the universe that raises several more mysteries. It may not have been a living being in the sense that science classifies life, but its ability to modify the universe around it with a seemingly godlike versatility

In this sense, the only *Solaris* that is observed truly is the one described in the book, which by description is a reductive view of the planet. There is no way to model the type of entity that the planet is, as no other reference exists in literature, the world, or the rest of fiction. This newness is the most alien concept of the planet: “Lem sets out to imagine a creature whose mental state cannot be inferred by observing its behavior, because the information is so unfamiliar or contradictory to normal human

perceptions and sympathies that it perpetually generates new ideas” (*Some Things We Know About Aliens* 9). In doing this, Lem turns his work into a thought experiment, questioning how far the alienness of a being could go until it becomes totally unrecognisable. One question that Solaris rises, in its alien nature, is whether there is a distinct line that exists as the cutoff from a distinct entity to yet another feature of the universe. Why, over all things, does humanity latch on to this ocean world if it gives them no feedback? This deliberate silence, which has been the bane of scientists for the entirety of the history of human-Solaris interaction, still serves as a confirmation of the scientific method. The failure to achieve the selected results of the experiment, and even the arrival of the unexpected in the experiment contribute scientific data that allows the entire discipline to move forward. Snaut, acting as a pessimist of the entire scientific method, claims “you know as well as I do that science is only concerned with how something happens, not why it happens” (Kindle Location 1192). However, this view of science and advancement seems to be a fault of bad scientists, rather than a failure of the concept as a whole. As evinced by the changes in Kelvin, as well as humanity’s ability to provide itself with the framework to begin to understand the planet.

In making Solaris a natural phenomenon, he emphasizes the smallness of humanity, and the lack of grasp that the humanity has on a subject so heavily studied and defined. Beneath all of the taxonomies, systems of language, and institutions, the core of the research in Solaris is alarmingly empty. The whole scientific institution surrounding the planet, with its lack of scope, fails to take into account the position

that humans have in relation to the planet, namely that they operate on a much smaller scale. For Kelvin individually, his moment of desperation and interaction with the planet comes at the end of “his awareness of his diminution” which involves renouncing his romance (*The Book is the Alien* 8). From this perspective, he realizes that he is infinitesimal when compared to the planet that he has been attempting to study, and that attempting to understand the planet comprehensively is a foolhardy task for a single human. Instead, the emotions and instincts that he feels when exposing himself to the planet produce a more comprehensive view of the planet for him because they are hypotheses that directly impact him as a human being: “But its actions were geared toward some purpose. True, even this I was not completely aware of. Yet to leave meant to strike out that perhaps slim, perhaps only imagined chance concealed in the future” (Kindle Location 3388). Kelvin is no longer trying to understand the higher processes of the planet, such as the foundations of its psychology, or the reasons behind its actions. Instead, with self doubt, he acknowledges that it will do *something* and focuses on what that could mean for him instead. Through this reduction of scope, Kelvin does acquire a sort of “wisdom” in knowing his limitations.

Psychological Visitors

The apparitions that the scientists in the Solaris space station encounter, while partially human, also arise from that non-utilitarian nature that defines the planet. Until the very end of replicated Harey’s life, she seems to have no other purpose besides existence itself. To Kelvin personally, she appears as a physical representation of his guilt for her death, to Snaut, she seems to be a dark manifestation of Kelvin’s guilty

sexual desires, but for herself? Of all the reasons that she might exist, she does not exist for herself. In much the same way as a romantic heroine, she seems to only live for the gratification of Kris Kelvin himself, as evinced by her second suicide towards the end of the novel. All that she leaves Kelvin a note:

Darling, it was me who asked him to do it. He's a good man. It's awful that I had to deceive you, but there was no other way. I ask one thing of you—listen to him and don't hurt yourself. You were wonderful (Kindle Locations 3147-3148).

This letter, which quickly shifts the blame away from Snaut, also seems written in a tone servile to Kelvin, treating his actions towards her as unquestionably good, actions such as shoving her into a rocket, panicking at the sight of her, and eventually developing a possessiveness of her that threatened to permanently alienate her. Kelvin speaks of taking her away to Earth, hiding from society, and never having to think about space or Solaris again, but Harey cannot change her Solarian origins. Just as her planetary forebear refused to be definable, she could not return to Earth, a place where “humans are defined by their papers” (Kindle Location 3079). The ordered world of humanity, with order being a function of the amount of control that the human race has over a set volume of space, is incompatible with the alien which cannot be defined by human parameters. With no discernable sense of organization, then, Harey refuses the return to Earth because she exists on the margins of both the human and Solarian worlds. As an entity hopelessly alien from both Solaris and Earth, the space station is the only place that she can exist.

Taken to a more personal level, the Solaris problem forces Kelvin, the narrator, to fall into a dangerous spiral of obsession. Harey takes the form of his dead ex-lover, who committed suicide after a fight gone awry ten years before our introduction to Kelvin. She serves as a representative of his subconscious guilt, just as the other scientists are faced with apparitions seemingly catalyzed simultaneously from their deepest guilts and darkest desires. This apparition, a completely tangible approximation of the human body created from Solaris' unique ability to manipulate neutrinos, seems to imply a level of intent on the part of the ocean planet that allows the human characters the chance to interact with the planet on their level. However, the conflicting guilt and relief at seeing his ex-lover means that his ability to reason with his experiences undergoes various shifts. Initially, his reaction to Harey is violent rejection; when finding that she is not part of his dream, he launches her into space, treating her as a sort of abomination (Kindle Location 1032-55). By the later parts of the book, his fear develops into an obsession with reliving a life that he had lost a decade ago. This obsession with Harey mirrors the addiction that he has to the planet as a whole, his experiences with his resurrected lover interplay with the periods of frantic study he conducts on the planet.

The character arc that he follows through the novel, from a state of overconfident rationality, to absolute shock, to obsession, and finally towards understanding the planet in a way that allows him to partially divorce himself from his humanity, shows the importance of learning through experience, rather than communication. In the essay "The Task of the Translator," Walter Benjamin conveys

that there is something unattainable in conveying an experience in words: “there remains in addition to what can be conveyed something that cannot be communicated; depending on the context in which it appears, it is something that symbolizes or something symbolized” (Benjamin 261). The reason that the human race cannot learn about the planet in any other way boils down to an incompatibility of translation; by defining Solaris in human terms through scientific jargon, it is necessary to confine the parameters of the planet to what is understandable through Earthly language. In doing so, a subtle amount of information is lost, information that fails to materialize in language because it represents the gap between mentalities developed on two different celestial bodies. Kelvin wants to find out this core of meaning that eludes language: “I wanted to put an end to conjecture and learn the truth, though I couldn’t imagine how I would understand it” (Kindle Locations 723-24). He has a concept that a radical departure is needed from the standard, lettered form of scientific discourse, but cannot articulate what needs to change. It is only towards the end, when he has his experience with the planet, that he realizes that the reason he could not describe the approach that would lead to understanding is because it was an experiential mindset that could not be conveyed in simple speech all along.

As a xenological thinkpiece, the story forces us to consider the possible differences an alien mind could have from our own, as well as meditate on the alienness of humanity itself. The neutrino people, who live as bastard children conceived between the Earth and Solaris, are only one example of the distance between humanity and the alien ocean. The ocean’s ability to take what we know about

the universe and contest the most basic concepts of understanding “are challenges to human hubris, the very modern pride that human beings can understand the universe of human terms, in human structures” (*The Solaris Problem* 9). When put into the larger context of a universe full of anomalous beings, this ideal of human reason conquering all of the known universe begins to feel utopian. Earth, after all, is a single planet full of aliens trying to make sense of their surroundings through their own perspectives. Perspectives which, as the Solaris Enigma highlights, can only be shared by and for human consciousness. In Thomas Nagel’s “What is it like to be a bat?,” he argues that there is no way to fully experience being a bat because “we are confined by the limits of our own subjectivity... of what it feels like to be human beings” (*Some Things We Know About Aliens* 7). To fully capture the experiences of some foreign being or object, one must become said object. Since humanity, in finding Solaris, is now not the only structure-generating planetary entity, humanity has lost the power of absolute definition. Not only is there no way for the human reason to triumph universally, but humanity can only be understood by itself. Snaut, by saying that our society was only looking for a mirror in the universe, also implies that if we ever did find another presence, our reflection would be all that we could see. All science, philosophy, and wild guessing amounts to an internal dialogue inherent to the human race, which is itself a core experience of humanity. Our mentalities, which seek the nebulous concept of order and control in an environment with no concept of these values, is yet another anomaly trying to understand a fellow aberration.

If the neutrino people are the result of the planet and human minds melding into something completely alien to both parties, then the closest that the planet gets to inhabiting a human body in the book is Berton's child. While human in basic appearance, the giant child, covered in oceanic slime acts "like something in a museum[...]It was opening and closing its mouth and making different movements" with the reason for such random movement seeming to be "as if someone were trying them out" (Kindle locations 1338-1339, 1343). There is no intent behind the movements of the child other than a veneer of experimental modulation. This, then, is an image of a human truly stripped of the terrestrial: aimless, alarming, and incomprehensible. By making this momentary feature of Solaris a child, Lem points out the parallels between children and the planet. Just as a child moves, topples, and sometimes breaks parts of the physical world in sheer curiosity, the planet creates and destroys its environment as a purely scientific being. Where this apparition of the child becomes grotesque, however, is in distilling the concept of trials and experimental movement to their purest forms; not even a curious human child would be able to "experiment" with the level of fine control that the planet has, and children are at least reigned in by their developing egos. The planet, on the other hand, not bound by such concepts, makes the child's movements "methodical. They took place in sequence, in groups and series. As if someone were trying to find out what the child was capable of doing" (Kindle Locations 1350-1351). The most unsettling aspect of this occurrence not the act of the planet's mimicry, but the absolute lack of the human mind behind the figure, as if Solaris had put on a human suit. By doing so, the planet dips into an uncanny valley that

inexplicably produces fear in the humans, a fear that comes from not only the unknown, but the unknowable.

Kelvin, a psychologist, finds himself unable to cope with the feelings that proximity to the planet forces him to confront. Starting as the voice of the rational human scientist, comes to the other scientists with little understanding, and without considering that they could have made it to their panicked states from a similar mental state to his own. His exasperation in seeing Snaut distraught when he first lands on the station boils over in the first few moments: “‘Get a grip on yourself!’ I roared... ‘What’s the matter with you, Snaut!!’”(Kindle Locations 122-123). Already, this seemingly composed scientist lacks the patience or curiosity to stop trying to control his environment and begin observing. His vision of a rational explanation for Solaris and the addled state of the scientists could not possibly be answered with language or reason, and it is only when Kelvin begins to experience the strange occurrences himself that he begins to understand the Snaut, Gibarian and Sartorius. After waking up to Harey for the first time, he jettisons her off into space, burning his own face in the process. Only in this moment, when he himself has experienced the same phenomena that the other scientists have, does he realize that the sunburns that Snaut and Sartorius have are from similar experiences (Kindle Locations 1077-1079). Kelvin’s bullish refusal to stop and listen to the other voices around him can only be resolved by experiences that he has himself, and this oddly makes him the perfect candidate to make some progress in understanding what drives the planet.

This death, which seems to form the crux of Harey's development from a tool of the planet into a human with self-sacrificing tendencies, may be an example of the planet taking on one of the most important aspects of being human: death. Death itself surrounds the memory of Harey, therefore it is no surprise that she is the first of the visitors to develop a means to kill a seemingly immortal body. She seems to primarily symbolize, to Kelvin at least, the necessity of leaving human values behind when making contact with alien entities. "It can only be justified as true self-sacrifice if the destruction of one's self frees the way for others to live freely. In essence, it opens up new and better relations that are blocked by the old relations (embodied in the sacrificial victim)" (*Kelvin's Resolve* 6). However, her death and Kelvin's subsequent journey to the ocean do not come from a place of increased enlightenment, but rather increased desperation. The psychologist ventures down to the surface of the planet for the first time, but his motivations are formed out of some hope that "some new manifestation of contact or shared creation will occur" (*The Book is the Alien* 9). If anything, this change in Kelvin would make him more likely to be stuck in his own mind and corporeality. On the flipside, it is an element of the planet that has made the big conceptual leap from Solarian to human perspective; Harey the phi-creature has had her first encounter with death, a fundamentally Earthly feeling that defines biological life.

The Language of Knowing

A significant portion of the novel is dedicated to describing the painstaking research that the solarists have conducted on the planet, with emphasis on the

classifications of the formations on the surface of the planet. Such fanciful conceptions as “‘megamushrooms,’ ‘mimoids,’ ‘symmetriads’ and ‘asymmetriads’”(Kindle Location 1797) add the flair of scientific jargon to give legitimacy to a discipline that has little concept of its subject. By pushing human values on Solaris, humanity attempts to make the ideas that the alien planet produces digestible—conquerable, in fact—but the planet simply cannot be boiled down into easy categories. The book is quick to mention that these recurring surface phenomena are just a few pieces of information in a far more complex system, and even the most recognizable of the formations are still beyond comprehension. The issues in wrapping one’s head around the planet arises from several factors, such as:

An issue of scale. The entity that comprises the enigma of Solaris, in being a planetary mass, cannot possibly be simplified into an observable set of laws and behaviors. Although features such as the “symmetriad” are named in an effort to make them conceivable, “A human being is capable of taking in very few things at one time... the history of thousands, millions means essentially nothing at all. A symmetriad is millions, no, billions to the nth power; it is unimaginability itself” (Kindle Location 1955). The sheer amount of activity that goes on in the heart of this single formation, which is itself an insignificant, momentary eruption of activity on the surface of a seemingly uncaring planet, occurs on a scale truly beyond the capability of human comprehension. This incomprehensibility through magnitude, although insignificant to the planet, mirrors the struggles that humanity has in understanding itself. The sheer

scale and diversity of minds in the network of human communication is so vast that the hopes of understanding all the world's output is virtually nil.

An issue of unpredictability. In some instances, the planet seems to behave out of sheer geological process; such is the case when the eruption of one hundred and six occurs, and the research crew tasked with researching near the surface at the time is obliterated. There seems to be no reason for the planet to behave intentionally hostile, and the fact that an explosion of a similar type is never mentioned again points to the freak nature of such an occurrence. On the other hand, there are moments that the entity seems to act with undeniable intent. The network of intersecting shapes and forms that run through the symmetriads that occasionally appear on the surface seem to be experimental: “we watch the rise of vast planes grayly opalescent in the light of our flares... everything here is fluid—the content of this architecture is motion, intent and purposive” (Kindle Location 1959). In this instance the world seems to have some sort of grasp on experimental structure and motion. The act of creation, the solarists say, must be the result of some type of mind, as dynamic and intricate structures must come from a place of intellect. However, this assumption on the nature of intelligence is rooted in human exceptionalism. If the shifting, bewildering shapes are not the result of a mind, and are instead the product of the ocean reacting with itself, then human innovation is trivialized next to a natural formation that imitates the process of discovery and innovation.

Solaris acts as such a test because, despite seeming like the antithesis of human reason, or a cosmic object meant to put humanity in its place, only represents

the distance between us and what could possibly exist in the universe. The alien ocean, having taken a form wildly different from our own biosphere, “is not only a convincing alien being, it is an anomalous one” (*The Solaris Problem* 7). Solaris, however, is only as much of an anomaly as humanity is. As the only two known formations (I use “formations” as the only descriptor suitably neutral enough to connect humanity to this massive ocean) in the universe capable of creating and manipulating the natural environment, no reference point exists to give one planet the “anomaly” status while the other may be classified as “normal.” The need for a second alien becomes paradoxical, though, because another contact may be just as likely to return yet another independently alien entity, and more contacts would need to be made, ad infinitum. The alien itself, whether it is us, Solaris, or something entirely different, is anomalous in a universe mostly comprised of empty space. In such an environment where the independent human mind cannot find any similar beings to converse with, the only thing that should be important to our civilization is intercommunication; we may not be capable of understanding the truly alien, but we can work to understand ourselves through what we discover. The assumptions and hypotheses that are made in scientific journals, while meaning to take a wholly empirical look at the outside world, have assumptions and underlying hopes in them that reveal the perspectives of their originators.

Kelvin’s obsession, however, seems to be uniquely successful in... some ambiguous sense. Once again, Lem provides the readers no definitive signs of contact, revelation, or even progress when Kris Kelvin travels to the surface of the planet. All

that is clear is that Kelvin has removed the distance between himself and the planet, physically and most likely mentally, to a certain extent. When placing his hand into the ocean, he speaks with a newfound confidence in interacting with the planet: “I took my seat as before, but as if changed by this theoretically familiar phenomenon that I had provoked; theory was quite incapable of conveying the actual experience (Kindle Locations 3370-3371). This step towards understanding the nature of the planet, from the perspective of humanity’s goals, is a leap backwards in terms of linear progression and control. Rather than attempting to document and measure an experience so that it can be properly transmitted as information, Kelvin admits that the world simply needs to be *felt*. The experiential reality of the alien surface, something that truly has no Earthly counterpart, simply cannot be translated to any terrestrial language. An understanding of Solaris requires the complete reinvention of the human, and not only calls for an unlearning of humanity, but an unlearning of life itself. Kelvin continues:

I was descending to regions of inertia that might have seemed inaccessible, and in the gathering intensity of engrossment I was becoming one with this fluid unseeing colossus, as if—without the slightest effort, without words, without a single thought—I was forgiving it for everything (Kindle Locations 3376-3378).

Rather than a grand opus of thought, true understanding of the planet comes through divorcing one’s self from the mind altogether. Kelvin moves away from effort, language, and essentially allows himself to be a small element of the rest of the cosmos. Rather than relying on the detached, higher concept way of examining reality, he abandons it in favor of a truly experiential relationship with the planet that, even if it does not

produce any information to study, allows him to attain a wholly different method of existence. If Solaris acts as a mirror to humanity, then Kelvin has gotten to the point where he is fine seeing that image reflected back at him, even if it is insignificant.

The linguistic basis in which humanity attempts to define the universe becomes insufficient, and the nature of knowledge itself gets called to question. The terms that the scientist Giese formulated mean nothing to the planet, and neither do the terms that the humans use to describe themselves. The terminology confirms one of the major themes of the novel: that human concepts only have meaning within human circles, and that these concepts are never universal. There is only utility for humanity: ““symmetriads” and “asymmetriads,” its “vertebrids” and “rapidos” sound terribly artificial, but they do give some idea of Solaris even to those who’ve seen nothing but a few blurry photographs and poor quality films” (Kindle Locations 1804-1805). The frenetic quality of the words allow a human mind to discern the general implication of the formations, but these distinctions offer little in terms of universal meaning.

The name of the planet, Solaris, becomes one of the few pieces of tangible knowledge on the planet, and yet the name is grounded in humanity. Coming from the root word “sol,” the name of the planet is laced with the intent to bring the object closer to Earth, as if it were in the same solar system. Furthermore, the name also relates to the Latin term “solus,” meaning “alone.” This double meaning acknowledges the uniqueness of the planet while also attempting to co-opt the planet into the human worldview. Through these two definitions, as well, the name of the planet takes on a third meaning; it is inherently contradictory. The planet truly is close to humanity by the

time of the book, with the human race defining a significant portion of their cultural capital to the study of the planet, as the youths of the Earth at one time believed “this “affair” eventually became something of a touchstone of one’s own worth. “In essence,” they would say, “the stakes are higher than exploring the civilization of Solaris; this is about us ourselves, about the limits of human cognition” (Kindle Locations 362-363). At the same time, however, the sheer uniqueness of the planet meant that even the curious human could not parse Solaris enough to make official contact, leaving the planet alone as interest in the subject wanes.

Conclusion

The process of conceiving Solaris, as a presence that exists beyond the conceptions of humanity, begins with the omission of details. Much in the same way that a horror film preserves the horror of a moment by concealing the presence of a malignant figure, Lem creates the inscrutable Solaris by leaving out the motives of the planet, instead focusing on the impossible feats that the planet performs. Working in the background, and representing a far different example of an environment-changing presence from our own society, Solaris is allowed to be supremely alien. Through achieving this alienness, Lem has created the perfect entity to examine the larger human values that may carry no meaning across the cosmos. A narrative thought experiment such as this forces us to reason with the diminutive space that we occupy in the universe, but also realize that our intercommunication and creativities are the most valuable assets in a universe that does not carry human thought very far.

As for the implications for humanity, Solaris represents an entity that is wholly unconquerable, showing us that our mental ceiling exists, and that a significant change to humanity must occur if we are to ever understand on a level beyond that upper limit. However, this significant change would have to be so all-encompassing that we would have to relinquish our status as humans, or at least alter the definition of humanity so greatly that our descendants would be completely unrecognizable from us. Kelvin's final interaction with the planet, with its ambiguities, can simultaneously serve as a moment of enlightenment, a false sense of understanding, and an acceptance of limitations. The psychologist's journey and final reaction to the planet serves as a proxy for the perspective of the reader, in this case, with the reactions to the ending of the novel being as varied as the theories on the planet itself. All that is known, in the end, is that Kelvin exists as a single, tiny human body on a vast cosmic entity. He may be a small element of a much larger universe, but he acknowledges his status, and effects change on the world in a way that has meaning for him, and nothing else. He may not have become the commander of *the* universe, but he at least has some form of control over *his* universe.

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