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THE METAPHOR OF THE DAWN OF THE SPACE AGE IN THE CONTEMPORARY SOCIAL SCIENCES AND HUMANITIES

ABSTRACT

The dawn of the space age in the early 1960s first provoked unabashed awe. Then, it inspired numerous attempts to explain (away) the eventual status of the first examples of manned spaceflight accounts that mainly interpreted Yuri Garagin's flight (1961) and the Moon landing (1969) as logical consequences of technological progress, a certain constellation of political circumstances, and a pinch of 'imagination' to begin with. Curiously enough, conclusions of the vast majority of such accounts cannot but resort to 'terrestrial' metaphors in order to explain why these endeavours were worth undertaking in the first place. In the 21st century, reflections on outer space seem to have settled within three conceptually designed research fields within the social sciences and humanities: astrosociology, noocosmology and cultural studies of outer space. The text analyses conceptualisations and accounts of the dawn of the space age exhibited by the core texts and methodologies of these research fields to demonstrate how they actually hinge on variant epistemologies, and interpret the role of metaphor in world-formation in radically differing ways.

KEYWORDS: *metaphor, space age, astrosociology, noocosmology, cultural studies of outer space*

Metafora začetka vesoljske dobe v sodobnih družboslovju in humanistiki

IZVLEČEK

Začetek t. i. vesoljske dobe (space age) je trčil ob vsesplošno občudovanje. Temu so sledili poskusi, da bi prvim primerom poleta človeka v vesolje odvzeli status prelomnega dogodka: vzniknilo je več narativov, ki so polet prvega kozmonavta Jurija Gagarina leta 1961 in človekov pristane na Luni leta 1969 interpretirali kot logični posledici tehnološkega napredka, določene konstelacije političnih okoliščin in ščepca »domišljije«, s katerim naj bi se vse skupaj pričelo. Tovrstni narativi navadno pojasnjujejo smiselnost človekovega preboja v vesolje s pomočjo izjemno »prizemljenih« metafor. Humanistika in družboslovje 21. stoletja poznata (najmanj) tri raziskovalna polja, ki se posvečajo vprašanju človeka

v vesoljski dobi: astrosociologijo, nookozmologijo in kulturne študije vesolja. V članku analiziramo konceptualizacije začetka vesoljske dobe, ki jih je mogoče izluščiti iz inavguracijskih tekstov in metodologij naštetih polij, ter poskušamo pokazati, kako ta polja z različnim razumevanjem metafore začetka vesoljske dobe in epistemološkega pomena metafore kot take proizvajajo bistveno razlikujoče se svetove.

KLJUČNE BESEDE: metafora, vesoljska doba, astrosociologija, nookozmologija, kulturni študiji vesolja

1 Introduction

It has often been observed that a lot about human outer space exploration is highly metaphorical. Astronauts and cosmonauts, for instance, have often been depicted as the prototype of a new hero (cf. Llinares 2011; McCurdy 2011), to measure up to the so-called space age (a signifier, which is in itself, as we shall proceed to argue, a highly suggestive metaphor). Particularly in the U.S. imaginary, outer space has often been depicted as the "ultimate frontier" (e.g. in McCurdy 2011), coincident with the horizon of new colonialism or, as argued convincingly by Shukaitis (2009), with the ever expanding horizon of capitalism, and thus a necessary "fix" for its structural crises. The post-Soviet Russian-speaking context, on the other hand, refers to outer space using the term *kosmos*, which alludes to the organizing, harmonizing principle of the universe as conceived of by the ancient Greeks (cf. Leiderman and Lipovetsky 1993). These examples by no means exhaust the list. Perhaps the last one that needs to be brought up at this point refers to the experience of those humans who had a chance to experience the world from the perspective of a spacecraft (or even merely a spacesuit). Frank White's work, *The Overview Effect* (White 1987/1998), discusses the accounts of a series of U.S. astronauts, which are so suggestive that the author does not even need to make any particular effort to demonstrate the persistence of a speculative, metaphysical element in them: the astronauts usually claim that the experience of leaving planet Earth behind is extraordinary, beyond description, and then resort to various terrestrial metaphors to try to make up for this lack of signifiers (e.g. "a dreamlike experience"; a "heart-stopper" (White 1998: 15)). White (1998: 15) concludes that "metaphor is not a mere extra trick of language ... it is the very constitutive ground of language", and that "we should expect one result of space exploration to be that language will grow as space exploration is described more frequently" (Ibid.).

Let's take this as the starting point of this article. The beginning of the space age, i.e. the launch of the Sputnik in 1957 and subsequent first cases of manned spaceflight in the 1960s may, in many respects, be thought of as a rupture with the set of coordinates that man had to deal with before. First and foremost, because the event of spaceflight cannot be "erased" or not taken into account in subsequent discussions about outer space or projections about its future. If many historical accounts of man's future prospects in outer space appear to be mirror images, suggestive analogies of prevalent terrestrial imaginaries, bound to a certain discursive and temporal context,¹ contemporary debates on questions

1. Blumenberg (2001), for instance, provides a very extensive –and somewhat metaphorical– account

about humanity and outer space cannot afford the luxury of dismissing “ethnographic” accounts, data from outer space.

In this sense, it seems sensible and logical that the beginning of the space age resulted in a certain expansion of research interests in the realm of the academia: since the second half of the 20th century, there have been several attempts of opening up new, somewhat conceptual research fields and creating adherent scientific disciplines, focusing on a broad range of questions about man and outer space (namely, astrosociology, noocosmology, and cultural studies of outer space). It does not seem unusual that these conceptual fields, devoted to questions about man and space, tend to remain tied to very specific cultural contexts. For example, astrosociology – a subdiscipline of sociology and a multidisciplinary field focusing on the development of society’s (and, in theory, societies’, although current practice focuses most on U. S. astronauts and the National Aeronautics and Space Administration’s (NASA) space program) addresses ways of engaging with outer space conceived in the U. S. imaginary, which is evident from its pool of references (both theoretical literature and empirical data). Noocosmology² – a “scientific discipline” [*nauka*] and “worldview” [*mirovozzrenie*] (Aseev 2010) that focuses on the steps needed for humanity to enter into a harmonious and happy existence as part of the macrocosm operates within a set of references which are predominantly Russian. Cultural studies of outer space – a transdisciplinary project that comprises cultural and social history of space exploration, analyses of related media representations, art and popular culture, and the theoretical implications of these analyses, emerged in the context of post-World War II Europe. It exhibits a lesser emphasis on empirical human space exploration than the other two disciplines, which in part reflects the history of Europe’s engagement with space exploration: post-WWII space programs in Europe traditionally focused more on communication and satellites than on manned spaceflight.

At first glance, it might seem that such an increase in academic interest and such a varied pool of new linguistic references has put White’s supposition on the imminence of an expansion of human language after the beginning of the space age into action. However, this conclusion would be slightly premature: expansion in terms of form does not say much about contents or structure. It is therefore the aim of this article to examine the metaphorical starting points of astrosociology, noocosmology, and cultural studies of outer space with reference to their inaugural texts, methodologies, and aims, in order to address the following question: Does the metaphor of the beginning of the space age as taken up by these research fields correspond to the supposition that the beginning of the space age may be conceptualized as a break with previous coordinates of our “world”? In order to address this question, we will first propose a conceptualization of how to think of the

of the terrestrial conditions of the genesis of the Copernican world, which is possibly a constitutive precondition of the beginning of the space age in the 20th century.

2. The terms “astrosociology” and “noocosmology” are not completely interchangeable, and it would be premature to claim that noocosmology is merely a Russian neologism for astrosociology. As the text will proceed to demonstrate, the interests of the two fields differ in several very important respects; furthermore, at this moment, there is no evidence that the emergence of one discipline was of any inspiration for the conception of the other.

dawn of the space age in terms of its implications for the social sciences and humanities, and suggest what this issue might have to do with the question of metaphoricity. Then, we will use this conceptualization as a starting point of our analysis of astrosociology, noocosmology, and cultural studies of outer space respectively.

2 The Dawn of the Space Age as Rupture

White's claim about metaphor being a powerful means of making sense of the world, and his supposition that the space age and spaceflight will result in (or at least require) linguistic expansion, is suggestive, but requires elaboration. It might be tempting to interpret it quite literally, as a reference to metaphor as a powerful rhetorical device, and a call for new words, which might allow astronauts to describe their extraterrestrial experience with greater precision (with a greater degree of correspondence between their feelings and the words they use to recount them). However, there seems to be another, more intriguing interpretation possible. Rather than restricting metaphor to a rhetorical device, a "tool", it seems more accurate to consider it with its performativity in mind. As argued by Aristotle, metaphor is never simply a rhetorical device, but is also predicative, or, as demonstrated by numerous later theorists, performative:

To learn easily is naturally pleasant to all people, and words signify something, so whatever words create knowledge in us are the pleasantest. . . . Metaphor most brings about learning; for when [Homer] calls old age 'stubble', he creates understanding and knowledge through the genus, since both old age and stubble are [species of the genus of] things that have lost their bloom. (Aristotle 2006: 1410b).

Aristotle's focus appears to be on analogical metaphor, but the other potent argument that seems to be anticipated by the passage above is that metaphor exerts an influence on reality; co-structures it. In this vein, astronauts' accounts of their experience in outer space may be seen as shaped by the metaphors they had at hand, rather than merely as an aid they use to spice up their descriptions *post festum*. The same may be argued about the emergent research fields focusing on humanity and outer space: they are both shaped by existent metaphors, and are themselves metaphorical, as all paradigms, as elaborated by Cazeaux (2009: 134):

/T/here is a fundamental two-way relationship between metaphor and epistemology. On the one hand, epistemology is metaphorical in the sense that the task of describing how our faculties mesh with the world requires us to make claims which exceed what is given in experience and which therefore can only be articulated by drawing on external areas of discourse. But, on the other, metaphor itself has been 'epistemologized' by recent research in philosophy and psychology, that is to say, metaphor has been shown to be central to the mapping and organizational procedures we employ in perception at large. What this two-way relationship means, I suggest, is that metaphor acquires an epistemological significance which (a) goes some way towards explaining why it is that the same metaphor can adapt itself to opposing theories of knowledge, and (b) can guide epistemological thought

through the science wars in a fashion which avoids the binarism of phenomenal appearance and noumenal reality.

This loose conceptual framework should suffice for us to be able to address the key analytical issue, so we will not delve deeper into debates within metaphor theory in this text. However, it is necessary to address the question of the relationship between metaphor, the dawn of the space age, and academic discourse, as it arises within our loose conceptual framework.

What does our understanding of metaphor mean for any interpretations of the implications of (wo/)man's first ventures in outer space? On a most general level, the "space age" is a relatively common term used to refer to times after the launch of the Sputnik in 1957. After the end of the Cold war (and the space race), the phrase has been overshadowed by many other poignant syntagms describing "the human condition" (from "globalization" to "pax Americana" to "capital-parliamentarism" to the "anthropocene"). However, it inspired the emergence of several research fields within the social sciences and humanities, which nonetheless focus on the new possibilities, allegedly opened up for humanity by the "dawn of the space age". With several decades' hindsight, syntagms used to describe man's first ventures beyond the orbit of the Earth appear highly poetic, and thus metaphorical, even in the most restrictive use of the term: they conceptualize certain events and their (actual and potential) implications resorting to imprecise, yet rhetorically efficient images.

"The dawn of the space age" is, for example, a term that hints at a new beginning and at an emergence of new spatio-temporal coordinates with serious implications for the question of how to go on being human, and how to be a subject. This realization may be detected in many reflections on first manned spaceflight. For instance: "The fact of spaceflight marks today's world and our contemporary existence as people on the deepest level," claims Günther Anders (1994: 117). Anders (echoing and elaborating Hannah Arendt's reflections on the launch of the Sputnik and on "alienation of the earth" (Arendt 1998: 248–285)) interpreted spaceflight as a remarkable occasion that demonstrated to man, how small and unremarkable the Earth, the cradle of our existence, actually was when faced with the vastness of outer space. Around the same time, Lacan (1993: 45) theorized the first landing on the Moon as an event of discourse, which – along with certain other scientific achievements – postulated the autonomy of the signifier and therefore entailed radical consequences for the question of subjectivity.

Over time, both of these accounts seem to have been integrated into more conventional narratives: the first examples of man's interventions into the orbit of the Earth and beyond it became "predictable consequences" of a specific mixture of political circumstances and interrelated technological and scientific priorities. Spaceflight began to appear as a mere side effect of *Realpolitik* which favored the development of surveillance and other military technologies, as well as participation in a race that was once considered as a mere dream of certain somewhat suspicious, yet genius lunatics, such as Russian inventor Konstantin E. Tsiolkovsky. However, a certain fascination over the beginning of humanity's (ad)ventures in space remained. No matter how convincingly politicians and historians of science argued that there was nothing surprising about the sky-bound events of the late 1950s and 1960s, apart from, perhaps, the perseverance of the inventors and engineers,

and the heroism of the men (and women, and dogs) who were chosen to take part in the actual extraterrestrial adventures, an element of uncomfortable wonder persisted both in accounts of these events and in further scientific research, in one way or another connected to space exploration.

It appears that the “dawn of the space age” manages to remain *ambiguous*, on a very general, rudimentary level; its ambiguity does not lie in the mere fact its significance became interpreted from varying perspectives, but in the fact that these differing accounts tend to operate within varying coordinates of what the world and the human in it are. To put it simpler: it is not just that the beginning of the space age may be seen as a pivotal event for various reasons (e. g. some highlight it as a stepping stone of scientific progress, while others emphasize it as the first ever opportunity that mankind got to look at itself and its planet from a remarkable distance). What is more interesting about these claims and interpretations, is that they tend to take up the same metaphorical concept (the beginning of the space age, i.e. the dawn of a new, different era) as their *starting point*, in order to then use it on radically different levels, in radically differing cultural contexts, to produce socio-political and cultural myths with different functions. The metaphor is just as useful for (a) expanding humanity’s horizons, for demonstrating that it will from now on be necessary to re-calibrate our comprehension of ourselves and of what we believe is our world, as it is convenient for (b) demonstrating that it is neither possible nor necessary for mankind to reconsider its most basic principles of existence and agency, as all our activity in space should be a mere extension and analogy of our activities on Earth. Furthermore, this same event (the first examples of spaceflight) is consensually recognized as a pivotal event in very different registries. The latter operates within an epistemology that cannot grasp metaphor otherwise than through analogy; the former also resorts to metaphor, but this metaphor is radically different: instead of searching for analogical associations, it points to the radically different, the unknown, the uncontrollable. Interestingly enough, this discrepancy has not to this point questioned the different accounts’ capacity of producing statements of scientific/academic significance. Arguably, because the question of their use of metaphor and their own metaphoricity has hitherto been left unattended.

3 Space Conceptualism in the Contemporary Social Sciences and Humanities

Let’s examine how an attentiveness to metaphor, as both a poetic and a rhetorical, as well as a predicative and performative characteristic of concept-formation may alter what at first seems as an adequate and coherent step following the realization that a new circumstance (in our case, the dawn of the space age) requires a far-reaching change in perspective, that is, establishing a new research field. As stated above, at least three such (non-related to one another) steps were taken in the international community of the humanities and social sciences following the realization of the possibility of spaceflight: astrosociology, noocosmology, and cultural studies of outer space. Let it be emphasized that the fields are so new that it would be somewhat distorted to describe them as fully-fledged paradigms or closed structures with complete explanatory apparatuses. However, they are

all – albeit to a degree – institutionalized, and have inaugural texts that, to an important extent, dictate their primary aims, scope, and methodologies, and hinge on certain core concepts. All of this allows for an analysis of their epistemological frameworks, and in some cases provides enough evidence for one to position them in relation to the concept of metaphor, as we shall attempt to demonstrate in the following paragraphs.

3.1 Astrosociology

An Informal Discussion Roundtable of the 2004 American Sociological Association Conference witnessed a presentation by dr. Jim Pass, who delivered what was documented as *Part 1* of the *Inaugural* essay for a new “subdiscipline of sociology” – later to be recognized as a “multidisciplinary field” with substantial input from other social and behavioral sciences –, which the presenter proposed to name astrosociology. The Essay, which is freely accessible online, sketches out the need for both a new discipline (“astrosociology”) and certain novel concepts (such as “astrosocial phenomena”). In the essay, Pass emphasizes that humanity (and therefore societies) is ever more engaged in activities and connected to phenomena which are related to that which lies beyond Earth. He underscores that a need for a new field, which would focus exclusively on this development of our social sphere has, before him, been articulated by other scholars (e.g. Tough 1998), who proposed various related terms to coin the new discipline, such as social astronomy. However, Pass opts for astrosociology, taking “astrobiology”, officially recognized and supported by NASA, as an efficient example, and arguing that this solution would facilitate the eventual development of other astro- fields. The *Inaugural Essay* provides provisional definitions of astrosociology and astrosocial phenomena:

A Working Definition. Astrosociology is defined as the sociological study of the two-way relationship between astrosocial phenomena and other aspects of society (i.e., non-astrosocial phenomena or other social phenomena) at the various levels of social reality and organization (i.e., the micro, middle, and macro levels of analysis).

The concept of astrosocial phenomena (have I coined a new concept?!) pertains to all social conditions, social forces, organized activities, objectives and goals, and social behaviors directly or indirectly related to (1) spaceflight and exploration or (2) any of the space sciences (e.g., astronomy, cosmology, astrobiology, astrophysics). It includes all outcomes of these phenomena in the form of scientific discoveries and technological applications, new paradigms of thought in the astrosocial and non-astrosocial sectors of society, as well as any resulting changes of social norms and values in any of the social structures of a particular society. Another component of the concept of astrosocial phenomena is that it includes all the norms, values, roles, and statuses that characterize social structures in the astrosocial sector (which is introduced in the next section). The concept of social phenomena is thus broken down into two major parts: astrosocial phenomena (as defined above) and non-astrosocial phenomena (a category which includes all types of social phenomena not considered to be astrosocial in nature). Astrosocial phenomena are thus a form of social phenomena which describe all the characteristics of social

structures, social groups, and societies created through human interactions and activities. (Pass 2004a: 7)

Pass (2004a; 2004b) envisages a busy and fruitful future for the field, both in terms of its institutional development (university courses, departments, research institutes, etc.) and in terms of its substantial contribution to the international research and academic community. He believes that:

The relevance of astrosociology increases in human societies because of at least three reasons extrapolated from the present: (1) pure scientific understanding continues to drive human beings, (2) applied science and technological change each improves living conditions, and (3) exploration continues to inspire and thereby lure individuals and their social groups into the unknown. These three interactive forces increasingly make astrosociology more relevant to societies because space represents the last great frontier, arguably at least as important in the grand scheme of things as the vast unexplored oceans of Earth. It is important to study the process of the growing intrusiveness and influence of astrosocial phenomena on human societies simply because it exists. (Pass 2004a: 7)

Part 2 of the *Inaugural Essay* elaborates on these points, arguing that astrosociology or a study of astrosocial phenomena from a sociological perspective is highly necessary, as humanity seems to be moving from "Earthcentric" to "spacecentric" societies. Therefore, astrosocial phenomena pervade ever more spheres of social life, from norms, values, economies, to cultural production (such as science fiction), which may all be an object of astrosociological inquiry (Pass 2004b: 10–17). The essay concludes that:

A large measure of astrosociology's relevance lies in the understanding of the changing nature of societies and how part of that change is traceable to astrosocial phenomena. Working in space and exploring its properties remain unarguably expensive. However, the benefits of knowledge, inspiration, and economic returns are difficult to duplicate by other means in the long term. Thus, the possibility of a spacefaring future exemplifies a rational extrapolation of past and current conditions rather than a "far out" dream. (Pass 2004b: 19)

Astrosociology seems to be a step on the path of this "rational extrapolation of past and current conditions". Today, the discipline is chiefly being developed by the Astrosociology Research Institute (ARI, founded in 2008) – "a non-profit public benefit educational corporation" situated in California, headed by dr. Jim Pass. Since its appearance, ARI has done a lot of work promoting astrosociology (through participation of its researchers at various conferences, organization of astrosociological symposia, scientific publications, as well as educational projects, such as "Astrosociology in the Classroom"). Notably, astrosociology was the topic of a thematic issue of the *Astropolitics Journal* in 2011. ARI also runs its own online annual peer-reviewed journal, *Journal of Astrosociology*.

The Institute has a rather telling motto: "understanding space and society from a 'grounded perspective'." (ARI 2015) Indeed, one of the strongest emphases of astrosociological research to date seems to be its ambition to equip humanity with insights into how to transfer whatever mechanisms and forms of social organization seem "functional" on

Earth, to potential life in outer space. On the other hand, it also attempts to demonstrate the impact of space exploration on society. It is concerned with questions such as global space governance and outer space law (e.g. Hearsey 2011), the role of the space sciences in education, the prospects of creating habitats in extraterrestrial environments (e.g. Lempert 2011), but not with the significance of the game-changing possibilities opened up by spaceflight. Most astrosociological research relies either on existent empirical data on processes in space or on logical extrapolations of ideas conceived and materialized on Earth (such are articles on the prospects of social organization of colonies on other planets). A general common feature of all of these inquiries appears to be that, rather than asking: "How to be human (or, as subject) of the space age?", astrosociology is concerned with the question of: "How to preserve human social structures, as we know them on Earth, in extraterrestrial environments?"

The outlook appears rather pragmatic: why delve into the unknown and possibly unknowable, when there is an option of tailoring parts of it to match up to what one is familiar with? For astrosociology, the beginning of the space age is, as is clearly stated in many of the texts published by astrosociologists, an extrapolation of what we know on Earth to outer space with the help of technological progress. Even if certain responses, reactions, mechanisms and procedures will differ in space, the question of whether this shift in environment might change what it means to be human and to act as an agent in spatial, rather than terrestrial coordinates, is not addressed or even posed. It may be concluded that astrosociology views outer space as an environment, analogical to Earth; the "space age" is merely an expansion in terms of space and humanity's technological capacities, rather than an event which might restructure our perception of both the world and our place in it.

3.2 Noocosmology

If the Cold War saw the USSR coin the term "cosmonaut" to counter the Western "astronaut", the contemporary post-Soviet Russian context has witnessed the appearance of a peculiar space-oriented cultural phenomenon, called noocosmology – a term that at first glance appears to be somewhat related to astrosociology. Let it be emphasized that there are many differences between the two new research fields, but they do share one feature: the recognition that the humanities and social sciences should discuss the beginning of the space age with the utmost solemnity.

Noocosmology, first documented under this name in 2010 by Arkady Aseev, is defined in the following way in the Security Issues [*Voprosy bezopasnosti*] scientific journal:³

What is Noocosmology? Origin of this word is based on "nous" (also called "intellect", and in the deeper meaning – "the mind's eye") and "Cosmos". Famous Russian cosmist, Vladimir I. Vernadsky used term "Noosphere" as "sphere of human thought"; the same idea was in the works of Teilhard de Chardin. Thus Noocosmology could be called in a certain sense New Metaphysics. Binding concepts

3. Unless stated otherwise, the quotes are official English translations, provided by the noocosmology.ru website.

of other sciences, Noocosmology (New Russian Cosmology) is leading towards new discoveries and deeper knowledge about Cosmos. Following metaphysical tradition of Russian cosmists, Russian military specialists of the troop unit #10003 under the command of general-lieutenant Alexey Yu. Savin has developed method of metacontact (channeling) with the highest spiritual beings of our Universe. Due to this channel, Noocosmology receives new knowledge, yet unknown on our Earth. (Noocosmology 2015)

Despite these overt references to metaphysics, which seems to be understood in the manner of 19th century philosophy, as aiming at something transcendent, beyond the realm of human reason and understanding,⁴ in terms of form, noocosmology seems to possess all of the necessary requirements of an academic discipline. It positions itself as an emergent science: first mentions of the project, mainly accessible at the project's official website, run by its academic founders,⁵ reach to 2013; despite its novelty, it appears to have engaged a number of Russian academics. The advocates of noocosmology regularly publish in scientific journals (mainly Security Issues – Qsec [Qsec. Voprosy bezopasnosti]), have authored and co-authored popular scientific and scientific monographs (mainly in the field of security studies, focusing on the Soviet and Russian secret services, and their interest (and achievements) in metaphysics, such as e.g. *The Mysticism and Philosophy of Special Services [Mistika i filosofiya spetssluzhb]* by Sokolov (2010). Furthermore, the authors and developers of the field try to keep in touch with a more general audience via seminars, video lectures and other relevant published materials, and a general call for contributions, questions, expressions of interest in the project (Noocosmology 2015). The website includes a list of the founding members of noocosmology (a transdisciplinary group of people involving philosophers, sociologists, a psychologist and psychoanalyst, and several intellectuals with a background in security services), a list of its partners (tellingly, the main Russian website on Russian cosmism, a project on Global Evolutionism, System Theory, Holism, and Panpsychism, and several security service websites (such as: an association of bodyguards called Grey Shadows [Serye teni] and Security Issues – Qsec [Qsec. Voprosy bezopasnosti] web portal and scientific journal)). Furthermore, it has a

4. Here is a telling example of the noocosmologists' concise and not particularly precise mode of reappropriating philosophical ideas:

Plato's ideas were developed in a very original way by Russian cosmists – Konstantin E. Tsyolkovsky and N.F. Fedorov in the end of XIX – beginning of XX century.

They took many approaches from Plato. First, postulate of genetic entity of man and Cosmos; second, belief in probability of leaning of Cosmos; third, idea of harmonic coexistence of Cosmos and man; fourth, belief that created by the Lord is not a play, but necessity; fifth, belief that it depends on a man, would he acknowledge prototype of creation of himself and Cosmos; sixth, assurance that cognition of Cosmos as first copy of the perfect sample is a step towards learning the heart of the matter.

Russian cosmists predicted future. They anticipated dramatic change, observed by modern generations: change of the scale of creative work, globalization of social processes, required for further evolution of the humankind. (Noocosmology 2015)

5. See <http://noocosmology.ru>

section with a general description of the project, a section titled "Science" [*Nauka*] with links to most of the relevant articles, specified as scientific on the website, and a glossary of terms. As close as this type of structure might be to an emergent scientific project and research spectrum, noocosmology does not, at least not on the website, exhibit any sort of links to or collaboration with scientific institutes (apart from abovementioned security studies).⁶ Furthermore, it does not particularly advertise any possible research and scientific engagement of its founding members, apart from their recent publications, the nature of which remains slightly unclear: it is ambiguous whether these texts adhere to the standards of scientific publications or are rather just popular-scientific books, aimed at convincing a wider audience.

Although one might speculate that the ambitions of the project are not restricted to, or perhaps not even primarily of scientific and research nature, this is not entirely self-evident. The inaugural articles of the project (Aseev 2010; Aseev and Savin 2015) exhibit an ambition to position noocosmology as a fully-fledged science, at the same time, providing what seem to be unquestionable definitions of concepts such as, for example, happiness. Furthermore, as revealed in one of the variations of the definition of the discipline, the "science" [*nauka*] in question is often merged with "worldview" [*mirovozzrenie*]:

/noocosmology/ synthesizes the fundamental ideas of various natural, social, and technical sciences, and presents an interdisciplinary direction of scientific inquiry, which is of worldview, natural scientific, and general scientific importance. Noocosmology should be viewed as a general scientific problem that greatly surpasses the framework of any particular science. (Noocosmology 2015)⁷

This is done in ignorance of potent critiques of this view of science, put forth by a number of intellectuals: tellingly enough, Freud's (1933) interpretation of worldview, or *Weltanschauung* reveals it as a homogenizing, totalizing gesture of the Master signifier, which is not in the least similar to the research ethics of science.

It becomes clear from the texts that follow, such as *On Information and Energy* [*O informatsii i energii*] (Aseev 2015), *The Structure of the Spiritual Hierarchy of the Metacosmos* [*Struktura dukhovnoi khierarkhii metakosmosa*] (Aseev and Fonaryov 2015), that noocosmology does not address a scientific research problem. Rather, it seeks to provide a certain roadmap "toward happiness" [*k shchastiu*] (Aseev 2010), which requires both individual and collective effort. Noocosmology has a specific agenda, which hinges on the definitions cited above, as well as a set of axioms, principles, and governing laws. It may be rephrased in the following points. Firstly, noocosmology strives for oneness, complete integration of a) man and nature; b) discourses of various scientific disciplines; and c) two positions of enunciation: worldview and science. This radical integration seems to be hinging on an assumption that it is possible to find a way [*put'*], [*doroga*], i.e. a univer-

6. For the purposes of this text, security studies are understood as they are conceived in Russian scholarship, i.e. in the Security issues [*Qsec. Voprosy bezopasnosti*] journal. The journal discusses security as a psychological, sociological, economic and (geo)political category, relating it to human "wellbeing" [*blagopoluchie*] and "natural instincts" [*instinkty*]. (Voprosy bezopasnosti 2015)

7. Translated by the author of the article (Majsova).

sally valid recipe to happiness, envisaged as something that requires an “expansion of the limits of cognition and knowledge of the Mind and of general processes of evolution to cosmic dimensions”.⁸ (Noocosmology 2015) The main task of noocosmology is defined as “expanding human capabilities, psychologically, spiritually, morally, and energetically preparing man for knowing the cosmos in its primal form.” (Aseev 2010) This agenda is mainly backed by loose references to and isolated quotes from certain philosophers (e.g. Plato, Schelling, Vernadsky), who are, so it seems, quoted on the basis of authority (“great philosopher so-and-so”), in the manner of popular-scientific texts. Most systematic references are made to the Russian cosmists who are, in spite of much controversy in recent historical and philosophical debates, regarded as a “tradition of thought”, a “group”, a set of thinkers representing a clear agenda: the ability of the human mind to eventually master nature and gain access to certain “secrets of the universe”, such as eternal life and happiness. However, if cosmist texts of the early 20th century may and should be interpreted against the backdrop of widely spread romanticization of the potential of technological progress, today, they barely allow for literary, word-for-word interpretation, if to be treated as philosophical meditations (cf. Glatzer-Rosenthal, ed. 1997).

Furthermore, the promise of noocosmology is tied to a set of strict, instructive principles, and to an attitude, directed toward the community, and to a certain faithfulness, a fidelity not only to a set of ideas or guiding principles, but also to a set of – apparently military, as the project emphasizes the Soviet and Russian secret services’ privileged access to higher knowledge via the method of metacontact (Aseev 2010) – institutions and experts that have set them up. In this sense, the references of the noocosmological project no longer appear as an eclectic mix of famous thinkers, but rather a carefully constructed framework, secured by a double bind of authority: these very thinkers, and the “work of the Soviet and Russian secret services” (Noocosmology 2015). Moreover, the project is not devoid of a populist orientation: apart from the fact that it announces itself as a “worldview” prompted by the beginning of the space age and the extant meditations of a number of scientists and philosophers, the main issues at stake that it provides “answers” [*otvety*] to in its recent publications are love, happiness, the meaning of life, and security (cf. Aseev and Savin 2015). The choice of issues under scrutiny is most likely no coincidence: insofar as it positions itself as a new “worldview”, noocosmology has to attract the attention of “everyman”, and it seems to attempt to do just that by addressing issues, which are broadly discussed in popular-scientific press, which may be found in the “self-improvement”, “personality building” or “lifestyle” sections in general bookstores. However, noocosmology does more than simply describe these issues: it claims to guarantee insights into these issues using its innovative method of “channeling” (or “metacontact” [*metakontakt*]) which allegedly established contact with “Higher Intelligence” [*Vysshyi Razum*] (Aseev and Fonaryov 2015). If we leave skepticism toward such methods aside, it is still curious that noocosmology tends to position itself somewhere at the crossroads of religion, modern science, and philosophy, cunningly exploiting incoherencies in its form (which is academic) and content (which is esoteric, and, unusually for esoteric and

8. Translated by the author of the article (Majsova).

mysticist thought, tied to state structures, such as the academic circles, journals, political concepts such as definitions of security).

Much like astrosociology, noocosmology only appears to be a reaction to the beginning of the space age as a radical, awe-inspiring event. It seems to link the dreams and reality of spacefaring to rather conformist, conservative socio-political ideas conceived on Earth. If astrosociology tends to focus on research that might allow humanity to better (psychologically, physically, etc.) adapt itself to the era and possibilities of spacefaring, noocosmology has no such ambition. Rather, the project tends to emphasize the need for transformations on Earth in order to become attuned to the "supreme knowledge" [*vysshee poznanie*] of the Universe. However, all of the attuning that it proposes, are old ideas of a rather rigid social order in new clothing.⁹ The metaphor of the beginning of the space age seems to be taken as a cue for change, novelty, but in fact turns out to be exploited, turned into an analogy. If astrosociological accounts rely on existent empirical data and social structures in order to back their propositions, noocosmological accounts exploit an eclectic array of ideas, which are not tied into a fully coherent structure, in order to propose a new "worldview" [*mirovozzrenie*] – an all-encompassing paradigm which allows no escape.

4 Cultural Studies of Outer Space and the Question Raised by the Arts

Apart from astrosociology and noocosmology, the significance of the space age has also been noted by several transdisciplinary investigations, which have been conducted since the beginning of the 21st century and can be subsumed under the signifier "cultural studies (of outer space)". Despite various methodologies and references, all of these studies start from the presumption that the space age is a cultural phenomenon, which means that it should be approached as such, and not only discussed with reference to technological progress. Cultural historians, perhaps the most common representatives of this emerging field, therefore usually proceed to discuss the historical cultural and socio-political circumstances of various space programs, as well as of space related cultural artifacts, such as comic books, space operas, cinematography, science fiction, memorabilia, etc., and practices, such as archiving, and art. Alexander C. T. Geppert, one of the most prolific researchers in this field, editor of *Imagining Outer Space: European Astroculture in the Twentieth Century* (2012), for instance focuses on astroculture – an "heterogeneous array of images and artefacts, media and practices that all aim to ascribe meaning to outer space while stirring both the individual and the collective imagination" (Geppert 2012: 8).

9. The vision of society proposed by noocosmology does not directly correspond to any existent society. Rather, it seems to be a vision that conjoins messianic nationalism, which is part of the Russian national idea, promoted since the early 19th century, and witnessing a return in post-Soviet Russia (cf. Beumers 1999), new age ideas on spiritual self-improvement, and ideas of Russian cosmist Vernadsky and similar thinkers, on how (particularly upon arrival of the space age), man and society on Earth should focus on living in tune with the universal macrocosm.

This axis of cultural studies of outer space therefore takes up the "space age" as an important reference point, a signifier that calls upon the research community to reflect on all of the activities that have been inspired by the first cases of spaceflight. Nonetheless, it would not be correct to assume that cultural history of outer space treats the "space age" and related signifiers, such as "astrofuturisms", as merely one of many historical reference points; to the contrary, the texts demonstrate in their analyses an acute awareness of the tension between the cultural projections and expectations of the space age, and the actual "events" (spaceflight), and their aftermath. This tension or incoherency might be implicit, but it is an important indication of the persistence of the non-analogical trajectory of the metaphor at play – the space age.

Apart from cultural (and media) history, cultural studies of outer space at the moment comprise several important contributions that approach the space age from a less self-evident angle. For instance, while James Hay (2012: 29) argues that "outer space" has been invented as a "historical, geographic, and theatrical stage for shaping discourse about rights and responsibilities, war and peace, security and risk' is profoundly tied to the cold war era", Shukaitis's (2009) analysis clearly demonstrates that its power to "mold" our perception of the world has not necessarily diminished. Shukaitis (2009: 105–113) argues that outer space has always functioned as a "non-place" for humanity, therefore more than handy to absorb projections about it, which most fit circumstances on Earth. After the end of the cold war, these circumstances demand an ever greater horizon for capitalist expansion, which favors spending for space programs, and projects, such as space tourism. Yet, Shukaitis believes that outer space – regardless of our capacity or incapacity to actually experience it – could be approached otherwise: as an imaginal machine:

/I/t is not necessarily the feasibility of space travel or literal other-worldly exodus, but it may even be the case that the imaginal machine based around space imagery is made possible by its literal impossibility. In the sense that this possibility cannot be contained or limited, it becomes an assemblage for the grounding of a political reality that is not contained but opens up to other possible futures that are not fore-closed through their pre-given definition. It is in this sense that outer space plays its most powerful role in the building of imaginal machines, despite and through the ambivalent roles that it has and continues to play in some regards,

continues Shukaitis (2009: 105), which returns us to the question of metaphor. The issue addressed by Shukaitis is our very capacity to look at outer space, this non-place for humanity, as it is used to understand itself on Earth, in terms other than mere analogy or an extension of what we know.

Shukaitis's plea has not yet been heard or listened to in the realm of the academia, as we have demonstrated by the analyses of the above cases. However, this does not mean that it is entirely ignored. Radical transformation of humanity and subjectivity, and therefore of culture, in conditions beyond the atmosphere of the Earth, was envisaged by certain artists and theorists of the beginning of the 20th century, such as the Russian cubo-futurists. They might not have had the chance to experience the dawn of the space

age, but they harbored an awareness of its imminent subversiveness in relation to culture and humanity as they had been known and functioned before. Malevich (1920/1980) for example theorized the human future in outer space as a future of technology, machines, which will achieve "harmonious integration of form into natural activity through magnetic interrelations in a form which may be composed of all elements of natural forces, and therefore no engines, wings, wheels and fuel will be necessary, that is, its body, forming an entity, will not be made of different organisms" (Malevich 1980: 17).

Although it does not yet seem to be foregrounded in academic debates or in the evolution of research interests in the contemporary social sciences and humanities, this imminence of radical change of perspective was taken up by a wide array of artists engaging in 0 gravity and postgravity art. The radically subjective position of artists and art theorist steers clear of academic concerns about verification, or correspondence to a reality, either essential or not. The central project of post-gravity art, the 50 year long performance *Noordung 1995::2045*, by Dragan Živadinov, Dunja Zupančič and Miha Turšič, envisages a gradual transposition from flesh to technology, and from Earth to its orbit. "With the help of high-technology tools and the logic of Suprematism and Constructivism", the project engages "into research of postgravity art" (Postgravityart 2015). The opening performance of the project, which featured fourteen actresses and actors, took place in Ljubljana at 10 p.m. on 20 April 1995. Five subsequent performances are planned to take place over the next 50 years (the third one took place on 20 April 2015). Should one of the actors die, he or she will be replaced by a remote-controlled sign (*umbot*); male actors and their lines will be substituted by rhythm, while female actresses and their lines will be substituted by melody. The first *umbot* was featured in the 2015 performance, having replaced actress Milena Grm, who passed away in 2011. During the fifth and last repeat performance, scheduled for 20 April 2045, Dragan Živadinov, a candidate cosmonaut since 1998 (The Yuri Gagarin Cosmonaut Training Center, Star City), will use a spacecraft to convey 14 satellites/*umbots* into geostationary orbit. From there, they will transmit signals to Earth representing the roles played by deceased actors, while at the same time sending high-resolution 3D syntapiens projections of their faces into deep space.

The significance of this project is in its insistence on interpreting and *performing* "the beginning of the space age" on a level, which is close to the awe, reported by the astronauts, and which acknowledges that an entry into the "space age", if it is really to be considered a radical change in spatio-temporal coordinates, should entail a re-evaluation of the question of what it means to be human and what is culture in outer space.

5 Back to the Metaphor

Our analytical overview of three contemporary conceptual approaches to the beginning of the space age and its consequences within the humanities and social sciences points to several conclusive remarks. Firstly, the academic debate on space-related issues tends to perceive signifiers, such as the "space age" as mere poetic, rhetorical devices, which do not have much impact on reality, apart from serving as remarkable reference points.

Namely, while operating in two different sets of cultural coordinates (the first reliant on the U. S. space imaginary, and the second drawing on Russian expectations of the dawn of the space age), both astrosociology and noocosmology essentially take the "beginning of the space age" as an opportunity to reiterate previous, terrestrial paradigms of social order. The "space age" therefore becomes a mere analogy of contemporary life on Earth. As we have seen, this may be achieved in two different ways: by arguing for the efficacy of existent mechanisms and processes, operative within a certain social order, in order to advocate their extrapolation and adaptation for conditions beyond Earth (astrosociology), or by arguing that new insights, provided by the space age, require transformation, and then elaborating on this "transformation" using vague ideas and legitimating them using argumentation which resorts to authority (noocosmology). These two approaches manage to fully mask the inexplicability of the space age in terrestrial terms. Cultural studies of outer space, also greatly indebted to a certain terrestrial fixation, namely to the legacy of European reflections on the uncanniness of the dawn of the space age, offer more room for revealing this inexplicability. To an extent, this results from the circumstance that analyses of cultural ramifications of the beginning of the space age, in terms of texts or practices, always entail the question of the adequacy of "space enthusiasm" with regard to the achievements of the space age. The space age is here considered as a reference point, but is allowed to demonstrate at least some of its performative potential: the reality structured by cultural studies' analyses is always incomplete, and leaves a lot of space for alternative enquiries. Yet the most potent appropriation of the metaphor of the space age seems to come from artistic approaches, such as postgravity art. It makes no analogies, but seems to follow the main challenge posed by the space age: its performative implications, i.e. the question of how to be the changed subject, the transformed human, which can measure up to the space age as a redefinition of the coordinates of our existence. Four different metaphors, four different worlds to live with.

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