Metaphysics and Transhumanism
Reflections on "Calculative Rationality"

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Abstract

The paper delves into the complex dynamics between ancient metaphysical understandings and contemporary transhumanist aspirations. Exploring the roots of metaphysics, it provides a panoramic overview of its key philosophers and concepts, and how it has evolved in the context of modern cognitive challenges. In addition, an in-depth analysis of transhumanism, its biotechnological visions, and influence on classical philosophical thought is provided. Special attention is paid to a critical review

of transhumanism through the prism of prominent authors, such as Bishop, Lilley, and Sorgner, and it is analyzed how transhumanism redefines classical philosophical categories. The central part of the research is aimed at synthesizing metaphysical and transhumanist worldviews, exploring points of convergence and separation. The conclusion emphasizes the key findings and implications of the research, pointing to potential directions for future research, and reflects on the permanent role of metaphysics in the age of transhumanism.

Keywords: transhumanism, metaphysics, the technosphere, perception, reality.

Metafizika in transhumanizem. Refleksije o "kalkulativni racionalnosti"

Povzetek

Prispevek obravnava kompleksno dinamiko med starodavnimi metafizičnimi tolmačenji in sodobnimi transhumanističnimi prizadevanji. Najprej razišče poreklo metafizike, ponudi panoramski pregled poglavitnih filozofov in pojmov in razgrne, kako se je razvila znotraj konteksta modernih kognitivnih izzivov. V slednjem oziru podamo poglobljeno analizo transhumanizma, njegovih biotehnoloških vizij in njegovega vpliva na klasično filozofsko misel. Posebno pozornost posvetimo kritičnemu pregledu transhumanizma pri vodilnih avtorjih, kakor so Bishop, Lilley in Sorgner, in analiziramo, kakor transhumanizem na novo definira klasične filozofske kategorije. Osrednji del razprave želi sintetizirati metafizični in transhumanistični svetovni nazor, pri čemer raziskuje točke konvergence in razlikovanja med njima. Zaključek poudari ključne izsledke in implikacije raziskave ter naznači morebitne smeri za nadaljnje razglabljanje in hkrati razmisli o stalni vlogi metafizike v dobi transhumanizma.

Ključne besede: transhumanizem, metafizika, tehnosfera, percepcija, realnost.

1. Introduction

1.1. A short history of the concepts of metaphysics and transhumanism

Metaphysics, as a discipline that strives to understand the basic principles and causes of existence, has roots that go back to ancient Greece. Aristotle, often considered the father of metaphysics, explored the fundamental questions of existence, causation, and being in his works, creating the foundations for future generations of philosophers (Toulmin 1992, 45). His reflection on the "first cause" or "immovable mover" laid the foundation for considering transcendent questions that extend beyond empirical experience. In the Middle Ages, metaphysics experienced a renaissance through the works of philosophers, such as Thomas Aquinas who tried to harmonize Christian theology with Aristotelian philosophy. This period also witnessed the synthesis of metaphysical concepts with theological and mystical thinking. However, with the advent of the modern age and the scientific revolution, metaphysics was often subject to criticism. Empirical methods of scientific inquiry became the dominant paradigm, and many philosophers, such as David Hume, challenged traditional metaphysical concepts, considering them speculative and inaccessible to empirical inquiry (Toulmin 1992, 60).

On the other hand, transhumanism, as a philosophy and movement that strives for a transcendent improvement of the human condition through technology, is a relatively new term in the history of thought. Although technological achievements and aspirations to improve the human experience have always existed, it was only with the advent of biotechnology, nanotechnology, and information technologies at the beginning of the 21st century that transhumanism gained its identity (Ranisch and Sorgner 2015). This new philosophical and technological paradigm raised a series of questions about the nature of humanity, the limits of human possibilities, and the ethical implications of technological advancement (Krüger 2021, 15).

When put into relation, metaphysics and transhumanism can seem like polar opposites. While metaphysics seeks answers in transcendental principles and abstract concepts, transhumanism is directed towards the future, striving for concrete technological solutions and biotechnological innovations.

However, both terms share a common aspiration to understand and transcend the human condition (Lilley 2013, 33). Rounding out this initial analysis, it can be argued that both concepts, although different in their approaches and methodologies, provide valuable insights into questions of existence, meaning, and human purpose in a rapidly changing world. While metaphysics flourished in periods when religious and theological paradigms were dominant, its role and significance in the postmodern age are becoming increasingly uncertain. Critics, such as Friedrich Nietzsche, argued that "God is dead" and that metaphysical truths can no longer serve as a basis for understanding the world (Sorgner 2007, 49). Postmodernist views, which reject grand narratives and absolute truths, have posed additional challenges to traditional metaphysics, suggesting that metaphysical claims are merely constructs of language and culture, not absolute truths (Hauskeller 2016, 112). However, while metaphysics was facing these challenges, transhumanism was experiencing an upward trajectory, fueled by the exponential growth of technological development. Visions of a posthuman society, in which people could overcome their biological limits and achieve a form of "posthuman" existence, attracted an increasing number of supporters as well as critics. Transhumanism is not only a technological and philosophical movement; it is also a cultural response to the technological changes that shape our reality (Paić 2022, 27). It is interesting how both approaches—metaphysics and transhumanism—, although they seem diametrically opposed, actually deal with similar questions about the nature of existence, the meaning of life, and the future of humanity. While metaphysics asks questions about the foundations of existence and the purpose of life, transhumanism deals with the practical and technological aspects of these questions, looking for ways to materialize these basic questions in the real world (Bishop 2010, 710).

Therefore, when considering the history of these concepts, it is important not to see them as isolated philosophical currents, but as reflections of broader social, cultural, and technological trends that shape our world. Considering the complexity and interdisciplinary nature of these topics, further analysis requires deep study to achieve a comprehensive insight into their interrelationship and significance. In order to further deepen our understanding of the history of metaphysics and transhumanism, it is essential to delve into the key moments and thinkers that

shaped both concepts as well as to consider how their paths intertwine and collide in the contemporary context. Metaphysics, throughout its rich history, was not a static concept. While ancient thinkers, like Plato and Aristotle, laid the foundations with ideas about eternal forms and the first mover, medieval scholastics, like St. Augustine and Thomas Aquinas, combined these ideas with Christian doctrines, providing new interpretations of God's nature and the creation of the world. Later, Immanuel Kant and his successors laid the foundation for modern metaphysics, exploring the concepts of time, space, and causality, and how they relate to human perception and cognition (Toulmin 1992, 63).

On the other hand, the concept of transhumanism, although more recent, also has its predecessors. The stories of Prometheus, Icarus, and other mythological beings who strive to transcend their limits can perhaps be considered early forms of the transhumanist vision (Krüger 2021, 20). However, it was only in the 20th century, with the development of biotechnology, genetics, and information technology, that transhumanism became a recognizable movement. Thinkers, such as Max More and Nick Bostrom, have articulated the philosophical underpinnings of transhumanism, highlighting the potentials and risks associated with the technological enhancement of human nature (Ranisch and Sorgner 2015).

It is important to note that both concepts, although different in their roots, share a common interest in understanding and reshaping the human experience. While metaphysics attempts to understand the basic nature of existence, transhumanism addresses practical questions about how these understandings might manifest in the real world (Lilley 2013, 35). This combination of the theoretical and the practical opens up space for numerous ethical, epistemological, and ontological discussions. Through the prism of the mentioned literature, it becomes clear that metaphysics and transhumanism developed in a mutual dialogue, where technological advances often collided with traditional philosophical concepts, causing new interpretations and adaptations (Bishop 2010, 712). This dynamic relationship between technology and philosophy lays the foundation for further analysis and research in this essay.

1.2. The importance of classical metaphysics and transhumanism

In an era where technology is shaping nearly every aspect of human experience, the question arises about the role of philosophy in understanding and guiding these changes. Transhumanism, as a philosophical approach that questions the limits of human nature in light of the technological progress, challenges the traditional concepts and assumptions of many philosophical disciplines, especially metaphysics (Ranisch and Sorgner 2015). In this context, the importance of this research becomes twofold. First, studying the interactions between metaphysics and transhumanism can provide deeper insight into how contemporary philosophy can respond to technological challenges and adapt to changing circumstances. In this sense, this work is not only concerned with historical analysis, but also with the prediction of possible future trends and directions in philosophy (Lilley 2013, 42). Second, transhumanism, while intriguing and inspiring to many, also presents a number of ethical, social, and philosophical challenges. As technology becomes increasingly interwoven with the human body and mind, questions of identity, purpose, and moral status become increasingly complex. Through the prism of metaphysics, this work provides a platform for critical consideration of these issues, offering a balanced perspective between enthusiasm for technological possibilities and the need for deeper philosophical understanding (Paić 2022, 30).

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The purpose of this research is, therefore, not only of an academic nature. In an age when the boundaries between man and machine are gradually being erased, and visions of posthumanism are becoming more and more likely, it is imperative that philosophy recognizes its role in interpreting, criticizing, and shaping these changes. Taking into account the complexity and interdisciplinary nature of these issues, this paper aims to provide a comprehensive, carefully considered, and critical insight into the relationship between metaphysics and transhumanism (Krüger 2021, 18). Furthermore, the purpose of this paper is not only to promote understanding, but also to stimulate further academic discussions, research, and interdisciplinary collaborations. In light of the aforementioned literature and ongoing discussions in philosophical circles, it becomes clear that the approach to this topic is of crucial importance for future

generations of philosophers, scientists, and all those interested in the future of humanity (Hauskeller 2016, 115).

1.3. A brief review of the literature

The debate on the relationship between metaphysics and transhumanism has prompted many authors to address this topic, leading to a rich body of literature spanning various disciplinary boundaries. Regarding this topic, three contemporary books are of crucial importance. The book *The Technosphere as a New Aesthetic*, edited by Žarko Paić, provides a detailed insight into the technosphere as a new aesthetic dimension that reshapes our understanding of reality and the way we connect with the digital world (Paić 2022). This volume highlights the importance of technology as a means of understanding and interpreting the world around us, suggesting that the boundaries between technology and humanism are increasingly blurred. The book *Post- and Transhumanism: An Introduction*, edited by Robert Ranisch and Stefan Lorenz Sorgner, offers a comprehensive overview of the key issues and challenges related to posthumanism and transhumanism (Ranisch and Sorgner 2015). Taking into account different perspectives and approaches, this volume considers the ethical, philosophical and sociological dimensions of the transhumanist vision. In his work *Virtual Immortality. God, Evolution, and the Singularity in Post- and Transhumanism*, Oliver Krüger explores the concepts of immortality, evolution, and singularity through the prism of posthumanism and transhumanism (Krüger 2021), highlighting how these concepts have become a central theme in contemporary philosophy, with particular reference to the role of technology in shaping our understandings of immortality and evolution. Finally, Stephen Lilley, in *Transhumanism and Society: The Social Debate over Human Enhancement*, explores the social and cultural aspects of the transhumanist vision, analyzing how this vision affects our understanding of human nature and the possibility of technological enhancement (Lilley 2013). He questions the ethical implications of technological enhancement, emphasizing the need for deeper understanding and critical reflection on this topic. Other literature relevant in the field, such as the works of Stefan Lorenz Sorgner and Michael Hauskeller, also provide important insights into this topic,

offering different perspectives and interpretations that enrich the debate and provide a deeper understanding of the challenges and opportunities associated with transhumanism and metaphysics (Sorgner 2007; Hauskeller 2016).

2. A brief history of metaphysics and its classical understandings

2.1. The beginnings of metaphysics and its key philosophers

In order to understand transhumanism, it is important to briefly sketch some major concepts from classical metaphysics. Metaphysics, as a bough of philosophy that investigates the fundamental nature of reality, including the causes and nature of existence and being, has deep roots in the history of human thought. The beginnings of metaphysics are often associated with ancient Greek philosophers, whose works laid the foundation for many contemporary discussions in this field. Aristotle, often called the "father of metaphysics," gave the first systematic account of this field in his work *Metaphysics*. This work, which is actually a collection of notes and lectures, considers fundamental questions about the being, the causes, and purposes of things. Aristotle distinguished between actual and potential being and introduced the concept of "pure form" as independent of material bodies (Bishop 2010, 703). Plato, Aristotle's teacher, laid the foundations of metaphysical thought through his concept of ideas or forms. According to Plato, these ideas or forms are eternal, unchanging, and more real than the reality we experience through our senses (Krüger 2021, 50). His "allegory of the cave" illustrates this idea by suggesting that the world we perceive is only a shadow of the real, metaphysical reality. Parmenides also contributed to the development of metaphysics with his assertion that change is an illusion and that reality is immutable and unique. Contrary to him, Heraclitus advocated the idea that everything is in constant change and that change is the fundamental nature of reality (Sorgner 2007, 45).

Medieval philosophers, like Thomas Aquinas, integrated the ideas of Aristotle and Plato with Christian theologies, trying to create a synthesis between faith and reason. Aquinas's idea of "being" as the most general concept and his attempt to prove the existence of God through purely rational arguments were crucial for the development of metaphysical thought during the Middle Ages (Lilley 2013, 75). Modern philosophers, such as Immanuel

Kant and G. W. F. Hegel, also contributed to the development of metaphysical thought. While Kant set the limits of metaphysical knowledge by claiming that the human mind can only know phenomena and not things in themselves, Hegel developed a complex dialectical metaphysics that emphasized the historical and developmental nature of reality. In the middle of the 20th century, philosophers, such as Alfred North Whitehead, approached metaphysics from a dynamic standpoint, emphasizing evolution, change, and development as key components of reality. Whitehead, in particular, introduced the concept of "becoming" as a fundamental metaphysical category, and his philosophy has had a significant impact on contemporary discussions of the nature of time, change, and reality (Bishop 2010, 708). In the period of postmodernism, metaphysical research was subjected to criticism. Philosophers, such as Michel Foucault and Jacques Derrida, have raised questions about the possibility of absolute metaphysical claims and suggested that all such claims are conditioned by culture, language, and history. Derrida, in particular, criticized traditional metaphysical categories and dualisms, such as presence/absence and speech/writing, suggesting that they were the product of logocentric thinking (Derrida 1976, 10).

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The advent of the technological age and the rise of transhumanism further complicated metaphysical debates. As Hauskeller (2016, 115) pointed out, the transhumanist movement, with its emphasis on biotechnological extensions and visions of a posthuman future, challenged traditional metaphysical concepts about human nature, the world, and reality. Undoubtedly, metaphysics, despite its historical evolution and the challenges it has faced, remains a key branch of philosophy that continues to shape our understanding of the world. While some modern philosophers turn away from classical metaphysical debates, others continue to enrich them with new ideas and perspectives, especially in light of the technological and scientific discoveries that shape our age.

2.2. Classical concepts and categories of metaphysics

Metaphysics, as a discipline that seeks to understand the fundamental nature of reality, has given birth to many key concepts and categories, which have shaped its history and development. Beginning with ancient Greece,

concepts, such as matter, substance, causality, and many others, became fundamental questions that shaped philosophical thinking throughout the centuries. Ontology considers the question of existence. Aristotle, in his work *Metaphysics*, considered being as the central category that encompasses everything that exists. According to Aristotle, what makes things the way they are, is their essence or form (Aristotel 1988, 102). The concept of substance refers to that, which exists independently of other entities. Accidents, on the other hand, represent properties or characteristics that depend on the substance. This dual approach became a fundamental aspect of the Aristotelian metaphysics, but it also had profound implications in medieval philosophy (Bishop 2010, 703). Causality refers to the relationship between cause and effect. Aristotle considered four different types of causes: material, formal, efficient, and final causes. This understanding of causality was fundamental to understanding the natural world until the advent of modern science. The duality of body and mind occurred before the Cartesian turn: Plato's theory of ideas suggested a duality between the physical world and the world of ideas.

224 Later philosophers, such as Descartes, extended this duality to the relationship between body and mind, asking how the material and immaterial relate and interact (Derrida 1976, 75). The question of time and its nature was raised by many classical philosophers. Augustine, for example, considered eternity as a divine quality that transcends the human experience of time (Hauskeller 2016, 118). Potency and act are, furthermore, classical terms, which originated from Aristotle. Potency (*dynamis*) refers to the ability or possibility of something to become something else, while act (*entelechia*) describes the full realization or fulfilment of that possibility (Aristotel 1988, 105). For example, a seed has the potential to become a tree, but only when it becomes a tree does it realize its potency in the act. This understanding of potency and act became central to many later philosophical discussions, particularly in medieval scholasticism. One of the most controversial questions in the history of metaphysics is the problem of universals: do general entities (like redness or goodness) exist independently of the particular things, in which they are manifest? While Plato believed in the independent existence of ideas, nominalists, such as William Ockham, disputed such existence, considering universals to be only names or concepts, not real entities. For Thomas Aquinas, the difference between

essence (*essentia*) and existence (*existentia*) becomes a central question. While essence determines what something is, existence refers to the act of being. For Aquinas, there is only God whose essence is existence, while all other beings have essence and existence as separate aspects. In later philosophical periods, especially in the works of German idealists, such as Hegel, the metaphysical focus shifted from objective categories to an understanding of subjectivity and inter-subjective relations. This emphasized the importance of dialectics and historical development in understanding reality.

With the development of transhumanist thought, many of these classic concepts face new interpretations and challenges. *The transformation of human nature through technology raises the question of how traditional metaphysical categories can or should be adapted to a new understanding of humanity and its role in the universe.* These classical concepts and categories have provided the foundations for many contemporary debates in metaphysics, but they have also undergone revisions and reinterpretations in light of new philosophical and scientific discoveries. While transhumanism presents a new challenge to traditional metaphysical categories, it is important to understand their historical roots, in order to adequately understand contemporary contexts and implications.

2.3. Metaphysics in the modern age and contemporary challenges

Passing through the time period from the Renaissance to the modern era, metaphysics has undergone dramatic changes in its understanding and practice. The period of the modern age, from the 17th to the end of the 20th century, is marked by a change in the understanding of the world and humanity, but also a change in approaches to the philosophical understanding of reality. One of the key figures of the modern age, René Descartes, laid the foundations for a new scheme of thinking, emphasizing the dualism between mind and body, and inaugurating the subjective framework, from which later philosophical research emerged. His methodological doubt, which questioned all previous knowledge, served as a starting point for many philosophers who came after him. With the development of natural sciences and increased technological progress, many traditional metaphysical conceptions have been

questioned. David Hume, for example, challenged the classical understanding of causality and identity, arguing that they are only products of human habit and imagination, and not necessary characteristics of reality. The end of the 19th and the beginning of the 20th century brought a radical change in the understanding of metaphysics. Philosophers, such as Friedrich Nietzsche and Martin Heidegger, criticized traditional metaphysical understandings, arguing that they had lost touch with reality and that a new kind of thinking was needed.

Transhumanism, as one of the contemporary relevant movements, poses a new challenge to metaphysical thinking. *As biotechnology enables changes in the very nature of the human being, traditional categories, such as "nature," "man," and "reality," become vague and fluid* (Bostrom 2003). At the same time, philosophers like Jeffrey P. Bishop warn of the dangers inherent in the transhumanist worldview, stressing the need for deeper philosophical reflection on what it means to be human in an era of technological change (Bishop 2010). However, metaphysics did not lose its importance even in this turbulent time. While modern science and technology provide new insights into the nature of the world, philosophical reflections on the foundations of reality and the meaning of human existence remain crucial. Metaphysical problems, such as the nature of consciousness, existence, and the purpose of life, continue to challenge philosophical minds, while adapting to the new challenges of the modern age.

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3. An introduction to transhumanism and its influence on philosophy

3.1. Definition and roots of transhumanism

Transhumanism is a complex and multidimensional creed that focuses on the use of technology to improve the human condition physically, mentally, and socially (Bostrom 2003, 1). Its roots stretch throughout history, but its contemporary incarnation is strongly linked to the development of biotechnology, information technology, and artificial intelligence. The first steps towards thinking about transhumanism can be traced back to the age of Enlightenment, when philosophers sought a complete understanding

of human nature and the possibilities of its expansion through scientific achievements. However, modern transhumanism has emerged directly from the thought and thinking of post-industrial society, where technological advances offer promising perspectives for the betterment of the human race. In his paper "Ethical Issues in Advanced Artificial Intelligence," Nick Bostrom points out that transhumanism tends to make man more than his biological limitations, transforming him through technological innovation into something that could be described as "post-human" (Bostrom 2003, 5). He sees genetic engineering, neuropharmacology, and artificial intelligence as key technologies that will shape the future of human development. *However, it is important to note that transhumanism is not only a matter of technological innovation.* Like any ideology, it carries with it social, political, and ethical implications. In his work, Hauskeller analyzes how transhumanism challenges traditional ethical norms, and asks how we should approach the possibilities that these technologies bring (Hauskeller 2016, 115).

While some critics have warned of the potential dangers of transhumanism, arguing that it could lead to the creation of two classes of people—those who are enhanced and those who are not (Bishop 2010, 45)—, advocates of transhumanism emphasize its potential to solve key human problems, such as disease, aging, and even death. In the context of this research, it is important to understand transhumanism not only as a technological movement, but as a deep philosophical question that touches upon fundamental questions of human nature, existence, and meaning.

3.2. Biotechnological aspirations and philosophical visions of transhumanism

Transhumanism is not only an ideological movement (having in mind that "ideology" here stands for something different than its traditional use), but also a scientific and technological paradigm that strives towards the realization of human possibilities through biotechnology. Core biotechnological aspirations in transhumanism include genetic engineering, regenerative medicine, neuroscience, and life-extension technologies. Genetic engineering, as one of the pivots of biotechnological aspirations, provides the possibility to change or improve the genetic code, in order to increase physical, cognitive, or emotional

abilities (Bostrom 2003, 6). Through the possibilities of CRISPR technology and similar tools, the vision of creating "superhumans" with superior abilities is becoming a reality, but it also raises ethical questions about the limits of human agency. On the other hand, regenerative medicine and life-extension technologies aim to extend life and improve the quality of old age. These efforts are focused on the prevention and treatment of degenerative diseases as well as on the regeneration of damaged tissues and organs (Hauskeller 2016, 117). These technologies are not only physiological, they carry deep philosophical implications about the nature of human existence and the meaning of immortality. Neuroscience and artificial intelligence technologies offer opportunities to enhance cognitive abilities, providing visions of creating a "cyborg" or "artificial human." These visions confront us with issues of identity, consciousness, and autonomy (Bishop 2010, 47). On a philosophical level, transhumanism carries profound visions about the future of humanity. It represents pushing the limits of human nature and encouraging the evolutionary process through technology. But, while technological progress offers promising perspectives, it also challenges traditional ethical, moral, and philosophical paradigms (Hauskeller 2016, 120). As Bostrom points out, transhumanism is not only about improving the human condition, but about creating new forms of existence and expanding the boundaries of human experience (Bostrom 2003, 8). Yet, while the technological aspirations of transhumanism hold revolutionary possibilities, they also require careful consideration of the ethical, social, and philosophical implications.

3.3. Comparison with classical understandings of metaphysics

Transhumanism, with its aspirations towards the radical improvement of the human being and the transition towards a post-human state, brings not only biotechnological, but also deep metaphysical implications. In order to understand these implications, it is important to compare the fundamental ideas of transhumanism with classical understandings of metaphysics. In the classical period, beginning with Aristotle, metaphysics was understood as the "first philosophy" that deals with questions of being and the basic nature of reality (Aristotel 1988). Aristotle's metaphysics focuses on the concepts of matter, form,

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and cause, and how these concepts relate to the nature of reality. *Transhumanism, on the other hand, focuses on potential technological interventions to reshape the nature of the human being and its possibilities.* While Aristotle's understanding of matter and form tends towards a static understanding of reality, *transhumanism proposes a dynamic approach that supports the continuous transformation of human nature through technology* (Bostrom 2003, 6). Furthermore, classical metaphysics asked questions about eternal truths, ideals, and universals, while transhumanism tends towards a pragmatic approach, where the goal is to achieve concrete technological outcomes that will improve the human condition. While transhumanism appears to be directed towards practical goals, its aspirations also raise deep metaphysical questions, such as the nature of consciousness, identity, and the limits of human nature (Hauskeller 2016, 120). Transhumanism and classical metaphysics may seem opposed in their approaches, but both consider fundamental questions about the nature of reality and humanity. While classical metaphysics considers stable categories and entities, transhumanism raises the question of the possible reshaping of these categories through technological intervention. While transhumanism represents a revolutionary paradigm that differs from traditional understandings of metaphysics, its basic assumptions and aspirations bring new and challenging questions that enrich the metaphysical discussion.

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3.4. Literature review: Paić, Ranisch and Sorgner, Krüger

In the contemporary discourse on transhumanism, many authors contributed to the understanding and critical analysis of this concept, offering different perspectives and approaches. Paić, Ranisch and Sorgner as well as Krüger stand out among them. Below, is an overview of their contributions.

1) Paić's analysis of transhumanism is imbued with an interdisciplinary approach that combines philosophy, sociology, and art. His understanding of transhumanism explores how technology can shape not only the body, but also the social and cultural aspects of human existence (Paić 2022). Paić emphasizes the potential risks of uncontrolled technological intervention, but also recognizes the opportunities that technology provides to improve the human condition.

2) In their joint work, Ranisch and Sorgner provide an in-depth analysis of the ethical issues associated with transhumanism. They specifically deal with the issue of moral responsibility when making decisions about biotechnological interventions (Ranisch and Sorgner 2015). They also explore how transhumanism can affect our understanding of identity, autonomy, and freedom.

3) Krüger's analysis focuses on the philosophical foundations of transhumanism. He investigates how contemporary technological aspirations shape our perception of reality and our place in it (Krüger 2021). Through his work, it becomes clear that transhumanism does not represent a complete break with tradition, but can be understood as an evolution of classical philosophical ideas in light of technological progress. Krüger emphasizes the need for a holistic approach, where technological innovations are considered in the context of a wider social, cultural, and philosophical environment.

While each of these authors brings a unique perspective on the topic of transhumanism, they all agree on the importance of critically reflecting upon the opportunities and challenges this concept presents. Their contributions provide a valuable framework for a deeper understanding and analysis of transhumanism in the contemporary world.

4. Changes in the categorical apparatus of philosophy caused by transhumanism

4.1. Classic philosophical categories vs. *transhumanist categories*

In the last few centuries, the development of technology and science has transformed our view of the world, providing us not only with the tools to manipulate the environment, but also to understand and change ourselves. Philosophy, as a reflective discipline that deals with questions of being, knowledge, ethics, and many others, has not remained unchanged. Classical philosophical categories that have existed for centuries are now being re-examined, and new categories are emerging in response to the challenges posed by transhumanism. By studying these categories, we can better understand and evaluate the implications of the transhumanist movement. Classical philosophy views man as a rational being, with a soul or essence that

defines him. Aristotle, for example, defined man as a *zoon politikon*, a social animal capable of speech and moral reasoning (Aristotle, *Nicomachean Ethics*). Transhumanism, on the other hand, sees man as an evolutionary entity, subject to change and optimization through biotechnology and artificial intelligence (Ranisch and Sorgner 2015).

The Cartesian dualistic perspective separates body and mind as two separate substances (Descartes, *Meditations*). In transhumanism, this dualism is blurred, where body and mind are subject to upgrading, integration, and fusion with technology (Krüger 2021). Traditional ethics is based on conceptions of good, justice, and humanity that have existed for centuries. Terms like Kant's "categorical imperative" emphasize universal moral principles that apply to every human being (Kant, *Critique of Practical Reason*). In a transhumanist context, moral boundaries become more fluid. Questions, such as: "Is it ethical to modify human genes?" or "What rights should enhanced or artificial beings have?", are becoming more and more present (Lilley 2013). Throughout history, philosophies, such as existentialism, sought meaning in human existence despite the absurdity of life (Camus, *The Myth of Sisyphus*). In transhumanism, purpose can be redefined through the pursuit of a posthuman era or the realization of a technological singularity (Krüger 2021). Plato's idea of the world of ideas and his cave as a metaphor for human perception of reality was fundamental to classical metaphysics (Plato, *Republic*). Transhumanism challenges these traditional concepts through the possibility of virtual worlds, augmented reality, and artificial senses that change our perception of reality (Paić 2022).

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4.2. The influence of the technosphere on the philosophical apparatus

The technosphere, as conceptualized in contemporary philosophy, has become a ubiquitous sphere that profoundly influences our culture, daily life, and, most importantly, our philosophical apparatus. Recognizing the technosphere as a new aesthetic and epistemological framework is a key to understanding its impact on the way we think, live, and interact with our environment. Žarko Paić, in his chapter to the book *The Technosphere as a New Aesthetic* (2022), provides detailed insights into how the technosphere

shapes and reshapes aesthetic categories. *For Paić, the technosphere is not only the technological environment, in which we live, but also a sphere that changes our perception, experience, and interpretation of reality*. Art and culture become mediators between man and the technosphere, creating new aesthetic paradigms that reflect the complexity of the modern age (Paić 2022).

Stefan Lorenz Sorgner, on the other hand, deals deeply with issues of posthumanism and transhumanism, and how these concepts challenge and expand traditional philosophical frameworks. In works, such as *Post- and Transhumanism: An Introduction* and *We Have Always Been Cyborgs*, Sorgner studies how technological extensions of human capabilities and biological enhancements challenge traditional ethical, aesthetic, and ontological categories (Sorgner and Ranisch 2015; Sorgner 2022). Common to both authors is the understanding that the technosphere is not neutral. It actively shapes and reshapes our epistemology, ethics, and aesthetics. While Paić emphasizes the aesthetic dimension of the technosphere and how it changes our perception of art and culture, Sorgner focuses on the ethical and ontological implications of the technological extension of human capabilities. Both perspectives, however, emphasize the need to reconceptualize traditional philosophical categories in light of the technospheric reality.

4.3. Epistemological challenges and changes

In the context of the technosphere and transhumanism, the emerging epistemological challenges become increasingly complex. The connection between technology, knowledge, and human nature opens up new questions about how we know, what we know, and what are the limits of our knowledge in the digital age. In his work *Virtual Immortality. God, Evolution, and the Singularity in Post- and Transhumanism* (2021), Krüger emphasizes how *digitization and technological integration create new paradigms of knowledge*. In a world where virtual realities are becoming more and more convincing, traditional epistemological categories, such as truth, objectivity, and reality, are becoming vaguer. Instead, we are experiencing a shift where *knowledge is no longer based only on empirical evidence and theoretical reflection, but also on digital interaction and experiences* (Krüger 2021). On the other hand, Lilley

in *Transhumanism and Society: The Social Debate over Human Enhancement* (2013) explores how biotechnological enhancements and extensions can affect our understanding of knowledge. When we become capable of enhancing our cognitive abilities or when we have access to information via chips embedded in our bodies, how does this change our epistemological framework? Lilley suggests that we must face new challenges, such as the "impartiality" of the technologically enhanced mind or the problematic of "authentic" knowledge in the context of technological mediation (Lilley 2013).

Epistemological challenges are also explored in the works of Paić and Sorgner, where the technosphere becomes a means for understanding and reinterpreting knowledge. While Paić emphasizes how the technosphere changes aesthetic perception, it also offers new epistemological frameworks, through which we can understand the world (Paić 2022). Sorgner, on the other hand, points out that the posthumanist and transhumanist vision challenges traditional epistemological conceptions, providing new perspectives on topics, such as identity, consciousness, and knowledge in the age of technology (Sorgner 2022). As technology continues to shape our world, it is also changing our understanding of knowledge. We are faced with new challenges and questions, but also with new opportunities for understanding ourselves, the others, and the world around us.

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5. Epistemological and philosophical consequences

5.1. Influence on the understanding of knowledge and perception

In the context of technological integration and transhumanism, our understanding of knowledge and perception is undergoing a significant transformation. As Krüger points out, virtual realities and digital interactions lead to an epistemological shift where the traditional categories of truth and objectivity become increasingly more unclear (Krüger 2021). While knowledge in the past was often closely tied to empirical evidence, it is now increasingly based on digital experiences and interactions.

5.2. Moral and ethical challenges of transhumanism

Transhumanism, given its vision of improving and expanding human capabilities, carries with it a number of moral and ethical challenges; for instance, questions like: "Is it ethical to enhance human capabilities through biotechnology?" or "What are the long-term effects on society when some people become 'more' enhanced than others?" In his work, Lilley points out the potential social divisions that can arise from transhumanist technologies, warning of the risk of creating "two classes" of people—the enhanced and the unenhanced (Lilley 2013). Sorgner, on the other hand, discusses ethical challenges in the context of genetic technologies and digital data, particularly emphasizing the ethics of transhumanism (Sorgner 2022).

5.3. Critical review of transhumanism through literature: Bishop, Lilley, Sorgner

In *Transhumanism, Metaphysics, and the Posthuman God,* Jeffrey P. Bishop provides a profound critique of transhumanism from a metaphysical perspective. He highlights potential problems with the transhumanist vision of a posthuman God and warns of the possible dehumanizing consequences of such a vision (Bishop 2010). Lilley, while recognizing the potential of transhumanism, also points to a number of social and ethical challenges, emphasizing how improvements can lead to social divisions and new forms of inequality (Lilley 2013). Sorgner, while acknowledging the revolutionary possibilities that transhumanism offers, also emphasizes the importance of critical introspection. He calls for a careful reflection on how *biotechnological innovations can affect basic aspects of human existence*, such as identity, consciousness, and ethics (Sorgner 2022).

6. Metaphysics and transhumanism: synthesizing both worlds

6.1. Comparison and contrast between metaphysical and transhumanist visions of the human and the universe

Throughout the history of philosophy, metaphysics has sought to understand the fundamental nature of reality, existence, identity, and purpose.

Traditionally, metaphysical visions of human were often rooted in absolute, immutable concepts, such as the soul, the divine, and eternity (Sorgner 2007). Transhumanism, on the other hand, offers a dynamic and evolutionary vision of man and the universe. Instead of the fixed nature of man, the transhumanist perspective sees the human being as changeable, with the potential for biological and technological improvement (Ranisch and Sorgner 2015). While metaphysics often explores questions of existence beyond physical reality, transhumanism is directed toward practical applications of knowledge to expand the boundaries of human experience and capabilities. In the context of the universe, metaphysical conceptions usually tend towards universal truths and eternal laws. In contrast, transhumanism focuses on space as a space for exploration and colonization, with an emphasis on technological achievements that could enable the long-term survival and prosperity of the human species (Paić 2022).

6.2. Possible connection and separation points

Although at first glance metaphysics and transhumanism may seem like diametrically opposed approaches, there are some areas where their visions may overlap. For example, both approaches strive to understand the human place in the universe and the search for meaning. The points of separation, however, are often deeper and more pronounced. While metaphysics seeks absolute and eternal answers, transhumanism is focused on continuous improvement and adaptation, believing in the changing nature of man and the universe. One of the key points of convergence may be the quest for immortality. While metaphysics often considers immortality through spiritual or transcendental concepts, transhumanism is focused on achieving physical immortality through medical and technological interventions (Krüger 2021). On the other hand, the question of ethics and morality is an area where these approaches often differ (Lilley 2013). While traditional metaphysical positions may advocate absolute moral norms, transhumanism often explores more fluid and relative ethical frameworks that adapt to technological advances.

7. Conclusion

At the center of our research was the search for an understanding how metaphysical and transhumanist conceptions of the human and the universe relate to, complement, and conflict with each other. Through analysis, we found that metaphysical frameworks strive for stability, universality, and the search for eternal truths. In contrast, transhumanist frameworks tend to adapt, evolve, and focus on practical applications of technology to enhance the human experience. These findings have significant implications for understanding the direction, in which contemporary philosophy, ethics, and the social sciences are moving. The need to integrate metaphysical and transhumanist concepts is becoming increasingly apparent, in order to ensure a coherent and comprehensive exchange of ideas in an age of technological revolution. Future research could focus on examining in more detail on the specific ethical and moral issues, arising from transhumanist aspirations, such as genetic modification, artificial intelligence, and cybernetic integration. Also, there is room for deeper consideration of how traditional religious and spiritual practices can influence, or be influenced by, transhumanist ideas. Another potential area of research is examining how societies adapt to these changing concepts of human nature, particularly in terms of legislation, education, and culture.

Metaphysics, with its rich history and deep aspirations towards understanding the fundamental nature of reality, remains crucial in the age of transhumanism. While technology and science offer promising opportunities to expand human possibilities, metaphysical conceptions provide a framework, through which we can understand and evaluate these changes in the larger context of existence, purpose, and meaning.

In a world where the boundaries of human experience are constantly pushed, metaphysics serves as a compass to guide our path, reminding us of the importance of asking fundamental questions and seeking answers that transcend current technological possibilities.

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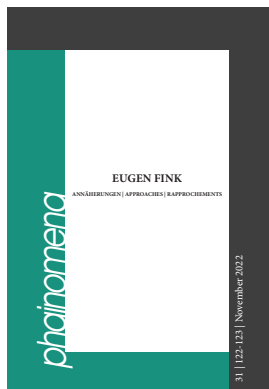
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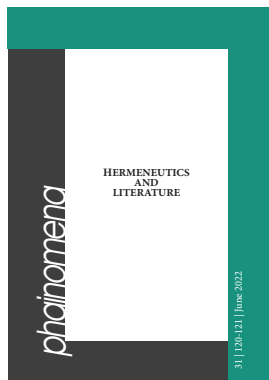
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