

## RELIGIOUS STUDIES



UDC 00+211.1

<https://doi.org/10.23947/2414-1143-2023-9-4-18-23>

### Triumvirate of Theology, Science and Philosophy: how a Mathematical Concept Becomes Metaphysical and Explicates the Idea of God

Anastasia V Perekrestova

Don State Technical University, 1, Gagarin Sq., Rostov-on-Don, Russian Federation

✉ [pereckrestova@mail.ru](mailto:pereckrestova@mail.ru)

Original article



#### Abstract

**Introduction.** The article considers the concept of “point” in the context of ontological and philosophical-religious aspects of monadology by G.V. Leibniz. The purpose of the study is to identify the prerequisites for the formation and development of a conceptual category for the German thinker, through the analysis of which the available explications of the characteristics and properties of God as a primary monad are clarified.

**Materials and methods.** To reveal the issue, general theoretical and works of researchers of G.V. Leibniz’s heritage are used, the principle of cultural and historical conditioning is used, as well as a hermeneutic method that emphasizes significant connotations. The systematic approach allows us to consider the concept comprehensively, in many aspects, as well as demonstrate the correlation and interdependence of religious and ontological levels of the phenomenon under study.

**Results.** Structural and functional analysis of the concept of “point” in the metaphysical perspective of G.V. Leibniz was carried out. The fundamental nature of this category for the philosophy of the German scientist as a whole is shown. Leibniz rethought and extrapolated the unique properties of the concept under study for the development of mathematical analysis. He also constituted the metaphysical status of a point as a monad, which turns out to be a spiritual entity in his concept which is the radiation of God. The comprehensive theoretical study of the image of a point in correlation with theological views of the thinker makes it possible to identify new prospects for understanding and interpreting fundamental categories of philosophy and religion, such as God, beginning, being, which, in turn, will contribute to the formation of a more multifaceted, syncretic worldview in modern culture focused on the dialogue of religion and science. Discussion and conclusion. Metaphysical point and monad are equivalent concepts. The infinite variety of monads is an expression of divine presence in the world, since God is not only the only basis for their existence, but also the root cause of their activity. If monads are spiritualized centers of vitality, then God is their inexhaustible life-giving source, the “point of points”. Leibniz’s metaphysics has both critics and apologists, but any controversy confirms the outstanding intellectual significance of the philosophical heritage of the German genius.

**Keywords:** point, monad, God, metaphysical units, substance, spiritual essence, world harmony

**For citation.** Perekrestova AV. Triumvirate of Theology, Science and Philosophy: How a Mathematical Concept Becomes Metaphysical and Explicates the Idea of God. *Science Almanac of Black Sea Region Countries*. 2023;9(4):18–23. <https://doi.org/10.23947/2414-1143-2023-9-4-18-23>

Научная статья

### Триумвират теологии, науки и философии: как математическое понятие становится метафизическим и эксплицирует идею Бога

А.В. Перекрестова

Донской государственный технический университет, Российская Федерация, г. Ростов-на-Дону, пл. Гагарина, 1

✉ [pereckrestova@mail.ru](mailto:pereckrestova@mail.ru)

#### Аннотация

**Введение.** В фокусе рассмотрения находится понятие «точки» в контексте онтологических и философско-религиозных аспектов монадологии Г.В. Лейбница. Целью исследования является выявление предпосылок

становления и развития концептуальной для немецкого мыслителя категории, через анализ которой происходит прояснение доступных экспликации характеристик и свойств Бога как первомонады.

**Материалы и методы.** Методологическую основу статьи составляет изучение последовательной трансформации идеи метафизической точки, являющейся прообразом и дефиницией понятия монада, и ее соотношения со сферой трансцендентного. Для раскрытия данной проблематики используются общетеоретические и посвященные отдельным вопросам работы исследователей наследия Г.В. Лейбница, применяется принцип культурно-исторической обусловленности, а также герменевтический метод, акцентирующий значимые коннотации. Системный подход позволяет рассмотреть понятие всесторонне и многоаспектно, а также продемонстрировать корреляцию и взаимозависимость религиозных и онтологических уровней изучаемого феномена.

**Результаты исследования.** Осуществлен структурно-функциональный анализ понятия «точка» в ракурсе метафизики Г.В. Лейбница. Показан фундаментальный характер данной категории для философии немецкого ученого в целом. Лейбниц не только переосмыслил и экстраполировал уникальные свойства исследуемого понятия для развития математического анализа, но и конституировал метафизический статус точки как монады, которая оказывается в его концепции духовной сущностью, являющейся излучением Бога. Комплексная теоретическая проработка образа точки в соотношении с теологическими воззрениями мыслителя дает возможность обозначить новые перспективы осмысления и интерпретации основополагающих категорий философии и религии, таких как Бог, начало, бытие, что в свою очередь будет способствовать формированию более многогранного, синкретичного мировидения в современной культуре, ориентированной на диалог религии и науки.

**Обсуждение и заключение.** Метафизическая точка и монада являются эквивалентными понятиями. Бесконечное многообразие монад представляет собой выражение божественного присутствия в мире, т. к. Бог не только является единственным основанием их существования, но и первопричиной их активности. Если монады – это одухотворенными центры жизненной силы, то Бог – их неиссякаемый животворный источник, «точка точек». Метафизика Лейбница имеет как критиков, так и апологетов, но любая полемика лишь подтверждает выдающуюся интеллектуальную значимость философского наследия немецкого гения.

**Ключевые слова:** точка, монада, Бог, метафизические единицы, субстанция, духовная сущность, мировая гармония

**Для цитирования.** Перекрестова А.В. Триумвират теологии, науки и философии: как математическое понятие становится метафизическим и эксплицирует идею Бога. *Научный альманах стран Причерноморья*. 2023;9(4):18–23. <https://doi.org/10.23947/2414-1143-2023-9-4-18-23>

**Introduction.** In Western culture, the 17<sup>th</sup> century is one of the significant milestones, since it was marked by epoch-making scientific discoveries that took place along with the scientific revolution. At that time, such great minds as Galileo, Kepler, Descartes, Newton created. They contributed to the change in the heuristic paradigm, and formed fundamentally new ideas about the surrounding reality, while remaining scientists deeply believing in the divine root cause of the universe. It was at that time and in that context when another genius, Gottfried Wilhelm Leibniz, appeared in the world who was destined to become one of the most outstanding figures in the world science. Leibniz's encyclopedic knowledge and phenomenal erudition enriched a whole range of scientific spheres, giving them a powerful impetus to further development; "his name is inscribed in history of mathematics, mechanics and physics, he was engaged in logic, jurisprudence, history and theology, put forward valuable ideas in geology, linguistics and psychology" [1, p. 7]. However, Leibniz's fantastic intellectual talents, as expected, also showed themselves in philosophy. The world view he proposed inscribed him in history as the brightest representative of New European metaphysics. At the same time, as many researchers note, the essence of the worldview of the German thinker was natural theology which fueled all the most important provisions of his system. As I.S. Narsky pointed out, "Leibniz is usually considered the most dependent on scholastic heritage and the most gravitating to an alliance with religion" [2, p. 5].

The concept of Gottfried Leibniz, who formulated the main question of metaphysics and engaged in deep ontological research in order to establish fundamental principles and represent the divine perfection of the world order, is incredibly significant in terms of understanding the concept of «point,» which acquires an original philosophical and religious sound according to him. In his system, a point becomes spiritualized. He literally breathed life into it, making it a bearer of individual consciousness. Points that have become the prototype of monads are transformed by the thinker into spiritual entities, the limit of development of which is God, understood as the highest point which is outside the general series.

**Materials and methods.** Leibniz's work "Monadology", which systematically sets out the main provisions of his doctrine, being unpublished during the philosopher's life, is widely known. This treatise is an extremely compressed but capacious explication of Leibniz's theory, according to which the universe consists of an infinite number of special

objects equivalent to a point and called monads in accordance with the ancient tradition of naming unit. However, the term “monad” appeared in the theoretical arsenal of the thinker only in 1698, although the concept itself was considered by Leibniz in earlier years of creativity, correlating with questions of mathematical points and physical atoms. V.P. Zubov drew particular attention to this, analyzing the originality of Leibniz’s views, which went from atomism to continuity: “In 1671, Leibniz developed in detail the doctrine of a certain “grain of substance, “seed center”, “point” at which the “mind” is invariably preserved, or life principle” [3, p. 271]. In this aspect, a fragment dedicated to metaphysical points from the philosopher’s small work “A New System of Nature and Communication between Substances, as well as about the Connection between Soul and Body”, which was published in Paris in 1695, is especially significant. This work shows that the philosopher began to differentiate between the physical-mathematical and substantive approaches, undivided at the early stages of his work. It was this delimitation of levels that made it possible to crystallize the concept of a “metaphysical point”, which later received the name of monad. I.S. Narsky explained in this regard: “According to this “philosophy of points”, as Leibniz outlined his worldview in a letter to Duke Johann Friedrich in 1671, geometric and physical points are only “points of view” and in general only phenomena, but spiritual “points” are entities” [2, p. 96].

The concept of monad was not chosen by Leibniz by chance. It is well-known that it has a thousand-year history of use and comprehension. Entering into active use in ancient Greek philosophy, it appeared episodically in the writings of various thinkers, but the monad category received a total engagement for a leading role in the ontological system in Leibniz’s work. It was in his teaching that the development of this concept reached the greatest detail, forming stable associations between the word “monad” and the concept of Leibniz. In the Pythagorean tradition, monad meant the original being, single and indivisible, which gives rise to all the variety of phenomena of reality – a unit, specifying a number series, at the same time, determines the origin of all objects of the universe [4]. The corresponding graphic symbol of a monad, used in ancient times, a circled point, very clearly represented the semantics of the concept. For Pythagoras, and subsequently Platonists and Neoplatonists who addressed this term, the mystical meaning conceptually embedded in this word and referential to the idea of the deity was extremely important. This is exactly what first inherited the concept in Leibniz’s interpretation: the image of the first metaphysical entity referring to the Absolute was especially attractive for its creative power, which in the concept of the German philosopher is revealed as a life force overfilling substance atoms. Having enriched the concept with new connotations, Leibniz was very careful about its core meaning, certifying a monad as an ideal entity, directly correlated with the divine beginning and demonstrating its creative aspiration through the deployment of the physical universe. The point representing the emblem of a monad was not a nominal sign, but embodied the very nature and spirit of the first element expressing the universal principle of the universe’s structure.

**Results.** Leibniz came to the concept of “monad” systematically thinking about the specifics of physical atoms, which, in turn, referred to the idea of first mathematical and then metaphysical points. Having overcome mechanistic atomism and declaring the infinite divisiveness of matter, Leibniz came to postulate the principles that are the true, intangible primary basis of being: “There are only substance atoms, i. e. units or real unity, absolutely devoid of parts that make up the sources of activities and the first absolute principles of things’ addition and the last elements in the analysis of substantive things” [5, p. 276]. The philosopher called these genuine “atoms of nature” metaphysical points, noting that they contain a vital force, which later will appear in *Monadology* as creative potential of nature. The physical and mathematical level turns out to be a kind of springboard to a speculative concept, provides an ascent to the intellectual height of philosophical comprehension of the universe’s fundamental principles. The philosopher, in the fight against mechanicalism reigning in his era, managed to change the angle and come to the conclusion that a genuine unity is revealed not at the material level, but in the sphere of substantive forms, where it is necessary to look for real, animate, as he calls them, points that create the integrity of being.

In his numerous letters to friends and colleagues, he, insisting that the essence of bodies does not come down to the length and the source of movements in the world is outside of things, declared the existence of unbodied spiritual substances – metaphysical points or monads, which are a kind of a source radiation which is the Creator. As noted by L.A. Petrushenko, God “being the highest monad, or the monad of monads, at the same time was the world harmony, so that the monad, its strength and the world harmony preset by God are as much united with each other as the source of water, its pressure and the water itself” [6, p. 85]. The point was chosen as the element most fully expressing the quintessence of not only indivisibility, but also immateriality, since it is a geometric object that lacks any measurable parameters other than coordinates. Being a fundamental abstract element that does not have size and mass, a point for the German philosopher perfectly embodied the specifics of a metaphysical entity that acts as a key construct of the universe.

Having established a clear correlation between substances and the sphere of phenomena, as well as referring to an unspoken hierarchy implying the presence of a higher beginning or God, the thinker declared an infinite variety of relations between multi-level elements, which ensure the integrity of the entire composition. However, a unity realized through substantiality in empirical reality, according to Leibniz, cannot be material. As V.V. Sokolov emphasizes, the

philosopher “rejects the concept of a bodily and at the same time intelligible atom as self-contradictory” [5, p. 43]. Leibniz proclaims as an ontological substrate a certain spiritual unit called by him the “true” atom, in the first paragraph of the treatise without preambles, he declares: “Monad, which we will talk about here, is nothing more than a simple substance that is part of complex; simple which means that it has no parts” [5, p. 413]. Indivisibility is one of the key characteristics of these elements, in addition, monads are metaphysical, abstract points that do not have any measurable properties. Each monad has an individual identity, it has its own inner principle of being – it can undergo metamorphoses, but these changes are internally deterministic and related to its evolution which has its own limit. “This limit of self-development, improvement and self-knowledge of monads appears under the name «god»” [2, p. 116], – Narsky concludes.

“Substance atoms” not only act as authentic primary elements of nature and the beginning of all things, they, according to Leibniz, are a “mirror of the universe”, containing resources for interpreting the whole world [7]. The philosopher uses this expressive metaphor a lot of times in his “Monadology”, emphasizing one of the dominant characteristics of his metaphysical points – the ability of the minimum to potentially contain the entire content of the maximum which Nikolai Kuzansky discussed a lot.

A significant aspect of monads being is their ontological status which excludes their occurrence and completion of existence in a natural way and directly refers to the transcendent: “they can get the beginning only by creation and die only through destruction” [5, p. 413]. In the first theses of “Monadology”, Leibniz leads to the idea that the source of all metaphysical entities is God, appearing as the highest creative monad, correlated with reality through some incomprehensible connections, but residing outside it. The philosopher in many of his works says that the ultimate cause of all things must be found in the necessary and universal basic, “sufficient basis” as God turns out to be – a supreme, perfect and self-sufficient monad. According to Leibniz, the primary substance that the genuine “atoms of nature” make up is intangible, since the substance is infinitely divisible, and any of monads, due to its indestructibility, represents a limit which, in turn, testifies to the origin of these primary elements from the original unity which is God. “Metaphysical points” are qualified as some kind of the divine monad radiation, moreover, the entire universe is potentially curtailed in each of them, which makes them mediators between obvious and inaccessible to perception. In his treatise «The Beginnings of Nature and Grace Based on Reason,» where the legendary question of metaphysics was voiced, Leibniz gives a capacious and symbolic definition of the Creator: “God is an omnipresent center, the circumference of which is nowhere, everything exists for him directly without any distance from the center” [5, p. 410]. This exactly repeats the geometric allegory of Kuzansky, who wrote that “god is a circle which center is everywhere, that is, you will see that as a point is everywhere in any quantitative body, so god is in everything” [8, p. 294]. The Creator personifies not only the highest monad as the Absolute in all its comprehensiveness, but also is a transcendent point, incomprehensible and inaccessible, being beginning and core of all existent and non-existent. This primary source creates all the infinite variety of monads, producing them like a dazzling star that continuously emits countless photons, each of which is invisible individually, but together with others turns into visible light. It is noteworthy that Dante in his “Divine Comedy” also chooses a point as a symbol of the Almighty radiating an unearthly radiance: “I saw the Point that poured such an Acute light that is unbearable for the Eyes, burned by this sharpness” [9, p. 476]. It is thanks to the Creator that any of the objects in this perfect, according to Leibniz, world bears the seal of original impeccability, including the units of being – monads. Moreover, the monad in the philosopher’s system acts as the primary metaphysical entity created by the Creator in order to realize the connection between material and ideal, affirming the harmonic architectonics of the best possible world.

Monads are spiritual entities for Leibniz, each of them has many properties and relationships that make up its perception and differentiate among others. The philosopher describes three levels of monads that can be distinguished by methods of perception: simple created substances (entelechies), simple souls and highly developed spirits that have self-awareness and are capable of apperception. The important point for understanding the functioning of substances is the factor that monads are not subject to changes from the outside, they serve as the catalyst for all transformations. Being indivisible smallest units of nature, metaphysical points, according to Leibniz, naturally do not have “windows” into which external forces can penetrate and make any modifications. Only God can act on simple substances and cause their metamorphosis, or the monad itself, in accordance with its internal principle, is able to modify its state if it is embedded in it by the Creator. This is connected with the rejection of metempsychosis repeatedly emphasized by the thinker – not subject to the emergence and disappearance, which is fully regulated by God, monads can develop, curl, undergo some transformations, but “souls never leave their bodies and do not pass from one body to another” [5, p. 407].

The most progressive is the third type of monads, which constitutes the Kingdom of the Spirit, embodying the glory and greatness of God due to the most important feature inherent exclusively in this class of primary atom – the ability to “display the Deity itself” [5, p. 428]. Any monad acts as a “mirror of the universe”, but only spirits as a highly developed species are also endowed with the gift of reflecting the Creator, which gives them the opportunity not only to know the



Universe, but thanks to their creative intentions to imitate God in certain areas. Leibniz describes this property very accurately and figuratively, stating that “every spirit in its field is a small deity” [5, p. 428].

Monad is always associated with any material carrier, for its implementation as a metaphysical object, the presence of a derivative of a phenomenal world is necessary. As the thinker notes: “There are no souls completely separated from the body, nor disembodied geniuses” [5, p. 426]. However, there is a single exception – a primary monad, known by the name of God, is completely free from physicality and any materiality. Embodying absolute being and being a source of infinite creative energy, the Creator is outside of time and space, carrying out his cosmogonic project through the substantive atoms that construct the Universe, just as the point introduces the idea of unity that initiates the entire number series.

**Discussion and conclusion.** Most Leibniz heritage researchers pay attention to how life-affirming and optimistic in all aspects his concept was. In many writings and letters, the thinker proclaimed the triumph and infinity of the life-giving power of the universe. “Thus, in the universe there is nothing unfinished or fruitless: there is no death, there is no chaos, there is no disorderly mixing except in appearance”, – he formulates his philosophical credo [5, p. 425].

Appealing in his concept to Pythagorean-Platonic ideas, to Democritus atomism, to Aristotle’s continual ideas, Leibniz created a distinctive, multilevel philosophical system, proposing a bizarre combination of known images, but on a different ontological foundation. The thinker believed that in authentic reality there are metaphysical monad-points as radiation of God, which are indivisible living units, and the world of phenomena is based on continuity and infinite divisibility. V.P. Zubov emphasizes this aspect that is significant for understanding the thinker’s teachings: “Leibniz’s mathematics and physics are anti-atomistic, while monadology lies outside the world of physical and mathematical phenomena as a kind of «metaphysical atomism» system” [3, p. 277]. The philosopher fits a point into the spiritual dimension – any thing and phenomenon requires a beginning, and if the material layer does not give satisfactory results in the search for substantive elements, therefore, the sources should be sought outside of sensual reality. It is there where there are genuine units of being – monads which are only the reflection of the transcendental point – God.

Leibniz’s concept, like any significant intellectual artifact, was perceived ambiguously. In particular, the Nobel laureate, physicist Erwin Schrödinger did not speak too complimentary about the approach of “multiplying worlds, according to the eerie doctrine of monads of Leibniz”, where “each monad itself represents the world” [10, p. 200]. However, in the context of understanding the interpretations of the point concept, Leibniz’s teaching provides truly invaluable material, because in the German philosopher’s system, the point-m Monad acts not only as a “mirror of the universe”, the radiation of God and a reference to the transcendent, but also the spiritualized center which has a unique individuality. At the same time, the harmonious unity of the entire variety of monads becomes possible only thanks to the primary monad – the Creator who acts as a generator and a connecting medium of metaphysical points. As N.V. Motroshilova wrote: “From divine guardianship of the world, Leibniz derives a universal inextricable connection of everything with everything” [11, p. 99]. The impersonal point is transformed into a living entity capable of perception and self-awareness. Having breathed life into the point, Leibniz gave monads spiritual status, bringing them closer to the Creator. Monadology offers an interesting and beautiful view of the point as one of the universes that make up the infinite many worlds, the source of which is the mysterious divine primary monad.

## References

1. Pogrebyssky IB. *Gotfrid Vilgelm Leybnits = Gottfried Wilhelm Leibniz*. Moscow: Nauka; 2004. 270 p. (In Russ.)
2. Narsky IS. *Gotfrid Leybnits = Gottfried Leibniz*. Moscow: Mysl; 1972. 239 p. (In Russ.)
3. Zubov VP. *Razvitiye atomisticheskikh predstavleniy do nachala XIX veka = The development of atomistic ideas until the beginning of the 19th century*. Moscow: Nauka; 1965. 372 p. (In Russ.)
4. Kahn Charles K. *Pythagoras and the Pythagoreans*. Indianapolis. Cambridge: Hackett Publishing Company, Inc., 2001, 206 p.
5. Leibniz GW. *Sochineniya = Written works*. In 4 volumes. V. 1. Moscow: Mysl; 1982. 636 p. (In Russ.)
6. Petrushenko LA. *Filosofiya Leybnitsa na fone epokhi = Philosophy of Leibniz against the backdrop of the era*. Moscow: Alfa-M; 2009. 512 p. (In Russ.)
7. Luchte, James (2006). Mathesis and Analysis: Finitude and the Infinite in the Monadology of Leibniz. *Heythrop Journal*. 2006; 47 (4): 519–543. <https://doi.org/10.1111%2Fj.1468-2265.2006.00296.x>
8. Kuzansky N. *Sochineniya = Written works*. In 2 volumes. V. 2. Moscow: Mysl; 1980. 471 p. (In Russ.)
9. Dante A. *Bozhestvennaya komediya. Novaya zhizn = Divine Comedy. New life*. Moscow: Inostranka, Azbuka-Atticus; 2022. 768 p. (In Russ.)
10. Schrödinger E. *Chto takoye zhizn? = What is life?* Moscow: AST; 2019. 288 p. (In Russ.)
11. Motroshilova NV. *Istoriya filosofii: Zapad – Rossiya – Vostok = History of Philosophy: West – Russia – East*. Book 2. Moscow: Greco-Latinsky kabinet of Yu.A. Shichalin; 1996. 557 p. (In Russ.).

*About the Author:*

**Perecrestova Anastasia Valerievna**, postgraduate student, Don State Technical University (1, Gagarin Sq., Rostov-on-Don, 344000, RF); [ORCID](#), [perecrestova@mail.ru](mailto:perecrestova@mail.ru)

**Received** 11.10.2023

**Revised** 10.11.2023

**Accepted** 12.11.2023

*Conflict of interest statement*

The author does not have any conflict of interest.

*The author has read and approved the final manuscript.*

*Об авторе:*

**Перекрестова Анастасия Валерьевна**, аспирант кафедры философии и мировых религий, Донской государственной технической университет (РФ, 344000, г. Ростов-на-Дону, пл. Гагарина, 1), [ORCID](#), [perecrestova@mail.ru](mailto:perecrestova@mail.ru)

**Поступила в редакцию** 11.10.2023

**Поступила после рецензирования** 10.11.2023

**Принята к публикации** 12.11.2023

*Конфликт интересов*

Автор заявляет об отсутствии конфликта интересов

*Автор прочитал и одобрил окончательный вариант рукописи.*