The Meaning of Causality and the Premise and Root of Its Existence

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This article aims to understand the most fundamental operating principles of the phenomenal world and figure out how phenomena within the phenomenal world are interconnected. Causality is the most basic connection, rule, logic and fact of the phenomenal world, since everything in the phenomenal world is originally in the interconnection of three elements: cause, condition and effect. Finding the causal connection between things and utilising it to achieve the goal of avoiding harm and ultimately attaining happiness is the fundamental motivation for all human intellectual activities, including scientific research, philosophical discernment, and religious beliefs. The article gives a universal definition of causation as the primordial, underlying, transcendental, inherent, intrinsic, ultimate, essential, fundamental, inevitable, invariable, timeless, universal, complex, multidimensional, dynamic connection, law, logic, and fact among the three elements of cause, condition and result in the phenomenal world. The article explains in detail why the foregoing definition is universal from both ontological and epistemological perspectives.

Keywords: causaity, correlation, ontology, epistemology

INTRODUCTION

Although natural sciences, social sciences, humanities, daily life and work have different research objects and concerns, at least two points must be similar. First, the subjects and objects involved are all part of a complex, multidimensional and dynamic causal network (Michotte 2017). Second, it needs to discover, recognise and utilise the involved causality for avoiding suffering(/harm) and pursuing happiness(/benefit). In fact, the fundamental motivation and method of all human intellectual activities, whether scientific research, philosophical thinking, religious belief, or other forms of intellectual inquiry, are inseparable from the discovery, recognition and utilisation of cause-and-effect relationships between things, i.e. objective laws to achieve the purpose of avoiding suffering(/harm) and pursuing happiness(/benefit).

However, the understanding regarding the causality of mortal beings is often shallow and even misleading. There are two reasons for this. First, even though people know that correlation does not imply causality, they often use correlation instead of causality, intentionally or unintentionally. Second, people have never comprehensively understood the causality involved in their own interests. Hence, many arguments, contradictions, and even conflicts arise.

Currently, humanity's understanding of causality is insufficient, manifesting primarily in four aspects: firstly, a lack of clarity on whether causality is an objective reality or a subjective sensation (Purves 2021; Spohn 2022); secondly, confusion on whether occasionality is an essential property of causality (Wasserman et al. 1983; Quattrone, Tversky 1984; Cheng, Holyoak 1995); thirdly, uncertainty on whether the chronological sequence is a prerequisite for causality (Godfrey-Smith 1979; Copley, Martin 2014; Palmer 2014); and fourthly, ambiguity on whether causality belongs to the ontology or the epistemology (Von Wright 1973; Williamson 2006, 2009; Morton 2013; Arponen 2014).

The root of this issue is humanity's excessive dependence on mathematical logic in exploring causal relationships, resulting in a rigid and mechanistic understanding of causality. In fact, there are several common issues with humanity's understanding of causality. For instance, there is still no consensus on the objectivity, complexity, conditionality, specificity, and chronological sequence of causality and determining criminal liability for negative actions.

Revolving around the theme of causality, this article will be divided into two sections exploring the true meaning of causality and its prerequisite, foundation and root.

As is well known, human cognitive activities are inseparable from the concepts constructed by ideographic symbols such as language, words, sounds, images, etc. However, all concepts and ideograms have their natural limitations (Bonvillain 2019). All arguments, contradictions, and even conflicts in the world stem from five fundamental causes, the most direct and superficial of which is that there is no strict and precise definition of the core concepts involved in the debate. It leads to different understandings and expressions of the same issue between the two sides of the debate, resulting in a situation where each side speaks its own language. Therefore, it is necessary first to clarify that the several related adjectival concepts and ideograms here, like causal, causing, causative, cause-and-effect, etc., are considered synonyms and that the several related nominal concepts and ideograms here, like causality, causation, causal relation, causal correlation, causal relationship, causal link, causal association, causal connection, causal logic, causal law and causal principle, etc., are regarded as synonyms. However, they have some subtle differences at the semantic and pragmatic levels. They will be used later, if necessary, according to the context, or common (/popular/terminological) conventions, as appropriate.

THE TRUE MEANING OF CAUSALITY

What is causality? Causality, in fact, refers to the primordial, underlying, transcendental, inherent, intrinsic, ultimate, essential, fundamental, inevitable, invariable, timeless, universal, complex, multidimensional, dynamic connection, law, logic, and fact among the three elements of cause, condition and result in the phenomenal world. Therefore, the true meaning of causality consists of two points:

First, everything in the phenomenal world must be in the causal relationship of cause, condition and result, and their causality must be complex, multidimensional and dynamic.

Second, there must be some primordial, underlying, transcendental, inherent, intrinsic, ultimate, essential, fundamental, inevitable, invariable, timeless and universal principles in complex, multidimensional and dynamic causality.

These two points are briefly stated as follows.

• First, everything in the phenomenal world must be in the causal relationship of cause, condition and result, and their causality must be complex, multidimensional and dynamic.

As is well known, everything in the phenomenal world, whether material dharma/existence or mental dharma/existence, must go through the process of birth, aging, getting ill, death, or taking shape, maintenance, changing/destructing and extinction. And there must be some causative factors/conditions for its survival at each stage. The concept/ideogram/ terminology used in Buddhist philosophy to express this universal meaning is being. When the causative factors/conditions come together, the so-called being will be born, and when the causative factors/conditions break down, the so-called being will perish. Therefore, everything in the universe, that is, all phenomena in the phenomenal world, can be called the dependently arisen being, relative being, interdependent being, causative being, conditioned being, compounded being, discerptible being, decomposable being, resoluble being, soluble being, dissoluble being, dissolvable being, limited being, mortal being, short-lived being, inconstant being, impermanent being, temporary being, interim being, bound being, etc. Moreover, all these beings can be roughly divided into sentient beings and insentient beings. The so-called sentient beings refer to these beings with mind-senses, such as humans, animals, insects, bacteria, viruses, etc. That is, they have mental functions such as emotions, memory, recognition and decision-making. In fact, according to the different forms of their existence, all sentient beings can be roughly divided into three realms, four kinds of birth, five/six/seven destinies, nine levels, twelve categories, and twenty-five (stages of) existence(s). If it is classified in detail, there are as many as tens of trillions, ... even uncountable (Editor 2006; Contributors 2024). However, for the presence of these different forms of sentient beings, most mortal beings in the world are like frogs at the bottom of a well and do not know or believe.

The term mortal beings here is a neutral pronoun with no derogatory meaning, which refers to all sentient beings who have not yet escaped from the three kinds of bondage: innate self-view, innate doubt, and obsession with discipline. The so-called innate self-view refers to the misidentification of the self. The so-called innate doubt refers to the inability to judge whether others, especially various religious leaders, famous scholars, masters of, etc., have already escaped from the bondage of innate self-view or not. The so-called obsession with discipline refers to the inability to judge whether various precepts set by others, especially various religious leaders, famous scholars, masters of, etc., are helpful to escape from the bondage of innate self-view. In short, the term mortal beings refers to all sentient beings, especially those engaged in various intellectual activities such as scientific research, philosophical thinking, religious beliefs, artistic creation, and production work but who have not yet escaped from the three kinds of bondage mentioned above. Based on this definition, it is clear that all sentient beings who are unwilling to explore the origin of the universe and the truth of life or who have the will but have not yet done so belong to mortal beings (Xiao 2023).

It is well known that things in the phenomenal world are universally connected. Precisely, everything in the phenomenal world, whether sentient beings or insentient beings, material dharma(/existence) or mental dharma(/existence), must be in the causality between the three elements of cause, condition and result. In fact, the phenomenal world refers to the complex, multidimensional and dynamic causal network. As is well known, in the complex, multidimensional and dynamic causal network, a cause in some causal chain must also be the condition or(/and) result in other causal chains. Similarly, a condition in some causal chain must also be the cause or(/and) result in other causal chains, and a result in some causal chain must also be the cause or(/and) condition in other causal chains. As we all know, the occurrence and change of anything in the phenomenal world, as a result, must have some corresponding

causes and conditions. Meanwhile, as a cause or condition, it must lead to corresponding results, i.e. the occurrence and change of other phenomena in the phenomenal world. This is not a theoretical hypothesis but factual truth, which has long been demonstrated by many research findings of the natural sciences, especially complexity science (Yuan et al. 2024).

In short, causality and its complex, multidimensional and dynamic nature are the primordial, underlying, transcendental, inherent, intrinsic, ultimate, essential, fundamental, inevitable, invariable, timeless and universal logic and facts of the phenomenal world.

• Second, there must be some primordial, underlying, transcendental, inherent, intrinsic, ultimate, essential, fundamental, inevitable, invariable, timeless and universal principles in complex, multidimensional and dynamic causality.

This paper is titled the true meaning of causality, so what is 'true'? For mortal beings, the so-called 'true' is the opposite of 'false'. People who have not yet personally witnessed and verified the reality of being (Tsai 2007) must be unable to break through the dichotomous way of thinking and cognitive inertia, and then, must be trapped in the binary opposition of existence vs nothingness, being vs emptiness, can vs by, one vs many/much, identical vs dissimilar, birth vs death, discrete vs continuous, coming vs going, inner/inside/internal/interior vs outer/outside/external/exterior, native vs foreign, increase vs decrease, less vs more, true vs false, real vs unreal, yin vs yang, male vs female, sudden vs gradual, dirty vs purity, positive vs negative, big vs small, dynamic vs static, long vs short, cool vs hot, black vs white, finite vs infinite, maximum vs minimum, subjective/subjectivity vs objective/objectivity, determinate/ certainty vs contingent/contingency, etc. And thus, for any topic, people are bound to encounter antinomy when they think in depth.

Why is that? As mentioned before, they have not yet personally witnessed and verified the reality of being, i.e. they are ignorant of the origin of the universe and the what's what of life, and thus do not know, understand, or verify the Middle Way of the true form of things as they are. Then, what they know to be 'true' must become 'false' as various causes or(/and) conditions change. Therefore, for mortal beings, everything they know must not be free from the fate of being then real, now false, now real, and other times false. In other words, all mortal beings have never known what 'true' means.

In fact, besides the aforementioned superficial relative meaning, the so-called 'true' has a profound absolute connotation – it means to remain eternal and unchanged in all circumstances, i.e. originally as it is (Xiao 2023). Thus, there must be some primordial, underlying, transcendental, inherent, intrinsic, ultimate, essential, fundamental, inevitable, invariable, timeless and universal principles in the complex, multidimensional and dynamic causal relationship between the three elements of cause, condition and result in the phenomenal world. Why is this? As has been said, this concerns the reality of being, i.e. the origin, premise and basis of causal logic, which is briefly stated below.

PREREQUISITE, FOUNDATION AND ROOT OF CAUSALITY

As stated above, causality is the primordial, underlying, transcendental, inherent, intrinsic, ultimate, essential, fundamental, inevitable, invariable, timeless and universal connection, law, logic and fact in the phenomenal world. Why is that? Four points will be outlined here on this theme: firstly, causality depends on the phenomenal world; secondly, the phenomenal world depends on the noumenon; thirdly, the noumenon is immortal, so the phenomenal world endures forever; and fourthly, the phenomenal world endures forever, so causal logic continues to exist. These four points are briefly stated as follows.

Firstly, causality depends on the phenomenal world. As mentioned above, the so-called causality refers to the connection, logic, law and fact among the three elements of cause, condition and result. And the so-called phenomenal world refers to the complex, multidimensional and dynamic causal network. As is well known, all things in the phenomenal world can be roughly divided into material dharma(/existence) and mental dharma(/existence), more precisely, sentient beings and insentient beings. As we all know, based on the entropy increase principle in physics, everything in the universe, whether sentient beings or insentient beings, must go through the process of birth, aging, getting ill, death, or taking shape, maintenance, changing/destructing and extinction. As stated before, everything in the phenomenal world, as a result, must have the corresponding causes and conditions. Meanwhile, as a cause or condition, it must generate the corresponding result. Namely, causality is the phenomenal world's primordial, underlying, transcendental, inherent, intrinsic, ultimate, essential, fundamental, inevitable, invariable, timeless and universal logic and facts. In short, causality depends on the phenomenal world, and if there is no phenomenal world, there is no such thing as causality.

Secondly, the phenomenal world depends on the noumenon. Where does the phenomenal world come from? That is, where does everything in the universe come from? Where did the sentient beings come from? Where did the insentient beings come from? No existing human knowledge systems, including natural sciences, social sciences and humanities, can provide answers that can withstand double logical and factual tests. In fact, such questions and their correct answers are the prerequisites and foundation of all intellectual activities. However, almost all mortal beings are confused about this fundamental problem and pay little attention to this necessary pre-requirement. Due to their poor cognitive state and level, little frogs at the bottom of the well rarely pay attention to cosmic celestial bodies such as the sun and moon. They do not know that the seemingly distant and unrelated heavenly bodies determine and influence their living environments, life forms and quality of life. Similarly, most mortal beings do not pay attention to this prerequisite and fundamental issue because of their narrow-mindedness and short-sightedness. They do not know that this seemingly abstract and ethereal issue closely relates to their concrete vital interests. Regarding these crucial ontological and epistemological issues, science tends toward materialism and atheism, while religion towards idealism and theism. However, both materialism and idealism are wrong at the ontological level, and theism and atheism are both imperfect at the epistemological level. The three fields of natural sciences, social sciences, and humanities are full of illusioned hypotheses because none of them has personally witnessed the origin of the universe and the truth of life (Xiao 2023). Nevertheless, they all acknowledge that the existence of the phenomenal world must have its origin, which is exactly the ontological problem in philosophy. In a word, the phenomenal realm is based on the noumenon. Nevertheless, they all acknowledge that the phenomenal world must have its origin, which is the ontological problem in philosophy. In short, the phenomenal world depends on the noumenon.

Thirdly, the noumenon is immortal, so the phenomenal world endures forever. Everything in the phenomenal world, whether material dharma(/existence) or mental dharma(/existence), originates from the immortal minds of sentient beings, i.e. the noumenon/thing-in-itself in ontology and the being/existence in epistemology (Tsai 2007; Xiao 2023). That is, the noumenon (i.e. immortal mind) really exists. It is not theoretical hypothesis but factual truth, which will be demonstrated in three steps following the basic logic of the well-known and agreed-upon sufficient and necessary conditions. (1) As is known to all, all phenomena in the world of phenomena interlace with each other, forming mutually nested systems of different sizes,

which are interrelated and interdependent with each other. (2) Among interrelated and interdependent things, the survival of the short-lived is a sufficient condition for the existence of the long-lived. In contrast, the existence of the long-lived is a prerequisite and necessary condition for the survival of the short-lived. (3) As is well known, everything in the phenomenal world, no matter how long it lasts, must have birth (/a beginning) and death (/an end). Thus it can be inferred that, as the prerequisite and necessary condition, there must be something without birth/beginning, without death/end, which is exactly the noumenon/thing-in-itself in ontology and being/existence in epistemology (Tsai 2007; Xiao 2023). The noumenon is immortal, so the phenomenal world endures forever. Why is that? Because phenomena and noumenon are inherently neither identical nor dissimilar. Phenomena have both birth and death, but the noumena have neither birth nor death; the noumenon is immortal; therefore, the phenomenal world lasts forever. To make sense of this logic and principle, here is an analogy. As the noumenon, water is neither born nor destroyed, but as the form and function, steam, wave, snow, ice, and the corresponding wet, slippery, soft, and hard are both born and destroyed. Again, as the noumenon gold is neither born nor destroyed, but as the form and function, gold ore, gold sand, gold grain, gold nugget, gold bar, gold tools, and the corresponding colour and texture are both born and destroyed.

Fourthly, as stated above, causality depends on the phenomenal world, and the latter depends on the noumenon. The noumenon is immortal, so the phenomenal world endures forever. The phenomenal world endures forever, so causality continues to exist. This assertion can withstand the double tests of both logic and fact. Thus, as mentioned before, the complex, multidimensional and dynamic causality is the primordial, underlying, transcendental, inherent, intrinsic, ultimate, essential, fundamental, inevitable, invariable, timeless, and universal logic and facts of the phenomenal world. In other words, the logic and rules describing causality, whether complex or simple, subjective or objective, definite or contingent, abstract or concrete, universal or particular, all originate from and depend on the immortal noumena.

The noumenon/thing-in-itself/being/existence in philosophy is the origin of all phenomena and rules in the phenomenon world, which is faceless and invisible but exists independently beyond all time and space. In fact, phenomena, logic/rules/principles and noumena are inherently neither one nor two. Why is that? As we all know, the so-called phenomena refer to the concrete forms and functions derived from and depend on the abstract and metaphysical noumena. And the so-called logic/rules/principles refer to the primordial, underlying, transcendental, inherent, intrinsic, ultimate, essential, fundamental, inevitable, invariable, timeless and universal correlation between forms, functions and noumena.

In fact, phenomena and logic/rules/principles are originally neither identical nor dissimilar. Why is that? As we all know, the so-called phenomenon means the rule above the rule, and the so-called rule means the phenomenon under the phenomenon, so the phenomenon and the rule are inherently neither one nor two.

In summary, all phenomena and logic/rules/principles in the phenomenal world are not outside the realm of causality. Therefore, the notion that quantum mechanics breaks the law of cause and effect is purely a myth of mortal beings. As stated above, the deterministic rules describing macroscopic phenomena and non-deterministic rules describing microscopic phenomena in natural science are two sides of the same coin of causality. Anyone who has not yet personally verified this immortal mind must be unable to break through the dichotomous way of thinking and behaviour and then must be trapped in the binary opposition. And thus, for any topic, people are bound to encounter antinomy when they think in depth.

Why is that? As mentioned before, they are ignorant of the origin of the universe and the what's what of life, and thus do not know, understand, or verify the Middle Way of the true form of things as they are. For example, for sunlight, some say it is bright, some say it is dim, some are continuous, and some are discrete. In terms of phenomena and effects, what they say is not wrong, but they oppose each other. In terms of the sun (i.e. noumenon/thing-in-itself/being/existence), what they say is not wrong, but it has no real meaning. Why is that? As we all know, the sun is the noumenon, and the sunlight and heat are its form and function. If there is no sun, there is no sunlight and heat. Sunlight and heat need to depend on the sun to be there, and the sun's existence needs to be revealed by sunlight and heat. Some worldly-wise of the past and present have only seen the sunlight and heat but not the sun. Therefore, all their discussions and arguments are not free from the shackles of relative ideas and are bound to encounter antinomy.

CONCLUSION AND PROSPECT

Due to the dichotomous way of thinking and cognitive inertia, mortal beings cannot escape the shackles of the concept of relativity. Thus, what they know to be 'true' must become 'false' with the change of various conditions. In fact, besides the superficial relative meaning, the so-called 'true' has a profound absolute connotation – it means to be eternal and unchanged in all circumstances, i.e. originally as it is. From this perspective, the knowledge, logic, rules, etc., discovered by the natural sciences, social sciences and humanities are unsatisfactory conceptual elaborations that cannot reveal the complete reality of being and the thorough truth of life, useful as they may be. No matter how knowledgeable and intelligent they are, it is impossible for mortal beings to fully understand the true meaning of causality and its universal principles.

Why is that? Because all mortal beings have not yet escaped from the above-mentioned three kinds of bondage, and thus, they do not know themselves. Therefore, they have never known, nor could they personally witness, the logic and fact that their eight mind senses work together. As we all know, scientific research, philosophical thinking, religious beliefs, and other intellectual activities must be inseparable from thought, abstraction, generalisation, analysis, synthesis, induction and deduction, and other thinking activities. However, all these thinking activities are functions of the sixth consciousness (Chen 2022), and most mortal beings have never been aware of the existence of their own seventh Manas-consciousness, let alone their eighth Alaya-consciousness (Yu 2008; Shun'ei 2014). This is precisely the origin, premise and basis for both the existence of the phenomenal world and the survival of causal logic. Only a few world-wise engaged in psychology have some inkling of the seventh Manas-consciousness of sentient beings. However, they know too little and often confuse the difference between the sixth Mind-consciousness and the seventh Manas-consciousness. Therefore, all mortal beings can never fully and thoroughly understand the true meaning of causality and its universal principles, no matter how knowledgeable and intelligent they are.

As mentioned before, causality, in fact, refers to the primordial, underlying, transcendental, inherent, intrinsic, ultimate, essential, fundamental, inevitable, invariable, timeless, universal, complex, multidimensional, dynamic connection, law, logic and fact among the three elements of cause, condition and result in the phenomenal world. And there are some primordial, underlying, transcendental, inherent, intrinsic, ultimate, essential, fundamental, inevitable, invariable, timeless and universal principles in complex, multidimensional and dynamic causality. Due to the space limitation, this paper only outlined the true meaning of causality

and the prerequisite, foundation and root of its existence. In fact, causality involves the three elements of cause, condition and effect and their interactive relationships. As mentioned before, there must be some primordial, underlying, transcendental, inherent, intrinsic, ultimate, essential, fundamental, inevitable, invariable, timeless and universal principles in complex, multidimensional and dynamic causality, which will be revealed in the coming papers.

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References

- Arponen, V. P. J. 2014. 'The Difficulty of Removing the Prejudice: Causality, Ontology and Collective Recognition', European Journal of Social Theory 17(4): 407–424.
- 2. Bonvillain, N. 2019. Language, Culture, and Communication: The Meaning of Messages: Rowman & Littlefield.
- 3. Chen, Y. S. Z. 2022. The Eight Wondrous Minds. Amazon Digital Services LLC.
- Cheng, P. W.; Keith, J. H. 1995. 'Complex Adaptive Systems as Intuitive Statisticians: Causality, Contingency, and Prediction', in *Comparative Approaches to Cognitive Science*, eds. H. L. Roitblat and J.-A. Meyer, 271–302.
- Contributors, Encyclopedia of Buddhism. 2024. 'Wheel of Life', in Encyclopedia of Buddhism. Encyclopedia of Buddhism.
- 6. Copley, B.; Fabienne, M. 2014. Causation in Grammatical Structures. Vol. 52. Oxford University Press.
- 7. Editor, Magazine. 2006. 'Dharma Realm', Buddhist Door Web Magazine 2006.6.
- 8. Godfrey-Smith, W. 1979. 'Special Relativity and the Present', *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition* 36(3): 233–244.
- 9. Michotte, A. 2017. The Perception of Causality. Vol. 21. Routledge.
- 10. Morton, T. 2013. Realist Magic: Objects, Ontology, Causality. Open Humanities Press.
- 11. Palmer, T. N. 2014. 'Lorenz, Gödel and Penrose: New Perspectives on Determinism and Causality in Fundamental Physics,' *Contemporary Physics* 55(3): 157–178.
- 12. Purves, D. 2021. 'Objective and Subjective Reality', in Why Brains Don't Compute. Springer, 9–13.
- 13. Quattrone, G. A.; Amos, T. 1984. 'Causal Versus Diagnostic Contingencies: On Self-deception and on the Voter's Illusion', *Journal of Personality and Social Psychology* 46(2): 237.
- 14. Shun'ei, T. 2014. Living Yogacara: An Introduction to Consciousness-only Buddhism. Simon and Schuster.
- Spohn, W. 2022. 'Causation: Objective or Subjective?', in Probabilistic and Causal Inference: The Works of Judea Pearl, 867–888.
- 16. Tsai, L.-C. 2007. 'The Definition of Being in the Agama Sutras', *Journal of True Enlightenment* 1: 23–48. DOI: 10.29668/JTE.200712.0001
- 17. Von Wright, G. H. 1973. 'On the Logic and Epistemology of the Causal Relation', in *Studies in Logic and the Foundations of Mathematics*. Elsevier, 293–312.
- Wasserman, E. A.; Chatlosh, D. L.; Neunaber, D. J. 1983. 'Perception of Causal Relations in Humans: Factors Affecting Judgments of Response-Outcome Contingencies under Free-operant Procedures', *Learning and Motivation* 14(4): 406–432.
- 19. Williamson, J. 2006. 'Causal Pluralism Versus Epistemic Causality', *Philosophica* 77: 69–96.
- 20. Williamson, J. 2009. 'Probabilistic Theories of Causality', The Oxford Handbook of Causation: 185-212.
- 21. Xiao, P. 2023. Behind the Façade of Tantric Buddhism (Vol. 2). Translated by E. Lu. Wholesome Vision LLC.
- 22. Yu, M.-H. 2008. 'The Connotations and Denotations of Alaya Consciousness: Comment on Chen Yibiao's "About the Change of the Literal Meaning of Alaya Consciousness", *Journal of True Enlightenment* 2: 109–129. DOI: 10.29668/JTE.200812.0003
- 23. Yuan, B.; Zhang, J.; Lyu, A.; Wu, J.; Wang, Z.; Yang, M.; Liu, K.; Mou, M.; Cui, P. 2024. 'Emergence and Causality in Complex Systems: A Survey of Causal Emergence and Related Quantitative Studies', *Entropy* 26(2): 108.

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Priežastingumo prasmė ir jo egzistavimo prielaidos bei ištakos

Santrauka

Straipsnyje siekiama suprasti pagrindinius fenomenalaus pasaulio veikimo principus ir išsiaiškinti, kaip fenomenalaus pasaulio reiškiniai yra tarpusavyje susiję. Priežastingumas yra pagrindinis fenomenalaus pasaulio ryšys, taisyklė, logika ir faktas, nes viskas fenomenaliame pasaulyje pirmapradiškai susiję per tris elementus – priežasti, sąlygas ir pasekmę. Priežastinio ryšio tarp daiktų radimas ir panaudojimas siekiant išvengti žalos ir galiausiai pasiekti laimę yra pagrindinė visų žmogaus intelektualinės veiklos motyvacija, įskaitant mokslinius tyrimus, filosofinę įžvalgą ir religinius įsitikinimus. Straipsnyje pateikiamas universalus priežastinio ryšio apibrėžimas, jį apibūdinant kaip pirminį, esminį, transcendentinį, vidinį, galutinį, neišvengiamą, nekintamą, nesenstantį, universalų, sudėtingą, daugiamatį, dinaminį ryšį, kuris yra dėsningas ir logiškas, apimantis fenomenalaus pasaulio priežasties, sąlygų ir pasekmės elementus. Straipsnyje paaiškinama, kodėl pateiktas apibrėžimas yra universalus tiek ontologiniu, tiek epistemologiniu požiūriu.

Raktažodžiai: priežastinis ryšys, koreliacija, ontologija, epistemologija