

---

# TOWARDS A UNIVERSAL, MULTIDIMENSIONAL, PRACTICAL AND HYBRID GROUNDING THEORY OF CAUSATION FOR THE (META)PHYSICAL REALM

---

A PREPRINT

**Danny A. J. Gómez-Ramírez\***  
Professor and Researcher at  
Institución Universitaria Pascual Bravo  
CEO and Founder of Cognivisión S.A.S.  
Medellín, Colombia  
daj.gomezramirez@gmail.com

August 25, 2023

## ABSTRACT

We present a multidisciplinary, universal a pragmatic theory of causation based explicitly on five methodological causal seminal dimensions. The first one is called formal-mathematical-idealist theory and emerges as a meta-conceptual fusion of several existing causal theories. The second one is essentially based on a global, scientific and technical perspective. In fact, this can be considered as a meta-dimension encompassing a huge number of academic disciplines. The third dimension arises once more as combination of former approaches having the mind and its laws as the central paradigm. The fourth one is structurally related with our subjective phenomenological world and its objective impact on the external universe. And, finally, the fifth dimension is closely related with the first one, but more oriented toward the global implicit purpose of the universe and what this implies causally on the events in nature. We give several concrete examples elucidating the explanatory range of our theory.<sup>2</sup>

## General Introduction

The issue of finding the genuine causes of (essentially any type of) phenomena in nature is pretty much omnipresent in the whole chronicle of mankind. Even more, we can say that any technical and scientific discipline (and even any form of arts) was originally structured with the implicit aim of developing a local coherent theory of causal principles on very punctual thematically-defined (supra)natural phenomena.

Now, the spatiotemporal spectrum of our causal interests being focus of intense study for mankind varies from the most tiny, immediate motives and grounds until the the most universal distant causal sources of being and existence, encompassing our past, present and future in their full conceptual and factual range.

Our approach is ontologically based on some moderate forms of the classic most outstanding causal theories existing in the philosophical literature, which will be particularly discussed on the next section. Therefore, a basic acquaintance of these theories is highly desirable for the general understanding of our conceptual construction. Nonetheless, it is plausible to grasp an essential comprehension of our theory without technical concrete aspects of the classic paradigms.<sup>3</sup>

---

\*Multidisciplinary Scientist, Founder and Leader of the Consortium ARMAINTE and the Meta-Project Artificial Mathematical Intelligence <https://dagomez1982.wixsite.com/artmathintelligence>. Personal Website [www.DAJ-GomezRamirez.com](http://www.DAJ-GomezRamirez.com)

<sup>2</sup>Copyright ©, 2023. Danny A. J. Gómez-Ramírez.

<sup>3</sup>If, at some point, the reader feels the need to go deeper at some specific matters, (s)he is immediately invited to study the corresponding references, or additional enlightening material obtained through self-search.

For the sake of practicality and for maximizing the thematic audience that can benefit from this causal unifying approach, we make the present work as concise and succinct as it could be. So, on section §1 we develop the foundational pillars of our theory and in section §2 we enhance the comprehension of our theory through concrete examples with a wide thematic spectrum.

## 1 Foundational Dimensions of our Causal Theory

Assuming, firstly and partially, a very naturalistic and experimental view on the study of metaphysics and philosophy of mind, we see by lots of examples that physical phenomena are grounded on entities having a quite evident phenomenological nature. Effectively, if we start with the collection of physical instances studied in astronomy, e.g., planets, stars, galaxies, black holes, among others; we can reinterpret the main scientific results of this particular scientific discipline as a way of grounding the former objects in terms of entities coming naturally from a phenomenological realm, i.e., the main principles of general relativity theory Wald (2010), quantum mechanics Mackey (2013), quantum field theory Ryder (1996), elementary particle physics Bettini (2014), among others Joos and Freeman (2013) and Taylor et al. (2004). These ‘human-made’ descriptions are the best sources for grounding (the corresponding objects) that we possess currently, since they produce the most accurate predictions.

Besides, entering for a moment into the metaphysics of mathematics, one thing seems to be clear: what we call ‘mathematics’ is, in fact, ‘human-made mathematics’, or being more precise ‘mind-made mathematics’, namely, all these mathematical constructions serving as a grounding framework for the explanations given in modern physics, are, strictly speaking, phenomenological constructions, originated by the joint work of thousands of individual minds. Furthermore, if we want to ground the formation of a supernova, we need to think immediately of a collection of equations and formal (mathematical) theories coming from physics.

In particular, the nature and structure of such entities seems to transcend the physical realm itself, since not even the morphological explicit descriptions of them are uniquely fixed, namely, we could choose new kinds of symbols for denoting the same mathematical structures without affecting the grounding power of them.

Similar arguments hold for any kind of physical phenomena whose core descriptions are developed by means of structures coming from a mathematical framework. So, from quarks, electrons and atoms, to natural satellites, small solar system bodies, nebulae and massive galaxies, our most sophisticated scientific results give us a (mathematical) grounding of an outstanding phenomenological nature. Thus, we can expect that the most challenging mecro-phenomena (i.e., phenomena at a human-scale level) can be grounded on a similar formal-phenomenological basis. In fact, nowadays there is a clear tendency of some part of the human sciences to integrate more ‘formal-mathematical’ methods on their foundational research Burton (1973), Coleman et al. (1964), Luce et al. (1963), Batchelder (2010), Taylor (1971), and Robinson Jr and Ullman (2010).

Moreover, this approach becomes more evident when we consider mecro-level objects of our common environment like buildings, cars, highways, computers and smart phones, among many others. In fact, if we want to formally ground the fundamental ontological sources of these physical beings, we immediately find a mind-made conceptualization as the main source, i.e., the structural and functional capabilities of each of these items were previously conceived by means of a pure phenomenological conceptualization. In other words, starting from their forms, sizes, materials and colors, until most of their specific defining functions, any of these features were previously envisage through a phenomenological process starting by one or several conscious agents.

This approach is implicitly supported by a relatively new thesis known as the ‘Mathematical Universe Hypotheses’ (MUH), stating that, essentially, our reality has the structure of a mathematical object Tegmark (2008).

So, we can call this initially developed approach *formal-mathematical-idealist theory*, or *fm-idealism*, to be differentiated from pure mathematical idealism Rescher (2020).

This position is near in some respects, but not the same as the classic philosophical theory of idealism Dunham et al. (2014), and any of its several forms like subjective idealism Russell (2001), absolute idealism Stein (2019) and transcendent idealism Allison (2004). In fact, what all the former forms of idealism have in common is the central role that (relative or absolute) consciousness plays in the causal role of existence of the (meta)physical realm; or the structural position that (the laws of) the mind plays in our causal understanding of the world. For the construction of our universal theory of causation for the (meta)physical realm, we will use the phenomenological dimensions of their main theses, more in the absolute perspective and, secondary in the subjective perspective, as the general active and global dimension of the whole collection of causal agents for reality. In other words, we will account within this dimension a determinate amount of causal power, for any specific event, primarily to the Absolute Consciousness, or, Absolute’s Self-awareness Hegel (2007), Hegel (2018), and secondary to the individual subjective phenomenological entities (like human beings, animals, etc.), an only in proportion to the direct degree of causal influence that the Absolute

Consciousness has transfer to such entities, within the phenomenon in consideration. Even more, from the perspective of the classic ontological theories one can talk about the necessary being Tapp (2012), Descartes (2013), as another form of denoting (Hegel's) Absolute Consciousness. So, our first causal dimension encompasses primarily the causal responsibility of the Absolute Consciousness, and secondary the corresponding responsibility of the most directly influenced conscious beings participating on the event in consideration. All of this enriched with the ideal mathematical structures allowing us to grasp deeper and more precisely into the causal description of the corresponding event or phenomenon.

Second, an additional meta-dimension for our theory will come from the physical view of causation. Effectively, the principle of cause and effect in modern physics, although it has not been completely understood and formalized in mathematical terms and in a unified way, is completely relevant for our purposes here Lobo (2008). Explicitly, let us paraphrase a moderate version of this causality physical principle as follows: Any physical event in the spatio-temporal realm, except for the big-bang, has a physical collection of physical causes at some degrees of causation. Here, all the millions of pages of results in experimental physics are an implicit and explicit evidence that behind any physical event there is a bunch of physical causal grounds, each of them with more or less causal strength. However, when it comes to explain the qualitative nature of the event(s) in consideration, emerging from the behavior of conscious beings being involved, the standard physical theories cannot explain genuinely the added nature of such a patterns, since the corresponding theories do not even possess the relevant concepts and structures to describe properly these additional form of higher-quality information Ellis (2005). Therefore, we need to enrich the former mono-disciplinary physical causal perspective with a far wider and stronger multi-scientific (or m-scientific), where any well established scientific or technical discipline with robust local scientific methods will represent an additional causal dimension for our theory. Explicitly, some of the most important examples of scientific disciplines or techniques being relevant for our construction are chemistry, biology, computer science, psychology, cognitive sciences, anthropology, sociology, medicine, engineering, geology, economics, statistics, mathematics, logic, political sciences, laws, philosophy, among many others and all their sub-disciplines. So, this second causal m-academic (meta-)dimension encompasses a vast collections of dimensions inside, at least from the theoretical perspective. However, when we want to analyse a particular event, as we will do later, typically this causal dimension will consist mainly of one or a few thematic sub-dimensions that will be the most relevant for the circumstance in consideration. For example, if the event is an apple falling down from a tree to the ground, then this m-academic causal dimension will be mostly a physical dimension, where modern physics has a lot to say about its causal spectrum.

Third, the next causal dimension in consideration will come from an hybrid approach between cognitive science, cognitive-computational metamathematics and Kant's transcendent idealism Gallagher and Schmicking (2010), Frankish and Ramsey (2012), Gomez-Ramirez (2020), Allison (2004). In fact, all the classic intuitions of Immanuel Kant about the central role that the (collective and individual) structure of our minds plays in the understanding and subsequent formalization of the universal laws of natural causation, is highly more relevant that it was on its origins. Even more, all the modern multidisciplinary setup coming from cognitive science and used subsequently in the second pillar of cognitive-computational metamathematics (CCMM) (or artificial mathematical intelligence (AMI)), has allowing us to discover the first global taxonomy of foundational cognitive (metamathematical) mechanisms structuring the manner in which our mind understand and generate abstract formal and deductive thinking Gómez-Ramírez (2020d), Gómez-Ramírez (2020e), (Gomez-Ramirez, 2020, Part II). Specifically, we possess new structural and enlightening information about the black box of the deductive abstract mind, which turns out to be absolutely valuable for the kind of theory of causation that we are establishing here. In particular, seminal cognitive processes like conceptual blending Gómez-Ramírez (2020a), analogical reasoning Gómez-Ramírez (2020c), conceptual substratum Gómez-Ramírez (2020b), metaphorical reasoning Gómez-Ramírez (2020e), among others; represent a new paradigm-shifting source of methodological information helping us deeply in our quest for creating/inventing a universal and pragmatic theory of causation. It is worth noting that this taxonomy of special mechanisms is universal and completely objective from the perspective of the cognitive science. It means, particularly, that it is intrinsic to any individual human mind. So, it plays the role a phenomenological radiography of the deductive abstract mind and (un)consciousness. What varies from person to person are slightly subtleties in the subjective phenomenal proportions of each mechanisms within the particular minds, as well as the form of particular usage in the immediate peculiar history.

Fourth, taking into consideration always the (former) universal laws of the mind and (un)consciousness, we move carefully in our fourth constitutive dimension into the realm of the subjective imaginative world. In fact, taking inspiration for the most valuable and constructive conclusions of the existentialist theories of causation, we build our fourth fundamental dimension Flynn (2009), Hersey (2016), Sartre et al. (1943), Sartre et al. (2022). Effectively, this subjective causal dimension emphasises on the autonomous, volitional, (co)creative, practical, fantastic, context-shaping and constructive inborn ability of the human being (and mind). So, although there millions of scientific laws shaping the way in which we perceive and act on the universe, we are also allowed, also due to some peculiar collection of these laws, to generate inner personal meaning, to produce internal forms of logic (based on particular axioms, subjective

deductive principles and specific inner languages), to imagine abstract mental constellations of exclusive events, and then to be able to materialize them externally and objectively, to act with an authentic sense of freedom (among a given set of possible options), to build a common and dreamt world, and to meta-understand our actual understanding of the universe. These simple and amazing facts giving us a central role into the global causal empire of the cosmos. One fascinating difference with the classic causal postures is that both the third and the fourth dimensions can co-exist in perfect peace, even more, each of them help the other one on a suitable, integrated, blended, precise and refine manner.

Fifth, we share essentially one seminal conclusion of the teleological posture stating that the whole universe possesses a global purpose, but with the difference that this global purpose respect splendidly, in some complex manner, each of the subjective constructed purposes of the particular individuals Paley (1829), Dembski (1996), De Aquino et al. (1947). The line of argumentation that we support here goes mainly along the lines of Thomas Aquinas, but enriched with modern results based on the former described dimensions and goes as follows: from the fact that each movement in the universe is provoked either by another causal movement, or, inductively by a causal agent, possessing intentional power; and the fact the universe has a beginning as a whole and unified ontological structure, we infer that each movement in the universe is causally attached to this initial causal purpose transferred to the primeval atom during the big bang. So, each particular movement in the whole cosmos in the past, present and future is structurally and causally connected to this initial (universal) purpose actually carried to the very initial existence and meaning of this unique primeval atom, from which the whole universe intentionally give birth. On the other hand, our natural reason tells us that anything that came to being in the universe possesses an intrinsic purpose on it, for example, any human invention has beforehand a concrete intention in the mind of one or several individuals. So, it is natural to infer by inductive reasoning that even the entities that we have not create by ourselves, like us should have an intrinsic purpose in the cosmological and unifying nature of the universe.

Other enlightening line of reasoning emerges from the fact that when we observe carefully the development of the spectrum of heterogeneous phenomena that the vast amount of sciences and technical disciplines (and inner sub-disciplines) has been able to explain causally throughout time, we immediately realize that the causal connections between apparently distant happenings is getting stronger and wider. In fact, we do not only find new astonishing connections between internal sub-disciplines of sciences like mathematics, physics, statistics and biology, among others; but, we invent/discover amazing new scientific fields blending the classic ones, like for example, biochemistry, chemical engineering, political economy, economic anthropology, molecular ecology, mathematical biology, mathematical physics, among many others Gabbay et al. (2011). The fact that our single minds do not always grasp the causal substratum of a particular phenomenon, does not implies that such a substratum does not exists. On the contrary, what we learn from the history of science is that if we invest enough time and resources in our quest for finding the causal entities of practically any event, we eventually will find such entities at some epistemological degree.

So, our methodological construction is based on 5 seminal dimensions, where, in fact, the second m-academic dimension is a meta-dimension encompassing implicitly a lot of dimensions. Besides, ontologically speaking the third and the fourth dimension belongs to the second one, since they can be described within the deductive spectrum of disciplines like cognitive science and philosophy (of mine). Nonetheless, from a pragmatic perspective it is better to add them as additional methodological magnitudes, as we will see in the next sections.

## 2 Causal Constructions through Enlightening Examples

In this section, we will present a collection of heterogeneous and enlightening examples that will offer the pragmatic support and coherence to our multidimensional theory of causation.

First, let us imagine the event of you wanting to see a friend, because you miss her, and opening successfully a door of an entrance of a public restaurant without any kind of key, just by pushing the veneer, and meeting her on the other side.

So, the first causal dimension on this scenario plays a role of active preservation. In other words, the necessary being respects all the laws and structures of being giving to you and allows you to open the door. Regarding the second m-academic dimension, the laws of physics allowed you and influenced you for performing the exact manner in which you moved your limbs and putted a precise amount of pressure into the door lock, and with the suitable geometric configurations in order to be able to unlock it. Here, of course, other laws are also causal responsible at some degree, for example, the biochemical laws that structure some parts of the functioning of your whole body enable you to walk towards the door, etc. The third dimension plays an active structuring role in close relation with the physical dimension, since the mental laws of the unconscious mind give all the corresponding phenomenal inputs to the awareness (e.g. the brain) in order to trigger the kinesthetic movements necessary to be able to open the door. It is the fourth dimension which plays a central causal role in our example. Effectively, one of the previous events that has an immediate causal charge for our example is simply you feeling (in your mind) and allowing (to your will) the impulse of meeting again your friend because (perhaps) you have not see her too long ago. This particular phenomenological moment can be

considered as one of the direct central causal origins of our example. Lastly, our fifth dimension represents a more global causal character. In other words, the meeting with your friend was unconsciously motivated in you at some degree by the qualitative global all-encompassing purpose of the universe, subjectively driven by the necessary being. So, depending of the effective degree of causation of it, this dimension would have a stronger or weaker driving effect on the materialization of the meeting.

Second, imagine the following scenario: a fury and big bull is coming to you at a very high speed with the intention of laying you down and hurting you. As a consequence of that, you get blocked and cannot move any limb of your body. Simultaneously, a man who watches the whole scene run immediately towards you and push you to the ground right before the bull is about to crash with you, saving your life.

Now, our first dimension plays a more active role. Indeed, as the structural source of your existence, the Absolute Being acts among the laws of nature tending towards the preservation of your life, so, (s)he probably would have intensively influenced the (un)conscious mind of the man for running in your direction for saving your life. So, assuming the former causes, the man on the scene will represent also partially a part of this dimension. Concerning the second m-academic dimension, the analysis is similar like before from the physical perspective, i.e. the physical laws allows the whole scene to happen. However, on this particular scenario, ethology will play an extreme important role for explaining the particular causes that originate the violent behavior of the bull. Entering the third dimension, the cognitive rules structuring your particular mind, your past history, including all your unconscious programs influencing your specific instinctively responses in a dangerous situation, your emotional states at this particular moment, among other cognitive factors, will give a lot of causal information of the reason of your sudden proprioceptive frozen behavior. On this analysis, the fourth dimension is also completely necessary and complementary. More explicitly, on the former scrutiny your particular and subjective manner of conceiving and defining a dangerous situation, your unique manner of assimilate phenomenologically the presence of a big animal near to you (for instance, a big bull), and the whole global (un)conscious inner semantic conceptualization that you have about the value of preserving and protecting your own life, play a structuring function on the concrete way in which your mind-body responses in our event in consideration. Evidently, something similar can be said about the man regarding the two last dimensions. Ultimately, as in the first example a similar qualitative analysis of the last causal dimension can be given. In other words, it seems to be the case that the immediate preservation of your life, in the current example, is in a high degree of behavioural coherence with the global purpose of the cosmos. So, with a high probability this last dimension, together and along with the first one, plays an more active causal role.

Third, you are competing in a horse race together with other 13 participants and an audience of 12.000 persons is watching the whole contest. At the end of the competition you come in eighth position.

The analysis of the first and the last dimensions in the present example is qualitatively similar to the one given at the first example. Regarding the second dimension, not only physics, but also ethology and, in this particular scenario, social psychology will play a central explanatory role on the causal description of fine-tuned issues. Here, the third and the fourth dimensions possess a highly refined and more complex explanatory function in comparison with the former examples. Effectively, our current scenario involves volitional and phenomenological integrated influences of a much larger number of conscious beings, i.e. you and the other competitors, the public and the horses. Even more, each of the competitor has, at some different degree, the subjective desire of winning the race and, probably, has taken a constant process of training during months with perseverance and method, influencing causally his/her whole cognitive and physical system for improving gradually his/her performance during the match (including you). So, we have qualitative highly similar subjective visions and objectives in each of the competitors, i.e., being the winner of the match. However, the simultaneous materialization of each of these objectives seems to be not at probable event. Thus, in this context all the 14 competitors have potentially a similar causal measure or proportion for the final result. Of course, such a proportion is not exactly the same as the results shows, in other words, probably the winner has played a slightly major causal effect on your performance due to a higher level of skills and self-esteem during the race. On the other hand, each person in the audience has, at some degree, a causal power on the final result as well. In fact, such causal influence is potentially stronger than one can simply think. Imagine for a moment that a person in the audience is the partner of the winner and that the night before the match (s)he gives him/her a lot of motivation in several manners causing on him/her a tremendous amount of inner strength, purpose and self-love, and inner security. Additionally, (s)he promised him/her that (s)he will be the next day on the match on a VIP-seat. Then, certainly this member of the public with his/her presence on the match has a considerable bigger causal influence on the final result than even some of the competitors and most of the public. Similarly, suppose that someone in the public possesses an electronic devices controlling and activating a digital chip installed inside the heart and the brain of any of the horses; then, again, this particular person would have a massive causal control on the race. Now, since any actual person in the audience could actually be a person of one of the two former cases (these among millions of other causal possibilities), we deduce that, in fact, anyone in the public holds an actual causal amount within our scenario. Let us imagine now that more than 90% of the audience are genuine fans for this kind of races, and that all and any one of them want to support emotionally

his/her favourite rider, through thoughts, words, screams, movements and feelings. Then, in this particular sub-scenario the audience will have a more significant causal influence on the result of the match as a whole. That is to say, the smaller individual phenomenological and cognitive contributions will add to create a bigger and more powerful casual influence supporting and simultaneously challenging the competitors among them. So, in this particular case, we can talk of a distributed causality (among the whole scene and scenario).

Fourth, let us imagine a woman doing a spiritual meditation in solitude in the search for enlightenment about her purpose in life. At the end of the meditation, she is relieved, calm, and motivated, since she got quite concrete qualitative answers to her prayers deeply coherent with her primary talents and possibilities. Moreover, we assume that she believes in the existence of a necessary and absolute being responsible for the creation of the whole universe, and she is, in fact, addressing her meditation and prayers to this entity. Lastly, let us assume that she is a mental healthy person and during the meditation she has a genuine willingness of inner listening what needs to be revealed to her.

Our first ontological dimension plays the central role on this example. Effectively, the Absolute Being with an absolute knowledge of all the natural and supranatural laws will use them among the other four causal dimensions to reveal intimate information to the woman supported on her whole personality type, on her desires, her talents, her unique personal history, her past and present relationships and her current spatiotemporal context. Moreover, the Absolute Being will show her in a quite subtle manner how her existence and her will can be aligned with the global universal purpose for a deeper and fulfilled personal realization.<sup>4</sup>

A general conclusion of the former arguments given among the several kinds of possibilities of the behaviour of the audience, implies in an extended manner that any human being, and, in fact, any entity in nature has a specific amount of causal responsibility on any event happening in the universe, although, this amount can be so tiny small that, for practical purposes, in most of the cases and for most of the entities such causal amount can be rounded to zero, but strictly speaking it is non-zero. As a matter of fact, assume that you are planning to give a walk on a forest. Now, any adult human being X has a non-zero causal measure of responsibility on the realization of this event, basically, due to the fact in X lies the (completely) plausible possibility of having plan and execute, in at least one way, an event that can deviate you from giving this walk, and, perhaps, doing something else exactly at the same moment that you planed to do it. It is only a matter of simple imagination to generate reasonable scenarios that this particular person would have created in order to distract you to do your walk at the particular time and place prefixed by you.<sup>5</sup> So, this potential and realistic possibility is a clear proof that any of these external individuals, in reality, possess a concrete causal influence on you and the (non-)materialization of your walk. The point here is that in our simple scenario all of them acts essentially in a passive manner regarding your activity. Even more, the near they are located to you, the bigger the causal measure of responsibility that they own. Slightly similar arguments can be used for other types of entities beyond adult human beings. In contrast, you can arrive to the same conclusion by assuming a cosmological perspective about causation, where at the beginning of the cosmos all the existing matter and created beings were very close connected and causally involved far more than we simply perceive today; and, with the passage of time this causal reciprocity remains qualitative as a kind of co-creative (meta)physical invariant of the universe.

Fifth, you are talking with a seller about the the price of a specific shirt, you find the price too high for the quality of the shirt and you express you desire of not buying it. Then, the seller is filled with rage and hits you, causing moderate damage in your right hand. Thus, you start a lawsuit.

Regarding the first and the last dimension of our theory, we need to understand that in the interaction with other people, in their highly complex subjective world, and in their immediate story, there are actual risks to take always into account. So, it is probable that the two staring persons of this dialogue should learn important and highly different facts about the manner of carefully listening and approaching the opinions and decisions of others. In your hypothetical case, it could be the case that your way of expressing negative choices is more provocative that you thinks, and, in the case of the seller, it could be the case that the (s)he previously possesses an issue regarding anger management and hyper-sensibility to contradictory opinions. So, the whole process of lawsuit both of you learn a lot about how to improve you inner feelings, affections and how to moderate your body language. Regarding the third m-academic dimension, the legal theories of causation like actual causation, approximate causation and burden of proof are very appropriate for our example Prosser et al. (1941), Fischer (2023), Knobe and Shapiro (2021), Kaplow (2011). Explicitly, if we understand the pillar of such theories from a universal perspective we could give more universal causal inferences

---

<sup>4</sup>It is worth noting that among the millions of other similar scenarios with superficially isomorphic situations, but with different causal sources coming from the third and fourth dimension through personal inner desires and instability of the subjective mental health, we choose the present this one as one of the many genuinely possible several examples to be described.

<sup>5</sup>One of the possibilities is that (s)he invents an fantastic history involving charity and pays you some money for doing your walk in other similar direction not exactly the same that you planned beforehand, with the false promise that some additional money will be donated on this charitable initiative. This is one of millions of several options, here the reader can imagine a lot of different additional options.

about the distribution of responsibility in an holistic perspective. However, if we take into account the local legal system serving as a particular conceptual context of the scene, we will find as well quite concrete causal conclusions, which are more focused on the practical aspect of legal punishment within the local legal system in consideration. Naturally, other sciences have a lot to say in this case like physics, social psychology, economics, etc. Now, for the sake of simplicity, we specially focus on the legal aspect here, to stress this additional and outstanding sub-dimension.

In fact, beyond the concrete example in consideration, the legal (local and global) perspective plays a very important role in our theory, due to the historic and qualitative nature of study of this old discipline. So, the legal perspective can be considered as a remarkable and, sometimes prominent, causal sub-dimension of the m-academic one.

### 3 General Conclusions

Our present multidimensional, universal and pragmatic theory of causation is based on the methodological shoulders of moderate versions of some of the most outstanding causal existing theories, as well as virtually the whole spectrum of scientific and technical disciplines. Thus, its main methodological and perspective focus is its multidimensionality and its universality. On this seminal perspective it differentiate from the classic approaches. Moreover, it is precisely this multidimensionality which give it its objective and transcendental character. So, the more (sub-)dimensions one uses, the more objective, solid and global the causal analysis is.

Based on our whole former construction we can call our theory as *the Theory of Multidimensional Universal Distributed Effective Causality, or MUDEC Theory (of Causality)*.

Now, due to the colossal amount of scientific and technical disciples that the MUDEC theory encompasses, its further theoretical and pragmatic advancements are constructed necessarily by working out and analysing lots of concrete examples full of diverse and rich events and scenarios.

Finally, our multidimensional causal theory can be of special utility on issues where mono-thematic approaches has shown to be incomplete like for example, matters related to the beginning and (non-)end of human life and consciousness, to the essential rights and duties that comprehend to be a human being, to the genuine dignity and the wide spectrum of actual action (resp. non-action) that the human free will possesses, among others.

We hope that this approach can be fruitful explored, exploited, and enriched through constant, constructive and altruist usage.

### References

- Allison, H. E. (2004). *Kant's transcendental idealism*. Yale University Press.
- Batchelder, W. H. (2010). Mathematical psychology. *Wiley Interdisciplinary Reviews: Cognitive Science* 1(5), 759–765.
- Bettini, A. (2014). *Introduction to elementary particle physics*. Cambridge University Press.
- Burton, M. L. (1973). Mathematical anthropology. *Annual Review of Anthropology* 2(1), 189–199.
- Coleman, J. S. et al. (1964). Introduction to mathematical sociology.
- De Aquino, T., F. B. Viejo, S. M. Ramírez, A. Martínez, and A. Colunga (1947). *Suma teológica*, Volume 1. La Editorial Católica.
- Dembski, W. A. (1996). *The design inference: Eliminating chance through small probabilities*. University of Illinois at Chicago.
- Descartes, R. (2013). *Meditations on first philosophy*. Broadview Press.
- Dunham, J., I. H. Grant, and S. Watson (2014). *Idealism: The history of a philosophy*. Routledge.
- Ellis, G. F. (2005). Physics, complexity and causality. *Nature* 435(7043), 743–743.
- Fischer, E. (2023). Actual causation and the challenge of purpose. *Erkenntnis*, 1–21.
- Flynn, T. (2009). *Existentialism*. Sterling Publishing Company, Inc.
- Frankish, K. and W. Ramsey (2012). *The Cambridge handbook of cognitive science*. Cambridge University Press.
- Gabbay, D. M., P. Thagard, J. Woods, and C. A. Hooker (2011). *Philosophy of complex systems*, Volume 10. Elsevier.
- Gallagher, S. and D. Schmicking (2010). *Handbook of phenomenology and cognitive science*. Springer.
- Gomez-Ramirez, D. A. J. (2020). *Artificial Mathematical Intelligence: Cognitive, (Meta)mathematical, Physical and Philosophical Foundations*. Springer International Publishing. ISBN 978-3-030-50272-0.

- Gómez-Ramírez, D. A. J. (2020a). Conceptual blending in mathematical creation/invention. In *Artificial Mathematical Intelligence*, pp. 109–131. Springer, Cham.
- Gómez-Ramírez, D. A. J. (2020b). Conceptual substratum. In *Artificial Mathematical Intelligence*, pp. 147–163. Springer, Cham.
- Gómez-Ramírez, D. A. J. (2020c). Formal analogical reasoning in concrete mathematical research. In *Artificial Mathematical Intelligence*, pp. 133–146. Springer, Cham.
- Gómez-Ramírez, D. A. J. (2020d). Global introduction to the artificial mathematical intelligence general program. In *Artificial Mathematical Intelligence*, pp. 1–17. Springer, Cham.
- Gómez-Ramírez, D. A. J. (2020e). (initial) global taxonomy of the most fundamental cognitive (metamathematical) mechanisms used in mathematical creation/invention. In *Artificial Mathematical Intelligence*, pp. 165–198. Springer, Cham.
- Hegel, G. W. F. (2007). *Georg Wilhelm Friedrich Hegel: Lectures on the philosophy of spirit 1827-8*, Volume 5. Oxford University Press on Demand.
- Hegel, G. W. F. (2018). *Hegel: The phenomenology of spirit*. Oxford University Press.
- Hersey, J. M. (2016). Existentialism: An introduction, by kevin aho. *Teaching Philosophy* 39(1), 81–85.
- Joos, G. and I. M. Freeman (2013). *Theoretical physics*. Courier Corporation.
- Kaplow, L. (2011). Burden of proof. *Yale LJ* 121, 738.
- Knobe, J. and S. Shapiro (2021). Proximate cause explained. *The University of Chicago Law Review* 88(1), 165–236.
- Lobo, F. S. (2008). Nature of time and causality in physics. *Psychology of time*, 395–422.
- Luce, R., R. R. Bush, and E. E. Galanter (1963). *Handbook of mathematical psychology: I*.
- Mackey, G. W. (2013). *Mathematical foundations of quantum mechanics*. Courier Corporation.
- Paley, W. (1829). *Natural Theology: or, Evidences of the Existence and Attributes of the Deity, Collected from the Appearances of Nature*. Lincoln and Edmands.
- Prosser, W. L. et al. (1941). *Handbook of the Law of Torts*, Volume 4. West Publishing.
- Rescher, N. (2020). *Knowledge at the Boundaries*. Springer.
- Robinson Jr, E. A. and D. H. Ullman (2010). *A Mathematical Look at Politics*. CRC Press.
- Russell, B. (2001). *The problems of philosophy*. OUP Oxford.
- Ryder, L. H. (1996). *Quantum field theory*. Cambridge university press.
- Sartre, J.-P. et al. (1943). *L'être et le néant*, Volume 14. Gallimard Paris.
- Sartre, J.-P., S. Richmond, and R. Moran (2022). *Being and nothingness: An essay in phenomenological ontology*. Routledge.
- Stein, S. (2019). Absolute idealism: Hegel. *A Companion to Nineteenth-Century Philosophy*, 83–116.
- Tapp, C. (2012). Die einzigkeit gottes im prosligion des anselm von canterbury. *Philosophisches Jahrbuch* 119(1), 15–25.
- Taylor, J. R., C. D. Zafiratos, and M. A. Dubson (2004). *Modern physics for scientists and engineers*. University Science Book.
- Taylor, M. (1971). Mathematical political theory. *British Journal of Political Science* 1(3), 339–382.
- Tegmark, M. (2008). The mathematical universe. *Foundations of physics* 38(2), 101–150.
- Wald, R. M. (2010). *General relativity*. University of Chicago press.