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Open Access Journal

این مقاله با درجه علمی - پژوهشی پذیرفته شده است.

مجله علمی جاویدان خرد، شماره ۴۲، پاییز و زمستان ۱۴۰۱، صفحات ۲۱۳-۲۳۳

## یک دیدگاه نوپدیدارگرایی قوی دربارهٔ طبیعی‌گرایی:

### تصویری یکپارچه بدون فیزیکیالیسم

کریم‌خان کیراچ\*

#### چکیده

طبیعی‌گرایی نوعاً با دیدگاه فیزیکیالیستی درهم‌تنیده شده است. از سوی دیگر، فیزیکیالیسم در وضعی نیست که بتواند حالات کیفی پدیده‌های ذهنی را توضیح دهد. مسألهٔ دشوار آگاهی به‌نظر مرزی معرفتی است، چنانکه ما حتی واجد هیچ دستگاه مفهومی‌ای نیستیم که به وسیلهٔ آن این امکان را داشته باشیم که حالات ذهنی را در آینده در چارچوب فیزیکیالیستی توضیح دهیم. این موضوع به نسخه‌ای از تکثر علی/هستی‌شناختی راه می‌برد، از این حیث که به‌نظر ممکن نیست بتوانیم همه چیز را با عوامل یکسان تبیین کنیم، ولو اینکه جهان به‌نحو بنیادین متشکل از یک جوهر واحد باشد. اگر تکثر از حیث تعدد سطوح تبیین علمی لازم باشد، استدلال من این است که نوپدیداری قوی، در مقام چهارچوبی متافیزیکی، بهترین نامزد برای توضیح این واقعیت است. من به دو دیدگاه فیزیکیالیستی عمده، یعنی دیدگاه کیم و سایدنر، می‌پردازم. کیم نشان می‌دهد فیزیکیالیسم غیرتقلیلی پروژه‌ای شکست‌خورده است، حال آنکه

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تاریخ پذیرش: ۱۴۰۱/۱۱/۵

تاریخ دریافت: ۱۴۰۱/۹/۲۷

فیزیکالیسم سایدِر که یک سطح بنیادینِ کامل و محض را مسلم می‌گیرد، موجب می‌شود پدیده‌های سطح بالاتر (شامل واقعیت ذهنی) از حیث متافیزیکی بی‌اساس شوند. در رابطه با آراء کیم و سایدِر، تلاش من این است که دیدگاه خودم را بیروانم. طبق دیدگاه من فیزیکالیسم وقتی تا حد غایی دنبال شود، دروناً تقلیلی و نهایتاً ناتوان از توضیح واقعیت ذهنی است. تأکید من بر این نکته است که اینهمان دانستنِ علیّ مغز و ذهن مبتنی بر نوعی برش زدنِ دلخواهی جهان است، یعنی توصیفی از جهان که نمی‌تواند درونی طبیعت باشد. اینها دلایل اصلی من است که نتیجه بگیرم طبیعی‌گراییِ بازنگری شده ما باید از فیزیکالیسم جدا شود و پذیرای تکثر علیّ/هستی‌شناختی نوپدیدارگرایی قوی باشد بی‌آنکه فریفته دوگانه‌انگاری جوهر شود.

## SOPHIA PERENNIS

*The Semiannual Journal of Sapiential Wisdom and Philosophy*

Vol. 19, Number 2, autumn and winter 2023, Serial Number 42

### A Strong Emergentist View on Naturalism: A Unifying Picture Without Physicalism

PP: 213-233

DOI: 10.22034/IW.2023.389535.1677

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#### Abstract

Naturalism has typically been entangled with a physicalist view. Physicalism, on the other hand, falls short of accounting for qualitative states of mental phenomena. The hard problem of consciousness seems to be a natural epistemic boundary in such a way that we do not even have any conceptualization as to how we can possibly account for mental states in physicalist terms in the future, which leads us to some version of causal/ontological plurality in the sense that it does not seem possible to explain everything with the same parameters even though the world fundamentally consists in a single substance. If plurality in multiple levels of scientific explanation is necessary, I argue that strong emergentism is, as a metaphysical framework, the best candidate to account for this fact. I will tackle two major physicalist views by Kim and Sider. Kim shows us that non-

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Received date: 18/12/2022

Accepted date: 25/1/2023

reductive physicalism is a bankrupt project whereas Sider's physicalism that postulates a pure and complete fundamental level renders higher-level phenomena (including mental reality) metaphysically spurious. In relation to Kim and Sider's accounts, I will try to elaborate on my view that physicalism, when pursued to the end, is inherently reductive and ultimately falls short of accounting for the mental reality. I emphasize that the causal identification of brain and mind rests on an arbitrary carving of world, namely a description of the world which cannot be intrinsic to nature. These are the main reasons why I conclude that our revised naturalism should be disentangled from physicalism and embrace the causal/ontological plurality of strong emergentism without falling for substance dualism.

**Key words:** Naturalism, Strong Emergence, Mind, Physicalism, Reductionism, Unity of science.

### **1. A Strong Emergentist View on Naturalism: A Unifying Picture Without Physicalism**

Naturalism is supposed to be a view of the world which systematically unifies our understanding of it under the conceptions and terms that are commensurable with each other. In our postmodern times, such unifying conceptions are losing the old prestige outside natural science departments, along with the scattered postmodern spirit of time which has deteriorated the confidence in the power of reason. Postmodern views pretend that subjective experiences give rise to incommensurable personal or group realities that cannot be evaluated from an objective stance. Though I cannot deny that the human consciousness brings forth an indefinite amount of complexity which cannot be easily simplified, there is no strong reason to resort to some desperate form of subjectivism or solipsism. Emergentism, if considered as a radically liberal view that potentially postulates infinitely many novel and irreducible properties out of trivial compositions, can be a natural ally of postmodernism; and I think that would be a terrible view as a methodology and metaphysics. I tend to identify only one genuine incommensurability in our conception of the world, which is derived from a strongly emergent relation between the mind and the matter. Conscious agents stand in a peculiar, active relation to the world, and the content of the world they occupy is constantly enriched and rendered unpredictable in itself by virtue of the novel capabilities of conscious phenomena. One question is: How does not it render our conception of the world epistemically chaotic in such a way that any naturalistic unity project is paralyzed? I need to illuminate, throughout this paper, that the partial causal autonomy that conscious agents bear is subject to immense limitations by the physical configurations from they emerge in the first

place. Although the hard problem of consciousness is ontologically inexplicable in physical terms, it does not necessitate the end of a monistic picture of the world. A strong emergentist revision of naturalism entails a minimal plurality in causal analysis which manifests itself at the certain levels where physical causes are amalgamated with the mental causation, by virtue of the mental being irreducible to the former. This minimal plurality in causal analysis of the world has to be kept minimal if a systematic unity of the world can be given by strong emergentism at all; otherwise, it would be absurd to claim to have a naturalistic conception when our causal understanding of the world consists in scattered indefinite multiplicity of incommensurable concepts. There are three main themes of discussion so as to justify the place of emergentism in naturalism: Physicalism is meant to be reductive; reductivism is not reconcilable with the obvious existence of mental activity; and strong emergentism can both provide a non-reductive metaphysical framework and facilitate a unified view of the world with a minimal causal plurality, thus without allowing for chaotic, incommensurable descriptions of the world.

## **2. Naturalism in Relation to Ontology of Mind**

Naturalism and physicalism do not have definite boundaries in meaning like many other major concepts, which creates an obligation of revision in the light of new scientific/philosophical developments. Naturalism can be said to have the following persistent implications: an intelligible, monistic world that is ordered by natural laws, denial of supernatural entities/divine intervention in the natural order, an empirical and unified understanding of the world without any distinctive metaphysical/a priori method. Philosophy of mind has become a major area of heated debates related to our basic intuitions on what naturalism is. Specifically, the resistance of mental phenomena either to reduction or to functionalization under quantificational methods has given rise to philosophical tensions. Keeping myself in a state of epoche on the possible future of neuroscience, I want to put forward two reasons why these philosophical tensions are not spurious: First being that the mental reality is essentially experiential, which is why they are genuinely resistant to ontological reduction and total functionalization. Secondly, unlike any other natural phenomenon, we have no conceptualization as to how it can be completely reconciled with the physical world (there seems to be no ultimate solution for the hard problem). This highlights a deep contrast between our endeavors to integrate mental phenomena into a physical picture versus integration of any other natural phenomenon. If there were nothing ontologically special about the mind, we would not have such a philosophical tension. A strong emergentist revision requires a more fine-grained and quasi-pluralistic

understanding of naturalism without necessarily violating the causal unity of science, but it has to diverge from physicalism and the total homogeneity of the world, in the sense of which all the facts of the world can potentially be derived from the same parameters that explain the Big Bang.

Our modern scientific understanding of the world has historically been merged with a kind of physicalist understanding that hardly allows for any phenomenon that cannot be (in principle) exhaustively defined in physicalist/materialist's parameters. No matter how much physics developed in certain ways that extended our vision materialism over the course of more than three centuries, as it introduced new concepts like electro-magnetism, quantum fields, superpositionality and the like; it still leaves us in darkness as to how the mental reality is to be integrated to such a scientific picture that implicitly adopts the normative mindset which seeks to subsume every possible phenomena under a monistic causal unity that excludes experiential properties from that systematic causal picture or at best renders them superfluous with regard to the physical base from which they emerge. I do not think this is the only kind of monism that can be a ground for naturalism.

### 3. Strong Emergentism: An Attempt for Reluctant Pluralism

My primary suggestion is that strong emergentism is a promising candidate in accommodating such a variety of concerns in philosophy of mind related with the question of what a proper revision of naturalism is supposed to be. We may have to accept the following conclusions if we revise naturalism in a strong emergentist framework:

1) Causal openness: the world is causally open and allows for *diachronic* and thus genuine top-down causation which is much stronger than the top-down causation in the framework of *supervenience* provided by weak emergentism/non-reductive physicalism; the causal closure principle is violated (at least and maybe only) by self-conscious agents;

2) Unity without full-blown reduction: the unity of science can still be preserved as *the regulative ideal of science* in a Kantian sense (as cited in Cat, 2021) whereas full-blown reduction into physical phenomena is rejected as an impossible project both in an epistemic and ontological sense, which leads to a quasi-pluralistic picture especially in social sciences without necessarily driving our understanding into a radically liberal/conventionalist picture.

The second point can also be defined as *reluctant pluralism* in the following sense: Theoretical reason demands the systematic unity of experiences whereas our *epistemic limitations* deter us from having a complete picture of it that is reduced to fundamental parameters/concepts of physics. Therefore, the unity principle leads to an orientation of scientific reasoning that aims at bringing the body of experience under the same-level

concepts as long as possible on the basis of *connectability* and *derivability* of those concepts among different layers of reality. I also believe there are facts of the matter as to how to carve the world; our epistemic limitations might make us see the world in a more layered way than it actually is, but the concepts of science cannot be said to be grounded in mere convention.

The twentieth century analytical philosophy tried to make philosophy a kind of discipline that is more grounded scientific thinking, which was the opposite of our postmodern mindset. There was an optimistic ideal of bringing all philosophical endeavors and discussions together and rendering all commensurable with each other. One of the main reasons that that delivered a major blow to that philosophical motivation was the gradual discovery of considerable impediments toward the installation of an a priori system that is complete, consistent and whereby every other framework is to be evaluated. Gödel's Incompleteness Theorem has famously shown that the parameters of a system cannot be consistently derived internally from it no matter how many axiomatic adjustments are made.

The second reason which is relevant to our context is that the concepts that we use in describing the world around us are inherently prone to instantiate various incommensurable uses in relation to each other. To put it in a simpler way, we never know what we mean by a term or sentence with a hundred-percent confidence level. The meanings of concepts are not exhausted by the empirical ground that they are constantly interwoven with, because they are also constantly bearers of new interpretations under different contexts, and thus their contents are enriched indefinitely. Furthermore, as multi-dimensional, complex social beings, we describe the world in different layers on which we attribute a variety of set of properties which do not always fit together.

For example, we might have concerns about our future financial status, which gives us a certain paradigm of the world as a field of facts and possibilities in search for better financial benefits; at the same time, we might have certain existential concerns as to how we define our role in this world. When these two visions are proven incongruous with each other, we are typically driven into a personal/moral dilemma whereby we eventually let one paradigm to surmount the other after a considerable amount of deliberation. Some existentialist philosophers like Sartre stressed the moral incommensurability of certain particular situations/dilemmas of free agents.

Is there any normative moral framework to evaluate the moral worth of being a self-seeking corporate lawyer who earns tens of thousands of dollars each month and being an idealist doctor doing voluntary work in Africa and hardly affording his/her basic needs? I will not engage in an ever-ending moral argumentation here but the point is that if we tend to give an

affirmative answer to that question in any objective sense, then this answer presupposes a meta-narrative/meta-theory that is supposedly capable of bringing those two moral considerations, which only seemingly incommensurable with other, under the same moral parameters by which one of them is to be judged morally worthier than the other. In our postmodern times, this kind of grand narratives has lost a great deal of support against moral subjectivism.

The idea of incommensurability developed in scientific, political and moral senses, hand in hand with the certain key developments during the twentieth century: unfolding of major scientific discoveries in quantum physics, decline of confidence in the power of reason in relation to fall of positivism, and also the obvious abominable atrocities that occurred in the Second World War. Skipping the historical details here, the idea of incommensurability can be said to have reached its climax in the 21<sup>st</sup> century and gained its ideal form of post-truth.

If the least significant features of the world can potentially be considered as emergent, then anything can be incommensurable with anything. This would a horrible framework that should absolutely be avoided. If we allow for a radical variation in the description of the world, then such an account might result in arbitrary multiplication of properties to the point that cross-theoretical analyses can be paralyzed. We observe that to be the case in many social science areas which are committed to the idea of perspectival basis of incommensurability. The denial of human nature and social constructivism render social phenomena *a multiplicity of theoretical paradigms which float in the air*. If the social reality is taken to be causally independent from the nature and it can also be arbitrarily divided into social groups, ethnic identities, and individual perspectives which supposedly function as closed systems that do not fit into any larger theoretical scheme, then we would fall into a serious theoretical chaos where there cannot be any significant claim for truth among these opinions. Regardless of the truth value of emergentism, I strongly believe that there are facts of the matter everyone can appeal to, which is over and above the personal or group concerns, and namely the scientific and naturalist understanding of the world despite the minimal plurality of causal analysis across physical and mental phenomena. I have no sympathy for those emergentist theses that bring in total conceptual arbitrariness; we cannot define things to existence by merely imagining some combination of things/properties together.

I hope to have made it clear that an emergentist revision of naturalism had better restrict the causal plurality of itself in order avoid such chaotic results. A daring account of strong emergentism that is provided by O'Connor (2000) suggests that a strongly emergent property is a non-structural, simple property that cannot be decomposed into other (simpler)

particles. One of leading candidates for this type of emergence, as I also suggest along with O'Connor, is consciousness by virtue of the fact that it is non-structural and apparently *sui generis* in relation to the physical (Persons and Causes: The Metaphysics of Free Will, 2000, p. 116). O'Connor and Wong (2005) elaborate on the distinctive features of emergent properties as following: "(...) the distinctive potentialities of emergent properties do stem indirectly from the total potentialities of the basic physical properties. But they do not determine the emergent effects (or fix the emergent probabilities) independently of the causal activity of those emergent" (p. 670).

The basic implication that I called "causal openness" can thus be summarized in a simple manner: Although the structural complexity of the basal level initially determines the set of probabilities as to what kind of emergent states can follow, once the emergent properties come to existence, by virtue of altering the basal level (downward causation), the subsequent emergent states can no longer be determined or predicted by the physical structure that sets the initial probabilistic restrictions.

I tend to believe that there is a natural epistemic boundary that deters our minds from fully deciphering the nature of mind, which is in itself closely related with the hard problem of consciousness. There seems to be no sensible explanation as to how experiential reality arises from a piece of matter in a certain constitution, as Chalmers (2007) originally posed the key question. Scientists, in parallel with physicalism, seem to adopt some sort of causal identity between the mind and the brain, they take this to be a brute fact and proceed with deeper causal analyses and correlative explanatory attempts between the two, and they do rightly so, because we cannot expect to keep the neuroscientists waiting until one of our key questions (which might be impossible to answer) is settled.

In strong emergentism, physics can still remain the most fundamental discipline in the study of nature *without* also assuming that it is the complete picture of it. In the case of human agency, physical configuration poses immense limitations on how the subsequent emergent states can unfold. For individual agents and social groups, we would still be able to conduct genuine causal analyses as to how they can behave except being able to have deterministic confidence in our results; but it would still be possible to obtain many statistical determinations in the same way it is in the contemporary/actual condition of psychology and sociology.

Our concept of nature is at its core exclusive of human or divine conscious control, and thus we expect from the natural causes to act in law-like manner that is free of arbitrary movements. However, social landscape is full of conscious interventions by individuals or human groups based upon their individual, collective, national motivations and interests, which are

amalgamated with each other in all sorts of complex way that renders any attribution of law-like regularity very contingent upon certain circumstances. Alasdair McIntyre (2007), in his book *After Virtue*, provides a valuable analysis that is mainly based on Machiavelli's concept of *Fortuna*. He argues that no matter how much we learn about social phenomena and have a wide range of generalizations, those generalizations can be defeated at the end due to unpredictable developments; therefore, we can only hope for improvements in our knowledge of the social reality, which can in fact limit the sovereignty of *Fortuna* (*After Virtue: A Study in Moral Theory*, 2007, pp. 108-109). I think it would not be absurd if I contrast the theoretical endeavors in natural sciences and social sciences in the following way: natural sciences are much more systematic in providing a unitary body of explanation in which discontinuities are taken to certain anomalies that can be overcome by further research and advancement whereas *Fortuna* has always the leading role in social phenomena, and we do our best to find certain contingent patterns within the chaotic environment on which is impossible to claim any final victory.

The less a body of phenomena is exposed to conscious control, the more one can expect to find law-like regularities in it. If you consider the great works in history and political science, they seem to fare much better as long as they deal with macro-level subjects and long-term causal analysis of certain social phenomena. We understand from *Why Nations Fail* that the stronger institutions a nation has, it is more likely to achieve *creative destructions* in an economic sense and thus more likely to fare much better on the international arena (Acemoglu & Robinson, 2012). I think the comprehensiveness of the book is only achievable by a scrupulous analysis of quite higher-level properties across nations and centuries, which is a macro-level analysis that allows for minimizing the unpredictability that is much more abundant in small-scale concerns. On the other hand, we also ask micro-level questions such as "How long will the regime in the North Korea stand?" Possible answers to such questions are much more sensitive to very contingent and micro-level developments and thus much less reliable.

The more our socio-political/socio-economic concerns are context-sensitive, the less confident we are with regard to conclusions that we derive. If one claimed that the regime in the North Korea will be gone after several billions of years when the sun dies, it would be an absurdly trivial sense of a prediction. By the same token, we can predict that the mankind will necessarily perish because every single atom in the universe has to be gone at some point. So, the future of the universe can be said to be literally total darkness, depending on our existing knowledge of astrophysics. However, we are not really interested in such results in social sciences, and we are mostly at the mercy of indeterminable social parameters with regard

to our predictive results, since our social/political/economic concerns are too context-sensitive to be settled by natural sciences. In the context of the strong emergence thesis provided by O'Connor, the base level limitations for some emergent phenomena are too extensive to be met by our context-sensitive concerns in socio-political or socio-economic predictions.

Even if there is free human agency involved in social parameters, there can still be immense limitations imposed by human nature and environmental conditions. We may possibly gain better predictive power in social sciences with further advancements in neuropsychology with regard to certain macro-level social phenomena as long as we succeed in deciphering certain supervenience relations between them and the human nature. Social sciences fare terrible in predictive power compared with natural sciences; their legitimacy would not stand in proportion to their predictive power in the current situation, rather we still have (and should have) these departments because these fields of inquiry contain a lot of context-sensitive concerns that we cannot help caring about as individuals, ethnic identities, nations or business entrepreneurs. Social phenomena, in an emergentist account, can be considered as the second-order nature in a sense that is akin to the Hegelian term. Social phenomena, as long as they depend upon collective wills of humans, are contingent upon human nature and natural environment which in contrast do not depend on human conscious control.

#### **4. Some Unavoidable Discontents in Physicalism: Kim and Sider's Accounts**

My emergentist revision of naturalism is philosophically centered upon the ontological status of mind in the natural world. It seems possible to account for strong emergence within a monistic scheme, without having to recourse to some form of physicalism. There seems to be natural epistemological division between the physical and mental phenomena mainly because there is an unbridgeable explanatory gap between the two; and I do not think it is difficult to acknowledge it. The mental reality sustains an ontologically special status compared with the other natural phenomena: because, as Searle (2002) argues, it is only with consciousness that causal reduction (if it is possible at all) does not result in ontological reduction. Some may object that it is reasonable to believe neuroscience will account for all the causal structure of brain which will allow us to predict the resulting mental states. I think this is a possible scenario; however, the hard problem of conscious, namely the question why any subjective/experiential states emerge from certain material conditions remains explicable even in such a scenario. My daring claim is that we do not have any possible conceptualization as to how physicalism will integrate the mental reality that is essentially experiential.

The reader might object that I am actually dogmatic as to what mental states can amount to. However, I have never come up with any physicalistic future scenario that can consistently provide a reasonable explanation to achieve it without at the same time downgrading the obvious centrality of subjective experiences. On the other hand, those physicalists who are non-reductive about the status of mental states, I think, expose their fundamental term, 'the physical', into a serious semantic inflation. I do not want to caricaturize neither physicalism nor panpsychism, but to put it simply, does not it make the term 'physical' too loose if one takes the physical to mean 'everything that we can possibly account for'?

I suppose that we are in a position of logical impossibility with regard to the hard problem of consciousness. For instance, none of us know what the future science will put forward, but one should notice that my claim about ontological irreducibility of the mental reality is not of the same status with our current epistemic ignorance as to how a unified theory of physics will be achieved. We have some general conceptualizations like quantum-gravitational theory and string theory which are considered as viable candidates. However, in the case of the explanatory gap in-between the physical and the mental phenomena, I claim, we do not have the slightest idea, other than neuroscientific projections that assume a causal identity between the two and (implicitly or explicitly) take the metaphysical emergence of mind from the brain to be a brute fact in the explanatory body of neuroscience. And there is nothing fundamentally wrong about neuroscientists being philosophically pragmatic about their subject-matter in this sense, but it does not solve the hard problem of consciousness.

In this revised naturalist understanding, I argue that there is an inherent divergence from physicalism. I will explain my reasons in the light of the physicalist accounts of Kim and Sider. I will elaborate on Kim's main argument that non-reductive physicalism is indefensible given causal closure principle and mereological supervenience, and his concession that qualitative states are resistant to reduction (Physicalism, or Something Near Enough, 2005). Kim tries to resolve the problem by taking them to be epiphenomenal; because in his account, physicalism is inherently reductive.

I share the same philosophical intuitions with Kim on the reductive nature of physicalism: If the world consists of only kind of stuff, namely the matter, then any composition of it is only trivially emergent or above the material base; which do not give us any strong reason to assume that some compositions of matter acquire new causal powers that in principle cannot be reduced to fundamental elements of physics. For Kim (2005), it is only the qualitative aspects of mind that resists functionalization (p. 162), and thus we come to the verge of a dilemma: either we concede that they are causally reducible to neural states (and thus causally efficacious) or we bite the bullet and admit that they are epiphenomenal.

The reader might object that one can also hold that neural and mental states are all partially efficacious in themselves and they jointly cause the subsequent behavior. In this case, in order for a neural state to cause any behavior, a mental state must also accompany that neural state. Kim would argue that this is totally unreasonable in a physicalistic world, because the world must be predicated on causal closure principle, which implies that everything in the world has physical causes that sufficiently bring about those states of affairs. Causal closure became a central theme in physicalism and naturalism discourses in the 20th century, a principle which is difficult to argue against without violating some central assumptions of modern scientific worldview. It should be clear that Kim's argument is sound on the assumption of the completeness of physics, which we reject in the strong emergentist perspective.

If the causal closure principle is true, then the world has to be a causally closed system that consists merely in physical causes that sufficiently bring about subsequent effects which themselves become the causes of other effects. There is no possible causal gap in this scheme. And if we cannot possibly deny the existence of mental states, the physicalist can at best take them to be causally identical with the physical causes if he/she does not want to admit epiphenomenalism. Kim is quite consistent in this sense. As it is obvious from the title of his book, this is what physicalism leads us to; which Kim considers to be something near enough to physicalism.

It is important in his claim that experiential phenomena will never be functionalized in the way other natural causes are typically functionalized (Kim, *Physicalism, or Something Near Enough*, 2005). Few physicalists admit this because they do not seem to take the hard problem seriously enough, however Kim's admission does not make physicalism a bankrupt enterprise. Because, I do not foresee that it would make a major difference in scientific methodology for various disciplines. Yet, it does show that physicalism is an inadequate picture of the world which cannot sustain itself without reducing most interesting aspects of this world, namely mental phenomena, and denying their obvious significance and centrality in human lives. On the other side, strong emergentism can both accept the fundamental status of physics and also give their credit to mental phenomena as emergent features of the universe, which is an advantage worth considering.

Let us continue with Sider's view. Sider (2012) argues for a fundamentalist picture of the world with very strong assertions as follows:

- a) There is a fundamental structure of reality,
- b) There is an objectively privileged, joint-carving description of it,
- c) The fundamental is pure and complete (pp. 105-106).

C implies that any higher-level description of reality is superfluous with

regard to the fundamental description of it that is exhaustive of any other true description.

If there can be a privileged description of the world that is pure (containing only joint-carving concepts) and complete, and all the higher-level descriptions of the world can only be true by virtue of the fundamental description, then it entails a possible epistemic reduction of the higher-level descriptions into the fundamental language. Epistemic reduction requires connectability of high-level concepts with the fundamental level and also derivability of them from the fundamental (Cat, 2022) (if they were not complete illusions in the first place). However, the history of philosophy/science has so far indicated that such a project is impossible, especially the qualitative aspects are incommensurable conceptions with regard to any possible conception of physics that we had so far. Sider (2012) presents a method of metaphysical semantics that allows us to describe different layers of reality in their own terms, however there is supposed to be only one description of it which is objectively privileged (pp. 112-113).

There seems to be two major impediments which can render his project eventually bankrupt: One is the derivative idea that all the seemingly higher-level phenomena can be reduced to fundamental level, hence we should eventually be able to talk about higher-level phenomena in fundamental terms at least in their objectively significant (ultimately joint-carving) aspects. So, the first one is about the practical impossibility of epistemological reduction, which is not central to our discussion. The second and more important impediment is the inherent explanatory gap between the mind and the matter, which I consider as unbridgeable. The strong emergentist takes this explanatory gap one step further to ontological realm and claims that the explanatory gap is not merely resultant property of our cognitive structure, but it should also be acknowledged to be a manifestation of underlying ontological difference/non-identity between the matter and the mind.

The reader might get confused as to how I reconcile the views that the fundamental reality is predicated on physics and that there are at the same time the mental reality that is so different from the former, which supposedly makes it inexplicable in physical terms. The major difference between strong emergentism and Sider's account can be explained as following: Strong emergentism provides a dynamic, evolving picture of the world as opposed to Sider's assumption that the fundamental level is pure and complete; although emergent phenomena can be said to be contained in the structure of the universe as potentialities in a certain sense.

For example, there was no mental phenomenon 13,7 billion years ago, and there were probably no self-conscious animals several million years ago. If strong emergentism is true, these phenomena can neither be predicted nor explained in pure concepts of the fundamental level of nature in any

complete sense. Because the nature is not complete in itself, and it procures genuinely novel causal systems over and above its fundamental structure. Thus, emergentism necessarily provides us a temporally dynamic nature of the world whose subsequent states can neither be predicted nor explained by the initial conditions if it is going to procure strongly emergent phenomena. From a non-naturalistic perspective (just for a further elaboration), if God created the world in such a way that strongly emergent agents would take part in it, exercise their unpredictable free will and at the same time wanted the world in its social and physical structure to come to a specific end, then God must have set up the initial physical configuration of the world in a certain way that the initial physical limitations would procure certain (supervenient) natural/social superstructures that transcend human conscious control in themselves, so that the world would still have a determined fate in the broader scheme along with inherently unpredictable free agents whose level of unpredictability would be counter-balanced by the broader divine plan<sup>\</sup>.

We are aware of the researchers from astrophysics and astrobiology departments who collaborate with each other to discover possible life-forms and even other conscious beings in the universe. Even if life and consciousness were not completely predictable by initial physical conditions, we currently acquired pretty much knowledge as to what they amount to. At this point, I should point out to the distinction between inductive and theoretical predictability. The strong emergentist agrees that there can be definite physical conditions that result in certain emergent properties, and once the relevant set of conditions are made clear, it means that we obtained the inductively predictable base of emergence. For the emergence of life, I do not know whether it is a strongly emergent phenomenon; I think it is very unlikely the case that there is some sort of irreducible vital properties. If this is true, both inductive and theoretical predictability are possible with regard to life; it seems to me that it turns out to be theoretically predictable from a certain biochemical constitution, and furthermore it is probably nothing over and above it. In the case of mind, however, although I expect that the future neuroscience and AI research will uncover the underlying conditions for the emergence of mind, I suppose that it will only amount to inductive prediction; because it is the reason why

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<sup>\</sup> The strong emergentism thesis does not necessarily entail libertarian free will, which can itself be an inconsistent concept due to the philosophical difficulties raised in relation to the problem of luck which I do not have a final solution to.

I claim the mind is a strongly emergent phenomenon that there is no theoretical/conceptual predictability between the physical versus the mind.

I agree with Sider (2012) on that there are facts of the matter as to how we can carve the world in natural sciences, one of his central ideas in *Writing the Book of the World* is that the concepts that we use to describe the world should be joint-carving concepts. It can also follow from that some descriptions of any given phenomenon are more joint-carving than the others. Consider the following example: My feeling of thirst causes in me a distress, and it causes me to take a glass of water along with my belief that drinking a glass of water will quench my thirst and the mental state of distress will thus be relieved. This might be called by Churchland (2004) a folk-psychological description that is not really carving the states of affairs at the joints. An eliminative materialist claims that the use of folk-psychological concepts will be abandoned altogether with the advancements in future neuroscience. He/she can arbitrarily imagine that all these states of affairs will be described in neural terms that do not necessarily refer to belief-desire-behavior trio.

If the world is fundamentally physical, physically complete in itself, and mental states are only supervenient on them, then there should be a deeper, more joint-carving description of the above scenario in neural terms which would be objectively privileged over the so-called folk psychological scenario. Kim and Sider's frameworks may easily converge on two points here: The world is physical, and complete in itself. And therefore, anything that is resistant to functionalization in physical terms has to be redundant, because the joint-carving facts of (a complete) physics are potentially exhaustive of all explanations if one is not willing to bite the bullet by either denying causal closure or admitting the over-determination of causes (as if there were two lines of sufficient causes leading to the same event). I think, the growing explanatory body of science enables us to revise our scientific concepts and categories, and scientists do not need any special guidance in order to make their language more joint-carving than before. The contemporary conception of matter is obviously much different from the pre-modern conception of matter, considering all these quantum fields, quantum entanglement, electro-magnetism, the general relativity thesis and so on. Empirically informed exchange of ideas across scientific communities and experts seems to create a partly natural and partly conventional consensus in the use of scientific concepts in order to have a more solid grasp of the world.

The strong emergentist will not have any difficulty in admitting that our cognitive structure will be much better understood by neuroscience and we expect to find many functional regularities that will extensively alter our conception of mind, since many of our mental states can be functionally derivate and thus, we can always expect to find better conceptions as to how

the mind works. So, the strong emergentists should not allow for arbitrary conceptions either of the mental or physical phenomena and they should abide by the contention that there are always facts of the matter as to how we can describe the world. Therefore, even if the epistemic division between the emergent and base level is unavoidable and it leads to some form of pluralism, we should remain reluctant pluralists with regard to possible emergent levels that we can possibly attribute to the natural world.

There is another point I need to discuss in relation to Sider and Kim's views on physicalism. For instance, we seem to obtain a robust sense of the causal relata when we describe a certain human behavior in mental terms/propositional attitudes. However, I derive from Sider and Kim's accounts that this is in fact an illusion. When we do so, we in fact obtain a higher-level description of the world that is superfluous with regard to underlying sufficient causes. We are simply arbitrarily carving the world in a certain way, if we consider it in a consistently physicalistic manner. This is not to say that higher-level features of nature do not actually exist.

For instance, Dennett (1991) likens consciousness to a computational interface whereas he clearly holds that everything is somehow reducible to physical properties. If my laptop has the password "1234", we may tend to consider that password as a multiply realizable embedded information in hardware circuitry. I can enter that password by pressing buttons on a regular keyboard, or by using a screen keyboard or by using any other gadget that is capable of entering this piece of information in it. One can notice that "information" became almost a magical word in such discussions as if it can account for any causal powers beyond underlying physical structure. It is meaningful to talk about my password being 1234, if we look at the world on a particular level which is not at all intrinsic to nature itself. We attribute certain properties like "password-protected" to laptops, implying an intentional stance embedded in them. However, this conception of intentional stance is observer-relative, it means something only in the presence of a subject who has a certain conscious intentionality toward it. My password all by itself is nothing more than a circuitry structure in such a way that when it receives a certain electrical impulse, it activates the other parts of the circuitry in certain ways, which seem to a conscious observer as the opening of the desktop interface.

Tallis (2010) points out to a serious problem in this framework arguing that intentionality as an inherently conscious phenomenon cannot be expected to be found in a purely material condition, and continues to argue that matter is ordinarily connected to a causal net that does not make any special differentiation between the levels of causal patterns, there can neither be a distinction between internal and external states for a material constitution (pp. 6-7). However, human intentionality is an active and

conscious process; when we receive certain stimuli from the external world, we project a particular representation outward to it (What Neuroscience Cannot Tell Us About Ourselves, p. 6). Thus, physicalists are not just justified to attribute neither internal states nor intentionality to any piece of matter.

It is important to understand these two key objections to physicalism: (I continue by combining it with Sider's central idea) Our conception of the world (having an amalgamation of higher-level features with fundamental particles or fields) is an arbitrary carving of the world, which is not intrinsic to nature itself at all. Neither the so-called higher-level causal patterns can stand in any special relation to underlying physical causes on which these patterns are conceptually parasitic. Therefore, our critique of physicalism comes to two points that are inexplicable in a physicalist framework; one being the explanatory gap, namely the hard-problem of consciousness, and the other one is causal identification of consciousness with an arbitrarily-carved causal pattern.

Tallis (2010), as a critique of physicalism, accuses it of smuggling the concept of consciousness into neuro-talk as if it is something intrinsic to certain neural patterns (pp. 21-22). I think that these two points embedded in the physicalist framework can be truly considered as smuggling the mental attributes, or in other words, they are absolutely magic tricks that are played on philosophical intuitions of the audience. How is it the case that a causal pattern translates itself into a subjective unity (p. 18)? It is absolutely fascinating that a) certain physical combinations produce subjects of experience whose mental attributes seem essentially different from the physical attributes and b) a subject of experience is claimed to be causally identical with higher-level features of a material composition. The point B is equally unbelievable when taken seriously; because it follows from that one's unified field of consciousness is causally identified with a material pattern whose conceptualization is observer-relative whereas one's unity of consciousness is as a matter-of-fact observer-independent.

Hume (2009) asserted centuries ago that neither the planet Earth nor the whole universe can actually be considered as a unit, because unity is a fictitious entity that mind applies to any quantity of objects (pp. 60-61). The trouble with physicalism is that it accepts only sort of stuff that is matter, and at the same time they expect us to agree that certain compositions of matter denote indispensable, non-fictitious aspects of the world which in itself consists in nothing but physical stuff. The physicalist is in a dilemma here: Either he/she bites the bullet by conceding that mental states are in fact fictions, which I think would be a totally absurd conclusion, or alternative he/she tries to account for these non-fictional mental properties depending on higher-level causal patterns whose unity and coherence seem totally fictitious with regard to fundamental physical constitution of the world. I think it is only the latter option that is available to the physicalist,

and for the obvious reasons that I have been trying to show, it is bound to fail.

### 5. Concluding Remarks

Not all physicalists are committed to such fundamentalist and reductionist views of the metaphysical structure of the world, and I cannot give an account to counter all the possible objections to the idea that physicalism must turn out to be fundamentalist and reductive as to what higher-level features of the world stand for. I have so far attempted to show that the initial motivations of physicalism/materialism, when pursued to the end, must result in such a reductive picture of the world. On the other hand, I think there is something fundamentally wrong with that picture, by virtue of rendering mental reality spurious. Secondly, as O'Connor and Montgomery (2013) argued in their review of *Book of the World*: "This is a profoundly anti-humanist vision, in which personhood and value don't merit a mention in the fundamental world book, having no place in the objective deep structure of things". For my part, there is absolutely no surprise in the attainment of such results from the physicalist motivations. Naturalism has more or less entangled with physicalism, and for the reasons that I have explained, it must no longer be the case. Emergentism stands as a viable alternative which can bring in a comprehensive shift in the conceptualization of nature as well as the place of mind, agency and morality in it without being any threat to disrupting the contemporary scientific practice.

A major discontent with an emergentist view can be its pluralistic tendency with regard to causal analysis of the world. I dislike pluralism very much because when left unrestricted, it blurs our scientific worldview, facilitates a ground for scientific and moral subjectivism which we must do our best to avoid. That is the reason why I put effort to restrict this pluralism to mental versus physical, which necessarily denote certain categories that cannot be explicable with each other. The epistemic status of strong emergence is most likely to remain underdetermined by future science; however, our attributions of strong emergence to any phenomenon can still be continuous with the science of fundamental physics.

In addition to consciousness, the future science might leave little doubt about those certain phenomena like quantum entanglements display the kind of causal properties beyond the particles entangled (not in the sense of H<sub>2</sub>O versus water which I think does not prove any significant point). Furthermore, the future AI research might actualize certain trans-humanistic scenarios: For instance, I do not consider social entities as exerting causal powers that cannot be exhausted by individual agents and

environmental conditions; but the future AI research might happen to create certain technologies that temporally connect individual persons' mind and thus bring forward a superior realm of consciousness which genuinely go beyond any of these individual persons' causal abilities. Of course, this is an ungrounded speculation that I put forward to give the reader some further ideas about the possible kinds of strong emergence.

Thus, our revised naturalism, in accordance with strong emergence, separates itself from physicalism without thereby rejecting the epistemically fundamental status of physics. It still lacks a complete story of reality, an ultimate explanation for the hard problem of consciousness; its ontological emergence seems most probably to be accepted with natural piety as Samuel Alexander held. Furthermore, strong emergentism preserves the monistic conception of the world, facilitates a unified naturalistic picture in which we can make sense of genuine top-down causation/moral agency without any unintelligible doctrine which cannot be grounded by scientific inquiry. Such an emergentist view might be said to adopt an implicitly mysterian position with regard to emergence of mental properties out of the physical configurations, which I consider a philosophically unstable aspect of my view. It is an open question as to how a monistic view of the world allows for two radically different, incommensurable sets of properties/phenomena, which deserves a further critical inquiry for my part, and it may eventually make me admit the failure of this project altogether.

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