

# Science Ideated

The fall of matter and the contours of the  
next mainstream scientific worldview



**JOHN HUNT PUBLISHING**

First published by iff Books, 2021  
iff Books is an imprint of John Hunt Publishing Ltd., No. 3 East Street,  
Alresford, Hampshire SO24 9EE, UK  
office@jhpbooks.com  
www.johnhuntpublishing.com  
www.iff-books.com

For distributor details and how to order please visit the 'Ordering'  
section on our website.

Text copyright: Bernardo Kastrup 2020

ISBN: 978 1 78904 668 7

978 1 78904 669 4 (ebook)

Library of Congress Control Number: 2020938259

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A CIP catalogue record for this book is available from the British  
Library.

Design: Stuart Davies

UK: Printed and bound by CPI Group (UK) Ltd, Croydon, CR0 4YY  
Printed in North America by CPI GPS partners

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*Meaning in Absurdity: What bizarre phenomena can tell us about the nature of reality*

*Why Materialism Is Baloney: How true skeptics know there is no death and fathom answers to life, the universe, and everything*

*Brief Peeks Beyond: Critical essays on metaphysics, neuroscience, free will, skepticism and culture*

*More Than Allegory: On religious myth, truth and belief*

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*Decoding Schopenhauer's Metaphysics: The key to understanding how it solves the hard problem of consciousness and the paradoxes of quantum mechanics*

*Decoding Jung's Metaphysics: The archetypal semantics of an experiential universe*

## Brief Introduction

The story of how science and metaphysical materialism became seemingly intertwined is a curious one. Back in the seventeenth century, when science as we know it today took its first steps, scientists based their entire work on—what else?—*perceptual experience*: the things and phenomena they could see, touch, smell, taste or hear around them. That starting point is, of course, *qualitative* in nature. After all, the felt concreteness of the proverbial apple that fell on Newton's head, as well as its redness and sweetness, were *sensed qualities*. Everything that appears on the screen of perception is perforce qualitative. As such, the starting point of science—then and now—is the world of qualities that we perceive around ourselves. Even the output of perception-enhancing instruments such as microscopes and telescopes is only useful insofar as it is qualitatively perceived.

Soon, however, scientists realized that it is very convenient to *describe* this eminently qualitative world by means of *quantities*, such as weights, lengths, angles, speeds, etc. These quantities capture the relative differences between qualities. For instance, an anvil feels qualitatively heavier than a feather, a difference in felt weight that can be conveniently described with a quantity: a certain number of newtons. Today we have units—quantities—to describe every discernible aspect of the world, including frequency, amplitude, mass, charge, momentum, spin, etc.

But then something bizarre happened: many scientists seemingly forgot where it all started and began attributing fundamental reality *only to the quantities*. Because only quantities can be objectively measured, they began postulating that only mass, charge, momentum, etc., really exist out there, qualities somehow being ephemeral epiphenomena—side effects—of brain activity, existing only within the confines of our skull. This, in a nutshell, was the birth of metaphysical materialism, a philosophy

that—absurdly—grants fundamental reality to mere *descriptions*, while denying the reality of that which is described in the first place.

Indeed, at some point between the early seventeenth and the late nineteenth century, we began cluelessly replacing reality with its description, the territory with the map. Now we say that only matter exists—i.e. things exhaustively defined in terms of quantities alone—while the *qualities of experience*, which are all we ultimately have, are allegedly secondary, reducible, epiphenomenal. And so we now face the so-called ‘hard problem of consciousness’: the impossibility of explaining qualities in terms of quantities. That we find ourselves surprised at the intractability of this ‘problem’ is what is dumbfounding: we *defined* matter as something *purely quantitative*—i.e. *not* a quality—to begin with, so it’s no wonder that we can’t reduce qualities to matter, is it?

The hope that we will one day solve the ‘hard problem’ is as foolish as hoping to reduce the territory to its map, a painter to his or her self-portrait. The hard problem must be *seen through* and *circumvented*, not solved. Our present metaphysical dilemmas—as well as the story that brought us to them, as briefly outlined above—would be comical if they weren’t tragic. In the space of only a couple of centuries, we tied ourselves up in hopelessly abstract conceptual knots and managed to lose touch with reality altogether.

If science is to progress beyond its present dilemmas—from those in the neuroscience of consciousness to those in the foundations of quantum mechanics, which have their roots in the same conceptual misstep described above—we must undo the knots and place our feet back on firm ground. This book is an attempt to help us do just that.

Indeed, leading-edge empirical observations are increasingly difficult to reconcile with metaphysical materialism. Laboratory results in quantum mechanics, for instance, strongly indicate that there is no autonomous material world of tables and chairs out there. Coupled with the inability of materialist neuroscience to explain experience, this is finally forcing us to reexamine our early assumptions and contemplate alternatives. *Analytic idealism*—the

notion that reality, while equally amenable to scientific inquiry, is fundamentally qualitative—is a leading contender to replace metaphysical materialism.

In this book, the broad body of empirical evidence and reasoning in favor of analytic idealism is reviewed in an accessible manner. The book consists of a compact collection of essays written between 2017 and 2020. The original versions of most of them have previously been published in preeminent magazines and journals—such as *Scientific American*, the *Journal of Near-Death Studies*, *IAI News* (the online magazine of the *Institute of Art and Ideas*), the *Blog of the American Philosophical Association* and *Science and Nonduality*—as well as my own blog. They are collected here in a convenient format, ordered and grouped together in a manner that facilitates their understanding.

The essays have been revised, updated and sometimes extended. Often the original versions had to comply with editorial preferences not my own, whereas the versions in this book are my preferred ones: the ‘director’s cut,’ so to speak, reflecting my true tone and style. Two never-before-published essays are also included: *Why Does Nature Mirror Our Reasoning?* (Chapter 23) and *Is Life More Than Physics?* (Chapter 24).

The essays often—though not always—address subjects previously covered in earlier books of mine. However, they embody an increased clarity of argument developed since then. As such, the present book is my chance to cover old ground in a new, fresh way, sharper and more concise. In a sense, it is a grand summary of my ideas: each chapter contains a short and focused distillation of at least one of the defining thoughts behind analytic idealism. The resulting argument anticipates a historically imminent transition to a scientific worldview that, while elegantly accommodating all known empirical evidence and predictive models, regards *mind*—not matter—as the ground of all reality.

More than any previous book of mine, this one includes criticisms of metaphysical materialism, consciousness denialism, panpsychism and other philosophical and scientific views prevalent in our culture today. In a sense, it is a concentrated, blazing reproach—no punches pulled—of the insanity that



characterizes our mainstream worldview at the present historical juncture. This reproach is issued in the hope that it may help us change our most dysfunctional ways, so we can live closer to truth.

## Part I

# On 'Scientific' Materialism

## Chapter 1

# Why Materialism Is a Dead-End

### How misunderstanding matter has led us astray

(The original version of this essay was published on IAI News on 15 November 2019)

We live in an age of science, which has enabled technological advancements unimaginable to our ancestors. Unlike philosophy, which depends somewhat on certain subjective values and one's own sense of plausibility to settle questions, science poses questions directly to nature, in the form of experiments. Nature then answers by displaying certain behaviors, so questions can be settled objectively.

This is both science's strength and its Achilles' heel: experiments only tell us how nature *behaves*, not what it essentially *is*. Many different hypotheses about nature's essence are consistent with its manifest behaviors. So although such behaviors are informative, they can't settle questions of *being*, which philosophers call 'metaphysics.' Understanding nature's essence is fundamentally beyond the scientific method, which leaves us with the—different—methods of philosophy. These, somewhat subjective as they may be, are our only path to figuring out what is going on.

'Scientific' materialism—the view that nature is fundamentally constituted by matter outside and independent of mind—is a *metaphysics*, in that it makes statements about what nature essentially *is*. As such, it is also a theoretical inference: we cannot empirically observe matter outside and independent of mind, for we are forever locked in mind. All we can observe are the contents of perception, which are inherently *mental*. Even the output of

measurement instruments is only accessible to us insofar as it is mentally perceived.

We infer the existence of something beyond mental states because, at first, this seems to make sense of three canonical observations:

- (i) We all seem to share the same world beyond ourselves.
- (ii) The behaviour of this shared world doesn't seem to depend on our volition.
- (iii) There are tight correlations between our inner experiences and measurable patterns of brain activity.

A world outside mental states, which we all inhabit, tentatively makes sense of observation (i). Because this shared world is thus *non*-mental, it isn't acquiescent to our (mental) volition, thereby tentatively explaining (ii). Finally, if particular configurations of matter in this world somehow generate mentality, it could perhaps also explain (iii). And so our culture has come to take for granted that nature is essentially material, non-mental. Again, this is a *metaphysical inference* aimed at tentatively explaining the canonical observations listed above, not a scientific or empirical fact.

The problem is that such metaphysical inference is untenable on several grounds. For starters, there is nothing about the parameters of material arrangements—say, the position and momentum of the atoms constituting our brain—in terms of which we could deduce, at least in principle, how it feels to fall in love, to taste wine or to listen to a Vivaldi sonata. There is an impassable explanatory gap between material *quantities* and experiential *qualities*, which philosophers refer to as the 'hard problem of consciousness' (Chalmers 2003). Many people don't recognize this gap because they think of matter as already having intrinsic qualities—such as color, taste, etc.—which contradicts 'scientific' materialism: according to the latter, color, taste, etc., are all generated by our brain, inside our skull. They don't exist in the world out there, which is supposedly purely abstract (see Chapter 3 of this book).

Second, materialism lives or dies with what physicists call

‘physical realism’: there must be an objective physical world out there, consisting of entities with defined properties, whether such world is being observed or not. The problem is that experiments over the past four decades have now refuted physical realism beyond reasonable doubt (see Chapters 16, 17, 20 and 21 of this book). So unless one redefines the meaning of the word ‘materialism’ in a rather arbitrary manner, ‘scientific’ materialism is now *physically* untenable.

Third, a compelling case can be made that the empirical data we have now amassed on the correlations between brain activity and inner experience cannot be accommodated by materialism. There is a broad, consistent pattern associating impairment or reduction of brain metabolism with an expansion of awareness, an enrichment of experiential contents and their felt intensity (see Chapter 25 of this book). It is at least difficult to see how the materialist hypothesis that all experiences are somehow generated by brain metabolism could make sense of this.

Finally, from a philosophical perspective, materialism is at least unparsimonious—that is, uneconomical, unnecessarily extravagant—and arguably even incoherent. Coherence and parsimony are admittedly somewhat subjective values. However, if we were to abandon them, we would have to open the gates to all kinds of nonsense: from aliens in the Pleiades trying to alert us to global catastrophe to teapots in the orbit of Saturn—neither of which can be empirically disproven. So we better stick to these values, for the price of having to apply them *consistently*, even to materialism itself.

Materialism is unparsimonious because, in addition to or instead of mentality—which is all we are directly acquainted with and ultimately know—it posits another category of ‘substance’ or ‘existence’ fundamentally beyond direct empirical verification: namely, matter. Under materialism, matter is literally transcendent, more inaccessible than any ostensive spiritual world posited by the world’s religions. This would only be justifiable if there were no way of making sense of the three canonical observations listed earlier on the basis of mind alone; *but there is*.

Materialism conflates the need to posit something outside our

*personal* minds with having to posit something outside *mind* as a *category*. All three observations can be made sense of if we postulate a *trans* personal field of mentation beyond our *personal* psyches (see Part IV of this book). As such, there is indeed a world out there, beyond us, which we all inhabit; but this world is *mental*, just as we are intrinsically mental agents. Seeing things this way completely circumvents the ‘hard problem of consciousness,’ as we no longer need to bridge the impassable gap between mind and non-mind, quality and quantity: everything is now mental, qualitative, perception consisting solely in a modulation of one (personal) set of qualities by another (transpersonal) set of qualities. We know this isn’t a problem because it happens every day: our own thoughts and emotions, despite being qualitatively different, modulate one another all the time.

Finally, materialism is arguably incoherent. As we have seen, matter is a theoretical abstraction in and of mind. So when materialists try to reduce mind to matter, they are effectively trying to reduce mind to one of mind’s own conceptual creations (Kastrup 2018b). This is akin to a dog chasing its own tail. Better yet, it is like a painter who, having painted a self-portrait, points at it and proclaims himself to *be* the portrait. The ill-fated painter then has to explain his entire conscious inner life in terms of patterns of pigment distribution on canvas. Absurd as this sounds, it is very much analogous to the situation materialists find themselves in.

The popularity of materialism is founded on a confusion: somehow, our culture has come to associate it with science and technology, both of which have been stupendously successful over the past three centuries. But that success isn’t attributable to materialism; it is attributable, instead, to our ability to inquire into, model and then predict nature’s *behavior*. Science and technology could have been done equally well—perhaps even better—without any metaphysical commitment, or with another metaphysics consistent with such behavior. Materialism is, at best, an illegitimate hitchhiker, perhaps even a parasite, in that it preys on the psychology of those who do science and technology (Kastrup 2016d).

Indeed, in order to relate daily to nature, human beings need to tell themselves a story about what nature is. It is psychologically very difficult to remain truly agnostic regarding metaphysics, particularly when one is doing experiments. Even when this internal story is subliminal, it is still running like a basic operating system. And so it happens that materialism, because of its vulgar intuitiveness and naïve superficiality, offers a cheap and easy option for such inner storytelling. In addition, it has arguably also enabled early scientists and scholars to preserve a sense of meaning at a time when religion was losing its grip on our culture (*Ibid.*).

But now, in the 21<sup>st</sup> century, we can surely do better than that. We are now in a position to examine our hidden assumptions honestly, confront the evidence objectively, bring our own psychological needs and prejudices to the light of self-reflection, and then ask ourselves: Does materialism really add up to anything? The answer should be obvious: it just doesn't. Materialism is a relic from an older, naiver and less sophisticated age, when it helped investigators separate themselves from what they were investigating. But it has no place in this day and age.

Neither do we lack options, as we can now make sense of all canonical observations on the basis of mental states alone (Kastrup 2019, Part IV of this book). This constitutes a more persuasive, parsimonious and coherent alternative to materialism, which can also accommodate the available evidence better. The fundamentals of this alternative have been known at least since the early 19<sup>th</sup> century (Kastrup 2020); arguably even millennia earlier. It is entirely up to us today to explore it and, frankly, get our act together when it comes to metaphysics. We should know better than to—bizarrely—keep on embracing the untenable.

## Chapter 2

# Ignorance

### **The surprising thing materialism has going for it**

*(The original version of this essay was published on my blog, Metaphysical Speculations , on 26 January 2020)*

There is a strange feeling I get every now and then: when some conclusion I had earlier drawn through thought is confirmed by direct observation, I often get the feeling that I, in fact, hadn't really appreciated the true force and implications of the conclusion; at least not as assuredly and vividly as when the confirmation comes. At that moment, the conclusion feels so much truer that, whatever reasons I had to believe it before, seem hazy in comparison. I think to myself, "I thought I knew this, but only now do I *really* know it."

This has happened to me a couple of times over the past weeks, as I found myself doing an exposé of eliminativism and illusionism—the ridiculous notions that consciousness doesn't exist (see Part II of this book). More specifically, I sought to refute the incoherent arguments of neuroscientist Michael Graziano and philosopher Keith Frankish (see Chapter 8 of this book). It was when Graziano attempted to reply to my criticisms (2020) that I got the strange feeling I tried to describe above: I thought to myself, "this guy just doesn't know what consciousness is! He doesn't have the capacity to introspect and self-reflect enough to recognize his own raw awareness."

A part of me fully expected the kind of reaction I got from Graziano: conceptual obfuscation, hand-waving, lack of substantive argumentation and failure to address the points in contention. Here is someone who denies that consciousness exists,



so what else could one reasonably expect? But another part of me was very sincerely baffled, surprised by the living confirmation of what had been for me, up until that point, more like a conclusion from thought than direct experience. I mean, it's one thing to know rationally that the emperor must have no clothes; but it's another thing entirely to *see* the emperor standing naked right in front of you and think, "This is *really* happening."

Graziano is a Princeton neuroscientist, mind you; a Princeton neuroscientist who recently made the cover of *New Scientist* magazine (Graziano 2019). And he doesn't seem able to meta-cognize his own awareness; doesn't seem to understand what the 'hard problem of consciousness' (Chalmers 2003) is all about and why it is unavoidable under materialist premises. Not only that, he is a Princeton neuroscientist who couldn't even weave a conceptually consistent counterargument in his 'reply' of little more than 800 words (Graziano 2020). To me this is outright scary. Our emperors are parading naked—yet proudly—in front of us. Watch carefully, ignore the posturing cacophony around you, and you shall see it in horror.

The whole thing made me think of two old friends of mine, with whom I now have—unfortunately—little contact. Both are hardcore computer scientists: they were my colleagues many years ago. Both are very competent and knowledgeable in what they do. One is also very erudite when it comes to the arts and the classics. In summary, two highly intelligent and educated human beings. Yet, both are self-declared hardcore materialists. Both—just like Graziano—consider any non-materialist metaphysical position mystical woo.

This has always puzzled me. Only over the years did I slowly begin to realize how two otherwise intelligent people can be so biased against much more reasonable metaphysics: the problem is not that they don't understand these other metaphysics; the problem is that *they don't understand materialism*.

Once I made a passing comment to one of my friends, about the eliminativist idea that the brain deceives itself into thinking it is conscious (never mind the fact that, if this were so, the deception would itself be conscious, and thus the argument would

immediately implode). My friend looked at me with wide-open eyes, as if he had just had an ‘Aha’ moment, and said: “Yes! Of course! This must be it!” Here was an idea he deeply *wanted* to believe. “Don’t you see the elegance of this explanation?” he continued. He had finally found a way to circumvent what he couldn’t make sense of: the origin of consciousness from matter.

I just stared at my friend in disbelief, and then had a sudden insight: “He doesn’t know what consciousness is ...” I thought. But then, immediately, a deeper insight: “No, it’s more than that: what he doesn’t know is what *matter* is supposed to be!” It became clear to me that, each time I said ‘consciousness,’ my friend associated the word not with his *experience* of hearing me say it, but instead with some private conceptual abstraction of his own mind. For him, the abstraction was so self-evident that it went completely unexamined; he couldn’t even recognize it as an abstraction. And so it was impossible to continue the conversation.

Not that long ago, I was talking to my other friend while having a beer with him in my backyard. The conversation had drifted to metaphysics and I asked him: “Isn’t it strange to think that, according to materialism, all this [I pointed to the flowers, bees and trees around us] is created inside our skull?” The reference, of course, was to the qualities of experience—such as colors and smells—which materialism says are created by our brains and don’t exist in the world beyond our skull. He paused and looked at me as if I had just said something unholy and totally incomprehensible. Finally, with obvious exasperation, he asked: “What the hell can you possibly mean by that? All this stuff [pointing to my backyard] is out there; obviously it’s not just inside our heads.” I tried to explain what I meant, but to no avail.

It was clear that, according to my friend’s private, implicit ‘materialism,’ colors, melodies, flavors, textures, etc., *are all really out there*; there is nothing else the objective world could consist of. I suspect he implicitly believes the brain creates only thoughts and emotions, not the qualities of perception. This, of course, not only deviates from any coherent formulation of materialism, it is a metaphysical contradiction in and of itself (for a more elaborate explanation of this claim, see Chapter 3 of this book).

And so I finally come to my point: I think the strongest thing materialism has going for it is that most materialists *do not actually understand or recognize what materialism entails and implies*. Materialism is so blatantly absurd that most casual materialists—I strongly suspect—replace it with one or another private, implicit *mis* apprehension of it in their own minds, which circumvents some of the absurdities at the price of internal contradictions conveniently overlooked. In other words, it is the naked *implausibility* of materialism that—ironically—makes it seem credible, for such implausibility forces many to unwittingly misinterpret materialism in whatever secret way seems to make sense to them.

Compounding the problem, many people—even otherwise intelligent ones—don’t appear able to recognize the nature of their own raw awareness through self-reflective introspection. For this reason, they conflate matter with the qualities of experience, just as my friend thought of the colors, sounds and smells of my garden as the *thing in itself*, instead of mere phenomena produced by the brain. It is precisely this unexamined error that renders materialism plausible to them: they think the material world is the contents of perception, although materialism states unequivocally that it isn’t.

I can forgive my friends: they are computer scientists, not philosophers or neuroscientists. They are also not picking up a megaphone and shouting to the world that consciousness doesn’t exist; their views are their own; they aren’t interested in preaching. But when it comes to Graziano and Frankish, things are different. They want to convince you that you are not *really* conscious. Their message is toxic, not only because it is nonsensical, but because—if believed—it could undermine the very foundations of our secular ethics and moral codes. After all, if you weren’t really conscious, you couldn’t really suffer or feel real pain, could you? Do you see the danger of this nonsense ever becoming widely believed? So I, for one, will persist in pointing at them and shouting as loud as I can: “Look! They have no clothes!”

## Chapter 3

# A Materialism of Qualities?

### Dispelling a popular misinterpretation of materialism

*(The original version of this essay was published on my blog, Metaphysical Speculations, on 29 January 2020)*

In the previous chapter, I suggested that some people who proclaim to adhere to the materialist metaphysics in fact misapprehend what materialism is. One example of misapprehension I mentioned was the implicit notion that, although the brain produces the felt *qualities* we call thoughts and emotions—that is, endogenous experiences—the qualities of perception, such as color, flavor, smell, etc., are thought to exist out there in the world, not inside our skull. These people subliminally assume that the physical world is constituted by the qualities displayed on the screen of perception, which contradicts ‘scientific’ materialism.

Indeed, according to materialism all qualities, *including those of perception*, are somehow—materialists don’t know how—generated by the brain inside our skull. The external world allegedly has no qualities at all—no color, no smell, no flavor—but is instead constituted by purely abstract *quantities*, such as mass, charge, spin, momentum, geometric relationships, frequencies, amplitudes, etc. If these quantities were to be fully specified in the context of the mathematical equations underlying our physics, ‘scientific’ materialism maintains that *nothing else* would need to be said about the world; the quantities alone would allegedly define it *completely*.

But could we—for the sake of curiosity—conceive of an *alternative* but coherent form of materialism that acquiesced to the

misinterpretation discussed above? That is, could we devise a coherent ‘qualitative materialism’ according to which the qualities of perception are really out there in the external world—whether they fully constitute that world or are merely objective properties of it—while only non-perceptual experiences, such as thoughts and emotions, are generated by the brain? The answer is most definitely ‘no.’

For starters, notice that the qualities of perception—color, smell, flavor, etc.—also appear in dreams, imagination, visions, hallucinations, etc. Many dreams and hallucinations are qualitatively indistinguishable from actual perceptions, something I have verified multiple times—to my own satisfaction—during lucid dreams and psychedelic trances. So if colors and other perceptual qualities are really out there in the external world, then somehow our inner mental imagery can also incorporate the *exact same* qualities *independently* of the external world.

This is problematic, for it entails postulating two fundamentally different grounds for the same qualities: in one case, the qualities are inherent to the matter out there in the world; in the other case, the exact same qualities are somehow generated by material arrangements in our brain, which themselves, *ex hypothesi*, do not have those qualities.

For instance, the brain—that reddish-greyish object inside our skull—does not itself display the colors of the rainbow when we look at it on an operating table. Yet it obviously can generate the dream-imagery of a rainbow. Analogously, the brain itself does not sound like anything. Yet it can generate the dream of a lovely concert. So the *same* qualities must be *both* intrinsic to matter when they occur outside our skull, *and* also epiphenomena of material arrangements when they occur inside. This doesn’t seem coherent to me.

You see, even if the perceptual qualities of our inner mental imagery are just remembered from earlier perceptions, under qualitative materialism the brain still has to epiphenomenally generate the experience of *re-living the memories*, despite not having the entailed qualities in its own matter. For instance, the brain has to epiphenomenally generate the re-experiencing of a

rainbow—which entails experiencing many colors—without having all those colors in its own matter. So we still end up with two fundamentally different grounds for the same qualities.

But that's not all. The defining principle of all formulations of metaphysical materialism is that the classical, macroscopic world beyond our private mentation, *as it is in itself*, is objective; that is, its properties are independent of observation. Under qualitative materialism, this means that the perceptual qualities of an object—such as e.g. its color—are objective, intrinsic to the object itself, not private creations of our personal mind. Therefore, *these qualities can only change if the object itself changes*.

But visual illusions immediately disprove this. For instance, in the well-known 'checker shadow' illusion created by the Perceptual Science Group of the Massachusetts Institute of Technology, two identically colored squares—A and B—of a checkerboard are initially perceived to have different colors—dark and light grey, respectively—because of the different contexts in which they are perceived. But by looking at square B as it is moved towards square A, one sees that they indeed have the same color: even though the squares themselves aren't changed at all, the light grey seems to vanish, only dark grey being perceived in both squares. What makes this particular illusion so compelling is its robustness: even if you know in advance that it is an illusion, you just can't help but still *see* light grey in square B, before it is moved.

Under qualitative materialism, the perceived color of a square is *intrinsic to the square itself*; it is objective, existing beyond our personal mentation; square B, as it is in itself, is light grey. Therefore, for as long as we don't change anything about the square, its color should remain unchanged. But the illusion proves that such is not the case, in that the perceived color *does* change, whereas the square itself doesn't. If by altering merely what is going on *around* squares A and B we manage to make a color disappear, how could this color—this perceived quality—exist 'out there,' beyond our personal mind, to begin with? How could it be objective?

Mainstream 'scientific' materialism preserves the objectivity of the classical, macroscopic world around us by stating that the

colors—or any other quality, for that matter—we perceive are generated by our brain, inside our skull. This internal generation of qualities depends not only on the internal characteristics of our visual system, but also on the external context of observation. This is why, according to mainstream materialism, we perceive the colors of the squares differently depending on context. Hence, visual illusions do not contradict mainstream materialism and are not the reason why it fails.

Qualitative materialism, on the other hand, has problems accommodating not only color illusions, but *any* perceptual illusion. It is also incoherent in that it requires two fundamentally different grounds for the same experiential qualities: one irreducible and the other epiphenomenal. Self-declared materialists who unwittingly associate the plausibility of their position with this misapprehension of what materialism means should thus rush to revise their worldview.

## Chapter 4

# Consciousness Cannot Have Evolved

**Under ‘scientific’ materialism, the felt qualities of experience have no survival function**

*(The original version of this essay was published on IAI News on 5 February 2020)*

The overwhelmingly validated theory of evolution tells us that the functions performed by our organs arose from associated increases in survival fitness. For instance, the bile produced by our liver and the insulin produced by our pancreas help us absorb nutrients and thus survive. Insofar as it is produced by the brain, our phenomenal consciousness—i.e. our ability to subjectively experience the world and ourselves—is no exception: it, too, must give us some survival advantage, otherwise natural selection wouldn’t have fixed it in our genome. In other words, our sentience—to the extent that it is produced by the brain—must perform a beneficial function, otherwise we would be unconscious zombies.

The problem is that, under the premises of ‘scientific’ materialism, phenomenal consciousness cannot—*by definition*—have a function. Indeed, according to materialism all entities are defined and exhaustively characterized in purely *quantitative* terms. For instance, elementary subatomic particles are exhaustively characterized in terms of e.g. mass, charge and spin values. Similarly, the behavior of abstract fields is fully defined in terms of quantities, such as frequencies and amplitudes of oscillation. Particles and fields, in and of themselves, have *quantitative* properties but no intrinsic *qualities*, such as color or flavor. Only our perceptions of them—or so the materialist



argument goes—are accompanied by qualities somehow generated by our brain.

Still under materialism, the quantities that characterize physical entities are what allows them to be causally efficacious; that is, to produce effects. For instance, it is the charge values of protons and electrons that produce the effect of their mutual attraction. In nuclear fission reactors, it is the mass value of neutrons that produces the effect of splitting atoms. And so on. All chains of cause and effect in nature must be describable purely in terms of quantities, for only quantities figure in the mathematical equations underlying physical theory. Whatever isn't a quantity cannot be part of our physical models and therefore—insofar as such models are presumed to be causally-closed—cannot produce effects. According to materialism, all functions rest on quantities.

However, our phenomenal consciousness is eminently *qualitative*, not quantitative. There is something it feels like to see the color red, which is not captured by merely noting the frequency of red light. If we were to tell someone born blind that red is an oscillation of approximately  $4.3 \cdot 10^{14}$  cycles per second, they would still not know what it feels like to see red. Analogously, what it feels like to listen to a Vivaldi sonata cannot be conveyed to a person born deaf, even if we show to the person the sonata's complete power spectrum. Experiences are felt qualities—which philosophers and neuroscientists call 'qualia'—not fully describable by abstract quantities.

As discussed above, qualities have no function under materialism, for quantitatively-defined physical models are supposed to be causally-closed; that is, sufficient to explain every natural phenomenon. As such, it must make no difference to the survival fitness of an organism whether the data processing taking place in its brain is accompanied by experience or not: whatever the case, the processing will produce the same effects; the organism will behave in exactly the same way and stand exactly the same chance to survive and reproduce. Qualia are, at best, superfluous extras.

Therefore, under physicalist premises phenomenal consciousness cannot have been favored by natural selection.

Indeed, *it shouldn't exist at all*; we should all be unconscious zombies, going about our business in exactly the same way we actually do, but without accompanying inner life. If evolution is true—which we have every reason to believe is the case—our very sentience contradicts ‘scientific’ materialism.

This inescapable conclusion is often ignored by materialists, who regularly try to artificially attribute functions to phenomenal consciousness. Here are three illustrative examples:

- (i) Consciousness enables *attention*.
- (ii) Consciousness *discriminates* episodic memory (past) from live perceptions (present) by making them feel different.
- (iii) Consciousness *motivates* behavior conducive to survival.

Computer scientists know that none of these require experience, for we routinely implement all three functions in presumably unconscious silicon computers.

Regarding point (i), under materialism attention is simply a mechanism for focusing an organism’s limited cognitive resources on priority tasks. Computer operating systems do this all the time—using techniques such as interrupts, queuing, task scheduling, etc.—in a purely algorithmic, quantitatively-defined manner.

Regarding point (ii), there are countless ways to discriminate data streams without need for accompanying experience. Does your home computer have trouble separating the photos of last year’s holidays from the live feed of your webcam? Data streams from memory and real-time processes can simply be tagged or routed in different ways, without qualia.

Finally, regarding point (iii), within the logic of materialism motivation is simply a calculation, the output of a quantitative algorithm tasked with maximizing the gain while minimizing the risk of an organism’s actions. Computers are ‘motivated’ to do whatever it is they do—otherwise they wouldn’t do it—without accompanying qualia.

Just as these three examples illustrate, all conceivable cognitive functions can, under materialist premises, be performed without accompanying experience. Nonetheless, we regularly see scientific

publications proposing a function for consciousness. A recent Oxford University Press blog post, for instance, claimed that “the function of consciousness is to generate possibly counterfactual representations of an event or a situation,” which “hint at the origins of consciousness in the course of evolution” (Kanai 2020).

If one reads it attentively, however, one realizes that the author defined what is meant by “function of consciousness” in a rather counterintuitive manner that contradicts the way any casual reader would interpret the words:

When we consider functions of consciousness, they are the functions that are enabled by stimuli that enter consciousness or the functions that can be performed only in awake humans or animals. Functions in this sense should not be confused with the question of what kind of effects conscious experiences (or qualia) exert on physical systems. (Ibid.)

In other words, what the author calls the “functions of consciousness” aren’t the cognitive tasks *performed* by consciousness, but simply those *visible* to consciousness—i.e. reportable through conscious introspection. Why call these tasks the “functions of consciousness” if they aren’t what consciousness *does*, but merely what it ‘sees’? According to the author’s counterintuitive definition, phenomenal consciousness expressly *isn’t* the causative agency behind these tasks—for the author explicitly excludes the causal efficacy of qualia from the definition—but merely their *audience*. As such, the author’s theory is entirely beside the point when it comes to the survival value of having qualia or the evolutionary origins of phenomenal consciousness proper.

The impossibility of attributing functional, causative efficacy to qualia constitutes a fundamental internal contradiction in the ‘scientific’ materialist worldview. There are two main reasons why this contradiction has been tolerated thus far: first, there seems to be a surprising lack of understanding, *amongst materialists*, of what materialism actually entails and implies (see Chapters 2 and 3 of this book). Second, deceptive word games—such as that discussed above—seem to perpetuate the illusion that we have plausible

hypotheses for the ostensive survival function of consciousness.

Phenomenal consciousness cannot have evolved. It can only have been there from the beginning, as an intrinsic, irreducible fact of nature. The faster we come to terms with this fact, the faster our understanding of consciousness will progress.

## Chapter 5

# Consciousness a Mere Accident?

### A response to Jerry Coyne

*(The original version of this essay was published on my blog, Metaphysical Speculations, on 14 February 2020)*

Biologist Jerry Coyne has criticized (2020) my argument—discussed in Chapter 4 of this book—that, under the premises of ‘scientific’ materialism, phenomenal consciousness cannot have been the result of Darwinian evolution. The gist of my argument is that, according to materialism, only *quantitative* parameters such as mass, charge, momentum, etc., figure in our models of the world—think of the mathematical equations underlying all physics—which, in turn, are putatively causally-closed. Therefore, the qualities of experience cannot perform any function whatsoever. And properties that perform no function cannot have been favored by natural selection.

Coyne offers a number of alleged refutations of my claims. He starts by arguing that the qualitative, subjective experiences that accompany the cognitive data processing taking place in our brain may have been merely “byproducts (‘spandrels’) of other traits that were selected,” or even “‘neutral’ traits that came to predominate by random genetic drift” (Coyne 2020).

Let us take stock of what he is saying here. To begin with, he is implicitly but unambiguously acknowledging my point that consciousness, under materialism, doesn’t perform any function. Then, he argues that consciousness could have evolved as a byproduct (“spandrel”) of the complexity of the brain or even be a merely accidental feature.

The idea of spandrels in evolutionary biology is a contentious

one. Many biologists and philosophers criticize it, including Coyne's much-admired Daniel Dennett (1995, 1996). Ian Kluge (n.a.), in his review of Sam Harris's book *Free Will*, also pointed out that

We could, of course, argue that consciousness and the sense of free will are biological spandrels, i.e. accidental by-products of other evolutionary developments in our brains. One of the problems with this response is that the whole subject of 'spandrels' is bogged down in a definitional debate, i.e. it is not entirely clear what is a spandrel and what isn't. Worse, all examples of spandrels ... do actually serve a function, i.e. they are necessary to achieve something—but that necessity is exactly what epiphenomenalism denies.

Be that as it may, let us charitably ignore this and grant to Coyne that evolutionary spandrels can and do occur. The question then is: Is it at all plausible that phenomenal consciousness is one such a spandrel?

I don't think it is. I can imagine that some relatively trivial, low-cost (in terms of metabolism) biological structures or functions could be merely accidental, but the brain's wondrous putative ability to *produce* the qualities of experience out of unconscious matter is anything but trivial. Indeed, it is nothing short of *fantastic*, the most stunning claim of 'scientific' materialism, the second most important unsolved problem in science according to *Science* magazine (Miller 2005); and now it is a *by-product*?

Materialists have no idea—not even in principle—how the material brain could possibly produce experience. Therefore, they appeal to—and hide behind—the inscrutable complexity of the brain with promissory notes. Phenomenal consciousness—they argue—is somehow an emergent epiphenomenon of that unfathomable complexity, which we one day shall understand. But if such is the case, it becomes unreasonable to posit that something requiring such a level of complexity could have been just an accidental by-product of something else. One can't have it both ways.

At this point, Coyne would probably argue that the brain needed to become complex *anyway*, because natural selection favored

higher cognitive ability. And so consciousness just ‘came along’ for the ride. But we have no reason to believe that the complexity required for more effective cognitive data processing would be the same kind of complexity necessary for the putative emergence of phenomenal consciousness. After all, the complexity underlying better cognitive data processing is meant for ... well, *better cognitive data processing*, not consciousness.

Data processing and experiential states are, in principle, entirely different, even incommensurable domains. On one extreme of the complexity scale, we know that the most powerful computers do not need to have experiential states to perform their functions. On the other extreme, I can imagine a bacterium having experiential states, even though bacteria are some of the simplest living organisms. As a matter of fact, Coyne himself makes this point:

Any sensation in animals, be they bacteria or humans, involves some sort of qualia. For example, what does it ‘feel like’ to the crustacean *Daphnia* to detect a predatory fish in its pond? (2020)

Ironically, Coyne fails to see that these words flirt with some form of panpsychism or idealism: consciousness is already there even in the simplest unicellular organisms; *it doesn’t even require a nervous system*. Such a far-reaching and surprising confession contradicts the mainstream materialist storyline—namely, that consciousness is a product or epiphenomenon of (complex) nervous systems—which Coyne believes to be defending. If “any sensation in animals, be they bacteria or humans, involves some sort of qualia,” then consciousness is *not* a result of the evolved complexity of the brain, for it doesn’t require one. Given this, it is unclear to me exactly where Coyne stands on these crucial issues; his argument doesn’t seem to follow any consistent line of reasoning. Is he even really a materialist? Does he understand what materialism is?

Be that as it may, to say that such a fantastic thing as the emergence of phenomenal consciousness from unconscious matter could be a mere spandrel is tantamount to making evolution *unfalsifiable*: if even the most inexplicable of all functions attributed to matter—the one thing that has eluded all attempts at elucidation despite decades of research and speculation—can

evolve whether it is at all useful or not, then *anything could have evolved*. We might as well throw our arms up and give up on evolutionary theory altogether, for it would allow us to make no discriminations or predictions whatsoever.

Next, Coyne denies, very emphatically,

that materialism requires all entities to be measurable. Here's a question: do you have a liver? The answer is based not on measurement, but on observation. I have never heard a definition of 'materialism' that requires quantitative measurement. (2020)

This is a rather embarrassing passage, for it betrays Coyne's startling lack of grasp of the most basic philosophical issues in contention. Here he is alluding to the non-polemical understanding that, under 'scientific' materialism, everything can be exhaustively characterized with *quantities*, such as mass, charge, momentum, etc. What he then claims is that, because *qualities* clearly exist—yes indeed, Jerry, I agree—then materialism *must* allow for the existence of qualities too, not just measurable quantities. Therefore, my claim that materialism attempts to reduce everything to purely quantitative terms can only be wrong.

I wish I were making this stuff up but, alas, I am not.

The point, of course, is not that we can't observe our liver without weighing it or placing a tape measure on it; the point is that, according to materialism, the liver, *in and of itself*, is not *constituted* by the qualities we experience on the screen of perception when we look at it. Instead, it is ostensibly constituted by particles *exhaustively* defined in quantitative terms. It is only when we internally *represent* the liver on the screen of perception that the brain supposedly conjures up, within the boundaries of the skull, the qualities we associate with the liver. It's not a secret, and not even polemical, that this is what mainstream materialism entails. What is surprising is that Coyne—a sworn knight of materialism, of all people—is clearly confused about it.

Indeed, Coyne's argument illustrates precisely the point I made in Chapters 2 and 3 of this book, the original versions of which I had published *before* Coyne wrote his criticism: what he subscribes to is not materialism, but his own idiosyncratic and incoherent



misunderstanding of it. This would be forgivable for a casual reader who is not concerned with metaphysics, but not for a man who obviously considers himself a serious participant in the debate. Indeed, that a very vocal and aggressive militant materialist manages to misunderstand what is literally the first thing about materialism—namely, that all qualities are supposedly epiphenomenal—is rather disgraceful.

Piling irony on top of irony, Coyne goes on to quote a passage from the ‘Materialism’ entry in the *Stanford Encyclopedia of Philosophy*, which he somehow thinks refutes my “definition of materialism.” He highlights this segment:

Of course, physicalists don’t deny that the world might contain many items that at first glance don’t seem physical—items of a biological, or psychological, or moral, or social nature. But they insist nevertheless that at the end of the day such items are either physical or supervene on the physical.

For some reason, Coyne believes that this defeats my point. Unsurprisingly, however, it merely confirms it: according to materialism, the liver may “at first glance [not] seem physical ... but ... at the end of the day [it is] either physical or supervene[s] on the physical.” And what is “the physical” under materialism? It is entities exhaustively defined by quantities—such as mass, charge, momentum, geometric relationships, etc.—not qualities; the latter are supposedly epiphenomenal. Therefore, “at the end of the day” the liver, too, is constituted by purely quantitative—not qualitative—physical entities, just as I originally claimed and the rest of the philosophy community knows since freshman year. It is embarrassing that I find myself in the position of having to explain to a militant materialist what materialism is.

Coyne goes on to cite Patricia Churchland, an eliminativist who claims precisely that certain qualities we believe to experience *do not exist at all*, the very opposite of the stance—bizarrely held by Coyne—that materialism also entails qualities. The internal contradictions of his reasoning are just overwhelming. Indeed, next he claims that “we already have lots of evidence that consciousness and qualia are in fact phenomena requiring a

materialistic brain, and that manipulating that brain can change or efface consciousness” (Coyne 2020). These assertions instantiate the classical fallacies of question-begging and taking correlation for causation. Allow me to elaborate.

What seems to be beyond Coyne’s ability to comprehend is that the dualism between mind and matter he implicitly relies on—particularly when talking about the *mental* effects of *physically* “manipulating that brain”—doesn’t exist. To an idealist like me, there is no brain or matter outside or independent of mind. Instead, the ‘material’ brain is merely the *extrinsic appearance*, in some mind, of the inner mentation of (some other) mind.

When a neurosurgeon manipulates one’s brain leading to a corresponding modulation of inner experience, or when a drug does the same thing after being ingested, what is happening is that a *transpersonal mental process*—whose extrinsic appearance is the surgeon’s probe or the ingested pill—*modulates a personal mental process*; namely, the subject’s inner experience. This is no more surprising than a thought modulating an emotion, or vice versa. To an idealist, *there is only mind*, matter being just what certain mental processes *look like* from a given vantage point.

As such, the causation link from matter to mind that Coyne relies on to defend his peculiar misunderstanding of materialism is only valid within his peculiar misunderstanding of non-materialist metaphysics. Coyne’s views seem to be entirely based on misunderstandings of just about every salient issue.

I believe, thus, that Jerry Coyne just isn’t a serious participant in any discussion regarding the nature of mind and reality. As Edward Feser put it, what he writes on philosophy and religion tends to be an “omnibus of fallacies” (2016). Indeed, Coyne’s clumsy attempts to defend materialism are a disservice to materialism, a metaphysics that—although fatally flawed—certainly deserves less confused, amateurish treatment.

## Chapter 6

# Brain Image Extraction

### Is it metaphysically significant?

*(The original version of this essay was published on my blog, Metaphysical Speculations, on 14 February 2020)*

Brain image extraction technology has been around for years now: researchers measure a subject's brain activity patterns by means of ordinary electroencephalography (EEG) and are then able to infer the visual experience of the subject during the measurement. This way, they can 'read your mind' or 'extract images' from your brain, so to speak; they can make inferences about your private, first-person visual experience based purely on EEG measurements.

A recent Russian study on brain image extraction (Rashkov *et al.* 2019) has rekindled interest in the subject and may again—understandably, but nonetheless regrettably—lead lay people to the following conjecture: if we are able to translate brain activity measurements into the visual imagery the subject is actually experiencing from a first-person perspective, doesn't that mean that we know how the brain produces experience? Philosophers maintain that we cannot deduce the qualities of experience from purely quantitative measurements, but if—as shown in the Russian study—technology can translate EEG data into visual imagery, surely we have solved the 'hard problem of consciousness' (Chalmers 2003), haven't we?

Surely we haven't. The conjecture—understandable and forgivable as it may be—is totally wrong; it is based on a deep misunderstanding of what is going on here. Allow me to try to explain.

The first thing the Russian researchers did was to take EEG

readings of a subject's brain activity while the subject was looking at known images displayed on a screen. In other words, the researchers knew, by construction, what the subject was visually experiencing and what EEG readings corresponded to that experience. They then tuned the internal parameters of a computer algorithm—fancifully called an 'artificial neural network' (ANN)—to capture this known correspondence: that is, to map each EEG reading onto the appropriate image data. This parameter-tuning process is fancifully called 'training.' Notice that no understanding of how the brain putatively produces experience is involved here, since the whole procedure is based merely on *cataloguing empirical correlations* between brain activity patterns and visual imagery.

Let me try to make this clearer with an analogy: you don't need any understanding of how a TV set generates programs in order to determine the empirical correlations between TV channels and programs. Instead, you can simply catalog—by looking at the TV screen while switching channels—which program is being aired on which channel. Moreover, the TV isn't even truly *generating* any program: it is simply receiving and displaying a signal originating from a broadcast station. By the same token, the Russian researchers needed no understanding whatsoever of how the brain putatively produces experience in order to carry out their research. As a matter of fact, their results are even agnostic of whether the brain truly *generates* visual experience at all. All that was required was an empirical correlation between EEG readings and image data, just as there is an empirical correlation between TV channels and programs without the TV having to *generate* the programs.

In practice, the training of the ANN consisted in feeding it an EEG measurement as input and then tuning its internal parameters until it generated—as output—the *same image* the subject was actually looking at when the EEG measurement was taken. We say that this image was the 'target output' of the ANN's training.

Training is performed for many pairs of EEG measurement plus corresponding target output. It goes something like this: imagine that the input is just a number—say, 5—and the target output

another number—say, 21. What you then want is to tune the internal parameters of the ANN such that, when it is given 5 as the input, it produces 21 at the output. The result of this tuning could be, for instance, to implement the function  $f(\text{input}) = 4 \times \text{input} + 1$ , so that  $f(5) = 4 \times 5 + 1 = 21$ , as targeted. Training the ANN consists in finding this function  $f(\text{input})$  through trial and error, so the ANN performs an *ad hoc* mapping between input EEG measurements and target output images.

In the case of the Russian study, instead of a single number as input, the ANN receives an array of numbers corresponding to each EEG measurement. Instead of a single number as target output, the ANN receives an array of numbers corresponding to the target images. And then, instead of just one pair of input/target output, it receives several training pairs—that is, a series of EEG measurements, each with its corresponding target image—so the function  $f(\text{input})$  generalizes for a variety of inputs. Yet, the essence of what happens during training is what I've just described: the ANN simply implements an *ad hoc* numerical mapping between EEG data and target images, which requires no understanding whatsoever of how or why seeing those images correlates with the given EEG measurements.

That the ANN manages to do this is thus no miracle; it is in fact trivial, the straightforward result of having been trained to do so with image data. The ANN doesn't magically deduce visual qualities from electrochemical patterns of brain activity; it doesn't bridge the explanatory gap between brain function and the qualities of experience; it doesn't even know that its target outputs are images or in any way related to experiences; it just operates on numbers. *Only the researchers—plus you and me—know that those numbers correspond to experiences.*

The next step in the Russian study was to present the ANN with new EEG measurements that it had not yet seen during training. The idea was to check if the mapping implemented by the ANN was robust enough to remain valid for new data. If so, the output produced by the ANN should be similar to the new images the subject was actually being shown when the new EEG measurements were taken; which was indeed the case. Yet, all this

means is that a previously defined numerical mapping between two sets of data was reliable; that's all. None of it has anything at all to do with the hard problem of consciousness or the question of how the brain putatively produces experience.

By explaining how this whole thing works, I hope to have helped you see that neither the Russian study, nor brain image extraction in general, have *any* metaphysical significance. All they establish is that there are reliable *correlations* between patterns of brain activity and inner experience, which was already known. That the science media sometimes portrays these studies as advancing our understanding of how consciousness is putatively produced by the brain is merely a reflection of misunderstanding or deliberate, gullible sensationalism; a bias built into our culture that seeks to find confirmation for the reigning materialist paradigm even at the expense of accuracy and reason.

whatever is validated by their cultural context is bound to sound plausible to them, at least until they examine it more critically. If you and I had grown up with talk of fairies, we would find it entirely plausible that certain odd happenings—such as things being misplaced, disappearing or some people falling mysteriously ill—are caused by fairy sorcery. That we’ve never seen a fairy wouldn’t make them any less plausible than elementary subatomic particles, quantum fields and superstrings: all these invisible entities are imagined purely on account of their alleged *effects*.

The point is that our sense of plausibility isn’t at all objective or reliable. What I described above, for instance, is a kind of ‘plausibility by habit,’ which is almost entirely subjective. In fact, such plausibility by habit is—at least in my view—precisely what keeps materialism alive, despite its unsurmountable problems and internal contradictions.

But then, with time, scientists and philosophers eventually start noticing that their reigning mental picture of reality—I shall call it ‘picture 1’—either cannot account for some phenomena or requires modifications and extensions that start to sound implausible even under the values of the reigning paradigm (think of the layers and layers of epicycles in Ptolemaic astronomy, for example). This is the point where a fundamentally new mental picture of reality—‘picture 2’—is finally proposed, which tends to focus more or less blindly on addressing the known weaknesses of the previous one. And here lies the problem.

You see, the key psychological motivation for developing picture 2 is to solve or circumvent the known problems of picture 1. If picture 2 is successful at this task, it tends to be enthusiastically embraced like a longed-for messiah. But the myopia induced by the enthusiasm prevents picture 2 from being critically evaluated *as a whole*, given the complete body of evidence it is supposed to explain. Nobody has interest in kicking all the tires, because everybody is busy celebrating the great advancement that has descended upon us. And so nobody quite sees the *new problems and gaps* that picture 2 introduces.

By the time a new generation of scientists and philosophers starts noticing these problems and gaps, it is too late: a whole new

sense of plausibility is now in force; our whole psychology has shifted. The culture is now committed to picture 2 as an advancement, and it naturally doesn't want to give up on this perceived progress. Whatever problems are left must be addressed by incremental additions or adjustments to picture 2, not a new mental picture. We want to believe that we've finally got things right and just miss some details; we want to bank and secure the perceived advance, issuing promissory notes to keep the remaining problems at bay. This is, in fact, exactly what materialists do when confronted with the so-called 'hard problem of consciousness' (Chalmers 2003): "We can't solve it now," they say, "but one day soon we will." And so we keep on waiting.

The advent of 'scientific' materialism during the Enlightenment did solve some problems. The largely religious mental picture of the world that preceded it couldn't account for the regularities of nature's behavior (that is, its seemingly unbreakable 'laws' and automatisms) or the overwhelming suffering and injustice inherent to being alive. As psychiatrist Carl Jung once put it, before materialism we tried to account for far too much in terms of spirit. Hence, a compensatory reaction in the form of metaphysical materialism was to be expected. Moreover, materialism did help the fledgling science of the time to separate its objects of study from the inquiring subject, thereby attaining a level of objectivity that has been instrumental.

Therefore, with great enthusiasm and irresistible momentum, the Western intellectual establishment has embraced materialism and banished the old metaphysics as a relic of superstitious times. But how many scientists and philosophers of the time stopped to notice that materialism, in fact, created more problems than it solved? Who realized, back then, that materialism fundamentally can't explain experience itself, which is all we ultimately know and have? Who, in the 19<sup>th</sup> century, realized the contradictions that the combined views of metaphysical materialism and Darwinian evolution incurred?

Today we think—by mere force of habit and inherited cultural momentum—that materialism is plausible, even though there is an important sense in which it can't explain *anything* without an



appeal to magic. Indeed, materialism is an appeal to one or another magic trick, which we call ‘strong emergence,’ ‘eliminativism’ or ‘illusionism,’ (see Part II of this book) depending on personal taste. Just about everything else is more plausible, if one assesses our metaphysical situation truly impartially.

Materialism has survived thus far because of another kind of trick: in order to defend it and secure our perceived progress since the Enlightenment, intelligent scientists and philosophers—who have staked their public persona and self-image on the validity of materialism—have been deploying their brainpower to *manufacture* plausibility for it.

If an intelligent person is committed to a certain mental picture of the world because of strong—though typically unexamined—psychological investment, it is extraordinary how much they can do to obfuscate the implausibility of the picture, and then manufacture plausibility for it based on a mixture of conceptual conflation, hand-waving and promissory notes. One can basically make anything sound plausible if given enough time and peer support. The history of science and philosophy illustrates this in abundance, but I prefer to provide contemporary examples that are closer to us.

*Example one:* biologist Jerry Coyne has been so creative at conjuring up plausibility for the notion that consciousness is an evolved trait that he ended up rendering Neo-Darwinism effectively *unfalsifiable* (see Chapter 5 of this book). If you believe Coyne, anything at all could have evolved, irrespective of natural selection. Had a non-materialist argued anything remotely similar, they would have been instantly labeled as irrational.

*Example two:* because materialism cannot explain experience, some materialists have gone as far as to deny that experience exists in the first place (see Part II of this book). The attempt is to legitimize a kind of insanity for the sake of manufacturing plausibility. And because it is intelligent people who do this, they are able to weave fantastically ambiguous and obscure arguments around their claim; so ambiguous and obscure that it becomes effectively impossible to figure out what they are *actually* saying, if anything. For instance, if you ask a consciousness-denier whether

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*not*

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## Chapter 8

# The Mysterious Disappearance of Consciousness

**What makes otherwise intelligent, highly educated people deny the undeniable?**

*(The original version of this essay was published on IAI News on 9 January 2020)*

Phenomenal consciousness is regarded as one of the top unsolved problems in science (Miller 2005). Nothing we can—or, arguably, even could—observe about the arrangement of atoms constituting the brain allows us to deduce what it feels like to smell an orange, fall in love or have a bellyache. Remarkably, the intractability of the problem has led some to even claim that consciousness doesn't exist at all: Daniel Dennett (1991) and his followers famously argue that it is an illusion, whereas neuroscientist Michael Graziano proclaims that “consciousness doesn't happen. It is a mistaken construct” (2016). Really?

The denial of phenomenal consciousness is called—depending on its particular formulation—‘eliminativism’ or ‘illusionism.’ Its sheer absurdity has recently been chronicled by Galen Strawson (2018), David Bentley Hart (2017) and yours truly (Kastrup 2015: 59–70), so I won't repeat that argumentation here. My interest now is different: I want to *understand* what makes the consciousness of an otherwise intelligent human being deny its own existence with a straight face. For I find this denial extremely puzzling for both philosophical and psychological reasons.

Don't get me wrong, the motivation behind the denial is obvious enough: it is to tackle a vexing problem by magically wishing it out of existence. As a matter of fact, the ‘whoa-factor’ of this magic

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