

Academic/Research Article

Facing the world that materialist science leads us towards

By Dr Marion Mensing



Is subjective experience a brain product, generated by chemical and electrical processes that can be replicated in machines? This article explores the implications of what we believe to be true

Introduction

To explore the role of consciousness in the world in relation to everything physical, I need to clarify first the terminology. In the following, I use the term *consciousness* in a broad sense, i.e. denoting subjective experiential activity in general, as McGilchrist (2021) employed it. Psychologically – following Jung’s (1973) view on the psyche as a “conscious-unconscious whole” (p. 110) – it

includes ego-consciousness, pre-consciousness and the unconscious, because even the unconscious psyche manifests as subjective experience albeit without ego-reflection. I also embrace McGilchrist’s (2021) notion that something has the quality of being *fundamental*, if it is not reducible to components of something else, something even more fundamental. Accordingly, consciousness would be fundamental if it is not reducible

to mindless, non-experiential components.

Can I really assume that a mountain has experience? But then, as McGilchrist (2021) put it, “how would you expect a mountain to behave if it did have awareness” (p. 1044)? Is matter totally mindless and unaware, but nevertheless generates subjective experience? Then, consciousness would not be fundamental. It seems obvious that the functioning of the physical brain strongly correlates with consciousness, how we experience the inner and outer world. However, does mindless brain matter *produce* subjective experience? Firstly, I evaluate this question further, and secondly, I explore possible new understandings of matter that entail consciousness as a fundamental property. Finally, I look at alternatives to the primacy of matter, and the Conclusion will draw everything to a close.

Materialist worldview

Searle (2000) expressed confidently that “variable rates of neuron firings in different neuronal architectures cause all the enormous variety of our conscious life” (p. 9). Dennett (2003) even paraphrased consciousness in IT-language as “user-illusions” (p. 19). These views stem from a materialist worldview, that Blackmore and Troscianko (2018) described as follows: Everything that happens in the universe involves matter and energy only,

and nothing else exists; mental states are brain states and as such functional.

Brain plasticity

Valk et al. (2017) conducted a neuroimaging study with 332 healthy adults and engaged them in nine months' mental training around (1) attention to present subjective experience, (2) compassion, and (3) meta-cognitive skills. Valk et al. (2017) found both improvement in all three mental areas and an increased thickness of the cortex in certain areas.

The participants' subjective learning experiences seemed to have created new brain matter. Or did some electrical and chemical processes in the participants' brains create the awareness of present moment experience, the experience of compassion, and the awareness of thought patterns? If this were to be the case, nothing would stop science to fully understand those brain processes in the future and as a result be able to fully replicate them in artificial intelligence.

Artificial intelligence

Subsequently, machines could replace everything that humans do, without exception, including therapy *and* science. This is the consequence, if the materialist worldview is true.

Koch (2020) framed it poignantly: "The birth of true artificial intelligence will profoundly affect humankind's future, including whether it has any" (p. 141).

However, Koch (2020) stated that it would be impossible for any software to compute consciousness or experience without massively changing the infrastructure and processor layout of the hardware. He argued that even the most powerful

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computer with the capacity to run a code simulating all the brain's connections between all the 86 billion neurons would still not create experience, because consciousness would not depend on the software, but on the level of *intrinsic existence* of the computer itself.

According to Koch's (2020) integrated information theory (IIT), a physical system exists intrinsically, if it makes a difference to itself. In Koch's (2020) view, it is this intrinsic causal power of brains that creates consciousness. Consequently, Koch (2020) assumed that only *neuromorphic electronic hardware* – special hardware imitating the brain's massive re-entry processing – – could match the intrinsic existence of the brain and therefore have human experience.

Critique of IIT

Although IIT appears consistent with several known facts in the neuroscience of consciousness (Koch, 2020; Seth & Bayne, 2022), it also attracted some criticism. Seth & Bayne (2022) found IIT lacking in relating experience to attention and learning. Kelly (2022) criticised that IIT would not consider the possible aspect of human consciousness of being *about* something. He also questioned how an irreducible structure of cause-effect information could fully represent the content of experience in all its meaning.

Perceiving here an attempt to explain consciousness through information, that would require consciousness in the first place, Kelly (2022) regarded IIT as fundamentally flawed. Similarly, Searle (2013) criticised that IIT would just claim that certain information and consciousness would be identical.

Brain acting as a filter?

Higher states of consciousness, those rich mystical experiences that go beyond ego-consciousness, deserve some attention here as well. Psychedelic states, for example, can be deep, complex, and insightful experiences, as described by Bache (2019) and Koch (Cooke, 2020). So far, neuroscientists have not been able to discover robust evidence for a brain activity that increases accordingly when a person enters these transcendent experiences through psychedelics (Carhart-Harris, 2018).

On the contrary, the findings of Carhart-Harris et al. (2012) pointed towards the opposite, because brain activity deteriorated and cerebral blood flow decreased, when the liveliness and richness of psychedelic experience increased. Certain other types of brain-impairment seem to relate also to transpersonal, richer, and more complex experience, discernible, for example, in near-death-experiences (van Lommel, 2011; Woollacott & Peyton, 2021) and in extreme acceleration (Forster & Whinnery, 1988). These phenomena led Kelly et al. (2010), Kastrup (2014), and McGilchrist (2021) to suspect that the brain might act as a *filter* for experience rather than as its generator, thus deeper experience would be the result of the filter's reduced activity.

Ego-transcendent experiences and intelligence

Koch's moving away from materialism towards *panpsychism* – a view that holds that certain aspects of mind are fundamental and omnipresent in nature (Goff et al. 2020) – seems closely related with his own psychedelic experience (Cooke, 2020). Barušs (2008) provided some evidence that extraordinary transcendent experiences, not only led away from materialism, but also appeared to have a positive effect on emotional and social intelligence.

More specifically, McGilchrist (2021) linked materialist thinking to an overactive left hemisphere of the brain, that he also found in schizophrenia and autism. According to McGilchrist (2019), the brain's hemispheres are related to completely different worldviews, making it possible to attend to the world in completely different ways: the left would narrowly focus on detail and the right would allow in the bigger picture.

Hemispheres out of balance

However, McGilchrist (2019) warned that the relationship between the hemispheres in the western world had become severely out of balance, with harmful consequences for healthy thinking and the survival of humankind, because the former *servant* – the left – had become the *master* in the interaction of the hemispheres. He linked the dominance of left-hemisphere activity to a strong focus on power and being in the right, driving towards a mechanical form of intelligence that would finally destroy humanity (Channel McGilchrist, 2022).

What else would break the dominance of the left hemisphere – apart from having ego-

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transcendent experiences? Based on McGilchrist's findings, the therapist Afford (2020) observed that the practice of sitting with uncomfortable feelings appeared to stop the left hemisphere and activate the right, so that meaning could emerge.

Can there be a line between matter and consciousness?

McGilchrist's (2021) question, if embryos would be mindless matter in the materialist view, seems justified. Where is the line between non-experiential and experiential in human development? A way out of this dilemma – for Strawson (2009) the only way – would be to assume that everything is experiential.

The mystery of matter

A thorough scientific exploration of the properties of matter also requires looking at the subatomic level, at the implications of quantum physics. The early *Copenhagen interpretation* of quantum physics inferred that quantum mechanics would depend on a conscious observer (Frank, 2017; Hobson, 2017).

This faced the rejection of materialist scientists who developed alternative interpretations (Frank, 2017; Hobson, 2017), and – according to Frank (2017) – physicists have not yet discovered a way of testing the different interpretations experimentally. However, Frank (2017) emphasised that none of the possible interpretation – including the quantum fields interpretation as suggested by

Hobson (2017) – would support the view that matter generates consciousness in any clear and straightforward way; on the contrary, from the view of physics, matter would still be a mystery.

Implications

Since the conventional way of perceiving matter appears to conflict with quantum physics, McGilchrist (2021) concluded that a new way of understanding matter “as part of a wholly experiential cosmos” (p. 1045), would open possibilities of understanding the connection with consciousness. This would require an openness to accept that matter may be not what most people thought. Chalmers (2021) described how the realisation of both the matter-consciousness-gap and the mystery of matter could move philosophers to panpsychism, the view that the nature of matter entails consciousness.

Panpsychism

Leidenhag (2020) carved out panpsychism's basic assumptions: (1) Some or all physical organisms are experiential, (2) subjective experience is fundamental, (3) matter and mind have only one and the same fundamental level of reality – fundamental monism, and (4) fundamental consciousness explains organic consciousness. Without the third thesis, as Leidenhag (2020) explained, there would be no clear distinction from *dualism*. Kelly et al. (2010) considered dualism, the assumption of a fundamental distinction between mind and matter, not to be viable anymore because of quantum physics.

Koch (2014) regards IIT as a modern form of panpsychism, distinct from materialism. Yet, conceding subtle abstract differences between IIT and

materialism, Kastrup (2014) could not see any practically relevant distinction, because both would assume that the brain generates consciousness and consciousness ends with death.

Strawson (2009) grounded his approach of panpsychism or *real physicalism* on the view that every mental process is physical – not in the classical meaning of physical, but more in the sense that everything physical is energy and all energy involves experience. In his interpretation, human consciousness emerges indeed from matter, but from a different kind of matter than normally thought of, that has experience from micro psyches of particles (Strawson, 2009). The question is how?

Dilemma of panpsychism

Silberstein (2009) described the dilemma: If particles would have a psyche just like humans, he argued, the question how the human psyche arises from all those micro psyches would be just as difficult to answer, as the question how mindless matter could give rise to consciousness. He saw the only way to avoid this problem in assuming that particles have a form of fundamental proto-psyche that forms human consciousness (Silberstein, 2009). However, this would mean, according to Silberstein (2009), that panpsychism would just replace the gap between the non-experiential and the experiential, with the gap between proto-psyches of particles and human subjective experience, which – in his opinion – would not solve anything.

Gap between science and theology

Kastrup (2014) defended – in his view – a much more

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parsimonious solution through a top-down approach, rather than a bottom-up approach for consciousness, leading to *top-down monism*, the view that one over-psyche infuses everything. Obviously, such a theory would move dangerously close to a theistic worldview and, hence, face a certain phobia against possibly entertaining the idea of God's presence in the context of science.

Nagel (2013), another proponent of panpsychism, stated it clearly: "Even though the theistic outlook, in some versions, is consistent with the available scientific evidence, I don't believe it, and I'm drawn instead to a naturalistic, though non-materialist, alternative" (para. 9). Peters (2016) criticised Nagel's positioning of panpsychism as being "about just who gets to fill the gaps" (p. 7), a priori excluding theistic views because purpose and meaning would – in Nagel's view – have no place in science. Hence, the gap between science and theology seems also unbridgeable. As Main (2017) concluded, rationalisation has advanced so far, that

"there has been overall an increasing separation of God from the world, an ever-purer sense of God's transcendence, to the point where God has been so far removed from the

world of experience as to have become for many [...] an irrelevant hypothesis" (p. 1103).

Consciousness as the ground of everything?

Looking at the explanatory problems that panpsychism is facing, it seems only reasonable to take top-down monism or *idealism* into account. Idealism comprises worldviews that regard consciousness as all that exists and as the ground of all matter (Chalmers, 2021). Chalmers (2021) moved from panpsychism a little closer to idealism, by stating it would not be "greatly less plausible" (p. 29).

An alternative to panpsychism and idealism is *neutral monism*, a worldview that claims that consciousness and matter can be reduced to one neutral fundamental nature of the world (Stubenberg, 2018). And a variation would be *dual-aspect monism*, suggesting that consciousness and matter would be two fundamental aspects of this one fundamental neutral nature of the world (Atmanspacher, 2012). Kastrup (2018) argued here that idealism would be less complicated, but still accounting for all relevant aspects.

Jung and panentheism

Jung's (1991) view on the psyche also pointed more towards idealism because he regarded the unconscious – the experiential activity that is inaccessible to introspection or ego-reflection – as the "silent and undisturbed sway of nature" (p. 24) and declared:

"Our unconscious [...] hides living water, spirit that has become nature, and that is why it is disturbed. Heaven has become for us the cosmic space of the physicists, and the divine

empyrean a fair memory of things that once were. But “the heart glows,” and a secret unrest gnaws at the roots of our being. (p.24).

This statement showed that Jung regarded nature, as the unconscious psyche, and the divine/spirit as undistinguishable, and it also implicitly addressed his opinion that rationalist science disturbed both, the divine and humanity. Yet, Jung (2002a) did not see the unconscious psyche as identical with God, but as “the medium from which the religious experience seems to flow” (p. 63). This leads to a particular form of idealism, namely *panentheism*.

Panentheism is a worldview based on the assumption that the cosmos is *in* God (Main, 2017). It differs from the classical notion of a distance between God and the world that does not permit the world to essentially affect God; on the contrary, panentheists believe that the world can cause suffering to God (Brierly, 2008). That is not to say that panentheism infers that the cosmos *is* God (Brierly, 2008). Main (2017) explained in more detail how Jung’s psychology implicitly fulfils the characteristics of panentheism. Referring to the possibility of knowing, Jung (2002b) emphasised a human’s limitation to ego-consciousness before “the One, who dwells in him, whose form has no knowable boundaries, who encompasses him on all sides, fathomless as the abysses of the earth and vast as the sky” (p. 142).

My own view

My experience with internal family systems therapy (IFS) supports Jung’s view of the One that dwells in all human beings. IFS provides ego-transcending, transformative, and meaning-making experiences. IFS assumes that the human mind comprises multiple parts, very similar to subpersonalities in

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psychosynthesis and what Jung regarded as complexes (Schwartz & Falconer, 2017). When a person disidentifies with these ego-forming parts, a new form of consciousness appears, the awareness of *Self* – universal in its qualities (Schwartz & Sweezy, 2020; Schwartz, 2021). Through IFS I can see consciousness moving from *the feeling of life itself* (Koch, 2020) towards *the meaning of life itself*. To put it another way, I experience IFS as a way to consciously relate to the divine. Like Kingsley (2018) pointed out, such a way makes the divine occupy a place between the ego and the vast unconscious as a new consciousness of *Self*; and for me, that *is* the meaning of life.

Parts also seem to have parts and the capacity to let *Self*-qualities settle within themselves. If humans have parts that have parts, and a *Self* that appears to have identical qualities in every person and every part, it stands to reason that humans may be parts of a higher order mind that infuses and connects everything. To be completely honest, what I call *Self* means God to me. As Rohr (2019) puts it: “The Divine has never seemed very worried about us getting his or her exact name right” (p. 17).


In a nutshell, I cannot know the final truth about the nature of consciousness. All I have is my experience as a therapist,

showing me on a daily basis how the rationalist’s view undermines well-being, and I infer that the view of rationalism, of materialism endangers the survival of humankind.

Conclusion

If mindless brain matter produces consciousness, artificial intelligence could take over fully and replace humankind. Yet, research on ego-transcendent experiences points so far more towards a filter-function of the brain, that restricts consciousness. Ego-transcendent experiences seem to have a positive impact on thinking and intelligence, possibly connected to a stronger activation of the right hemisphere of the brain. The rationalist/materialist worldview may have a link to an overactive left hemisphere of the brain. Through the lens of materialism, the divide between non-experiential and experiential in nature leads to the problem of explaining exactly when a human foetus starts experiencing. Panpsychism avoids this problem by assuming that all matter has at least a proto-experience. Here the explanatory problem refers to the question how these proto-experiences of particles combine to finally shape human experience. The worldview of panentheism, that everything is in God, seems to have stronger explanatory power for some philosophers, theologians and also for Jung. However, the gap between main stream science and theism in general appears unbridgeable. From my experience as a therapist, it is this gap that is toxic.

Humanity is currently facing a catastrophe and cannot have supporters of certain opinions stew in their own juice and assure themselves that they are

right. Does it all boil down to the question: What is healthier thinking? If the right hemisphere of scientists' brains were to become more in charge, it might well lead to an *a priori* openness to all different views, more collaboration, more creativity, and also a rapprochement between science and spirituality which is badly needed. 

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