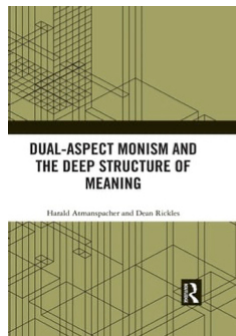


A Metaphysical Theory Connecting Mind, Matter, and Meaning¹

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A review of *Dual-Aspect Monism and the Deep Structure of Meaning*, by Harald Atmanspacher and Dean Rickles. Routledge, 2022. Pp. xiii + 221. \$128 (hardcover), \$39.16 (ebook).

Abstract: Dual-aspect monism proposes that reality consists of a single, undifferentiated, holistic “substance” (monism) that splits into mind and matter (dual aspects). In this view, mind and matter are linked, or intimately correlated, by meaning. These tight correlations do not imply that mind causally affects matter, or vice versa, but rather they point to an acausal relation. Atmanspacher and Rickles propose that this metaphysical theory, based on deep philosophical roots and refined based on ideas from quantum mechanics, provides a satisfying model of reality that does justice to both the mental and physical domains. They describe a line of qualitative research that appears to support their theory, but they inexplicably dismiss a much larger body of quantitative studies that provide far greater support.

The philosophy of dual-aspect monism proposes that reality consists of a holistic psychophysical realm that is neither mind nor matter but contains the potential of both of those aspects, and more. Carl Jung called this realm the *unus mundus*, the “one world.” Similar concepts involving a primordial, undifferentiated reality can be found throughout the world’s esoteric literature, and even today one sees echoes of that idea in the form of a cosmic singularity from which the Big Bang purportedly arose. Within dual-aspect monism, this holistic realm is said to split (the authors also use the term “decompose”) into the two aspects that we experience as mind and matter. As such, this philosophy could be viewed as a form of dualism (i. e., dual-aspect), where mind and matter are just

two of a presumably infinite number of aspects that could emerge from the *unus mundus*. However, those potential other aspects are beyond our experience and are not addressed by this theory.

A question that may arise is why would the *unus mundus* “want” to split? That is, what would cause a distinction to arise in a fully holistic medium where there are no causes, at least not causation in the usual sense of that term? The answer provided in this book seems to be that the split is encouraged to occur via *meaning*. But do we mean meaning in the human-centric sense of an important relation assigned between this and that? And if so, then who or what assigns that importance, and how does meaning dip into and initiate the paradox of acausally causing the *unus mundus* to split? Perhaps meaning is meant in a more cosmic sense, something that defies what humans mean by meaning. These questions arise because meaning, which is highlighted in the title of the book, is not defined in a clear or satisfying way.

Regardless of why or how the *unus mundus* splits, mind and matter magically emerge in some way, and then – according to this theory – they also react back into that neutral psychophysical realm (i. e., the *unus mundus*), setting up a recursive relation (perhaps that recursion represents the meaning we are seeking?). An important part of the theory is that mind-matter correlations do not involve causal interactions in the sense of Aristotle’s “efficient cause.” Rather, mind and matter are said to be intimately related *acausally*, analogous to quantum entanglement, where the observed correlations are not caused, but they are also not due to chance.

That is the theory in a nutshell. The details and many nuances required to fully unpack this nutshell unfold over two hundred pages, which includes a survey of the historical precursors that underlie the theory. As a scholarly book, it is not an easy read for

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those who are not already steeped in the philosophy of mind, the formalisms and various interpretations of quantum theory, and the mathematics of Clifford and other geometric algebras. There are numerous footnotes and 20 pages of references at the end of the book for those who wish to gain a deeper understanding than the main text provides.

But even without a background in the topics covered in this book, it is well worth studying by anyone interested in gaining new perspectives on mind-matter interactions. In some respects, dual-aspect monism is akin to the story of Goldilocks because, like the character in that fairytale, this book seeks just the right way to think about reality. Unlike Goldilocks, this theory seeks to move beyond the three “bears” (i. e., the most popular philosophical models) that, following the fairytale we may call the Little Wee Bear of *dualism*, the Middle-Sized Bear of *idealism*, and the Great Big Bear of *materialism*.

Dualism, most often associated with René Descartes, proposes that reality consists of two fundamentally different “substances,” one mental (*res cogitans*) and the other physical (*res extensa*). The problem with dualism is how two radically different substances can interact. We know that they do interact through the close relationship we experience between mind and body and in the neural correlates of consciousness. Dualism once held a prominent place in the philosophy of mind, but in the sciences today it has been relegated to Little Wee Bear status.

Idealism, found in various forms within the world’s esoteric traditions, and discussed in Huxley’s *Perennial Philosophy* and other works (Huxley, 1945), proposes that consciousness is primary over the physical world. In that case, the physical world and all of its manifold forms are a mental inference. The problem with idealism is that it seems as though there are aspects of the physical world that are not just mental creations. Einstein, in a widely cited complaint about the implications of quantum theory, doubted

that the moon would cease to exist when nobody observed it (Mermin, 1985). That is, some aspects of the physical world seem to be so stable, whether we are around or not, that unless we postulate some form of “cosmic mind” that is not susceptible to human frailties like mind-wandering, then it is not clear how such stability could arise or be sustained. In any case, Idealism may be considered the Middle-Sized Bear in the philosophy of mind, with a recent resurgence of interest in science in the forms of panpsychism and cosmopsychism (Ramm, 2021).

Materialism, the Great Big Bear, is the prevailing assumption about reality within the sciences today. It has been adopted more or less uncritically as the guiding doctrine largely because of its demonstrable success in creating new technologies. The wisdom of such creations and their ultimate use and abuse is an extremely important issue, but that is a different topic. Materialism proposes that everything, including mind, is ultimately physical. This is why Francis Crick’s “astonishing hypothesis” about consciousness is that you, your thoughts, your dreams, and subjective sense of identity are, as he put it, nothing but a pack of neurons (Crick, 1995). The problem with materialism is that no one has any idea about how something manifestly non-physical, like the subjective taste of an orange or the first-person experience of the color red, can emerge from the physical. As philosopher Jerry Fodor put it in 1992, and which still rings true today, “Nobody has the slightest idea how anything material could be conscious. Nobody even knows what it would be like to have the slightest idea about how anything material could be conscious” (p. 5).

Dual aspect monism’s version of Goldilocks is unsatisfied with those three bears, so a fourth is required, and that is where the present book begins. To motivate the development of their model, Atmanspacher and Riekles provide a brief survey of early Sumerian myths and Greek ideas that were precursors to dual-aspect monism, then they

move on to Descartes, Leibniz, and Spinoza, and then discuss neutral monism, a philosophy proposed by Ernst Mach, William James, and Bertrand Russell. With that background in mind, the book focuses in detail on three pairs of more modern figures, from which the authors' theory is derived: Wolfgang Pauli and Carl Jung, Arthur Eddington and John Wheeler, and David Bohm and Basil Hiley. The underlying commonality of these three dyads is that they all based their ideas on quantum-inspired concepts, which were not available to the earlier discussants. They also all emphasized the importance of meaning.

I believe that what the authors were attempting to achieve by highlighting the contributions of these six authors is that our philosophical worldview and our understanding of the physical world go hand-in-hand, e. g., the pragmatic success of classical physics gave rise to reductive materialism as a *de facto* practical philosophy that was adopted into the now-entrenched scientific worldview. But as our understanding of the physical world has evolved, now including notions of flexible spacetime and nonlocality, our worldview is also morphing into something more sophisticated. That will in turn influence our philosophical assumptions, and eventually we will end up with a new and presumably more comprehensive scientific worldview.

In their discussion of the role of meaning in this emerging worldview, the authors distinguish between surface and deep. Surface meaning refers to the notion of a relation between things, i. e., one thing referring to another conveys meaning via that relation. By contrast, deep meaning is said to refer to a more abstract notion of a "felt sense," as in "this doesn't make sense." Perhaps deep meaning is like the term *noetic*, an intuitive feeling held with conviction, but without conscious awareness of where that conviction comes from. Or perhaps deep meaning is deep because the word "deep" implies a

gravitas or profundity that is not conveyed by the word "surface." In any case, the authors do not specify what deep meaning means in formal terms.

Because mind and matter are said to arise from the same *unus mundus*, they are correlated. That is, a correlation is a dependency between properties of objects. In simple physical systems, conservation laws require that properties like spin must be conserved, and thus one photon that splits into two photons will have properties like polarization that are strictly opposite to each other, and thus the two photons will be correlated (in this example, a negative correlation). In more complex systems, like identical twins arising from the same egg, there may be many physical and behavioral effects that are very similar, and thus exhibit a positive correlation.

However, the connection we are dealing with here is not localized in spacetime nor, as statisticians are fond of reminding us, does correlation necessarily imply causation. In fact, in this case the authors maintain that mind and matter are definitely *not* connected causally. This can make mind-matter correlations, like Jung's concept of synchronicities, appear to be quite mysterious when experienced at the level of everyday experience. Such experiences evoke ideas like teleology or goal-orientation, where mental and physical events correlate in meaningful, surprising, and non-chance ways, but without any (ordinary) cause. Incidentally, the concept of goal-orientation was rediscovered based on empirical research on mind-matter interactions (Schmidt, 1987), revealing a nice convergence when approaching this subject from both theoretical and experimental directions.

The strength of *Dual-Aspect Monism and the Deep Structure of Meaning* is that it offers a meticulously developed framework for understanding mind-matter correlations, in particular the types of correlations that the authors refer to as "exceptional



experiences,” like synchronicities. It also provides an intriguing clue about how these correlations may arise, namely through meaning. For example, consider an experiment seeking to demonstrate, say, a telepathic connection between an isolated pair of people. If the “receiver” of telepathic information successfully describes a randomly selected image that the “sender” is asked to mentally share with the receiver, then that outcome is viewed as a desirable “hit” rather than “dumb luck” because the experimental protocol was devised by experimenters who *assigned meaning* to that outcome. Whether this particular meaning may be called shallow or deep is uncertain, but it is clear that an experimental protocol is a type of meaning that transforms a random event into a nonrandom event (where confidence in that interpretation is bolstered by sufficient repeatability, which is also part of the protocol).

The primary weakness of the book is that, given its focus, one might have expected it to address the century of laboratory studies that have investigated mind-matter correlations under controlled conditions. Unfortunately, rather than displaying the same degree of scholarly depth as is evidenced throughout the rest of the book, on this issue the authors dismiss the entire body of relevant empirical literature in a single sentence. They allege, without elaboration or evidence, that the results of literally hundreds of such experiments are due to “fraud, or experimental incompetence, or they were simply insignificant” [p. 189]. Then, adding insult to injury, they contend that experimental approaches are “wrong-headed.” This curt discharge then points to a footnote describing John Wheeler’s fury at discovering that he was part of a panel on “physics and consciousness” at an AAAS panel discussion in 1979 that – horrors upon horrors – included parapsychologists who were discussing experimental evidence that in essence confirmed Wheeler’s ideas.

Inclusion of the Wheeler footnote may help to explain why the authors avoided addressing the relevant parapsychological literature. In academic circles it can be difficult to maintain a respectable scholarly stance when discussing topics that are exceedingly close, or in some cases identical to, topics that fall within the discipline of parapsychology. This taboo is a pity, for in an earlier section of the book discussing Wheeler’s contributions to dual-aspect monism, he is quoted as writing about how “the participant [in an experiment] is actively involved in the way the world develops” [p. 110]. Indeed, quotations by virtually all of the other historical contributors to this book, including the ideas offered by the authors, could easily be crafted into a fitting Foreword for a book that focused exclusively on laboratory studies of mind-matter interaction.

Instead, the only research mentioned in support of the theory is qualitative. While it is mildly interesting that “exceptional experiences” are commonly reported, relying on anecdotal reports to support a theory utterly fails to address the all-important *ontic* nature of mind-matter correlations. Qualitative research can inform us about the mental side of mind-matter interactions, but it tells us nothing about the physical side. What we really want to know is what happens after the frailties of memory, psychological biases, and elaborations are taken into account. Do any unexpected *quantitative* correlations remain? Although such experiments may not be trivially easy to replicate, using the same gold standard meta-analytical techniques employed throughout many mainstream sciences it has been amply demonstrated that mind-matter correlations, which arguably include the entire range of psychic phenomena, are indeed repeatable in the lab (Cardeña, 2018).

The book opens with a quote by T. S. Eliot: “Only those who will risk going too far can possibly find out how far one can go” [p. v]. The book closes with a quote by Bertrand Russell: “The physical world is a sort of governing aristocracy, which has somehow

managed to cause everything else to be treated with disrespect.... We should treat with exactly equal respect the things that do not fit in with the physical world" [p. 197]. Sandwiched between these two quotes, which encourage bold open-mindedness, the body of the text provides an excellent introduction to a novel form of dual-aspect monism inspired by quantum theory. Its special emphasis on meaning as the essential connection between mind and matter may prove to be useful as a guide for developing ways of testing this theory. One hopes that a future, less timid edition of the book will add a chapter on the wealth of quantitative evidence that both supports the theory and honors the aspirations of those opening and closing quotations.

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Eine metaphysische Theorie zur Verbindung von Geist, Materie, und Bedeutung

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Zusammenfassung: Der duale Aspekte-Monismus geht davon aus, dass die Realität aus einer einzigen, undifferenzierten, holistischen "Substanz" (Monismus) besteht, die sich in Geist und Materie (dualer Aspekt) aufspaltet. In dieser Sichtweise sind Geist und Materie durch Bedeutung miteinander verbunden oder eng miteinander verknüpft. Diese engen Korrelationen bedeuten nicht, dass der Geist die Materie kausal beeinflusst oder vice versa, sondern deuten eher auf eine akasale Beziehung hin. Atmanspacher und Rickles schlagen vor, dass diese metaphysische Theorie, die auf tiefen philosophischen Wurzeln beruht und auf der Grundlage von Ideen aus der Quantenmechanik verfeinert wurde, ein zufriedenstellendes Modell der Realität liefert, das sowohl dem mentalen als auch dem physischen Bereich gerecht wird. Sie beschreiben eine qualitative Forschungsrichtung, die ihre Theorie zu stützen scheint, lehnen aber unerklärlicherweise eine wesentlich größere Anzahl quantitativer Studien ab, die sich für eine weitaus größere Unterstützung eignen würde.

German translation: Eberhard Bauer

Uma Teoria Metafísica Conectando Mente, Matéria, e Significado

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Resumo: O monismo de duplo-aspecto propõe que a realidade consiste em uma única "substância" (monismo), holística, indiferenciada, que se divide em mente e matéria (aspectos duais). Nesta visão, a mente e a matéria estão ligadas, ou intimamente correlacionadas, pelo significado. Essas correlações estreitas não implicam que a mente afete de maneira causal a matéria, ou vice-versa, mas apontam para uma relação acasal. Atmanspacher e Rickles propõem que essa teoria metafísica, baseada em raízes filosóficas profundas e refinada com base em ideias da mecânica quântica, fornece um modelo satisfatório da realidade que faz justiça aos domínios mental e físico. Eles descrevem uma linha de pesquisa qualitativa que parece apoiar sua teoria, mas, inexplicavelmente, descartam um corpo muito maior de estudos quantitativos que fornecem um suporte ainda maior.

Portuguese translation: Antônio Lima

Una Teoría Metafísica que Conecta a la Mente, la Materia, y el Significado

Dean Radin

Resumen: El monismo de doble aspecto propone que la realidad consiste en una "sustancia" única, indiferenciada y holística (monismo) que se divide en mente y materia (aspectos duales). Según este punto de vista, la mente y la materia están vinculadas, o íntimamente correlacionadas, a través del significado. Estas estrechas correlaciones no implican que la mente afecte causalmente a la materia, o viceversa, sino que apuntan a una relación no causal. Atmanspacher y Rickles proponen que esta teoría metafísica, basada en profundas raíces filosóficas y refinada con ideas de la mecánica cuántica, proporciona un modelo satisfactorio de la realidad que hace justicia tanto al ámbito mental como al físico. Describen una línea de investigación cualitativa que parece apoyar su teoría, pero inexplicablemente descartan un conjunto mucho mayor de estudios cuantitativos que proporcionan un apoyo mucho mayor.

Spanish translation: Etzel Cardeña