

# *The Many Faces of Panentheism*

with Harald Atmanspacher and Hartmut von Sass, “The Many Faces of Panentheism: An Editorial Introduction”; Philip Clayton, “How Radically Can God Be Reconceived before Ceasing to Be God? The Four Faces of Panentheism”; Willem B. Drees, “Panentheism and Natural Science: A Good Match?”; Jan-Olav Henriksen, “The Experience of God and the World: Christianity’s Reasons for Considering Panentheism a Viable Option”; Roderick Main, “Panentheism and the Undoing of Disenchantment”; and Michael Silberstein, “Panentheism, Neutral Monism, and Advaita Vedanta.”

## THE MANY FACES OF PANENTHEISM: AN EDITORIAL INTRODUCTION

*by Harald Atmanspacher and Hartmut von Sass*

*Abstract.* A well-known difficulty of the interdisciplinary dialogue beyond the limits of particular disciplines is the lack of common ground regarding their metaphysical and methodological assumptions and commitments. This is particularly evident for the precarious relationship between science and religion. In a 2016 conference entitled “The Many Faces of Panentheism” held in Zurich, and now in this introduction as well as this section, we try to counteract this situation by choosing a focus theme located at the interface between nature and the divine. Thus, key perspectives, arguments, and implications of panentheism are introduced not only from one selected point of view but in relation to others. This allows us to explore territory beyond the boundaries of disciplinary backgrounds and to address intellectual and practical consequences for current debates.

*Keywords:* creation; emergence; metaphysics; mind-body duality; panentheism; science and religion

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### TO BEGIN WITH

This section on “The Many Faces of Panentheism” of *Zygon*’s current issue is based on a conference at Collegium Helveticum Zurich in June 2016. The subtitle of the conference with participants from theology, philosophy, psychology, and physics from both sides of the Atlantic Ocean was “Reinforcing the Dialogue between Science and Religion.” In this

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sense, the intention of this interdisciplinary event was to contribute to the ongoing science–religion debate by focusing on a highly significant and timely topic: the doctrine of panentheism.

A well-known difficulty of the interdisciplinary dialogue beyond the limits of particular disciplines is the lack of common ground regarding their metaphysical and methodological assumptions and commitments. This is particularly evident for the precarious relationship between science and religion. Courageous attempts toward convergence often wear out in the elaboration of viewpoints that are more or less detached from one another. In the Zurich conference and, now, in this section we try to counteract this situation by choosing a focus theme located at the interface between nature and the divine. Thus, key perspectives, arguments, and implications of panentheism are discussed not only from one selected point of view, but in relation to others. This allows us to explore territory beyond the boundaries of disciplinary backgrounds and to address intellectual and practical consequences for current debates.

The Collegium Helveticum in Zurich is a most appropriate place for such an approach. The Collegium, as a “laboratory for transdisciplinarity,” is an Institute for Advanced Studies operated jointly by the University of Zurich, the Zurich School of Arts, and the Swiss Federal Institute of Technology (ETH). Our thanks go to the staff of the Collegium for facilitating the conference organizationally and financially, and especially to its previous director, Gerd Folkers, for his encouragement. Also, we are grateful to *Zygon*’s main editor, Willem B. Drees, for being open to and supportive of our suggestion of a special section on panentheism and its potential for the dialogue between science and religion. Needless to say, all contributions were peer-reviewed and went through substantial changes. The papers presented at the Zurich conference have been revised and enhanced in light of the discussions and reviewers’ comments. Now they are available for a wider public in *Zygon*, a journal that could not be more appropriate for the topic.

#### THE “EN” IN PANENTHEISM

Panentheism oscillates between the idea that God *is* nature itself (pantheism) and the idea that God is ontologically *different* from nature (theism), that is, between an identification of God with His creation and an “ontological difference” where God is a real counterpart to His creation. One of the driving forces behind this middle position is, arguably, Baruch de Spinoza, who claimed that whatever is, is *in* God while without God there is nothing at all. Hence, God as the creational and, thus, causal ground of everything encompasses everything without being identical with it.

Therefore, the main task of panentheists is to give an account of the precise relation between God and non-God without falling back to theistic

or pantheistic positions. For panentheism, the relationship between God and the world is an *internal* relationship, meaning that—in contrast to externalism—any change on one side of the relation implies a change on the other. This already indicates far-reaching consequences for the doctrine of God, because the fact of a constantly changing universe leads to a notion of God that leaves space for or even implies God's own changeability. And the other way around—"God's being in becoming" (Jüngel 2001) does not leave His creation untouched. This interrelation aims to circumvent both the separation of God from His world, which is the traditional theistic position, and the identification of God with His creation, as pantheism tends to hold.

Put constructively, panentheism underlines God's creative reality in the world and the world's influence upon God Himself. A common theme of the varieties of panentheism is both God's presence in the world and the distinctiveness of God's and the world's characteristics. However, different forms of panentheism deal with the concrete nature of the relationship between God and non-God in different ways. One way of presenting these differences is to think about the "en" in panentheism. Here is a list of possible and actually defended versions of panentheism, adapted from John Culp (2017):

- *spatial or local*: panentheism entails a localization of literally everything, insofar as everything is in God and God serves as something like a container.
- *mereological*: the duality of parts and wholes helps to clarify God's relation to His creation; everything is part of Him, and all parts together either constitute God (which is close to *pantheism* again) or God transcends the creational entirety that is itself part of the divine whole. This has been expressed by referring to the concept of *emergence*: the whole is substantially more than the sum of all its parts.
- *metaphysical*: the "en" in panentheism might also mean that God is the essence or the nucleus of everything. This can lead to *vitalist* versions: God as the *movens* of and in everything. It can also amount to a *causal* version: God as the cause of everything. And it may signify a *transcendental* version: God as the condition of the possibility of everything.
- *metaphorical or analogical*: One of the dominant metaphors or analogies in panentheism has been the world as God's body, whereas God is the soul (or the mind) of the world. Hence, the way body and soul are related to one another determines the way the world and God are related to one another. In this interpretation, the philosophy of mind would have consequences for cosmology, theology, and the doctrine of God.

These different versions of panentheism are partly commensurable. For instance, the metaphorical version could help to clarify what is expressed in the mereological option. However, the divergent readings of the metaphysical version hardly go hand in hand; for example, the causal interpretation is at odds with the transcendental interpretation. Hence, panentheism refers to a family of viewpoints whose entirety is philosophically inconsistent, expressing the richness and subtlety of this concept.

#### THE MANY FACES OF PANENTHEISM

Virtually the first comprehensive, and certainly the best known, account of a pantheist worldview is Spinoza's *Ethics*, written in 1664/1665 and published posthumously in 1677 (Spinoza [1667]1887). Although his well-known *deus sive natura* has often been misinterpreted to express a pantheist perspective, a careful reading of Spinoza's opus clarifies his position. In a letter to Henry Oldenburg he stated, "as to the view of certain people that I identify god with nature . . . they are quite mistaken" (Spinoza 1995, letter 73). For Spinoza, God's transcendence is testified by His infinitely many attributes, which all together constitute nature. Only two of these attributes, however, are accessible to the limited cognitive capacities of humans: thought and extension. This way, Spinoza relates them to an explicitly *epistemic* domain, in stark contrast to René Descartes, who conceived thought and extension (*res cogitans* and *res extensa*) as the two fundamental *ontological* substances in nature.

Pantheist thinking in Europe had been manifest in numerous other sources preceding Spinoza, such as the Neoplatonists Plotinus, Iamblichus, Proclus, and Pseudo-Dionysus. Their influence continued into the Middle Ages through John Scotus Eriugena, Meister Eckhart, and Nicholas of Cusa, and further to Jakob Böhme and Giordano Bruno, shortly before Spinoza. Esoteric undercurrents such as hermetic and alchemist traditions, with origins in Egyptian culture and essentially unacknowledged in mainstream philosophy of the time, can be seen as another part of the early occidental lineage of panentheism.

The term itself was coined in 1828 by the German philosopher Karl Krause who saw the need to delineate Spinoza's alleged pantheism from the pantheist framework of the triad of German idealism: Johann Gottlieb Fichte, Georg Wilhelm Friedrich Hegel, and Friedrich Wilhelm Joseph Schelling. (Hegel's famous dictum that "there is a choice between Spinozism and no philosophy at all" [Hegel 1896, 283] indicates that he was well aware that such a delineation was dispensable). A central common theme in the idealists' positions, spelled out in different ways, however, is the notion of change, development, dynamism, evolution. Change is not restricted to nature, but comprises the divine in nontrivial ways, which emphasize concepts such as the freedom of all creatures (Schelling) and

dialectic development (Hegel). A related common theme, already present in Spinoza, is the emerging diversity of nature from divine unity—in other words, the decomposition of parts from an undivided whole and, conversely, their influence back onto that whole.

Later, the evolutionary focus of the German idealists turned out to be the source of both emergentist and process thinking about panentheism. Key originators of these lines of thought were Samuel Alexander, Henri Bergson and Lloyd Morgan, later followed by Alfred North Whitehead and Charles Hartshorne, two major representatives of process panentheism in the twentieth century. Whitehead's work is particularly interesting insofar as he attempted an explicit reconciliation of panentheism with modern science and proposed, along the lines of Gottfried Wilhelm Leibniz's relational spacetime, innovative concepts for basic scientific categories of space, time, causation, measurement, and more.

At about the same time, in the early twentieth century, another thread of Spinoza's thinking began to be picked up by William James, Bertrand Russell and others: the idea that the distinction between thought and extension, between the mental and the physical, is not ontologically prescribed ("God-given," as it were) but a radically epistemic feature. Without direct reference to the divine, they rejected the traditional dichotomy of idealism versus materialism and suggested looking at the mental and the physical as dual aspects of a reality that is itself neutral with respect to their distinction. This so-called neutral monism or dual-aspect monism was later modified and extended to include theological considerations, for instance in the collaborative efforts of the physicist Wolfgang Pauli and the psychologist Carl Gustav Jung, now known as the Pauli-Jung conjecture (see Atmanspacher and Fuchs 2014).

Needless to say, this brief historic excursion is largely incomplete, not only because it just scratches the surface of the many ideas and systems addressed, but also insofar as it is clearly occidentally centered and omits the rich and much older philosophical thinking from the near to the far East and the pre-European Americas (Biernacki and Clayton 2014). There are strong indications of panentheist notions in Hinduism, Taoism, Buddhism, Judaism, Islam, and other non-European religious traditions. For instance, one of the most influential Hindu schools, Advaita Vedanta, presents a system containing key elements of dual- or many-aspect panentheism, though often couched in terms that need careful consideration in order to be not confused with the terminology of Western accounts. (The Vedanta tradition provides exegeses of three main sources of Hinduism—the *Upanishads*, the *Brahma Sutras*, and the *Bhagavad Gita*. Advaita Vedanta was founded by Shankara in the early ninth century [Deutsch 1969]. For similarities and differences with Buddhism see King [1995]).

PANENTHEISM AND ITS BEARINGS ON SPECIFIC ISSUES:  
THREE PROBLEMS

Conceived traditionally, panentheism represents a *metaphysical* claim about the reality of the world and the place humans have in it (Hermann 2011, 1). However, it is also possible to read the panentheist stance in a *deflationary* (or even *reductive*) way, meaning that God is “nothing but” an emergent entity deriving from the bits of the world that are *in* God. Depending on how one opts for one of these alternatives, combined with the various readings sketched in the previous sections, panentheism can entail significant and significantly different consequences for other branches in philosophy and theology. We will focus here on three important issues: namely, the mind–body problem, the concept of God, and the relation between science and religion.

THE MIND–BODY PROBLEM

Many classic positions *vis-à-vis* the mind–body problem entail a key role to be played by God. Descartes posited the pineal gland as the place where God regulates the causal interaction between *res cogitans* and *res extensa*; for Spinoza, God is the undivided carrier of distinguished attributes such as thought and extension; and Leibniz holds that a correspondence of primary mental events (monads) and subordinated bodily events is arranged by God as pre-established harmony. Much of the history of the mind–body problem since these seventeenth-century philosophers is a series of attempts to argue that either the mental or the material (the physical) is primary, and then to explore how the other can follow from it. Current mainstream positions in the philosophy of mind prefer, in resonance with the ongoing success of the sciences, the materialist or physicalist stance that everything in the universe is basically physical, leaving us with the question of how the mental derives from it.

There is a variety of versions of physicalism (eliminative, reductive, epiphenomenal, non-reductive) which have been fueled by recent advances in brain science. However, many of the great hopes and promises that the enunciators of the so-called “decades of the brain” generated are still unfulfilled today. There is no doubt that brain research yielded important insights, yet an understanding of the fundamental problem of the relationship between our mental lives and what our brains do surely remains an open issue. At present, the lack of success of physicalist approaches toward one of the deepest questions in the history of humankind, the nature of mind–matter correlations, inspires the search for alternative approaches.

One class of such alternative models is the one pioneered by Spinoza, but typically formulated in a theologically deplete fashion. The domain of

reality that replaces God in these approaches is postulated as neutral with respect to the distinction between the mental and the physical, and the way in which the mental and the physical are constituted may be distinguished by the strategies applied to introduce the distinction between them. There are two basic kinds of such strategies (for details see Atmanspacher 2014).

In one of them, psychophysically neutral, elementary entities are combined into sets of such entities, and depending on the composition these sets acquire mental or physical properties. Major historic proponents of this compositional scheme, often referred to as “neutral monism,” are Ernst Mach, William James, and Bertrand Russell. A much discussed neo-Russellian version of neutral monism was proposed by David Chalmers (1996, esp. chap. 8) in the philosophy of mind and is being developed empirically in cognitive neuroscience by Giulio Tononi and his group (Oizumi, Albantakis, and Tononi 2014).

The other basic strategy is closer to Spinoza’s way of thinking, where the psychophysically neutral domain does not consist of elementary entities waiting to be composed, but is conceived as one overarching whole that is to be decomposed. In contrast to the atomistic picture of compositional dual-aspect monism, the holistic picture of the decompositional variant is reminiscent of the fundamental insight of entanglement in quantum theory. Quantum systems are wholes that can be decomposed in infinitely many complementary (i.e., incompatible) ways, very much like Spinoza’s idea of divine attributes has been interpreted.

Because of this analogy with the formal basis of quantum theory, modern decompositional dual-aspect models have been mainly proposed by philosophically oriented physicists in the twentieth century, starting with David Bohm and Wolfgang Pauli (together with the psychologist Carl Gustav Jung). Later work along the same lines has been due to Bernard d’Espagnat, John Polkinghorne, Hans Primas, and others. A key difference between compositional and decompositional accounts is that the mental and the physical are reducible to neutral elements if these are the basis for composition, but they are irreducible to a neutral whole if this is the basis for decomposition.

A second important point is that decomposition necessarily implies correlations between the emerging parts, while composition does not necessarily give rise to correlations between different sets of composed elements. In this way, decompositional dual-aspect monism has been highlighted as the single one philosophical framework that explains mental–physical correlations most elegantly and naturally. The price to be paid is that the metaphysics of a psychophysically neutral whole is largely undeveloped and leaves much work to be done.

One approach within the dual-aspect tradition that has tried to re-introduce theological ideas at this point is the Pauli-Jung conjecture. They are outlined in Jung’s *Answer to Job* and related works addressing theological

and spiritual issues (Jung 1970a,b). In this respect it is important to realize that Jung does not place the spiritual within the human psyche, that is, the mental, as some commentators have claimed. Talking about mental images presupposes a distinction between the mental and the physical, and the neutral domain is not at stake.

Insofar as the ultimate ground of existence is assumed to be radically undivided, any access to it cannot be purely mental any more, because there is no mental–physical distinction. Yet there may be *immanent* experiences. (In his work on Spinoza and Jung, Gilles Deleuze uses the notion of immanence to counterargue Jung’s Kantian viewpoint that anything beyond the mental must remain empirically inaccessible; see Kerslake 2007.) Spiritual experiences in Western and Eastern traditions indicate the possibility of such immanent approaches to transcendence. If the psychophysically neutral is viewed as a (discursively empty yet perhaps experientially rich!) placeholder for the divine, such experiences come close to the theological figure of revelation. In this sense, the bidirectional relation between the undivided and its emerging products suggests much resonance with pantheism. Recently, corresponding directions of research have begun to attract the attention of intercultural religious studies scholars such as Loriliai Biernacki, Jeffrey Kripal, Paul Marshall, Michael Murphy, Gregory Shaw, Ian Whicher, and others. For more detailed accounts in this direction, see the collection of essays in *Beyond Physicalism* (Kelly, Crabtree, and Marshall 2015).

#### PANENTHEISM AND ITS THEOLOGICAL EFFECTS

God’s relation to His creation between separation and identification has been one of the most discussed problems within the doctrine of God. To put it in a more doctrinal language, the question is whether there is an interrelation between God and humans and their world and whether (or in which sense) God is ontologically different from the world. Classical theism defends this “ontological difference” and implies the theological claim that God is beyond change, becoming, pain, and passion (see Swinburne 1977, esp. chapter 2). An analogous difficulty arises for God’s relation with humans: is God the *deus pro nobis* and how does He reveal Himself to us? Or is He, despite his care and reconciliation, different from His revelation, or even “the wholly other”?

Pantheism presents an alternative to this infelicitous duality between complete otherness on the one hand and the identification of God with His creation on the other—or, respectively, with His revealing Himself to us. Hence, we are dealing with two different though interrelated issues: an *ontological* one—God as being different from His creation; and an *epistemic* one—God as truly or only partly revealing Himself or as being truly or only partly discernable by humans.



It has always been the interest of theologians, especially within the Reformed tradition, to safeguard God's sovereignty, while not losing His relation to His world beyond the mere act of creating, as theists would have it. This twofold interest explains why pantheism is attractive in contrast to classical versions of theism or pantheism as well as readings in theology and philosophy of religion that reduce God (and the language allegedly referring to Him) to the expression of an attitude, preference, or a moral view (see Braithwaite 1955). God is not identical, but ontologically different from His creation, and in this sense, He is "sovereign," to use Jean Calvin's term. And yet, He is not independent of the world because He is, according to the Christian tradition (and others too, of course) a God who cares. Pantheism offers an option to have it both ways.

The history of pantheism is a chain of attempts to meet this dual standard. Accordingly, recent pantheists like Hartshorne state that God is both necessary in Himself and for the world, and yet developing with that world by being related to it. Hartshorne calls this the "dipolar" character of God's being. Whitehead in his *Process and Reality* proposes that God and the world are developing together and growing in relationship to each other. Moreover, God remains necessary for the existing world—although there are different opinions, in particular among process thinkers, on whether or not it is allowed to invert this claim: that the world (or human beings) is (or are) also necessary for God. It is a further problem what this necessity entails: Are there fixed deterministic laws of nature? Or may events develop "creatively," without an ultimate determination of actual outcomes (Griffin 2004)?

It does not come as a surprise that there is an alliance between pantheist approaches and Trinitarian thinking, with Jürgen Moltmann (1981, part V, § 3) as a most prominent voice. There are two central reasons for this alliance. First, pantheism and the doctrine of the Trinity, especially after its revival since Karl Barth's *Church Dogmatics*, share the intention of upholding God's relation to the world while not identifying the two. Second, Trinitarian thinking implies the notion of *perichoresis*, that is, mutual interpenetration between God's three "modes of existence." (Barth [following Isaak A. Dorner] programmatically avoids the notion of "person" and prefers "modes of existence"; see also von Sass 2014.) For Moltmann, this intra-divine interpenetration has its pantheist counterpart in the extra-divine interpenetration between God's reality and His creation. This, Moltmann holds, preserves unity (between the three divine modes of God and between God and the world) while it also entails difference (there are *three* modes as well as God *and* His creation). However, there is, for Moltmann, an important asymmetry: God is necessary for the non-divine because everything is in Him, but not the other way around: the existence of the Trinity in its immanence does not depend on the facticity of the world (Molnar 1990).

This common ground between pantheism and Trinitarian thinking underlines a major interest in the work of Moltmann and others and clarifies the effects of pantheism for the theological topography. In sharp contrast to theism, the notion of God entails here divine process, changeability, and—in view of the internal dynamics of the Trinity—compassion, pain, and suffering. As one mode of existence is touched by the others, the God of pantheism is related to and, yes, dependent on the course of the world. Hence, the theist features of God's apathy and inability to change and to suffer have to be given up. Pantheism supports and clarifies this theological upheaval.

#### REINFORCING THE DIALOGUE BETWEEN SCIENCE AND RELIGION

To "reinforce" something presupposes that it was strong once and became weak thereafter. This is exactly the situation with respect to the dialogue between science and religion, less so in the Anglo-American scene, but definitely within the Continental sphere. The reasons for this development are ramified and beyond the scope of this introduction. However, we may hint at one of the essential chapters of this process that goes back to the giving-up of cosmological ambitions of theology in the wake of the Enlightenment. The clash between the increasingly successful sciences and theology led to a kind of dominance of the first over the second; and theological programs reacted to this defeat by changing the game. After Immanuel Kant, Friedrich Schleiermacher, and the German idealists, the vast majority of theologians held, and still hold, that religious statements do not refer to "matters of fact," whatever else they might refer to instead. For Kant, God is a necessary idea; for Schleiermacher, God is a secondary ingredient while the religious feeling is at the core of faith; and Hegel links God's reality to the act of thinking the absolute, which is "thinking absolutely." Any cosmological dimension becomes mitigated, diminished, or completely abolished. The old theological questions are handed over to physics and other sciences, or are given up due to the impossibility of finding answers.

The consequence of this, one might say, is a theological comfort zone. There is no clash any more between science and religion, not even the potential for it, because of an all-encompassing perspectivism (or aspectivism) telling us that scientific approaches meet all sets of questions concerning reality—namely, descriptive and explanatory issues—whereas religion meets another set without interfering with science. This scenario became a mainstream move, making science and religion compatible by postulating them to be so radically separate that potential rivalry between scientific disciplines and commitments of faith is excluded in the first place.

The counter-critique against this theological withdrawal or even disarmament is usually based on a critique of naturalism, for instance in Thomas

Nagel (2012) who, however, does not combine theological ambitions with his critique of a materialist naturalism; see also Holm Tetens (2015, esp. chapter 1). Since naturalism (or its stronger version physicalism) seems to be the most successful approach to meet cosmological questions, regaining that dimension for theology presupposes undermining the naturalist framework. And it is true that panentheism seems to challenge this well established peace treaty between science and religion, between physics and faith, by proposing cosmological claims about the origin of the universe and its internal development depending necessarily on God's cybernetics as well as an emergence that is based on divine reality.

However, one might hold that the reliance on emergence does not need reference to the divine—that is, that the emergent dynamics between different ontological layers make God superfluous when it comes to explaining the transgression from one to another layer. A (still critical) reading *ad bonam partem* might suggest that the panentheist framework gives a dynamics that believers *may* call God without a convincing reason to do so. In that case, we do not need God for explanatory purposes, but we have a non-theological explanation and then, secondarily, call it “God.” For most panentheists, this is not enough.

Thus, insofar as panentheism is formulated as a non-reductive project, correcting or eventually replacing standard naturalist accounts by a new non-reductive cosmology, the way is reopened for a debate between science and religion leaving the perspectivist (or aspectivist) comfort zone behind. This could be tantamount to a new instantiation of an old rivalry between two projects; however, it might also lead to new collaborations in which both science and theology try to reflect each other's basic assumptions in an informed way by pointing out and correcting their mutual shortcomings, category mistakes, or unfounded conclusions: joint venture rather than competition for dominance (e.g., Clayton 2006; Davies 2006). This is our ambition with the collection of articles in this special section on “The Many Faces of Panentheism.”

#### THE CONTRIBUTIONS TO THIS SPECIAL SECTION

Philip Clayton's opening paper in this section outlines a classification of different kinds of panentheism in contemporary discussion, which he characterizes as *radical* as compared to classic panentheism. However, they come with different degrees of radicality, and yield different options for the science–religion debate. Clayton's particular targets are the positions of David Ray Griffin, Catherine Keller, and Robert Corrington, and he relates them to his own work on emergence.

Griffin's key message is a new naturalism that is not materialist or physicalist but rather panentheist. It is a naturalism that takes the idea of a metaphysical reality seriously and claims that it is not excluded from

experience—as it is, for instance, in Whitehead’s process philosophy, which goes beyond the sciences of today but is up to integration (or conflict) with them. Keller’s account, drawing on Bohm’s quantum holism, presents a speculative extension of basic concepts we know from quantum theory (e.g., entanglement, nonlocality) from physicalist naturalism to metaphysical naturalism. In this picture “science suggests but does not entail the pervasive divine,” as Clayton states. Corrington proposes that pantheism should be moved back to pantheism, with the aim of reducing any God-language to scientific naturalism. This view illustrates how a most deflationary reconception of God eventually amounts to His dissolution.

Willem Drees raises the question of how good a match pantheism can possibly provide with science, and his answer is skeptical. He does not see any major difference between theist, pantheist, and panentheist positions as far as these are evaluated from the perspective of the sciences. It is true that science as the project of an empirically based naturalism does not make *predictions* for or *explanations* of metaphysical or even theological positions, but it is equally true that no science is possible without metaphysical *assumptions*. (Carl Friedrich von Weizsäcker used to say that every scientist works with metaphysical assumptions, and those who deny this most usually work with the poorest ones [Personal communication, 1998]) The philosophy of science in general, and of physics in particular, has much to say about this—as, for instance, illustrated by the intense discussion about the compatibility between varieties of realism and the present-day sciences.

Admittedly, Drees’s account of levels of description avoids the realism debate, which would reach into the metaphysical foundations of science. But the epistemic fashion in which he addresses emergence versus reduction as two modes which allude to top-down versus bottom-up strategies of theory construction actually points toward an eminent historic example of how this controversy played out in twentieth century physics. Quantum physics started with the goal of completing the classic reductive program of a bottom-up atomistic realism, and—due to deep insights of Albert Einstein, John Bell, and others—surprisingly turned into a formally sound and empirically confirmed theory founded on a top-down holistic metaphysics incompatible with the classic paradigm (see Primas 2017, esp. chapter 7). It may be with these kinds of considerations that science touches the realm of metaphysics and even the religious, and where it may become relevant for pantheism.

Jan-Olav Henriksen addresses pantheism from a sacramental point of view. This view considers a sacrament not only as a pledge or dedication of our lives to God, but—often overlooked—as a means of God’s grace toward us, typically expressed through different roles played by His Trinitarian modes of existence. In this sense, pantheism expresses a bidirectional relationship between the Creator and His creation that

connects our everyday lives with divine transcendence. This relationship emphasizes that neither the divine nor our mundane world are statically given, but rather influence one another continuously and dynamically. And so for Henriksen, this is reflected in the relation between science and religion.

There are significant domains of our lives about which science is altogether silent, such as issues of meaning or values, or first-person experiences in general. Nevertheless, such issues are key to the most difficult decisions that we need to make in our lives. Does a (properly understood) sacramental view help us to integrate meaning, values, and other extra-scientific themes with the world of science? Henriksen's suggestion of a semiotic interpretation of the sacrament is a novel starting point to explore this challenging question.

Roderick Main begins his article with the intellectualization and rationalization characterizing modern culture—bemoaned as “disenchantment” by Max Weber—and its relation to the science–religion debate. Main identifies classical theism as the source of this disenchantment, simply because full-blown theism implies arguably the greatest possible conflict with rational science. Panentheism, thus, might be a less disenchanting option for reconciling scientific facts and religious faith.

The central part of Main's article outlines the analytical psychology of Carl Gustav Jung as a particularly interesting panentheist approach. He identifies Jung's 1952 essay on the principle of synchronicity (Jung 1969), which heavily depends on his dual-aspect model of mind and matter, as an early piece of evidence for an (implicitly) panentheist stance. This essay postulates synchronistic events as acausally connected by their joint meaning, evading scientific prediction or explanation, and often alluding to esoteric practices or spiritual experiences. Main shows in detail how panentheist thinking pervades Jung's most elaborate panentheist work *Answer to Job*, also of 1952. Here, the relation between God and his Creation is essentially framed as the relation between the deepest levels of the collective unconscious and their manifestations in our mental as well as physical world.

Michael Silberstein's article indicates a bridge from neutral monism (*à la* James and Russell) as one of the models for a panentheist worldview to other cultural traditions, specifically the Hindu tradition of Advaita Vedanta. His presentation starts with a detailed clarification of neutral monism and its delineation from radical emergence and panpsychism. Since these two concepts, according to Silberstein, are often superficially aligned with or incorrectly attributed to panentheism, he spends some helpful effort to point out how neutral monism differs from both of them in essential ways.

Glossing over a number of details that may be worthwhile to consider in future work, neutral monism postulates a domain of reality that has

no primordial distinction between mind and matter, subject and object, and other dichotomies necessary for discursive reasoning. Silberstein suggests the notion of “pure presence” to address this reality—presence as an undivided ground of existence, without cognitive thoughts or extended bodies. This mode of non-duality is characterized by the logic of “neither nor” rather than “both and,” so an illustration by a coin with two sides coexisting (both heads and tails) would surely miss the point.

But what would a coin with no sides look like? Or how could it be cogently addressed at all? Certainly not with the established scientific methodology of today. However, the metaphysical assumption of a veiled non-dual reality—call it God, the divine, the spiritual, or the transcendent—might perhaps have concrete implications that science can help to unveil, and which conversely act back onto the veiled. For such a panentheist picture, a deeply relational element would be crucial indeed: the bidirectional traffic between the veiled and the unveiled, something that neither theism nor pantheism permits.

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