Emergence and Pentecostal Theology

with David Bradnick and Bradford McCall, "Making Sense of Emergence: A Critical Engagement with Leidenhag, Leidenhag, and Yong"; and Mikael Leidenhag and Joanna Leidenhag, "The Unsuitability of Emergence Theory for Pentecostal Theology: A Response to Bradnick and McCall."

MAKING SENSE OF EMERGENCE: A CRITICAL ENGAGEMENT WITH LEIDENHAG, LEIDENHAG, AND YONG

by David Bradnick and Bradford McCall

Abstract. A number of theologians engaged in the theology and science dialogue—particularly Pentecostal theologian Amos Yong—employ emergence as a framework to discuss special divine action as well as causation initiated by other spiritual realities, such as angels and demons. Mikael and Joanna Leidenhag, however, have issued concerns about its application. They argue that Yong employs supernaturalistic themes with implications that render the concept of emergence obsolete. Further, they claim that Yong's use of emergence theory is inconsistent because he highlights the ontological independence of various spirits in the world concurrently with his advocation of supervenience theory. In view of these concerns, Leidenhag and Leidenhag urge Yong to depart from his application of emergence theory. In what follows, we plan to address each of these criticisms and demonstrate that they are tenuous, if not unwarranted, especially in light of a kenotic-relational pneumatology.

Keywords: emergence; kenosis; Joanna Leidenhag; Mikael Leidenhag; panentheism; pneumatology; substance dualism; supernaturalism; Amos Yong

---

A number of theologians engaged in the theology and science dialogue—particularly Pentecostal theologian Amos Yong—employ emergence as a framework to discuss special divine action as well as causation initiated by other spiritual realities, such as angels and demons. Mikael and Joanna Leidenhag, however, have issued some reservations about the use of emergence in the theology and science dialogue. In an article titled "Science and

David Bradnick is Adjunct Professor of Philosophy, Stevenson University, 1525 Greenspring Valley Road, Stevenson, MD 21153, USA; e-mail: dbradnick@stevenson.edu. Bradford McCall is a PhD student at Claremont School of Theology, 1325 N. College Ave., Claremont, CA 91711; e-mail: bradfordlmccall@gmail.com.

 ISSN 0591-2385

Spirit: A Critical Examination of Amos Yong's Pneumatological Theology of Emergence," they argue that Yong uses supernaturalistic Pentecostal themes, including divine interventionism, that render the concept of emergence obsolete (Leidenhag and Leidenhag 2015, 425–35). Further, they claim that Yong's employment of emergence theory is inconsistent because he highlights the ontological independence of various spirits in the world concurrently with his advocation of supervenience theory. In view of these concerns, Leidenhag and Leidenhag urge Yong to depart from his aim of harmonizing the spirit-filled imagination of Pentecostalism with the scientific culture of the twenty-first century, at least via the use of emergence theory.

In what follows, we plan to provide a summary of emergence and address each of these criticisms set forth by Leidenhag and Leidenhag, given that emergence has been an important interlocutor for both Yong and the authors of this current essay. While we are aware of two other articles in this area, one by Mikael Leidenhag (2013) and one by Joanna Leidenhag (2016), we tend to focus upon the metaphysical consistency of an emergence theology herein, but the latter part of this essay begins to address some of Leidenhag's (2016) theological concerns. Notably, in her article, Joanna Leidenhag argues that emergence faces several theological problems, particularly in the area of Christology and Pneumatology. Space does not permit us, however, to address all of these concerns. We will now move on to a general overview of emergence theory.

An Overview of Emergence Theory

Emergence is the "theory that cosmic evolution repeatedly includes unpredictable, irreducible, and novel appearances" (Clayton 2004a, 39). These novel occurrences, which are naturally produced, include—but are not limited to—structures, organs, and organisms. In brief, emergence claims that it is possible to get "something more from nothing but" (Goodenough and Deacon 2003, 802). As such, emergentists argue that reductionary tendencies within natural science are not tenable. No longer can one seek to explain all things as being thoroughly reducible to their physical entities or microphysical causes (i.e., physicalism). Whereas substance dualism was the dominant metaphysical view in Western history from Plato to Kant, numerous scholars contend that adherence to a bipartite construction of physical components and spiritual components is no longer reasonable. The revolution in metaphysics first wrought by Kant has undercut physicalism and dualism. The Earth, in the emergentist view, is an active and empowering environment that brings forth life by various interdependent processes.

Philip Clayton is a leading theorist of emergence inasmuch as he offers a third way of understanding the world and human relationships. He presents emergence as a viable option and a fruitful paradigm for

evolutionary progress, in contrast to the waning explanatory power of its competitors, physicalism and dualism (Clayton 2004a, 3). In fact, "actualizing the dream of a final reduction 'downwards,' it now appears, has proven fundamentally impossible" (Clayton 2004a, 70). In view of this implausible task, Clayton has sought to resurrect and reappropriate the positions of early twentieth-century emergentists. He contends that three general claims undergird emergence theory in the philosophy of science. First, empirical reality divides naturally into multiple levels, which means that new emergent levels evolve over the course of evolutionary history. Second, emergent "wholes" are more than the sum of their parts and require new types of explanation adequate to each new level of phenomena. Third, such emergent wholes manifest new manners of causal interaction, so biological processes, for example, are not merely reducible to physics, but require genuine biological explanations instead (Clayton 2006b, 294).

Within *Mind and Emergence* (2004a) Clayton modifies the four features of emergence as advocated by Charbel Nino el-Hani and Antonio Marcos Pereira (EP), who were late twentieth-century emergentists (el-Hani and Pereira 2000, 118–42). Specifically, he converts EP's construct of ontological physicalism into a more realistic paradigm of ontological monism, arguing that all matter (i.e., reality) is composed of one basic type of "stuff" and that mere physics (i.e., physicalism) is not sufficient to account for the various manners in which this "stuff" is expressed in the world. Clayton essentially adopts EP's construct of property emergence, which entails the notion that genuinely novel properties emerge from complex systems when material particles attain an appropriate threshold of organizational complexity. EP's notion regarding the irreducibility of emergence is modified by adding that there are forms of causality that are irreducible to physical causes, and that causality should guide our ontology (Clayton 2004a, 5). Finally, EP's conception of downward causation in reference to emergent systems is virtually adopted, with Clayton defining the concept as the "process whereby some whole has an active non-additive causal influence on its parts" (Clayton 2004a, 49).

Before offering his definition of emergence, Clayton draws from Bedau the classification of *strong* and *weak* emergence theories in the twentieth century (Bedau 1997, 375–99). Strong emergentists postulate that evolution produces ontologically distinct levels of organs/isms that are characterized by their own distinct regularities and causal forces. In other words, new, or emergent, ontological realities supervene upon their constituent substrates but cannot be reduced to them. Strong emergence also involves "downward causation" from the whole to the parts. In contrast, weak emergentists maintain that, as new patterns emerge, the causal processes remain those that are fundamental to physics (Clayton 2004a, 9). A property of an organ/ism is weakly emergent, if it is reducible to its intrinsic qualities, so

that weakly emergent properties are "novel" only at the level of description; this is in contrast with strongly emergent organs/isms in which the cause is neither reducible to any intrinsic causal capacity of the parts nor to any relation between the component parts. The largest difference, however, between strong and weak emergence is that strong emergence rejects the reduction of biology to microphysics (Clayton 2004a, 58).

Clayton asserts that weak emergence leaves us with the old dichotomy of physicalism and dualism (Clayton 2004a, 10). He writes that emergence is "that which is produced by a combination of causes, but cannot be regarded as the sum of their individual effects" (Clayton 2004a, 38). He develops the role of emergence in the natural sciences and in evolution, which is his most important contribution to the theology and science dialogue. Particularly, in offering his view regarding emergence theory, Clayton emphasizes the immanence of God (McCall 2010, 152). Within biology, for instance, one can see multiple instances of where that which emerges becomes a causal agent in its own right (Clayton 2004a, 65). He maintains that whereas "biological processes in general are the result of systems that create and maintain order (stasis) through massive energy input from their environment," there comes a point of sufficient complexity after which a phase transition suddenly becomes almost inevitable (Clayton 2004a, 78).

Within *Mind and Emergence*, Clayton promotes eight different characteristics of emergentism (Clayton 2004a, 60–62). First, with respect to the world, he advocates *monism*, which he describes as the contention that there is one "stuff" of which it is made; then, Clayton argues for *hierarchical complexity*, whereby "more complex units are formed out of more simple parts." Third, Clayton contends that *temporal or emergent monism* means that "hierarchical structuring takes place over time"; as a fourth characteristic, Clayton points out that there is no *monolithic law of emergence*, and thus the emergence of higher level properties cannot be accounted for by one single law. Fifth, there are *patterns across levels of emergence*, insomuch as emergent properties share a familial resemblance of ontological dependency, irreducibility, and unpredictability. Additionally, there is *downward causation*, which means that a high-level property can causally affect its physical constituents. Thus, given the first six characteristics, we have a clear case of *emergentist pluralism*, which refers to the idea that there is a plurality of distinct properties and levels within the natural world. Understanding all of the preceding characteristics of emergence, Clayton defends the *emergence of mind* so that human agency becomes a naturalistic, yet nonreductionist, entity. He advocates a "theological dualism" whereby reality is composed of that which is God and that which is not God. Clayton denies that God is an emergent reality (*à la* Samuel Alexander); instead, he views emergence as an analogical approach to understanding divine action.

Amos Yong's Pneumatological Emergence Theory

For full disclosure, both authors of the present essay are former PhD students of Pentecostal theologian Amos Yong, and we have been greatly influenced by him. In fact, we have adopted and appropriated many of his seminal thoughts. In what follows, we shall provide a cursory explication of his views, which will both set up and provide a transition for Leidenhag and Leidenhag's critique of him.

Yong suggests that the philosophical position of emergence may provide an advantageous framework in which to bring theology into dialogue with science. He writes, "does pentecostal theology have anything to *say* in, much less *contribute* to, the ongoing dialogue between theology and science?" (Yong 2011, 2). In response to this question, Yong states that Pentecostalism, given its "embodied epistemology and nonreductionistic worldview," aids in eroding the false dichotomies created by modernism—namely, "materialism versus spiritualism, rationalism versus empiricism, intellectualism versus emotionalism . . . naturalism versus supernaturalism" (Yong 2011, 11). He goes on, noting that the Spirit-nature opposition is, and has always been, a false one. Therefore, any separation of the Pentecostal experience of the Spirit from scientific explorations is, necessarily, to the detriment of both fields of inquiry. The second reason that Pentecostalism can make a unique contribution to the theology and science dialogue is that the category of "spirit," which is a central defining concept in Pentecostal theology, is present in both theological and scientific discourse. In fact, Yong's article "Discerning the Spirit(s) in the Natural World" describes sixteen different uses of the category of "spirit" in the theology and science dialogue. Therein, Yong moves from the cosmological sciences and field theory to the use of "spirit" in the biological sciences and "the emergent complexity of human life in terms of 'spirit'" (Yong 2006a, 321).

Yong sees Clayton's emergence theory as attractive because it provides a framework for nondualistic "interactivity and co-creativity between the divine and the creation" in a manner similar to how it allows Clayton to remove the dichotomy between mind and matter (Yong 2011, 158). This gives him the ability to employ emergence theory as a bridge between a Pentecostal reading of Scripture and the empirical sciences. Importantly, Yong does not adopt Clayton's emergent theory wholesale. He criticizes Clayton for trading in mind-body dualism for "theological dualism." He thinks the latter position is deficient and fails to account for the work of the Spirit within natural and biological processes (Yong 2011, 185–87). Yong proffers that his pneumatological "theology of creation can supplement and in that sense fill out the theological content of Clayton's emergence metaphysics" (Yong 2011, 163).

Leidenhag and Leidenhag's Critique of Yong's Theology

Leidenhag and Leidenhag express two major concerns about Yong's application of emergence: (1) Yong's Pentecostal supernaturalism "renders the concept of emergence obsolete" and (2) his argument for emergent spiritual realities, such as angels and demons, "betrays his commitment to supervenience theory" (Leidenhag and Leidenhag 2015, 428). Leidenhag and Leidenhag write further, "Given [our criticisms] can we still say that the emergence theory is compatible with the Pentecostal worldview? By changing the meaning of emergence so radically, Yong has not yet been able to answer this question positively" (Leidenhag and Leidenhag 2015, 434). In this section, we address each of these concerns in order. We maintain that our reading of Yong, which is a plausible alternative to the one presented by Leidenhag and Leidenhag, challenges their criticisms. Our reading preserves Yong's pneumatological emergentism, by and large, and his Pentecostal worldview that adheres to both nonreductionism and a spirit-filled cosmology, which includes angelic and demonic realities.

The first criticism raised by Leidenhag and Leidenhag against Yong is that his Pentecostal supernaturalism "renders the concept of emergence obsolete." The primary origin of this criticism stems from Yong's interpretation of the creation story, namely the advent of *ha adam*. By employing Genesis 1, Yong argues that human beings emerged from the Spirit of God, who breathed life into the dust of the ground. According to Leidenhag and Leidenhag, Yong's pneumatological reading of this passage creates a "tension" with emergentist monism. They add, "Monism here, one of Clayton's eight theses of emergence theory, means that there is one world made up of one type of 'stuff'. Thus, no extra-natural forces can be causally responsible for the emergence of higher-levels according to the monist thesis. . . . Thus, the tension on Yong's view becomes apparent as enspiritedness of ha'adam is not physically realized but is realized by the Spirit of God, the ruach" (Leidenhag and Leidenhag 2015, 429). They add, "Although Yong employs the biblical notion of 'dust' in an emergent fashion, the sole cause of ha'adam's existence remains divine, thus distinguished from (and outside of) the natural order" (Leidenhag and Leidenhag 2015, 429). On this point, we take issue with their depiction of Yong's theology.

Leidenhag and Leidenhag are correct in asserting that the Spirit of God, according to Yong, is involved in the creation of humankind; however, one does not have to read his proposal through the lens of supernaturalism. Rather, we can understand Yong in such a way that the Spirit works through natural processes. In fact, Yong does not refer to his position as "supernatural,"; this is an assessment imposed by Leidenhag and Leidenhag. Moreover, Yong explicitly resists supernaturalism in other writings (e.g., Yong 2005, 294–96; see also Yong 2013). In our reading of Yong, the advent of the human spirit is not an immediate event, but it is the result of

slow evolutionary processes over the course of billions of years. The human spirit could not emerge until complex biological systems evolved, including the brain; it is not a creation *ex nihilo*, as Leidenhag and Leidenhag claim. Veritably, Yong writes, "A supervenience theory of mind provides an account of consciousness that is emergent from, intimately connected with, and dependent on, but finally irreducible to the material workings of the brain, even while providing a viable model for understanding the phenomenon of mental causation" (Yong 2012, 87). Thus, one is not required to understand the advent of the human spirit as a supernatural occurrence since it comes about through divine action *within* natural processes. In fact, in the article titled "Ruach, the Primordial Chaos, and the Breath of Life," Yong argues that God, at times, allows creation to evolve and organize independently; here, God is passive and creation becomes a co-creator (Yong 2006b, 196–97). Hence, we do not understand Yong's account concerning the emergence of *ha adam* in terms of supernaturalism since emergence recognizes that novel ontological properties emerge through the interaction of systems, including nonphysical realities. We will say more about this below.

Leidenhag and Leidenhag continue their characterization of Yong as a supernaturalist in referring to him as a dualist interactionist. They write,

> Yong's reading of Genesis still sees God creating two types of things, material "dust" which can continue to develop through the emergence of higher levels and increasing complexity, and "breath" which is directly bestowed by God into ha'adam and which does not continue to develop or generate the emergence of new levels. The Spirit of ha'adam does not seem to emerge from matter, but only interact with matter after having been directly created by God. (Leidenhag and Leidenhag 2015, 429)

However, Yong uses a literary-theological reading of Genesis 1 to argue against traditional dualist interpretations of humans as "embodied souls" and to argue for an ontologically holistic view of humans as emergent creatures (Yong 2006b, 200). As we noted above, the emergence of the human spirit is not the result of single act of God and also not the infusion of a different substance; instead, the human spirit arises from within nature and through the work of God. This includes countless series of biological processes that are, in turn, dependent upon various chemical properties. The emergence of the human spirit is the culmination, and perhaps the realization, or instantiation, of God's purposes within the created order. Accordingly, God does not insert new "stuff" into the cosmos but God works, instead, to bring about new levels of realities from primordial matter. Yong insists upon "the dependence and interconnectedness between the human spirit and its material substrate" (Yong 2011, 159).

It appears that Leidenhag and Leidenhag have imposed a more literal understanding of Genesis 1 upon Yong's interpretation of the text.

After all, Yong explicitly resists dualistic renderings of humans. The literary structure of the text allows us to emphasize this culmination from a theological standpoint, but we are not bound by its literal interpretation. Reading Yong through a lens that is sympathetic to evolutionary processes, therefore, challenges Leidenhag and Leidenhag's claims that he is a dualist interactionist. For instance, in writing about the standard evolutionary accounts, Yong notes that he does not "think it plausible for us to enjoy the benefits of contemporary technology, medicine, and other applications of modern science and then summarily dismiss their overarching explanatory framework" (Yong 2011, 137). Thus, Yong appears to invite this type of evolutionary reading (cf. Yong 2011, 135–44).

Furthermore, in their characterization of Yong as a supernaturalist, Leidenhag and Leidenhag argue that Yong is inconsistent in his application of emergence and misappropriates many of its key components. Yet, we contend that Yong's pneumatological account is compatible with emergence. Leidenhag and Leidenhag are correct in asserting the emergentists' commitment to monism, but their charge that "no extra-natural forces can be causally responsible for the emergence of higher levels" mischaracterizes Yong's position as well as Clayton's emergentist principles (Leidenhag and Leidenhag 2015, 429). It is important to point out that emergentists, such as Clayton, are not physicalists. While the world is composed of a single sort of "stuff," this stuff takes on many different forms and structures and can display a multitude of properties (Clayton 2004a, 4). Moreover, Clayton identifies himself as an emergent panentheist and maintains that God is active within the world (Clayton 2004b, 87). Thus Clayton himself argues for the influence of "extra-natural" forces within the cosmos, if what is meant by this is divine action. In fact, Clayton's entire project is an attempt to give an account of divine action that is philosophically and scientifically cogent. Furthermore, he acknowledges that certain explanations do not contradict, and some may align with, emergentist principles. He writes, "There is no obstacle to belief in an initial creative act by God . . . it becomes plausible that God could have initiated this natural process with the intention of bringing about intelligent life" (Clayton 2004a, 200). Additionally, while Clayton does not embrace divine action on the quantum level, he concedes that it is a possible explanation (Clayton 2004a, 187–91, 201). Therefore, the concept of extra-natural is not equivalent to supernatural as long as the former, in this case God, operates within the laws of nature.

Mikael Leidenhag resists Clayton's panentheistic emergentism because it "collapses into dualism" (Leidenhag 2013, 977). He remarks, "But given that there are particular instances of divine influence on the world according to their view, that we seem to have causes that are non-natural, it seems that Clayton's and Peacock's [sic] panentheistic model is not anti-dualistic at all . . . the distinction between panentheism and classical theism

becomes blurred" (Leidenhag 2013, 978). Here Mikael Leidenhag fails to recognize that emergence accepts the existence of heterogeneous properties and realities that may interact and have causative effects upon one another. The problem with classical dualism is its adherence to distinct substances and its inability to account for causation between them, yet we contend below that a relational worldview moves beyond the deficit of substance dualism. As we argue here, though, what is promising about emergence is its ability to overcome this problem of causation for there is a plurality of distinct properties and realities that are not necessarily incompatible in terms of causative effects. Thus, Mikael Leidenhag's concern is questionable.

Given Clayton's understanding of emergence, God can work through both top-down and bottom-up means, and Yong's theological position can be located within such a framework. He accepts that the cosmos operates in accordance with regulatory laws, but Yong also embraces the notion that the universe is somewhat indeterminate and open to chance. Even miracles, according to Yong, can "be seen as basic divine actions that work within a regulatory system established by God rather than as violations of a strictly mechanistic created order" (Yong 2011, 127). Therefore, Yong claims that if we understand pneumatology as working *within* the framework of natural laws, and we believe that this is the case, then his theology appears to be consistent with Clayton's emergentism. Leidenhag and Leidenhag have not demonstrated sufficiently that Yong deviates from emergentism, and this renders their first critique tenuous, if not invalid.

The second criticism brought by Leidenhag and Leidenhag against Yong is that the use of supervenience throughout his arguments—specifically the ones concerning the emergence of human spirit and the emergence of spiritual realities, such as angels and demons—is inconsistent and problematic, and this "betrays his commitment to supervenience theory" (2015, 428). Here we argue that some of their concerns are legitimate, yet others are questionable. Nevertheless, a move toward a less robust form of emergence should leave Yong's pneumatological proposal largely intact.

Leidenhag and Leidenhag note that in *The Cosmic Breath* Yong writes, "a supervenience theory of mind is transformed into a relational and systems theory of minds and bodies in interdependence with each other and with nature's processes" (Yong 2012, 87).[1] They argue that his application of the term *interdependency* "raises serious questions" because within emergence higher ontological levels—in this case human minds—are dependent upon lower level substrates, but these lower levels are not dependent upon the higher ones. For example, human consciousness cannot exist without a body, but bodies, including other animals, can exist without consciousness. Alternatively, Leidenhag and Leidenhag suggest that "cooperation" is a viable term. We agree that the term "interdependence" is not an accurate

depiction of emergence and warrants their criticism; however, in *The Spirit of Creation*, Yong writes that the mind and brain exist in "a relationship of supervenience" (Yong 2011, 61). He never uses the term interdependence and subsequently claims, "Human beings are minimally constituted by their bodies in an existing environmental web. Apart from this embodiment . . . mind is non-existent and incapable of appearing" (Yong 2011, 64). So, in this case, we see either an error in Yong's earlier writing, which seems to be inconsistent with the trajectory of his principal ideas, or we have an instance where his thought develops. Consequently, one would be disingenuous to evaluate the overall value of Yong's proposal on this one (potentially dubious) instance. Removing the idea of interdependency from Yong's theology, or modifying it to an understanding of "cooperation," would do little to disrupt his overarching project—which is what we propose due to our acceptance of supervenience.

Next, Leidenhag and Leidenhag question Yong's use of supervenience concerning the Spirit of God. In *The Spirit of Creation*, Yong claims, "The charismatic activity of the Spirit also proceeds from the 'top down,' and is somehow . . . supervenient upon the activity of free human agents" (Yong 2011, 95). Leidenhag and Leidenhag maintain that this should not be understood as supervenience; rather it is nothing more than "co-operation" between two agents—the human and the Holy Spirit. They add that these are "two ontologically distinct agents, neither of which emerged from the other, whose activity together brings about a common goal" (Leidenhag and Leidenhag 2015, 431). In our opinion, Yong does not claim that the Spirit emerges from human agents. Note that Yong refers to the Spirit's charismatic activity, which may include an act like speaking in tongues or manifestations of divine love. He is not proposing the supervenience of an agent. Furthermore, for Yong, the manifestation of these actions can only occur within and through intelligent, substantial agents. The interaction of the Spirit with humanity generates these charismatic properties, which is consistent with emergence. Emergence, as we explain above, proffers that new properties arise out of the interaction of systems, and Yong expresses an instance of these interactions. So, on one hand, Leidenhag and Leidenhag are correct—Yong understands the charismatic work of the Spirit as a cooperative event—but his pneumatology does not violate supervenience, nor does he collapse the ontological distinction between humans and the Spirit, as they claim.

Leidenhag and Leidenhag also issue concerns over Yong's proposal that ontological realities—such as demonic, angelic, and ancestral entities—may arise, yet exist independently of the lower level substrates from which they emerge. It should be noted, however, that elsewhere Joanna Leidenhag writes, "Although it seems acceptable to claim that created spirits (human souls, angelic, demonic, or ancestral spirits) are emergent phenomena, as Amos Yong suggests, it does not seem acceptable to place the Divine Spirit

as a created result of the emergent process" (Leidenhag 2016, 785). In consideration of this quote, Joanna Leidenhag's position, at least, on emergence and emergent realities is unclear. Nevertheless, their concerns here arise when Yong writes, "Once emergent the powers potentially attain a life of their own, capable of influencing and interacting with concrete historical structures, institutions, organizations, nations, and even persons and church movements" (Yong 2011, 205). Leidenhag and Leidenhag identify this as a case of strong emergence, and this appears to be a fair assessment. We agree with them that such a robust form of strong emergence is problematic, but in two other works Yong seems to reject strong emergence. In *Beyond the Impasse*, he advocates that the demonic must be embodied. He writes, "Real evil ultimately cannot be understood as being ontologically separate from its determinate and particular incarnations" (Yong 2003, 138). He adds, "These concrete actualities should be sufficient to convince us that the demonic does not refer to Casper-like spirits floating about in mid-heaven" (Yong 2003, 155). Elsewhere, Yong makes similar claims, describing the demonic as parasitic: "The demonic has no ontological reality of its own . . . it does not possess its own being" (Yong 2010, 162). So Yong's position is not entirely clear. He considers a radical form of strong emergence in *The Spirit of Creation*, but several of his other works reject such a position.

We contend that Yong's pneumatological assist does not fall apart if one retains a less robust form of emergence, as advocated in his earlier proposals. That is to say, spiritual realities can emerge in connection with material substrates but cannot exist independently of them. The advancement of a scaled-back emergence requires that one discard the existence of ancestral realities, but it does not require us to reject the existence of angelic and demonic realities. One of the authors of this article, David Bradnick, argues for the reality of emergent spiritual entities, namely, angelic and demonic ones, without advocating their independence from their component—or constituent—base, which may include social, political, and economic systems (Bradnick 2017). We recommend that Yong adopt this approach with reference to a weak form of emergence.

Leidenhag and Leidenhag anticipate a possible move by Yong to a "stricter" application of emergence and propose that "his pneumatology would suffer considerably." Leidenhag and Leidenhag further elucidate this claim concerning Yong's pneumatology in stating:

> According to emergence theory, there can be no higher-level or supernatural causation from above without first a corresponding lower-level or natural event. Thus, for the Spirit to be an active part of the emergence theory, the Spirit (and its causal powers) would have to emerge. This would be much like how emergent theories describe the mind, and not like how Pentecostal theology describes the transcendence of God. (Leidenhag and Leidenhag 2015, 432–33)

But, as we argued above and will fill out below, this is a nonissue since God, who includes the Spirit, can act within the world through nonsupernatural means. Thus, by restricting Yong's pneumatology to a less robust view of emergence, his overarching thesis remains cogent and plausible.

A Proposal of Kenotic-Relational Theology

We would now like to return to our earlier concerns, and argue that the Spirit can act within the world through nonsupernatural means. Using an expanded view of kenosis that includes the pouring of the Spirit into creation offers a "pneumatological assist" to Yong's writings. In this view, the Spirit necessarily in-fills all of matter from its very origin, and as such there is no distinction between matter and Spirited-entities. This article affirms the notion that creation was a result of the kenotic act of the Spirit *into* creation. Thus, this article affirms the notion that the creation of matter and world has its ontological origin *in and through* the agency of the Spirit of God.

The Greek verb *kenoó* (κενόω) can mean either "to empty" or "to pour out." In the literal sense, its Hebrew equivalent is used, for example, in Isaiah 32:15: "Until the spirit be *poured upon* us from on high." The verb, which appears fourteen times in biblical Hebrew, refers to a cause of movement leading to a mass being poured out of a container in its original sense (Swanson, 1997). Thus, the word also means "to pour out" in reference to Rebekah's *pouring out* the water from her pitcher *into* the trough (Gen. 24:20, the verb in the LXX is *exekenōsen*). In the original Hebrew of Gen. 24:20, the term employed is a primitive root, meaning to *be* (i.e., causatively to *make*). Hence, it is appropriate to translate the term as either to *empty,* or to *pour out*. Note here that the pitcher was *emptied*, whereas the trough was made *full* (which is *addition*, in a sense) by the emptying of the pitcher (cf. Wood 1996, 643). It is, therefore, concluded that a fruitful approach to understanding this difficult phrase is to realize that the verb *kenoó* means *to pour out* as well as *to pour into*.

Provided this understanding of kenosis, both creation and the incarnation are kenotic acts of *self-offering* since God makes space for creation and pours Himself into it. Consequently, one may accurately posit that creation—in a *qualified* sense—possesses the Spirit of God from the beginning, though one needs to be wary of falling into pantheism. This kenosis of the Spirit into creation eliminates a strict sense of theological dualism between God and nature, which means that nature is indeed enspirited from its very origin. Instead of reducing the created world into a pantheistic entity, God is an "all embracing unity" and the world exists "in" God, meaning that God is the ground of being for the created world (panentheism is here advocated).

We argue, along with Yong and Mikael Stenmark, for a multidimensional model of theology and science whereby these two domains overlap (Stenmark 2004, 261–68). In other words, while these domains retain unique methodological approaches, there is room for mutual interaction. This interaction is possible because, if God is involved in the evolutionary development of the world, and we think God is involved panentheistically, then science models that very world in which God acts. Thus, we deny that theology and science are nonoverlapping magisteria, as advocated by Stephen Jay Gould.

In speaking further of kenosis, it is important to note that many advocates of emergence theory highlight the basis of such a view in the panentheistic relation of God and the world (Inbody 2001, 180–91; Saunders 2002; Clayton and Simpson 2008). Regarding Clayton's usage of it, one could say that emergence and panentheism are two sides of the same proverbial coin regarding his metaphysics and cosmology. Indeed, in an earlier essay, Clayton defines panentheism as the view that the world is within God, though God is at the same time more than the world (Clayton 1999, 289). Panentheism seeks to stress that the infinite God is as ontologically close to finite things as can possibly be thought without dissolving altogether the distinction between Creator and created. Panentheism does not change biblical statements about God; it changes the philosophical framework that has too long dominated Christian attempts to conceive the relationship of God and world. Like many relational theologians today, Clayton breaks fundamentally with the Aristotelian notion of God as unmoved mover, which he finds to be sub-biblical (Clayton 1999, 289). Panentheism attributes all the functional regularity within the natural world to conscious divine intention, providing a thoroughly theological reading of physical regularities, one that is fully consistent with natural law (Clayton 2004b, 84–85).

The appeal of panentheism is that the energies at work at the physical level are already divine energies, and physical regularities are already expressions of the fundamental constancy of the divine character. Thus, panentheism claims that if the world remains within and is permeated by the divine, then it is possible to speak of divine purposes and goals being expressed, even at the stage when there are no conscious agents. The lawful behavior of the natural world is an expression of divine intentionality (Clayton 2000, 17). In the concluding paragraphs of his essay, Clayton turns in a more speculative direction and attempts a constructive theological account of the evolutionary process of emergence. Scientifically, panentheism arises out of emergence theory; theologically, it arises out of the dialectic between the transcendence and immanence of God. A relationship of difference-in-sameness characterizes God's relation to the world, which is neither construed as external to God nor as identical with God (Clayton 2000, 18; Cooper 2006). Jürgen Moltmann makes a rather

compelling case that a loving God could only be related to a free world of enduring significance if God contains that world and its inhabitants are within Godself rather than standing outside of it and them. His central theme, then, is panentheism (Moltmann 2003).

Much recent theology, like that of Moltmann (1981; 1993) and Denis Edwards (1999; 2004), speaks eloquently of God's immanence in nature. Ted Peters and Martinez Hewlett respond directly to the challenge of natural selection, arguing that, although we do not directly see God's overseeing in nature, we can know it by revelation to be there; God is hidden and revealed, present at the heart of nature but always transcendent, working through natural mechanisms (Peters and Hewlett 2003, 167). There is, thus, no point in looking for the interface of the divine and the natural (Creegan 2007, 504). As interrelatedness epitomizes the life of the Godhead, so also does unlimited interrelatedness characterize the relation of God and creation. God can be "Other" and simultaneously participate in the creation in a way analogous to the distinction and coinherence of the persons in the Trinity. Moltmann understands creation as consisting of community and intimacy with the Creator at increasing levels of complexity (Moltmann 1981, 19). In a collection of essays edited by Philip Clayton and Arthur Peacocke titled *In Whom We Live and Move and Have Our Being: Panentheistic Reflections on God's Presence in a Scientific World*, Peacocke argues that the turn to panentheism offers great promise as a doctrinal resource for contemporary theology and its understanding of God's relation to the world (Peacocke 2004, xix).

More pointedly, Peacocke notes that the Spirit makes things able to make themselves, which affirms a panentheistic perspective (Peacocke 2001, 21). The immanent creator Spirit is continuously creating and continuously breathing life into the creation. Interestingly, Terence E. Fretheim writes, "God's creating in Genesis 1 . . . includes ordering that which already exists . . . . God works creatively with already existing reality to bring about newness" (Fretheim 2010, 5). In agreement, Manuel G. Doncel asserts that theologians today are correct to contemplate this long process as God's continued creation, mediated by the interplay of laws and chance (Doncel 2004, 798). The Spirit is present "in, with, and under" the processes of biological evolution within the created world (Peacocke 2001, 32). The notion of emergence, it should be noted, is compatible with the working of the Spirit in empowering creation from within.

Like Clayton, Steven Crain adopts a panentheistic perspective, one in which God is in but not totally constituted by all things natural, but in a way that Crain argues is consistent with classical philosophical theism and Christian discourse about divine transcendence. Crain avers that the standard panentheistic metaphor that the world is the body of God should be complemented by the metaphor that God is the body of the world. This panentheistic grammar implies that God is radically immanent within the

world in virtue of continuously giving it the gift of being. Crain contends that "both the divine presence in the world and divine action in the world are nonintrusive, noninvasive, and noninterventive" (Crain 2006, 670). Contemporary theology should strive to understand how "God empowers the world from within, especially in bringing human free agents among God's creations" and how God is "continuously sustaining and energizing [the world's] story . . . from within" (Crain 2006, 672; Clayton 2006a, 685).

In consistently arguing for a panentheistic relationship of God and the world, Hans Küng forms the basis of his conclusions regarding evolutionary progress. According to such a view, God works in and through the regular structures of the world, being present to the world dialectically in that he is transcendent in his immanence, all the while immanent in his transcendence. Accordingly, God makes possible, permeates, and perfects creation, as he is in, with, and among its causal operations (being the origin, center, and goal of the process). Concerning the personhood of God, Küng asserts that God is personal, but more than a person, affirming the Augustinian conception of God as being more inward than the innermost part of our body, yet also affirming simultaneously Bultmann's conception of God as "wholly other" (Küng 2008, 109).

At the close of the ninth chapter in *Breath of Life: A Theology of the Creator Spirit,* Edwards avers that a proper view of panentheism is fully Trinitarian: it does not place all of the creating activity on one member of the Godhead, nor does it contend that the creation is currently related to the Godhead by only one member of it. Further, a proper view of panentheism understands God as "wholly other" than creation, but also radically interior to everything therein due to the interpenetrating Spirit that permeates it. This view understands the universe as evolving within the life of God, with the creating Spirit enabling evolving entities to have their own autonomy and integrity. As a result, creation is a two-way relationship between God and created things; both can affect and be affected by the other (Edwards 2004, 136).

Whereas instances of emergence are well attested in the literature, and theories of emergence also abound, the uniting principle among these concepts is lacking. In all these cases, what is lacking appears to be the metaphysical basis of emergence theory, which is a lacuna that a kenosis-based perspective could perhaps adequately fill. Indeed, perhaps the development of a kenotically relational metaphysical basis for emergence in the natural world will succeed in linking panentheism, emergent possibilities, and God. Here, we are building on Clayton, who notes that "emergence propels one to metaphysics, and metaphysical reflection in turn suggests a theological postulate above and beyond the logic of emergence" (Clayton 2004b, 91). James W. Haag, for example, notes that many scholars use the term emergence to explain *what* it is and *why* the term is employed,

but too few scholars note *how* it works (2007, 37). We suggest that one such avenue that could be further fleshed out is the notion of *kenosis* being depicted as a "pouring into" versus merely a "self-emptying," both of which have biblical foundation. In this projection, creation would be seen as the result of the kenotic "pouring" of the Spirit *into* the primal, chaotic matter that was present in the beginning (Genesis 1:2) (McCall 2008). By being poured into the primal creation, God the Spirit would be present to it in its evolutionary path toward increasing complexity, relationally guiding, luring, and wooing it to his goal of communion with an "other."

So what does all of this mean? We contend that a picture of the world as being contained within God, construed as such by modern theology and philosophy, offers a pneumatological model by which God can interact with the world through noninterventive ways. While we applaud Yong's overarching theological project, we think it could be enhanced by moving in a kenotic-panentheistic direction. Particularly, because a kenotic approach avoids supernaturalism, a primary critique made by Leidenhag and Leidenhag of Yong, it clarifies the modality of the Spirit's operation within the physical world. Moreover, many of those who dialogue with theology and science understand the perfecting of God's creation in relational and processive terms insomuch as the Spirit lures created things through a myriad of possibilities open to them. Seen in this light, God presents a vast array of possibilities to created things, which offers a multitude of different ways by which their complexity may be increased (McCall 2009, 204). This view enhances Yong's pneumatological proposal and is consistent with a viable form of weak emergence.

Note

1. Leidenhag and Leidenhag (2015) attribute this quote to James Smith and Yong's edited volume *Science and the Spirit* (2010), but in actuality it comes from *The Cosmic Breath* (2012), which we have correctly noted here.

References

Bedau, Mark. 1997. "Weak Emergence." In *Philosophical Perspectives: Mind, Causation, and World*, vol. 11, edited by James E. Tomberlin, 375–99. Malden, MA: Blackwell.

Bradnick, David. 2017. *Evil, Spirits, and Possession: An Emergentist Theology of the Demonic*. Leiden, The Netherlands: Brill.

Clayton, Philip. 1999. "The Panentheistic Turn in Theology." *Dialog: A Journal of Theology* 38:289–93.

———. 2000. "Emergence of Spirit and Four Responses." *CTNS Bulletin* 20(4):3–20.

———. 2004a. *Mind and Emergence: From Quantum to Consciousness*. Oxford, UK: Oxford University Press.

———. 2004b. "Panentheism in Metaphysical and Scientific Perspective." In *In Whom We Live and Move and Have Our Being: Panentheistic Reflections on God's Presence in a Scientific World*, edited by Philip Clayton and Arthur Peacocke, 73–94. Grand Rapids, MI: William B. Eerdmans.

———. 2006a. "Emergence from Physics to Theology: Toward a Panoramic View." *Zygon: Journal of Religion and Science* 41:675–87.

———. 2006b "Emergence of Spirit: From Complexity to Anthropology to Theology." *Theology and Science* 4:291–307.
Clayton, Philip, and Zachary Simpson, eds. 2008. *Adventures in the Spirit: God, World, Divine Action*. Minneapolis, MN: Fortress.
Cooper, John W. 2006. *Panentheism: The Other God of the Philosophers*. Grand Rapids, MI: Baker Academic.
Crain, Steven. 2006. "God Embodied In, Bodying Forth the World: Emergence and Christian Theology." *Zygon: Journal of Religion and Science* 41:665–74.
Creegan, Nicola H. 2007. "A Christian Theology of Evolution and Participation." *Zygon: Journal of Religion and Science* 42:499–518.
Doncel, Manuel G. 2004. "The Kenosis of the Creator and of the Created Co-Creator." *Zygon: Journal of Religion and Science* 39:791–800.
Edwards, Denis. 1999. *The God of Evolution: A Trinitarian Theology*. New York, NY: Paulist Press.
———. 2004. *Breath of Life: A Theology of the Creator Spirit*. Maryknoll, NY: Orbis Books.
el-Hani, Charbel Nino, and Antonio Marcos Pereira. 2000. "Higher-Level Descriptions: Why Should We Preserve Them?" In *Downward Causation: Minds, Bodies and Matter*, edited by Peter Bøgh Anderson, Claus Emmeche, Niels Ole Finnemann, and Peder Voetmann Christiansen, 118–42. Aarhus, Denmark: Aarhus University Press.
Fretheim, Terence E. 2010. *God and World in the Old Testament: A Relational Theology of Creation*. Nashville, TN: Abingdon.
Goodenough, Ursula, and Terrence W. Deacon. 2003. "From Biology to Consciousness to Morality." *Zygon: Journal of Religion and Science* 38:801–19.
Haag, James W. 2007. *Emergent Freedom: Process Dynamics in Theological, Philosophical, and Scientific Perspective*. Ph.D. diss., Berkeley, CA: Graduate Theological Union.
Inbody, Tyron L. 2001. "Reconceptions of Divine Power in John Wesley, Panentheism, and Trinitarian Theology." In *The Nature and Thy Name Is Love*, edited by Bryan P. Stone and Thomas Jay Oord, 180–91. Nashville, TN: Kingswood.
Küng, Hans. 2008. *The Beginning of All Things: Science and Religion*, translated by John Bowden. Grand Rapids, MI: William B. Eerdmans.
Leidenhag, Joanna. 2016. "A Critique of Emergent Theologies." *Zygon: Journal of Religion and Science* 51:867–82.
Leidenhag, Mikael. 2013. "The Relevance of Emergence Theory in the Science–Religion Dialogue." *Zygon: Journal of Religion and Science* 48:966–83.
Leidenhag, Mikael, and Joanna Leidenhag. 2015. "Science and Spirit: A Critical Examination of Amos Yong's Pneumatological Theology of Emergence." *Open Theology* 1: 425–35.
McCall, Bradford. 2008. "The Kenosis of the Spirit into Creation." *Crucible* 1(1). Available at http://www.crucibleonline.net/wpcontent/uploads/2016/09/McCall-Kenosis-of-the-Spirit-into-Creation-Crucible-1-1-May-2008.pdf
———. 2009. "Emergence Theory and Theology: A Wesleyan-Relational Perspective." *Wesleyan Theological Journal* 44(2):189–207.
———. 2010. "Emergence and Kenosis: A Theological Synthesis." *Zygon: Journal of Religion and Science* 45:149–64.
Moltmann, Jürgen. 1981. *The Trinity and the Kingdom of God*, translated by Margaret Kohl. London, UK: SCM Press.
———. 1993. *God in Creation: A New Theology of Creation and the Spirit of God*. Minneapolis, MN: Augsburg Fortress.
———. 2003. *Science and Wisdom*, translated by Margaret Kohl. Minneapolis, MN: Fortress.
Peacocke, Arthur. 2001. "The Cost of New Life." In *The Work of Love: Creation as Kenosis*, edited by John Polkinghorne, 21–42. Grand Rapids, MI: William B. Eerdmans.
———. 2004. "Introduction: In Whom We Live and Move and Have Our Being?" In *In Whom We Live and Move and Have Our Being: Panentheistic Reflections on God's Presence in a Scientific World*, edited by Philip Clayton and Arthur Peacocke, xviii-xxii. Grand Rapids, MI: William B. Eerdmans
Peters, Ted, and Martinez Hewlett. 2003. *Evolution from Creation to New Creation: Conflict, Conversation, and Convergence*. Nashville, TN: Abingdon.

Saunders, Nicholas. 2002. *Divine Action and Modern Science*. Cambridge, UK: Cambridge University Press.
Smith, James K. A., and Amos Yong, eds. 2010. *Science and the Spirit: A Pentecostal Engagement with the Sciences*. Bloomington: Indiana University Press.
Stenmark, Mikael. 2004. *How to Relate Science and Religions: A Multidimensional Model*. Grand Rapids, MI: William B. Eerdmans.
Swanson, James. 1997. *Dictionary of Biblical Languages with Semantic Domains: Hebrew (Old Testament)*, electronic edition. Oak Harbor, WA: Logos Research Systems, Inc.
Wood, D. R. W. 1996. *New Bible Dictionary*. Downers Grove, IL: InterVarsity.
Yong, Amos. 2003. *Beyond the Impasse: Toward a Pneumatological Theology of Religions*. Grand Rapids, MI: Baker Academic.
———. 2005. *The Spirit Poured Out on All Flesh: Pentecostalism and the Possibility of Global Theology*. Grand Rapids, MI: Baker Academic.
———. 2006a. "Discerning the Spirit(s) in the Natural World: Toward a Typology of 'Spirit' in the Theology and Science Dialogue." *Theology and Science* 3(3):315–29.
———. 2006b. "Ruach, the Primordial Chaos, and the Breath of Life: Emergence Theory and the Creation Narratives in Pneumatological Perspective." In *The Work of the Spirit: Pneumatology and Pentecostalism*, edited by Michael Welker, 183–204. Grand Rapids, MI: William B. Eerdmans.
———. 2010. *In the Days of Caesar: Pentecostalism and Political Theology*. Grand Rapids, MI: William B. Eerdmans.
———. 2011. *The Spirit of Creation: Modern Science and Divine Action in the Pentecostal–Charismatic Imagination*. Grand Rapids, MI: William B. Eerdmans.
———. 2012. *The Cosmic Breath: Spirit and Nature in the Christianity-Buddhism-Science Trialogue*. Leiden, The Netherlands: Brill.
———. 2013. "A Review Symposium on Amos Yong *The Spirit of Creation: Modern Science and Divine Action in the Pentecostal–Charismatic Imagination*." *Australian Pentecostal Studies* 15(1). Available at http://aps-journal.Articlecom/aps/index.php/APS/article/view/122/119