Based on the assumption that “panpsychism is a family of theories within philosophy of mind, which seek to explain the existence of consciousness in the human person by positing mentality (‘psyche’) as fundamental throughout the natural world (‘pan’)” (1), Joanna Leidenhag’s *Minding Creation: Theological Panpsychism and the Doctrine of Creation* “investigates how the philosophy of panpsychism might benefit the doctrine of creation” (1) in order to argue for the plausibility of a position which Leidenhag refers to as “theological panpsychism” (171). Theological panpsychism, according to Leidenhag, entails that the world is created ex nihilo, that this world created ex nihilo is a panpsychistic world, and that one important dimension of divine action is the indwelling of the Holy Spirit in each and every entity to be found in the created order. According to Leidenhag, theological panpsychism is not only consistent with recent scientific developments, argumentatively and exegetically well supported, but also able to counteract theological and philosophical motifs which by singling out the apparent special ontological status of human beings in the created order run the risk of devaluing humanity’s ecological environment and thus contribute to the ecological crisis of our times: “The benefit of a panpsychist ontology for ecology is not as an alternative to Christian theology, but as a way to recover the richness within the Christian tradition for articulating humanity’s shared creaturehood with the non-human world” (168).

To argue for the plausibility of theological panpsychism, Leidenhag first argues against two theologically prominent alternatives: process theology and emergent theism. Both process theology and emergent theism, according to Leidenhag, ultimately fail because they cannot account for the strict ontological distinction between God and the world that is entailed by the classical doctrine of creatio ex nihilo.

On the one hand, regarding process theology, Leidenhag argues that although panpsychism is often associated with, and endorsed by process theology, it would be a mistake to assume that panpsychism in turn leads to the endorsement of process theology: One can consistently affirm panpsychism while rejecting process theology. In fact, one should keep panpsychism and process theology strictly apart from one another because, according to Leidenhag, process theology is a theological failure: It fails because it naturalizes God, divinizes the world, and therefore fails to account for the doctrine of creatio ex nihilo: “[I]t is clear that any notion of creatio ex nihilo or claims to radical discontinuity between God and creation are ruled out [in process theology]” (8-9). Therefore, according to process theology, “any dissimilarity between God and the natural world is already conditioned and relativized by a more fundamental similarity […] which leads to an] equivocation of Divine and created categories” (10-11).

On the other hand, emergent theism does not fair better. To show this, Leidenhag argues that emergence theory “is a way of viewing the whole of reality” (17) that is based on the following assumptions:
“1. All reality is composed of a hierarchy of levels within a physicalist or monist framework.

2. The existence of some form of novelty so that each level is marked by something new […] emerging out of organizational complexity.

3. As one moves up the levels either epistemological unpredictability (weak emergence) or ontological irreducibility through downward causation (strong emergence) can be discerned” (17).

Once this is shown, Leidenhag argues that if theologians consistently deploy the theory of emergence, they are confronted with the conclusion that “God is a product of the emergent process” (35). However, if the existence of God is the emergent product of processes in the natural world, then God cannot be the creator of the world ex nihilo: “Theologians who do accept the logic of emergence in toto accept a significant tension in their work: On the one hand, as emergentists they are committed to the idea that the material precedes (both temporally and logically) the immaterial. On the other hand, as theists they are committed to the idea that an immaterial (or other than material) Creator pre-exists the universe (either temporally or logically)” (46).

Because both process theology and emergent theism, according to Leidenhag, contradict the doctrine of creatio ex nihilo, “Christian theologians searching for a metaphysical theory to employ within the doctrine of creation (and theological anthropology) need to look elsewhere for a less expansive or inherently naturalistic ontology” (47). The metaphysical theory investigated throughout the rest of the book is panpsychism.

Leidenhag first sketches the development of modern panpsychism with its main contributors (viz., Thomas Nagel, David Chalmers, and Galen Strawson), and along the way defends the three most prominent arguments for panpsychism: the argument from evolution, the argument from intrinsic natures, and the genetic argument. The genetic argument states that “if mental properties are a real property of material entities, which cannot be reduced to or emerge from the organizational complexity of material parts, then the only remaining option (aside from employing divine action to inject souls into human subjects) is to posit consciousness as fundamental” (51). The argument from intrinsic natures states that because the physical realm is constituted by extrinsic relations of things, it is plausible to assume that the intrinsic natures of things grounding the extrinsic relations they stand in are like the only intrinsic natures accessible to ourselves, “namely the quality of experience” (58). Finally, the argument from evolution states that there is an “ontological continuity within the universe” (58) which is best understood as entailing that mentality from the very beginning of the evolution of the universe has been a ubiquitous feature of reality.

Once these arguments are clarified and set into context, Leidenhag turns to a variety of arguments against the plausibility of panpsychism and argues that the so-called combination problem is the most challenging one for a panpsychist theory of nature:

By far the most serious challenge facing contemporary panpsychism is The Combination Problem: How do the experiences at the fundamental physical level combine to yield the experiences humans typically enjoy? […] The combination problem is so-called because it was originally presented as the problem of articulating how minds at the fundamental level combine, rather than merely aggregate, to bring about the experience of a complex human mind with a unified first-person perspective (71).
Leidenhag critically analyzes several panpsychist solutions to the combination problem – for instance, cosmopsychism, panprotopsychism, and constitutive panpsychism – before she argues that a non-constitutive emergent panpsychism is the most promising account to solve the combination problem. According to Leidenhag, emergent panpsychism posits contingent laws of nature, which allow (but do not necessitate in a strong sense) macro-experience to emerge from micro-experience and then downwardly act upon the micro-experiences from which it emerged. [...] Emergent panpsychism [...] maintains the intuition that human subjects are irreducible, non-combining and non-divisible [...] and, like all other panpsychists, rejects inter-attribute emergence from one category to another, but reintroduces intra-attribute emergence within categories – that is, from mental parts to mental wholes (or from physical parts to physical wholes) (79).

Once the thesis of emergent panpsychism is stated and justified, Leidenhag turns to the relation between panpsychism and theism and argues that “although panpsychism does not entail belief in God, panpsychism is more logically consistent with theism than with atheistic naturalism” (81). The core of Leidenhag’s argument is as simple as it is intellectually pleasing: Leidenhag argues that the same philosophical principles that support panpsychism support the existence of God if they are applied to the universe as a whole:

It is the commitment to the causal principle *ex nihilo nihil fit* and the Principle of Sufficient Reason that has motivated the recent revival of panpsychism within analytic philosophy of mind. These two core principles [...] are similarly employed within various cosmological arguments for the existence of God. [...] If consciousness needs an explanation so presumably does existence” (82-83).

Therefore, according to Leidenhag, “although theism is not a strict entailment of panpsychism, if the central arguments for panpsychism were extended towards the universe as a whole then this would result in theism; one might say that panpsychism implies theism” (83).

However, because theism does not imply panpsychism, Leidenhag turns to genuine theological reasons that speak in favor of embedding panpsychism into a theological metaphysics which are firmly based on the doctrine of *creatio ex nihilo*. To this end, based on considerations from Gottfried Wilhelm Leibniz, Leidenhag first argues that “when panpsychism is moulded to serve the theology of a single comprehensive creation, made from nothing but the free and transcendent will of God, the resulting ontology is thoroughly sacramental. That is, all finite substances symbolize, or point beyond themselves, to their transcendent, supernatural source” (100). Based on this sacramental panpsychistic ontology, Leidenhag pursues two further lines of inquiry: She argues that panpsychism helps to understand an important aspect of divine action in the world by illuminating the omnipresent indwelling of the Holy Spirit and that a panpsychistic theology of nature is a good theological response to the ecological crisis of our times.

Concerning divine action, Leidenhag clarifies that a panpsychistic understanding of creation entails that creation is permeated by subjectivity that comes in different degrees: “Recent proposals include the capacity of having interests, being a teleological centre of life or having a good of one’s own, the capacity for intentionality, being a systematic whole with a telos or object-with-will, ‘conavity’ in the Spinozian sense of an endeavor to persist in its own being or the capacity for feeling or ‘prehension’” (144). She then argues that although traditionally one important aspect of divine action was understood to be the
indwelling of the Holy Spirit within human beings only, it is systematically and exegetically more plausible to extend the presence of the Holy Spirit to all of the created order – which is precisely what panpsychism enables one to do: “[P]anpsychism’s main benefit is that it enables theologians to extend discussions of the indwelling of the Holy Spirit, as God’s active and transformative presence within Christian believers, to speak of a comparable inner presence of the Spirit throughout creation” (130). According to Leidenhag, theological panpsychism is a good model that fosters our understanding of the potentially transforming omnipresence of the Holy Spirit within each and every creature spoken into being by God. Theological panpsychism, in other words, entails “that all things are indwelt by God” (138).

Concerning the ecological crisis, Leidenhag argues that panpsychism – this “leading lady of ecological philosophy” (140) – is attractive as a theology of nature as well. First Leidenhag argues that only subjective minds have intrinsic value par excellence. Based on this premise, Leidenhag argues that if only human subjects existed, “[t]he implication would be that humans alone carry intrinsic value, and all else can be used as instruments for human benefit” (142). However, because according to panpsychism, each and every entity in the universe is itself a subject exemplifying some form of mentality that is indwelled by the Holy Spirit, it follows that “panpsychism allows intrinsic values to be a ubiquitous, objective feature of reality” (144). This, though, from a theological point of view, allows one “to recover the richness within the Christian tradition for articulating humanity’s shared creaturehood with the non-human world” (168) and thus helps to construct a promising Christian response to the ecological crisis. Drawing together the different lines of argumentation of her justification of theological panpsychism, Leidenhag concludes: “A world in which mind is a fundamental property found throughout creation is a cosmos full of experience, open to God’s presence, and responsive in giving God glory. A more enchanted and theologically rich ontology would be hard to come by” (174).

Leidenhag’s *Minding Creation* is a most excellent book highly recommended to anyone interested in recent developments in analytic philosophy of mind in general and analytic theology in particular. It is well-informed, well-argued and a milestone for theological debates that seek to combine panpsychistic thinking with traditional theologoumena. Just two remarks for further discussion: Since Leidenhag builds her argumentation on the classical doctrine of creatio ex nihilo, which has its proper home in Thomistic metaphysics, since furthermore Leidenhag herself “suspect[s] that, in truth, the majority of variants of hylomorphism and panpsychism cannot be meaningfully distinguished” (2, Fn 3), and since finally Leidenhag seems to support the classical cosmological argument for the existence of God as it is found, for instance, in Thomas’s *De Ente et Essentia*, the reader, in future publications of hers, would like to hear more on the question of whether theological panpsychism with its emphasis on the doctrine of creatio ex nihilo itself is scholastic metaphysics in disguise and therefore belongs to the tradition of *philosophia perennis* in its modern analytic expression. Apart from this question, and the question whether hylomorphism is really almost indistinguishable from panpsychism, I also was left wondering whether theological panpsychism is confronted with a problem of ubiquitous suffering: Arguably, the ability to suffer (and to suffer from evil) is ontologically tied to the existence of subjects of experience. The more subjects there are, the more subjects potentially suffer, even if their suffering – like their mental states in general – may be different from human kinds of suffering. However, because theological panpsychism entails that each and every entity is in some sense a subject of experience it seems to entail that God created a world in which each and every entity potentially suffers. Now, because biological life entails that some subjective organic wholes of necessity need to be destroyed for other subjects to live – as in nutrition – and because this seems to be a kind of suffering for the entity destroyed, theological panpsychism seems to entail that God created a world
in which suffering in principle is unavoidable. Maybe this is not a systematic problem, but theological panpsychism at least entails that if the whole cosmos is responsive in giving God glory, then the whole cosmos is also able to lament its suffering.