

The Entangled Trinity: Quantum Physics and Theology. By Ernest L. Simmons. Minneapolis: Fortress, 2014. Pp. ix + 205. \$39.

The notion of panentheism has become quite popular among Christian systematic theologians in recent years. It represents a middle-ground position between pantheism and classical theism. Yet how the material world can exist “in” God and yet retain its own finite identity and specific mode of operation remains a matter of debate. Simmons proposes in this book that two major concepts out of contemporary quantum physics, namely, entanglement or relational holism and superposition or complementarity, could well serve as guiding metaphors for understanding a “perichoretic” relation between God and the world. He divides up his book into three parts. First, he discusses how systematic theology is based on both faith and reason. Second, he reviews the history of trinitarian theology first from its biblical starting point to the decree of the Council of Nicaea in 325CE, then from Constantinople I to the Reformation, and third in the work of Karl Barth, Karl Rahner, Jürgen Moltmann, and Wolfhart Pannenberg within the 20th century. Given this background information, he then takes up the challenge of explaining in common-sense terms (with multiple concrete illustrations drawn from ordinary human experience) the complicated notions of entanglement and superposition, first as they are understood in quantum physics, and then as they can be applied to the notion of trinitarian panentheism.

Entanglement, for example, can be linked to the notion of *perichoresis* in the teachings of the Greek Fathers of the Church. The divine persons are entangled with one another in that they “flow in and out of one another in a continuous way; no separation is possible, though distinction is” (151). S., however, does not further explain how they remain distinct from one another. For he seems to avoid commitment to any consistent metaphysical scheme beyond a generalized endorsement of process-oriented approaches to reality. In this way he can appeal to philosophers and theologians with different philosophical backgrounds (e.g., Philip Clayton writing from a process-oriented background and Denis Edwards from the perspective of Transcendental Thomism [155–59]). The notion of superposition is used in quantum theory to indicate how two states of a quantum entity are simultaneously possible but only one is actual at any given moment (e.g., light as potentially both wave and particle but never both at the same time and in the same location). As S. sees it, superposition also nicely describes the relation between the immanent and the economic Trinity: “the economic Trinity is superimposed on the eternal potentiality of the immanent Trinity and emerges in particularity in relationship to the creation” (153). But is the immanent Trinity in itself an actuality quite apart from its self-manifestation as the economic Trinity within salvation history? Admittedly, S. also claims that “God is in the world but is more than the world. The world is not divine but is totally related to the divine” (153). But how these two seemingly different understandings of the God–world relationship are compatible with one another is not altogether clear.

By way of critique, I believe that S. deserves great credit for his hard work in attempting to explain in relatively simple language the concepts of entanglement and superposition first within theoretical physics and then analogously in a panentheistic

understanding of the God–world relationship. But I am uneasy with his recourse to two metaphors whose systematic relationship to one another remains a matter of debate even among quantum physicists. In my view, what is further needed in this intriguing comparison of concepts from quantum theology and trinitarian theology is a master metaphor (akin to the Aristotelian understanding of substance) that would explain the dynamic relationship between relational holism and superposition in a more readily intelligible manner. Such a master metaphor might be the notion of system. Systems, after all, are composed of entangled or dynamically interrelated parts or members. Likewise, systems are normally ordered to one another hierarchically with the higher-order system superimposing its own mode of operation on lower-order systems while safeguarding the ontological integrity and intrinsic mode of operation of those lower-order systems as its constituent parts (for example, the reciprocal relation between individual molecules and the cells of which they are constituent parts). A possible objection to this proposal from proponents of Thomistic metaphysics might well be that the internal unity of the triune God is then not the unity of a transcendent individual entity or substance but the unity of a transcendent life system co-constituted by the three divine persons in and through their dynamic interrelationship. But, given the increased prominence of the category of relationship (as opposed to that of substance) within contemporary trinitarian theology, an imaginative leap to the new concept of system as master metaphor for understanding reality should not be insurmountable.

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The World in the Trinity: Open-Ended Systems in Science and Religion. By Joseph A. Bracken, S.J. Minneapolis: Fortress, 2014. Pp. ix + 274. \$30.

Science and religion are the two pillars of cosmic life that move the currents of life forward and upward; however, we have yet to find an adequate intellectual link between them. Tensions, if not outright conflicts at times exist between science and religion which, according to Bracken, are due to a difference in understanding reality itself. In this book B., a longtime student of Whitehead and an original thinker in his own right, seeks to establish a new conceptual relationship between science and religion by approaching reality as ontologically relational. He writes that we “need a new socially oriented worldview that emphasizes the ontological priority of relationships to entities, both individual and corporate, that are thus dynamically interrelated” (2).

Clearly we need a contemporary philosophy of nature, and B. argues that process theology is the best candidate for a systematic synthesis of science and religion, one that can transcend rival truth claims. B. undertakes a tour de force by using a systems approach to explain metaphysics, theology, the Church, miracles, and resurrection. As a philosopher, B. is keenly aware that without a new understanding of metaphysics, theology remains stifled; his metaphysics is deeply impacted by the new science, especially the areas of quantum physics and complex dynamical systems. Although there