

Book Reviews

Finally, the author is trying hard to make this ethics book interesting, far from one of those stodgy, dry ethics theory books “that alienate the general reader” (his words). He accomplishes that, but some help from ethicists could be very beneficial. Very early in the book Enríquez states, “Because we never thought we could come close to doing what we take for granted today, we have no framework to deal with changing ethical norms.” The truth is, ethicists have several frameworks available, and Enríquez even uses or suggests a couple of them—perhaps without knowing it.

Near the end of the book, he admonishes the reader to “bring front and center several core principles: modesty, generosity, empathy, civility, humility, compassion, decency, truthfulness ... That is what underlies what we eventually discover to be ethical” (p. 221). This essentially describes what is known as a virtue-ethics framework. Those “core principles” he mentioned are virtues. The virtue-ethics framework simply asks: what would a virtuous person (someone who is compassionate, generous ...) do in this new situation? The second framework is utilitarianism, which asks the question: What would produce the best outcome for the most people? He applies this approach to the authorization of autonomous vehicles and to the discussion of which types of healthcare developments should be prioritized. Both frameworks can be helpful tools for informing tough ethical decisions.

Enríquez brings a wealth of interesting scenarios to this discussion of the future of ethics because of his life experience and work in cutting-edge science. I truly appreciate his desire to write a book that will hold our attention and that is far from a dry textbook on ethics. But the work of those who think about these ideas every day ought to inform the discussion. In glancing through the references, I found only two of hundreds of references that looked to me to be directly related to ethics research. In writing about computer ethics as someone trained in computer science, I have certainly found the literature from those trained in ethics to be enlightening.

This book is an interesting read for those thinking about right and wrong, and this includes people who might not normally be inclined to do so. It can help us realize that we need to re-evaluate frequently and be willing to listen to other points of view with humility. But there is very little information on how to make those tough ethical decisions that we will be continually asked to make. For that, the reader will need to look to other resources.

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THEOLOGY

DIVINE ACTION, DETERMINISM, AND THE LAWS OF NATURE by Jeffrey Koperski. New York: Routledge, 2020. 168 pages. Hardcover; \$160.00. ISBN: 9780367139001. Ebook; open access.

When it comes to talking about God’s action in the world and laws of nature in the science classes I teach, my students sometimes wonder if God, violating the very laws he created, is a problem. Jeffrey Koperski has written a book for those students and for you, too! You can see that Koperski is a teacher well experienced with explaining philosophical ideas to students majoring in anything but philosophy (who form the bulk of our philosophy teaching). This makes his new book a very accessible and enjoyable read. Moreover, no matter your background, you are likely to learn something new reading this book, perhaps even about your favored approach to divine action in the world.

Koperski is right to point out that philosophy of science—particularly philosophy of physics—is missing from most divine action discussions. If it enters at all, philosophy of science makes only cursory contributions. He is also right to observe that the causal closure of the physical, or of nature as a whole, gets too little attention in the divine action literature despite the outsized role it plays. Koperski ably shows why neither causal closure nor determinism are genuine obstacles to divine action in the world. Philosophy of science allows Koperski to clear a lot of this dead brush from the ground of divine action literature. This is an important contribution to the discussions.

Koperski helps us think more accurately about laws of nature (full disclosure: he and I have talked about these issues and tread a lot of the same ground). The assumption or metaphor of laws as “governing” events in nature has been accepted as largely unanalyzed in the divine action literature. Though he rarely uses this language, Koperski shows why the metaphor of laws “governing” things does not stand up to close analysis. He endorses a view of laws functioning as constraints that enables us to think more clearly about how God can act in the world without violating laws.

Koperski describes his model for divine action as decretalist and nonviolationist. The laws that scientists deal with represent divine decrees—gifts of order and constraint to creation. The regularities of creation genuinely exist and genuinely act. Koperski captures a biblical view of God’s relationship to creation; he also considers natural philosophers’ critical thinking about laws in the seventeenth century.

As for nonviolationism, Koperski points out that laws—the nomic conditions or features of the world—do not make things go (no “governing” metaphor). Rather, as physicists have recognized, it is forces that make things move. What laws do is provide nomic constraints on the behavior of forces (p. 134). His model is nonviolationist in that these laws are not violated when God acts in nature; rather, when there are nonnomic changes, “the laws adapt to change. This was true when we thought that nature was Newtonian, and it remains true in the age of quantum mechanics and relativity” (p. 135). Koperski’s account is consistent with what I think physics reveals to us about the laws of nature—they function as typicality conditions: A law tells us what to expect for the behavior of forces on a system typical for the constraints represented by the law. But when new factors or conditions are introduced, the law does not tell us what to expect. The typicality is shattered, but not the law. Yet, this does not distress physicists; we know how to model and calculate what happens with these additional factors that the original law did not cover.

Consider a simple example: A grandfather clock keeps time well because of the lawlike regularities involved in its functioning. Yet, if I use my finger to keep the minute hand from moving forward, the clock will cease keeping time accurately. No laws have been violated; however, a genuine physical change has taken place regarding the clock’s functioning. The regularities are still there—the laws are still operative—but they adapt to the presence of a new effect or force introduced into the clock system. What this means is that “once the laws of nature are distinguished from the behavior that is the *result* of those laws and nonnomic conditions, we find a vast space of contingency in which God can act” (p. 135). Koperski calls this a “neoclassical model of special divine action” (p. 135) because God is not manipulating laws to act in the world. If humans can make genuine nonnomic changes to nature without violating laws (e.g., rockets that overcome gravity’s pull), clearly God is able to. The question then becomes one of God’s relationship to the contingent order he has given creation.

You may be thinking of possible objections to this account of divine action. Koperski discusses several and I recommend you read what he has to say about them. I will briefly discuss what seem to be the most serious—that is, possible violations of energy conservation. There are many reasons to think that conservation laws function as constraints on systems when particular conditions hold. For instance, as Koperski points out, according to general relativity, energy conservation does not apply to an expanding universe. In a dynamic spacetime, the motion of objects does not conserve energy. More generally, any system whose dynamics depend on time will fail to conserve energy, and there

are lots of such systems in the actual world. Physicists have precise ways of quantifying how much a system violates energy conservation and describing the resulting order of the system in question. The idea that any system violating energy conservation can always be embedded into a larger system restoring conservation is just that—an idea and nothing more. Physicists do not have any good reasons supporting this idea (though some defend it to maintain their reductionist intuitions). There is plenty of opportunity for divine action in the world and energy conservation is never an issue.

One could sweat some details. For example, Koperski rehearses arguments to the effect that quantum processes suppress chaos, thus undercutting the amplification of small quantum changes to macro-world effects (pp. 52–53). While it is true that quantum mechanics is no friend of chaos, the amplification argument is more along the lines of a chaotic macroscopic system being sensitive to quantum fluctuations; this doesn’t depend on the existence of so-called quantum chaos. There always are stringent constraints on such amplification, however; so, Koperski is correct that banking on this as a route for divine action is still a hopeless cause. And I am not convinced that physics and philosophy of science are pointing toward an eventual rejection of ontological randomness in quantum mechanics (pp. 60–63). Irreducible randomness is not lawless chaos; it is a form of order that God has given to creation even if it offends the deterministic intuitions of some physicists and philosophers. None of Koperski’s account stands or falls with these quibbles.

I would like to see Koperski’s account enriched with the doctrine of creation, such as in *Understanding Scientific Theories of Origins: Cosmology, Geology and Biology in Christian Perspective*, Robert C. Bishop et al. (IVP Academic, 2018). His discussion in sec. 4.2 suggests that seventeenth-century natural philosophers eventually ditched all forms of divine-mediated action for direct or unmediated divine action as embodied in the laws of nature (the discussion is a little oversimplified, but this is a short book). This amounts to treating the laws of nature as the main mediators of all that happens in creation (back to the “governing” metaphor). In contrast, the doctrine of creation’s emphasis on multiple forms of divine-mediated action helps to address the divine relationship to creation in which God is working in and through nature, not outside and apart from it. This is exactly what Koperski’s account needs for some of the questions he entertains at the end of the book and for some he leaves unanswered (e.g., why one does not have to restrict divine concurrence to Thomist models only).

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