The Fifth Corner of Four: An Essay on Buddhist Metaphysics and the Catuskoți. By Graham Priest. New York: Oxford University Press, 2018. 208 pages. \$60.00 (hardcover). ISBN 9780198758716.

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The author of *The Fifth Corner of Four*, Graham Priest, is well known to contemporary students of logic, but in recent years he has devoted considerable attention to the interpretation of Buddhist philosophies as well. As a logician, Priest is particularly noted for his contributions to so-called "non-classical" logic. Indeed, he wrote the book on it.¹ In the present work, he seeks to get beneath the skin of an aspect of Buddhist thought that has elicited much puzzlement through the centuries, in both traditional Buddhist circles and contemporary scholarship: the *catuṣkoṭi* or "tetralemma," that is, the framing of problems in terms of four exclusive alternatives, often simply represented as:

- (1) A,
- (2) not-A,
- (3) both A and not-A,
- (4) neither A nor not-A.

This representation, however, is not only simple but "simple-minded" in Priest's terms (p. 19); he reviews previous attempts to formalize it in chapter 2 (esp. section 2.4). Arguments via the *catuṣkoṭi* are famously presented in the writings of Nāgārjuna and the Mahāyāna literature often associated with him, and these, accordingly, play central roles in Priest's account (though, for reasons that will become clear below, the Madhyamaka school itself makes only occasional cameo appearances).

The Fifth Corner of Four is neatly divided into three parts, each of three chapters. In part 1, "Early India," Priest introduces the broad

^{1.} Graham Priest, *An Introduction to Non-Classical Logic: From If to Is* (2001; 2nd ed., Cambridge, New York, and Melbourne: Cambridge University Press, 2008).

background for his topic, including discussions of the <code>catuṣkoṭi</code> in the early suttas of the Pali canon, as well as aspects of the dharma theory developed in the treatises of the Abhidharma. Together with these, he introduces, too, in chapter 2, key aspects of the logical framework that will be developed throughout the book. Part 2, "Later India," then turns to the treatment of the <code>catuṣkoṭi</code> in the Mahāyāna, chiefly in the Perfection of Wisdom scriptures, in Nāgārjuna's work, and in the <code>Vimalakīrti-nirdeśa-sūtra</code>. The final part of the book continues the story in East Asia, with attention to developments in the Sanlun, Huayan, and Chan/Zen traditions.

Priest addresses his book primarily to two sorts of readers. On the one hand, he writes for those grounded in Western logic and philosophy, who may wish to explore some prominent, philosophically intriguing developments within Buddhism. On the other, he intends to be accessible to readers whose major interest is Buddhist thought, but who may not have more than elementary knowledge of logic. For this reason, he has consigned the more technical logical discussions to appendices at the end of chapters, making it easy for general readers to skip them; however, the main body of the book still requires a minimum of knowledge and interest in this area. Although he does cover a broad swath of Buddhist philosophy, Priest does not write as a Buddhist studies specialist and there are understandably points scattered throughout that may give specialists pause. Many of these points concern historical or text-critical issues that do not bear upon his arguments in important ways. In a few cases, however, as will be seen below, they do raise substantive issues for philosophical interpretation.

A stumbling block for some recent work on Madhyamaka, and indeed for work on much of Indian philosophy, has been a sometimes-ill-considered reliance upon the so-called "classical" logic as a means of formalization. Despite the name, classical logic is not the system taught by Aristotle in ancient Athens (though it does owe something to that background), but refers instead to the logical calculus developed in connection with modern philosophy and mathematics, reaching its "classical" form in the *Principia Mathematica* of Russell and Whitehead (1910–1913). If we insist upon using this classical logic to understand the *catuṣkoṭi* as outlined above, we must hold that its four alternatives can be adequately represented as the modifications of a proposition "A" subject to the functions of negation ("not"), conjunction ("and"), and disjunction ("or," or "neither...nor" when its terms are negated),

in a system in which only two "truth-values"—"true" and "false"—are countenanced, and in which any given proposition can be assigned at most one of these truth values (by the principle of non-contradiction) and must be assigned at least one of them (by the principle of the excluded middle): "A" must be exclusively true or false; no gray areas or overlaps are permitted. (Priest's own sketch of classical propositional logic will be found in section 2.5.)

Priest wishes to show us that, in order to understand Nāgārjuna and his successors, above all in China and Japan, this will not do. This is so, in part, because he holds the Madhyamaka way of reasoning, unlike the classical logic, to be *dialethic* (p. xviii), that is, it can accept the real possibility of contradiction. (Systems of logic that tolerate contradiction in this way are also called *paraconsistent* logics.) Priest takes this move to be warranted by the third figure of the *catuṣkoṭi*, "A and not-A" as presented above, despite the fact that many interpreters of Madhyamaka thought, traditional and modern, insist that it is rejected by Nāgārjuna because, just as in the classical logic, contradiction in considered to be an absurdity and not a real possibility at all.

Be this as it may, it is nonetheless clear that, on the classical reading, the third and fourth alternatives are strictly equivalent, as Priest remarks early on (p. 19). Either Nāgārjuna and his followers simply failed to understand this, or, more plausibly perhaps, they were working with at least some principles that cannot be reduced to the classical logic. The intellectual tools needed to do justice to their thinking, therefore, must be found elsewhere, in one or another of the systems of non-classical logic. Priest finds a suitable logical framework for interpreting the catuskoti in a system called First Degree Entailment (FDE, sections 2.6 and 2.10 for the technical appendix), in which not just the classical two, but four values are admitted: "true," "false," "both," and "neither." A key point here is that, because "both" is taken as a possible value, FDE is no longer constrained by the law of non-contradiction. For the classical logic, because "A and not-A" is an absurdity, an argument that entails it is subject to "explosion" (p. 25), the principle that if a contradiction is true, then literally anything might just as well be true and this, of course, is anathema.

The concept of emptiness, if explained in the simplest terms, may be said to characterize phenomena when all four alternatives presented by the *catuṣkoṭi* are eliminated: that is, if something is determined to be neither A, nor not-A, nor both, nor neither, then it is

"empty." To accommodate this notion, Priest expands FDE by adding a fifth value e; this is the "fifth corner" of his title (p. 66). The modified system of logic that results from the introduction of value e he calls FDEe. This system, however, involves a paradox: "we are understanding e as ineffability; and the one thing sentences cannot be is ineffable" (p. 67). Priest argues that e may apply, however, to states of affairs. The result is a double structure in which we have a semantic catuṣkoṭi of four values, all negated by Nāgārjuna, and an ontological "catuṣkoṭi" (so-called despite its five corners) in which the value e remains following the refutation of the four others. This move, however, may risk hypostasizing emptiness, something Nāgārjuna and his successors were keen to avoid; indeed, the notion of the "emptiness of emptiness" (śūnyatāśūnyatā) would appear to block any such move. I shall return below to consider some further problems that Priest's account seems to invite.

As we have seen, Priest holds that Nāgārjuna endorsed a type of dialetheism, the view that a given proposition might be both true and false. It is for this reason that the Madhyamaka school of philosophy, which based itself upon Nagarjuna's thinking, makes only fleeting appearances in Priest's account. For, as he is well aware, most Indian Madhyamaka philosophers (Priest considers Candrakīrti to have been an exception, p. 85), and their Tibetan inheritors as well, were clearly and explicitly committed to the principle of non-contradiction. He explains this by asserting that "under the influence of the Hindu Nyāya epistemologists, they [Dignaga and Dharmakirti] came to endorse the Principle of Non-Contradiction (and of Excluded Middle). This had a major impact on later Indian and Tibetan Buddhist thought, most thinkers ... endorsing the principle" (p. 84). This, however, is surely wrong. Centuries before Dignāga, the Buddhist Abhidharma traditions were firmly committed to avoiding contradiction in their drive to elaborate perfectly coherent foundations for Buddhist thought (foundations that Nāgārjuna, to be sure, sought to pick apart by revealing concealed contradictions within them). And, as Priest also recognizes (p. 85), Buddhist critics of the Hindu systems were precisely determined to ferret out their contradictions, too, whether tacit or assumed. It is not at all plausible to hold that the principle of non-contradiction was a late development within Buddhism, foisted upon it from non-Buddhist influences.

That said, I do not wish to suggest that dialetheism has no place in the interpretation of Buddhist thought. On the contrary, important parts of the Mahāyāna sutra literature, as cited by Priest, are probably best viewed through this lens. So too, perhaps, certain traditions within East Asian Buddhism (though I leave it to those more specialized in that area than I to assess Priest's arguments about this in detail). And even within the properly philosophical literature of Indian Buddhism, we cannot categorically exclude an embrace of dialetheism in some texts or passages. What Priest significantly contributes to the field is a rigorous way to think about this when it occurs, without appeal to vague notions of "mystical thinking" and the like.

Reservations regarding Priest's project may stem from skepticism about the limits of logical formalism in this context. I certainly have no objection to the attempt to formalize the areas of Buddhist thought Priest addresses here, and I believe that much is to be learned from his insights. In the end, however, I fear that the project must fail, as indeed must any discursive system that seeks to follow Mahāyāna thought to its ends. For what is beyond thought, word, and sign will not be captured by continuously shoring up the system of representations. To cite Priest himself, if somewhat out of context, "How one might represent this with this formalism is opaque" (p. 99). In indefinitely refining our logical routines, one risks beginning to appear a bit like HAL, the computer that refused to die, in Stanley Kubrick's "Space Odyssey 2001." What our Buddhist interlocutors sometimes seem to be saying, by contrast, is "Just turn the darn thing off!"

A response to this is that traditional Buddhist thinkers were themselves ever engaged in shoring up the system—Priest provides plenty of evidence that this was so, though even stronger evidence of Buddhist logical system building may be found in the explicitly non-dialethic thinkers he prefers to avoid—and in any case Priest, for his part, is aware of the problem and addresses it at several junctures. This he does most clearly in connection with ineffability, introduced in chapter 6. Priest treats ineffability as paradoxical, for to say that the ultimate is ineffable is to say that nothing can be said of it, and he proposes to resolve the paradox by introducing the idea of a plurivalent logic (pp. 79–80), a logic in which the bearers of value may take more than one value. This, he holds, allows for a transcendence of the duality of effability and ineffability.

Priest applies his solution to the paradox to a passage from the *Vimalakīrti-nirdeśa-sūtra* (pp. 80–83). Here, following a discussion amongst bodhisattvas of non-duality, Mañjuśrī concludes by affirming, "to express nothing, to say nothing ... that is the entrance into nonduality." At this, Vimalakīrti "kept his silence, saying nothing at all." Priest rightly points out that the *meaning* of Vimalakīrti's silence is derived from the context in which it occurs and that it *shows* us "the same thing" as what Mañjuśrī had just *said*, and he adds: "The sūtra, then, endorses speaking of the ineffable.... From the point of view of our formal semantics, both Mañjuśrī and Vimalakīrti are addressing the same state of affairs." If we imagine, however, that Vimalakīrti had responded by verbally reformulating Mañjuśrī's words, we see at once that this would not have been at all the same thing. And this is because he is not addressing a state of affairs at all.

Such matters aside, I believe *The Fifth Corner of Four* on the whole to be an important contribution to unravelling the principles underlying significant aspects of Buddhist discourse. Though I am not yet won over by FDE and its variants, I concur with Priest that the classical logic is not, at least in its off-the-shelf versions, suitable for coming to terms with Nāgārjuna, or indeed Indian systems of logic more generally, not to speak of the developments Priest signals in the Mahāyāna sutra literature or amongst later East Asian Buddhist thinkers. Besides recommending *The Fifth Corner of Four* to readers with a specialized interest in Buddhist philosophy, I would not hesitate to introduce it to students in a general course on metaphysics or philosophical logic as a particularly stimulating example of the contribution that a careful reading of Buddhist texts may offer in these areas.