

Patrick Todd. *The Open Future: Why Future Contingents are All False*. Oxford: Oxford University Press, 2021. xii+212 pp. \$00.00 (hbk); \$00.00 (paper).

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Aristotle's famous sea-battle argument in *De interpretatione* 9 launched a still-ongoing debate over the status of *future contingents*. For present purposes I'll follow Todd (3) in taking these to be propositions stating of some causally contingent event-type (e.g., a sea-battle) either that it *will* happen or that it *will not* happen.¹ Aristotle seems to have held that such propositions are *neither true nor false* so long as both the event's occurrence and non-occurrence remains an open question, that is, so long as the event remains both causally contingent and future. On this view, there being *true* future contingents is incompatible with the causal contingency of the events they describe. Despite the esteem generally accorded Aristotle, the majority view has long been that he was wrong on this point: There are true future contingents. This became the majority view partly for theological and partly for philosophical reasons. Theologically, belief in true future contingents is driven by the idea that God is omniscient and provident, and therefore knows exactly how the future plays out. Philosophically, it is driven mainly by conceptual worries about bivalence and excluded middle. Until recently, the main source of dissent from the majority view has been *determinism*, both its theistic and physical varieties: There are no true future contingents because *there is no causal contingency*. Of late another dissenting view now known as *open futurism* has emerged as a major player in both philosophical and theological contexts. Open futurism affirms causal contingency (over against determinism) but also denies that there are any *true* future contingents (over against the majority view). Philosophically, open futurism derives support from recent developments in physics (esp. quantum mechanics), logic (tense and multi-valued), metaphysics (esp. issues of temporal ontology and alethic grounding), and of course Aristotelian-style worries about whether an alethically settled future is compatible with causal contingency (esp. human free will). Theologically, open futurism derives support from perspectives like *open theism* and *process theism*, both of which affirm that the future is (to some degree) open-ended from God's own perspective.

It is in the context of open futurism that Patrick Todd's book is situated. Unlike Aristotelian-style *non-bivalentist* open futurism, which says that future contingents are *neither true nor false*, Todd contends that all future contingents are unequivocally *false*. I'll call this *all-falsist* open futurism. Todd is not the first to argue for such a view,² but he is the first to give it a book-length defense, and with a major academic publisher to boot. This will likely secure a

¹ While I follow Todd's usage here, it's better to think of future contingents as causally contingent event-types rather than as propositions *about* those things. Focusing on propositions adds an unnecessary conceptual layer that makes it harder to integrate future contingents with probabilities. See (Rhoda Forthcoming).

² See, for example, (Hartshorne 1965).

much greater hearing not only for open futurism in general but also for its all-falsist variant that, until now, has largely been off the philosophical radar.

As Todd notes (1–2), the main selling point of all-falsism over against non-bivalentism is that it avoids the theoretical costs of denying classical logic. In terms of Arthur Prior’s tense-logical operator $F()$, meaning *will*, the non-bivalentist takes $F(p) \vee F(\sim p)$ (i.e., Either p *will* occur or p *will not* occur) to be an instance of the logical law of excluded middle (LEM) and so denies bivalence in cases of future contingency in order to avoid the implication that there are true future contingents. The non-bivalentist must also tell a story (typically a supervaluationist one) about how the disjunction can remain true even when neither of its disjuncts is true. The all-falsist, in contrast, denies that $F(p) \vee F(\sim p)$ is an instance of LEM or “of any principle whose validity is ultimately worth accepting” (1) and so has no need to deny bivalence or defend the truth of that disjunction. The all-falsist does, of course, have some explaining to do to show us how this makes sense. That’s the main task of Todd’s book.

Todd structures his book into three parts to address three facets of “the problem of future contingents” (3). The *grounding problem* (Chapter 1) has to do with what, if anything, accounts for the truth of future contingents. The *logical problem* (Chapters 2–5) has to do with semantic questions about *will* and *would*. And finally, the *practical problem* (Chapters 6–8) concerns the use of *will* for matters like betting, predicting, and asserting.

Despite the bold subtitle “why future contingents are all false”, Todd’s agenda is mainly *defensive*. He’s not out to show that all-falsism is the best position on future contingents but merely that it is a reasonable position, one that is well-motivated and not subject to decisive defeaters. He makes frequent concessions to the supposedly “counter-intuitive” nature of all-falsism and stops well short of declaring victory over competing views. While this undoubtedly reflects Todd’s cautious assessment of the current dialectic, as an all-falsist open futurist I found myself disappointed that he doesn’t advance a positive case with the sort of vigor that the subtitle promises. That said, Todd pursues his more modest objective with considerable skill and ingenuity.

In Chapter 1 Todd offers a brief “*metaphysical case for the open future*” (4). The case is that, *given* presentism and indeterminism, there is no “privileged branch” from among the various causally possible futures. He argues for this conditional not by appealing to a broad alethic grounding principle like *truth supervenes on being* but by analogizing the causally contingent future to underspecified details of *fiction* (16–18). Just as there is no fact of the matter as to how much orange juice Harry Potter had with breakfast on a given day at Hogwarts—because the “fiction-determining facts” don’t specify—so there is no fact of the matter as to how the contingent future unfolds because the future-determining facts, i.e., current conditions plus causal laws, don’t specify. *If* there are no other relevant facts, such as those countenanced by, say, an eternalist ontology, then open futurism plausibly follows.

In Chapter 2 Todd describes three non-deterministic models of the future: Ockhamism, “supervaluationism”, and a view he leaves nameless but which I’ll call *open futurism* (21). All three models agree on indeterminism—there are *multiple* causally possible futures—but disagree about future contingents. Ockhamism says that *despite* there being multiple causally possible futures there is nevertheless a unique actual future singled out by the actual occurrences of future events. In other words, information about future occurrences is available beforehand via future-directed facts that are *not* reducible to current conditions plus causal laws (22–24). Those facts ensure that there are true future contingents. Open futurism, in contrast, says that all future-directed facts *are* reducible to current conditions plus causal laws and thus, *because* there are multiple causally possible futures there is no such thing as a unique

actual future (22). Consequently, there are no true future contingents. As for what Todd calls “supervaluationism” (23), it isn’t actually supervaluationism (a method for assigning truth values to logical compounds whose components lack truth values or otherwise fail to refer) but rather a seemingly incoherent model derived from Barnes and Cameron (2009). As best I can make out, Barnes and Cameron’s model (modified so as to focus on causal rather than “metaphysical” contingency) is, if not incoherent, then merely a notational variant of Ockhamism, one in which *is determinately true* plays the same role as *is a hard/fixed fact*. Todd should have set the model aside. It doesn’t play a major role in the book beyond Chapter 2.

The most significant development of Chapter 2 is Todd’s semantic proposal: $F(p)$ is true iff in all of the *available* futures, p , where a future counts as “available” so long as it is compatible with all of the future-directed facts, whatever they may be (30). The key to this proposal is that it is *semantically neutral* between Ockhamism and open futurism. Both sides can agree on it and derive their desired results regarding future contingents so long as they make the requisite *metaphysical* assumptions about what future-directed facts there are. Todd’s neutral semantics cleverly undercuts the frequent charge that open futurists must question-beggingly *define* ‘will’ in terms of causal necessity (36). Keeping semantic and metaphysical questions distinct is a major recurring theme throughout Todd’s book. It is, I submit, Todd’s single most important contribution to the open futurism debate.

Chapters 3 and 4 discuss the status of *will excluded middle* (WEM) and *conditional excluded middle* (CEM) in relation to future contingency and hypothetical contingency, respectively. WEM says that $F(p) \vee F(\sim p)$ is true for all p . CEM says that $(A > C) \vee (A > \sim C)$ is true for every antecedent–consequent pair, where ‘>’ indicates a subjunctive *would* conditional. Both WEM and CEM are taken by some to be instances of LEM. On this view of WEM, $F(\sim p)$ is *semantically equivalent* to $\sim F(p)$ —a thesis Todd calls ‘scopelessness’ (52–54). With respect to both WEM and CEM Todd’s argument strategy is as follows: First, he shows that the principle in question is *not* a proper instance of LEM or anything the truth of which can be established by *mere* semantic competence. Second, he shows that the reason WEM and CEM sometimes *seem* to be true is because we either (a) confuse them with nearly principles like $F(p \vee \sim p)$ that *are* instances of LEM, or (b) employ a background *metaphysical model* that “masks” certain possibilities, such as ones in which $\sim F(p)$ is true and $F(\sim p)$ is not.

Consider WEM. That $F(\sim p)$ is not semantically equivalent to $\sim F(p)$ can be shown by hypothetical metaphysical scenarios in which time simply stops at some point in the future (54). Nevertheless, if we assume with Ockhamism that the *available* futures are constrained by future-directed facts that single-out a unique actual future (UAF), then $F(\sim p)$ and $\sim F(p)$ are still alethically equivalent—if the UAF is not a p -future, then both $F(\sim p)$ and $\sim F(p)$ are true, and if the UAF is a p -future, then both are false (57). Conversely, if we assume with open futurists that there are no future-directed facts outside of present conditions plus causal laws, and if $F(p)$ is a future contingent, then neither $F(p)$ nor $F(\sim p)$ is true (because both p and *non- p* futures remain available) and yet, arguably, $\sim F(p)$ is true (precisely because $F(p)$ is *not true*) (60–61). In each case it is the assumed *metaphysical model*—whether the relevant future-determining facts exist—that determines whether the scope distinction between $F(\sim p)$ and $\sim F(p)$ becomes salient. The parallel argument in Chapter 4 is that CEM only seems true if we suppose that there are “counterfactuals” which “break ties” between cases where A scenarios are *neutral* between C and $\sim C$ (91). I find Todd’s assessments of WEM and CEM in these chapters to be compelling. Chapter 3, in particular, is a *tour de force*. Chapter 4 suffers somewhat from a too-brief discussion of *would/might* duality.

In Chapter 5, Todd explores the “logic of omniscience” using the conceptual device of an ideal knower (God) to illustrate open futurism by drawing parallels between $F(p)$, God’s *believing* that $F(p)$, and God’s *anticipating* that p (110). Open futurism corresponds to the case where, for some p , God neither anticipates that p nor anticipates that $\sim p$. One result of this chapter is that *theistic* non-bivalentist (as opposed to all-falsist) open futurists have to reject the plausible idea that God *believes* p iff p (Todd calls this ‘omni-accuracy’) on pain of introducing a very implausible indeterminacy into God’s mind (114). The non-bivalentist has to opt for ‘omni-correctness’ instead: God *believes* p iff it is *true* that p (115).

One issue that Todd’s logic of omniscience unfortunately skips over is the question of how *credences* relate to God’s anticipations. His discussion implicitly takes for granted that God’s anticipations have maximal credence. For an Ockhamist this assumption makes sense: because the future-directed facts pick out a UAF, God, being omniscient, naturally anticipates with maximal confidence or credence which future that is. But for an open futurist it should be a live question whether all of God’s anticipations have maximal credence. Suppose there is now an objective probability or *chance* of 0.9 that it rains tomorrow. Knowing that probability, it seems reasonable that God would anticipate rain tomorrow. But since there is still a 0.1 chance of no rain tomorrow, God shouldn’t anticipate rain tomorrow with maximal credence. By David Lewis’s famous ‘principal principle’, God’s credences should match the known chances, and so God should anticipate rain tomorrow with a credence of 0.9. This concern doesn’t undermine Todd’s analysis in Chapter 5 so long we *restrict* omni-accuracy and omni-correctness to things God anticipates with maximal credence, but it does show that Todd missed a golden opportunity to more fully explore the implications of open futurism for God’s omniscience.

Chapter 6 rebuts challenges to open futurism concerning probabilities, betting practices, and a principle that Todd calls *retro-closure*. Retro-closure (RC) is the principle that $p \rightarrow PFp$, i.e., that if p then it previously *was* the case that it was *going to be* the case that p . This principle is a straightforward consequence of the *Ockhamist* assumption that there is a unique actual future. It is also frequently defended by appealing to how people talk retrospectively about fulfilled predictions and bets: “See, I *was right* when I said that Smith was *going to win!*” Todd replies that we can make full sense of our betting practices by recognizing that we’re betting on a type of *outcome* and not on the *current truth* of some claim about the future (121–122). In short, we’re merely agreeing to an outcome-based payoff scheme. This seems right. Indeed, Todd could have made the point more forcefully by noting that we have no *direct* way to discern the current truth-value of any future contingents. That a sea-battle occurs therefore can’t *show* that it was previously true that a sea-battle was going to occur unless we *assume* RC or a metaphysical framework like Ockhamism or determinism that entails RC. Retrospective ascriptions of “truth” to fulfilled predictions therefore provide no independent support for RC. They merely show that we sometimes talk *as if* RC were true, which the open futurist can happily concede because it isn’t probative (178). After all, we still talk as if the sun goes around the earth!

Chapter 7 criticizes John MacFarlane’s position, which Todd and chapter co-author Brian Rabern dub ‘open-closurism’ because it combines non-bivalentist open futurism with retro-closure. Todd and Rabern utilize the logic of omniscience machinery from Chapter 5 to show that open-closurism cannot make sense of an omniscient knower. In addition, no mere semantic theory should be able to settle the metaphysical question of whether there is or is not an omniscient being (167).

Finally, Chapter 8 considers whether the open futurist, who denies there are true future contingents, can make everyday claims like “I believe it will rain tomorrow”, thereby seemingly

asserting what he holds to be untrue, or even false. In response, Todd presses an analogy between open futurism and mereological nihilism, the view that there are no composite objects like *chairs* but only simples arranged to look like composite objects. Both are metaphysically motivated *philosophical* theories that stand in some tension with ordinary modes of thought and speech. But just as the conversational norms at work *in ordinary life* do not require that nihilists never talk *as if* there are chairs, neither do they require that open futurists never talk *as if* some future contingents are true. One need not and should not insist on strict philosophical precision in ordinary, non-philosophical conversational contexts (184–186).

There is much more to Todd's book than my brief synopsis suggests. Despite my disappointment with the book's generally defensive tone, the writing is clear and engaging, and the quality of Todd's argumentation is impressive and often ingenious. This book is a *must-read* for philosophers and analytic theologians interested in debates over future contingency. It establishes open futurism as a serious alternative to Ockhamism and makes clear that the debates are, at bottom, *metaphysical* and not semantic.

References

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