

BOOK REVIEW

Patrick Todd

***OPEN FUTURE: WHY FUTURE CONTINGENTS ARE
ALL FALSE***

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In his book, *The Open Future: Why Future Contingents are All False*, Patrick Todd provides a solution to the longstanding problem of future contingents. The origins of such “horrible, intractable problem”, as Todd puts it, are to be found in Aristotle’s *De Interpretatione IX* where it is suggested that the openness of the future forces future contingents—roughly, sentences concerning future events that can occur or not occur—to be neither true nor false. In this regard, Todd disagrees (at least in part) with Aristotle, and in fact his preferred account, which is the central topic of his book, is that, given a substantial metaphysical thesis about temporal reality and a certain modal account of “will”, future contingents come out all false. Although the view that future contingents are all false is not new, being a reminiscent of the so-called *Peircean* semantics elaborated by Prior (1967), Todd is adamant that his account differs from Peirceanism in that, *inter alia*, it does not require a revision of classical logic.

Following a widely shared intuition, Todd assumes that the future, unlike the past, is *open*. The asymmetry in openness between the past and the future, according to him, rests on the truth of both presentism and (causal) indeterminism: if what exists is only the present, and the laws of nature are indeterministic, it turns out that there is at least more than one, causally possible future compatible with the present reality. So the future is open if there are many possible futures representing the alternative ways the future might evolve, and none of them is the *privileged* or *actual* future—the one containing the unique course of events that gets realized in time.

Todd's book is divided into eight chapters covering all the main topics usually addressed in the literature. Chapter 1 shows how, given presentism and indeterminism, one can defend a presentist version of the open future without this resulting in an open past. As noted, if indeterminism is true, the current state of the world is compatible with a plethora of equally possible futures. However, since indeterministic laws are mostly time-symmetrical, the current state of the world is also compatible with multiple pasts, hence one cannot argue for the open future and maintain at the same time that the past is *not* open. To block such an unappealing conclusion, Todd abandons the principle that truth supervenes on (present) reality, by arguing that a certain subset of truths, viz., past truths, are simply *brute* with respect to the present. To say that past truths are brute is to say that past truths would be preserved even if, hypothetically, what grounds them went out of existence. The same, however, cannot be said about future truths because hardly anyone would accept that if the present were different than it in fact is, future facts would remain the same. Interestingly, Todd first argues that there is only one (closed) past because past truths are brute and then adds, *à la* Lewis (1979), that the future is open because, contrary to the past, depends counterfactually on the present. Although Todd's account is not incompatible with Lewis' characterization of the asymmetry, it is worth noting that the latter would be enough to vindicate the openness of the future.

Chapter 2 introduces three competing models that one might endorse to account for the open future, and explores their metaphysical assumptions. On Todd's view, model (I) corresponds to "Ockhamism", while model (II) corresponds to "Supervaluationism". Finally, model (III) matches the view defended by Todd. To see how they differ, it is crucial to introduce two fundamental notions: the first is what Todd calls "primitive future directed facts", viz., facts not grounded in present conditions and laws; the second is that of "available futures", viz., futures consistent with the past, the laws and the future directed facts.

With these notions in mind, it is possible to understand which truth value can be attributed to future contingents. Consider model (I). On this model, among the many possible futures, there exists only one available future consistent with future directed facts, viz., the privileged future. As a result, future contingents will be evaluated as true or false with respect to such a future. A similar story holds for model (II), except that it is indeterminate which future is consistent with future directed facts. Therefore, future contingents will also be indeterminate. Finally, consider model (III). In this case there just are no primitive future directed facts that are not also facts about what the past and the laws determine, therefore there will be as many available futures as there are causally possible futures. More particularly,

Todd's view implies that any sentence like "It will be in n units of time that p " has the same truth value as "In all of the available futures, in n units of time, p ", in which the future operator "will" is a combination of a universal quantifier over all the *available* futures, and an existential quantifier over future times. So, if p is contingent, it is simply false that in all the causally possible futures, in n units of time, p will be the case. Hence, future contingents are all false. To illustrate, consider the famous Aristotelian future contingent:

1. There will be a sea-battle tomorrow.

Todd argues that, in the absence of a privileged future, *will* cannot but quantify over all the available futures consistent with the present facts and the laws. Accordingly, (1) is false since, due to its contingency, it is just plain false that *all* the available futures feature a sea-battle tomorrow.

Chapter 3 elaborates in detail Todd's semantic proposal. As noted, Todd retains bivalence and in particular the Law of Excluded Middle (LEM) which instead fails to be true on Peirceanism. Consequently, on Todd's view any instance of $p \vee \sim p$ is true. Now consider the following disjunction:

2. There will be a sea-battle tomorrow or There will *not* be a sea-battle tomorrow.

Since the sea-battle is a future event, (2) is called "Will Excluded Middle" (WEM)—standardly formalized as $Fnp \vee Fn\sim p$. Yet, Todd claims that $Fnp \vee Fn\sim p$ is not an instance of LEM, viz., it is *not* a tautology. And in fact, $Fnp \vee Fn\sim p$ fails to be true in that Fnp and $Fn\sim p$ are not contradictories (so that if the former is true the latter must be false and vice versa) but contraries (both can be false). So, one may wonder what the strict negation of Fnp would be. Todd's answer is that its strict negation is $\sim Fnp$, namely "it is not the case that there will be a sea-battle tomorrow". Accordingly, it follows that the real instance of LEM is $Fnp \vee \sim Fnp$ where the second disjunct is true.

The view outlined is based on a distinction between $\sim Fnp$ and $Fn\sim p$ which, according to many, is ill-founded because in ordinary contexts we do not hear any significant difference between "there will not be a sea-battle tomorrow" ($Fn\sim p$) and "it is not the case that there will be a sea-battle tomorrow" ($\sim Fnp$). And the reason we don't is that we implicitly treat $\sim Fnp$ and $Fn\sim p$ as equivalent in meaning. *Will*, as is sometimes said, is *scopeless* with respect to negation. Although Todd admits that we do have troubles hearing such a distinction, this is because in ordinary contexts we

implicitly presuppose the existence of a privileged future. However, once such a controversial assumption is rejected, we realize that *will* is *not* scopeless, hence that we can drive a wedge between $\sim Fnp$ and $Fn\sim p$. To get this result, Todd defends the view that *will* belongs to the so-called category of *neg-raising* predicates. These predicates allow to interpret wide-scope negation as if it were associated with its embedded clause as follows: “I don’t think Giorgia Meloni will be a good prime minister” definitely conveys “I think that Giorgia Meloni will not be a good prime minister”, though the former doesn’t semantically entail the latter.

Chapter 4 further motivates Todd’s account of future contingents by comparing his modal account of “will” to some well-known theories of the counterfactual “would”. Todd focuses on an analogy between his rejection of WEM and the rejection of the so-called “Conditional excluded middle” (CEM) proposed in particular by Williamson and Lewis, and then shows how his claim that *will* is a neg-raiser can be successfully extended to the counterfactual “would”. Successively, he observes that the arguments usually adopted to reject CEM can similarly be adopted to deny WEM, thus offering further motivations to accept that *will* is not scopeless.

Chapter 5 addresses the problem of God’s omniscience by exploring a particular version of theism on which, if indeterminism is true, God isn’t in a position to know neither that something will occur, nor that it won’t—thus making the future *epistemically* open even to Him. Todd moreover offers a conception of omniscience in which p is logically equivalent to “God believes p ”, and then claims that the logical equivalence between “It will be the case that p ” and “God anticipates that p ” provides reasons for accepting his key distinction ($\sim Fnp$ and $Fn\sim p$) and so for denying WEM. The upshot is that from the fact that God does not anticipate a sea-battle tomorrow it cannot be concluded that God does anticipate an absence of it. So, once again, both Fnp and $\sim Fnp$ come out false. Chapter 7 (a reprint of a paper that Todd co-authored with Brian Rabern in 2021) instead focuses on the rejection of a familiar principle of tense logic dubbed by the authors “Retro-closure”: roughly, if it is now true that p , then it was true in the past that it would have been the case that p later on.

Chapters 6 and 8 shift the focus on what Todd calls the “practical problems” for the open future. Chapter 6 deals with the ordinary practice of betting. Todd is well aware that insofar as the principle of retro-closure is denied, his account runs into the same problems as Peirceanism, especially when it comes to explaining such a practice. Echoing Prior’s example, Todd indeed notes that if you bet that a certain horse, *Phar Lap*, will win a race and that horse does in fact win, I might refuse to pay your winning since, if future contingents are all false, it was already *false* (even

at the time of the bet) that *Phar Lap* would win. Todd's way out is neat: in the case of betting *current* truth is simply irrelevant. Building in particular on Belnap and Green (1994), Todd thus opts for a *pragmatic* (as opposed to semantic) solution. He argues that even if it is presently unsettled that—to recall Prior's example—*Phar Lap* will actually win, the practice of betting can be explained by insisting that betting is not to be construed as betting on the present truth of the relevant future contingent. Rather, it should be construed as a practice that has certain normative significance, e.g., that of being “entitled to a certain response in certain conditions (and not in others)” (p. 123).

If betting is a future normative act like asserting, it turns out that we have a problem with this latter practice too. And, indeed, Chapter 8 deals with the fact that it seems irrational to assert future contingents if they are all false. Attempting to meet this objection, Todd outlines an account of assertion for which it may be appropriate to assert what is literally false to communicate something true. To bolster his error theory for assertion, Todd refers to the doctrine of ontological eliminativism. Eliminativists believe that there are no composite objects but only atoms arranged *objectwise*. Despite that, they would presumably not refrain from asserting a falsehood—that there are chairs in the adjacent room—to convey a truth, viz., that there are atoms arranged *chairwise* in the adjacent room (especially if the goal is to organize a meeting). Furthermore, those who assert false sentences involving composite objects need not be corrected. The same holds for open futurists: even if (1) and “it will be sunny tomorrow” are both literally false, it may be appropriate to assert them to communicate something that expresses, respectively, a *plan*, viz., that if the commanders will stick to the plan, there will be a sea-battle tomorrow, and a *current tendency*, viz., that the world is now tending towards sun tomorrow.

Todd has made an excellent job in writing this book. I strongly suggest it to anyone interested in all the semantic and metaphysical issues typically connected to future contingents, as well as in temporal logic, philosophy of religion and counterfactual theories. The book is also an attempt to overcome some serious objections advanced in particular by Schoubye and Rabern (2017) and Wawer (2018) to Todd (2016) where the thesis that future contingents are all false was inspired by Russell's treatment of definite descriptions.

Having said that, I will now consider three controversial aspects of the book. The first concerns Todd's denial of WEM. Todd argues that anytime we attempt to justify “ $F_n p \vee F_n \sim p$ ” what we are actually doing is providing a justification of another (true) claim, viz., that “it will be one or

the other” $F_n(p \vee \sim p)$. Presumably, then, $F_n(p \vee \sim p)$, unlike WEM, isn’t true in virtue of the existence of a privileged future. If so, what grounds its truth? Todd is surprisingly silent on this point. Moreover, it isn’t even clear whether a distinction between the intuition supporting WEM and that supporting Todd’s claim that “it will be one or the other” would be accepted as sufficiently plausible, independently of whether a privileged future exists. This in turn might suggest that there is no reason to maintain that the validity of WEM must be made conditional on the truth of a substantial thesis regarding the nature of time. A related issue concerns what kind of relation, if any, holds between $F_n(p \vee \sim p)$ and $F_n p \vee \sim F_n p$. Todd notes that while the former expresses a necessary future truth, viz., that LEM will hold in all branches, the latter *just* is an instance of LEM (p. 75). But, again, if that’s the case I fail to see the relevance of any semantic distinction between them.

The second aspect has to do with Todd’s account of *will*. Insofar as it exploits the view that *will* quantifies over all the *available* futures, Todd says, his account doesn’t boil down to Peirceanism. However, although Peirceanism isn’t couched in terms of available futures, it seems that Prior had something very similar in mind when he formulated his favoured account—especially if we think that Todd’s available futures are just the causally possible futures on which the Peircean would quantify over. Todd’s reply that the identification between the available and the causally possible futures is based on metaphysical (as opposed to semantic) considerations, at least as it stands, seems in need of further clarification.

A final note relates to the so-called assertion problem(s). Since Todd emphasizes that an important challenge is to explain how his proposal interacts with the standard norms of assertion, I would expect to see how Todd’s error theory fits into this important debate. But unfortunately, no such explanation is provided in that much of Todd’s theorizing on this point is just an attempt to reply to some familiar objections addressed in particular by MacFarlane (2014) to all the views that take future contingents to be untrue.

Despite my worries above, there is no doubt that Todd’s book is an ambitious and far-reaching attempt to develop a detailed account of the open future that will have to be taken into serious consideration by anyone interested in new and ingenious arguments for defending a too often neglected, and yet prestigious, theory of future contingents.

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