

## **We should not be a counterpart theorist of events if we want to be a counterfactual theorist of causation**

[Abstract] While David Lewis advocates a counterpart-theoretic treatment of objects but rejects a similar treatment of events, many philosophers have—mainly to solve some puzzles within the framework of a Lewisian counterfactual analysis of causation—suggested that the counterpart-theoretic treatment be extended to events. This paper argues that we had better not be a counterpart theorist of events, as long as we want to remain at all faithful to the counterfactual analysis of causation.

1. As is well known, the basic idea of David Lewis's counterpart theory (1983a, 1983b, 1986a) is that an object  $x$  in any given world, as a world-bound entity, is not *identical* to anything in other worlds; rather, in some of these worlds certain objects are, in some aspect or other, *similar enough* to  $x$ —and *more similar* than other things in their worlds—to be  $x$ 's counterparts (the aspect and degree of similarity are made salient, if only vaguely, by the context in which  $x$  is picked out and may vary from context to context). Thus, for instance, instead of himself winning the 2008 US presidential election in some world, John McCain has a counterpart doing so in that world—the latter is similar to McCain, presumably in the sense that in his world he is also the Republican presidential nominee in 2008. (In this very thin context, 'John McCain' evokes very little except maybe that the person it picks out is the Republican nominee for the presidency in 2008.) According to Lewis, as seems convincing to many, the counterpart theory serves well in making sense of *de re* modal ascriptions, solving constitution puzzles such as the infamous case of the Statue and the Clay, and so on.

However, Lewis thinks that his counterpart theory is applicable only to *objects*, not to *events*. According to him, what McCain's counterpart wins is not a counterpart of the 2008 presidential election, but *the* 2008 presidential election.<sup>1</sup> Unlike objects, events are construed as trans-world entities, existing in multiple worlds.

This disparity between Lewis's attitudes towards a counterpart-theoretic treatment of objects on the one hand and a similar treatment of events on the other is remarkably—and uncharacteristically, some may say—inelegant. Not surprisingly, many (e.g. Wasserman ms, Bernstein 2014, McConnell 2016, and Kaiserman 2017) have balked at the disparity and suggested that Lewis's counterpart-theoretic treatment of objects be extended to events. Again, doing so is supposedly rewarded well, particularly when it comes to dealing with some puzzles within the framework of a Lewisian counterfactual analysis of causation, such as transitivity failure, absence causation, the problem of late-preemption, and so on.

But, in my view, we had better not be a counterpart theorist of events. This is not because I dispute with the theoretical benefits suggested by Wasserman et al., but because

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<sup>1</sup> How can one and the same election be won by McCain's counterpart *and* lost by himself? The answer is that the election as a trans-world entity involves not only McCain, but all his counterparts. At this point, it is important to note that Lewis (1986d: 244) takes an event as a property of spatiotemporal regions, and what he means by a property is a class. According to him, an event as a class of spatiotemporal regions exists in multiple worlds, in virtue of the fact that in each of these worlds there is a spatiotemporal region as a member of the class. Under this view, the so-called trans-world identity of events comes down to this much: what we usually call an 'event' (such as the election lost by McCain) can be seen as being identical to some otherworldly 'event' (the election won by McCain's counterpart), in the sense that the spatiotemporal regions where they occur belong to the same class—i.e. an event, properly speaking.

I do not think that the benefits are worthwhile—that is, they are not worthwhile as long as we want to remain faithful to the counterfactual analysis of causation. In this paper, I argue that adopting a counterpart-theoretic treatment of events would undermine the counterfactual analysis of causation.

2. To begin, a few words about the counterfactual analysis of causation are in order.

Nuances aside, I take this to be the core idea of Lewis's counterfactual analysis of causation: at a world  $w$ , an occurrent event  $e$  is caused by a distinct occurrent event  $c$  if the counterfactual  $\neg O_c \Box \rightarrow \neg O_e$  (in words: 'if  $c$  had not occurred,  $e$  would not have occurred') is true,<sup>2</sup> where

- (C)  $\neg O_c \Box \rightarrow \neg O_e$  is true at  $w$  if and only if some world where  $c$  and  $e$  both fail to occur is more similar to  $w$  than is any other world where  $c$  fails to occur but  $e$  does (Lewis 1973).

Note that here trans-world identity of events is assumed: by ' $c$ ' and ' $e$ ' it is meant to pick out certain events (or, for that matter, to speak about the non-existences thereof) not only in  $w$ , but cross-worldly. Suppose, however, that we renounce trans-world events and opt for talking about world-bound events and their otherworldly counterparts. The analysis of the causal counterfactual then becomes:

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<sup>2</sup> Whether counterfactual dependence is also necessary for causation is a moot point and immaterial in what follows.

(CC)  $\neg O_c \square \rightarrow \neg O_e$  is true at  $w$  if and only if some world where *no counterpart of  $c$  occurs* and *no counterpart of  $e$  occurs* is more similar to  $w$  than is any other world where *no counterpart of  $c$  occurs* but *a counterpart of  $e$  does*.

(Be aware that CC should not be read in an implausibly strong sense such that the phrases ‘no counterpart’ are meant to make a negation in *all* contexts. On a more plausible weak reading, the negation is always made relative to a *given* context. It should have been clear that the counterpart relation is essentially context-sensitive, such that the non-existence of a counterpart under one counterpart relation salient in one context may well be co-tenable with the existence of a counterpart under another counterpart relation salient in another context. In what follows, the particular counterpart relations in play—with which CC goes—will be made sufficiently evident by context and, crucially, will vary from context to context.)

**3.** Now, key to my contention that we should not adopt a counterpart-theoretical treatment of events is my observation that, under that treatment, CC is a vacuous claim—there is no reason to think that, on CC, any causal counterfactual is ever true. To see this, first consider why C is, by contrast, *not* vacuous. According to Lewis (1986b, 1986c), and assuming trans-world identity of events, the reason why a world where  $c$  and  $e$  both fail to occur can be more similar to  $w$  than is another world where  $c$  fails to occur but  $e$  does, is roughly this:

(Reason) Provided that in  $w$   $c$  and  $e$  are connected in virtue of some law of nature, a world where  $c$  fails to occur but  $e$  does is a world where the

law is violated;<sup>3</sup> whereas a world where both *c* and *e* fail to occur is a world where the law is preserved.<sup>4</sup> Since preserving laws is weighty in preserving worlds—weighty, in this simple case, at least *vis-à-vis* preserving a single event *e*—it follows that the second world is more similar to *w* than is the first.<sup>5</sup>

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<sup>3</sup> This is on the assumption that there are no preemptive alternatives of *c* coming into play in the world in question. It is well known that preemption cases pose a serious threat to Lewis's counterfactual analysis of causation (see his 1986c and 2000 for some inconclusive countermeasures). But they need not concern us here—we are explicating the reason as to why a causal counterfactual, *if true*, is true, not why the counterfactual, even if apparently not true (as in the cases of preemption), may or may not pose a threat to Lewis's counterfactual analysis of causation.

<sup>4</sup> If the law fails to instantiate not just between *c* and *e* but indeed anywhere in a world, it may be tempting to think that the law simply does not exist in that world. Nonetheless, it remains safe to say that the law is at least *not violated* in that world.

<sup>5</sup> *Reason* is offered as a gloss of Lewis. His similarity metric in comparing worlds: '(1) It is of the first importance to avoid big, widespread, diverse violations of law; (2) It is of the second importance to maximize the spatiotemporal region throughout which perfect match of particular fact prevails; (3) It is of the third importance to avoid even small, localized, simple violations of law; and (4) It is of little or no importance to secure approximate similarity of particular fact, even in matters that concern us greatly' (1986b: 47—48). Clearly, on (3) and (4), a world in which a single *e* is retained at the expense of a violation of the law (under which *c* and *e* in the actual world are subsumed) is more of a departure from actuality than a world in which the lawful connection between *c* and *e* is retained at the expense of getting rid of *e*. Clauses (1) and (2) are introduced by Lewis mainly to deal with the

*Reason*, of course, is not directly applicable to CC. In order to apply something akin to *Reason* to CC, we need to switch to talking about world-bound events and their otherworldly counterparts:

(*Reason*\*) Provided that in  $w$   $c$  and  $e$  are connected in virtue of some law of nature, a world where *no counterpart of  $c$*  occurs but *a counterpart of  $e$*  occurs is a world where the law is violated; whereas a world where *no counterpart of  $c$*  occurs and *no counterpart of  $e$*  occurs is a world where the law is preserved. Since preserving laws is weighty in preserving worlds—weighty, in this simple case, at least *vis-à-vis* preserving a single event of *a counterpart of  $e$* —it follows that the second world is more similar to  $w$  than is the first.

But *Reason*\* is implausible and subject to counterexamples such as the following. Suppose that, in the actual world, a glass's being dropped is connected with the glass's being broken

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infamous Nixon example—a kind of example in which the antecedent event (or the absence thereof) of a certain counterfactual has widespread ramifications—and thus are not clearly relevant to the simple setting of our discussion here. In any case, suppose that  $c$  in our example does have widespread ramifications. Even so, merely retaining  $e$  is still inconsequential, for all the other ramifications of  $c$  need to be retained to get *perfect match* (the consideration of which, according to (2), may outweigh some minor violation of law). Yet, again, the point is that to retain all these ramifications a lot of laws need to be violated, likely on a scale that would trigger clause (1).

immediately after in virtue of some law (presumably, Newton's second law or something of the sort). It is not difficult to see that no such law is violated in a world  $w'$  due to the fact that, in  $w'$ , no counterpart of the actual dropping occurs at the time of the actual dropping,<sup>6</sup> no counterpart of the actual breaking occurs *immediately after*, but an indiscernible<sup>7</sup> breaking occurs *two days later*. Obviously, since the law in question subsumes two events at two particular times, a situation, as in  $w'$ , in which *at these two times* there is neither event, nor counterpart of either, is not a situation in which the law is violated. *As a separate matter*, the two-days-later breaking can very well be lawfully—indeed, by the very same law in question—brought about by some event other than a dropping (say, by a hammering immediately before the breaking). The point, however, is that the two-days-later breaking can also very well be a counterpart of the actual breaking, provided that in  $w'$  there is no event that is more similar to the actual breaking than is the two-days-later breaking—in

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<sup>6</sup> For ease of wording, I assume trans-world times. Assuming counterpart times would not alter the matter. (Note that counterpart times are strictly speaking not temporally related, although they can be quasi-temporally related, in virtue of the fact that they are temporally situated, in alike ways, within their respective worlds. Cf. Lewis (1986a: 70–71).) The same goes with those places or spatiotemporal regions in later examples.

<sup>7</sup> I distinguish between *indiscernibility* and *perfect similarity*: while two things (events or objects) are indiscernible just insofar as they are intrinsic duplicates, they are perfectly similar just insofar as they are indiscernible *and* they share all the same extrinsic relations. The distinction is needed, for the following reason. As briefly mentioned earlier, there are two conditions for  $X$ 's being a counterpart of  $Y$ : (1) (along some dimensions,)  $X$  is *similar enough* to  $Y$ ; and (2)  $X$  is *more similar* to  $Y$  than are other things in  $X$ 's world (or most of them, if a tie is allowed). Now, regarding the first condition, one may think that a limiting case would be that  $X$  is just *perfectly similar* to  $Y$ . But if so, the second

particular, provided that in  $w'$  there is no breaking of a glass *at earlier times*.<sup>8</sup> Thus  $w'$ , where no counterpart of the actual dropping occurs but a counterpart of the actual breaking occurs is not a world where the law in question is violated.

To deal with the counterexample, some may suggest that *Reason\** be tightened by focusing on an event's counterparts occurring *at the same time* as the event:<sup>9</sup>

(*Reason\*\**) Provided that in  $w$ ,  $c$  at a time  $t$  and  $e$  at a time  $t'$  are connected in virtue of some law of nature, a world where no counterpart of  $c$ , at  $t$ , occurs but a counterpart of  $e$ , at  $t'$ , does is a world where the law is violated; whereas a world where no counterpart of  $c$ , at  $t$ , occurs and

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condition would be running idle. It would not, if we interpret the casual expression 'perfectly similar' as conveying indiscernibility, as defined above vis-à-vis perfect similarity proper.

<sup>8</sup> Some may find the assertion of the counterparthood fairly innocuous—it is, anyway, on the stipulation that the two breakings are indiscernible (thus presumably the two-days-later breaking is *similar enough* to the actual breaking), and that the two-days-later breaking is *more similar* to the actual breaking than is any other event in  $w'$ . Others may be more skeptical, contending that being indiscernible falls short of being similar enough. One concern may be that similarity of the *origins* of two events' constitutive objects is to be regarded as a precondition for the two events to be involved in any counterpart relation at all. Applied without restrictions, the precondition seems to me rather problematic—as far as I can tell, it can hardly matter whether what is involved in a counterpart of my breaking of the *most beautiful* glass in the town is a glass made in (a counterpart of) some arbitrary factory. But, in any case, the point about origin is immaterial in the example under discussion: it can simply be added to the example that the two-days-later breaking is of a glass that has the same origin (or a counterpart thereof) as the glass actually broken. (Simply stipulating



no counterpart of *e*, at *t'*, occurs is a world where the law is preserved. Since preserving laws is weighty in preserving worlds—weighty, in this simple case, at least *vis-à-vis* preserving a single event of a counterpart of *e*, at *t'*—it follows that the second world is more similar to *w* than is the first.<sup>10</sup>

But *Reason\*\** will not do, either. Suppose that, in the actual world and on Times Square, a glass's being dropped at *t*<sub>1</sub> is connected with the glass's being broken at *t*<sub>2</sub> in virtue of some law. Still, no such law is violated in a world *w'* due to the fact that, in *w'*, no counterpart of the actual dropping occurs at *t*<sub>1</sub>, no counterpart of the actual breaking occurs on Times Square at *t*<sub>2</sub>, but an indiscernible breaking occurs on *Tiananmen Square* at *t*<sub>2</sub>. Obviously,

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that the two glasses are trans-world identical will also do, even though few would opt for that if they are already prepared to adopt a counterpart theory of events.)

Another concern is trickier: it may be thought that the two-days-later breaking is *too late* to be a counterpart of the actual breaking. I am not sure how to ease this concern, for in general I am not sure how late (or early) is too late (or early) for one event to be another's counterpart. But the problem is circumvented in the next example we'll consider. See below.

<sup>9</sup> For those who think that the two-days-later breaking is too late to be a counterpart of the actual breaking, read this 'occurring at the same time' not as a qualification, but an explication (partly of what it is to be a counterpart event). That way, even they would agree that we are now focusing on relevant counterpart events proper.

<sup>10</sup> To be built on *Reason\*\**, CC needs to be modified accordingly, with 'no counterpart of *c*' in the original formulation being replaced with 'no counterpart of *c*, at *t'*', etc. The same goes with the following *Reason\*\*\**.

since the law in question subsumes two events in two particular places, a situation, as in  $w'$ , in which *in these two places* there is neither event, nor counterpart of either, is not a situation in which the law is violated. *As a separate matter*, the breaking on Tiananmen Square can very well be lawfully—indeed, by the very same law in question—brought about by some event other than a dropping (say, by a hammering on Tiananmen Square). The point, however, is that the breaking on Tiananmen Square at  $t_2$  can also very well be a counterpart of the actual breaking at  $t_2$ , provided that in  $w'$  there is no event that is more similar to the actual breaking than is the breaking on Tiananmen Square—in particular, provided that in  $w'$  there is no breaking of a glass *elsewhere* at  $t_2$ .<sup>11</sup> Thus  $w'$ , where no counterpart of the actual dropping, at  $t_1$ , occurs but a counterpart of the actual breaking, at  $t_2$ , occurs is not a world where the law in question is violated.

*Reason\** may be further refined, by focusing on an event's counterparts occurring *in the same spatiotemporal region* as the event:

(*Reason\*\*\**) Provided that in  $w$ ,  $c$  in spatiotemporal region  $r$  and  $e$  in spatiotemporal region  $r'$  are connected in virtue of some law of nature, a world where no counterpart of  $c$ , *in*  $r$ , occurs but a counterpart of  $e$ , *in*  $r'$ , does is a world where the law is violated; whereas a world where no counterpart of  $c$ , *in*  $r$ , occurs and no counterpart of  $e$ , *in*  $r'$ , occurs is a world where the law is preserved.

Since preserving laws is weighty in preserving worlds—weighty, in this

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<sup>11</sup> For those, if any, who think that the breaking on Tiananmen Square is too distant away from Times Square to be a counterpart of the actual breaking on Times Square, see below the next example.

simple case, at least *vis-à-vis* preserving a single event of a counterpart of  $e$ , in  $r'$ —it follows that the second world is more similar to  $w$  than is the first.

But still *Reason\*\*\** will not do. Suppose that, in the actual world, a glass's being *intentionally* dropped in  $r_1$  is connected with the glass's being broken in  $r_2$  in virtue of some law. Still, no such law is violated in some world  $w'$  due to the fact that, in  $w'$ , an indiscernible but *unintentional* dropping occurs in  $r_1$ , and an indiscernible breaking occurs in  $r_2$ . This is because the breaking in  $w'$  can be lawfully—that is, by the very same law in question—brought about by the unintentional dropping.<sup>12</sup> Obviously, the breaking in  $w'$  is a counterpart of the actual breaking, provided that they are indiscernible and occur in the same spatiotemporal region; but the unintentional dropping in  $w'$  is *not* a counterpart of the actual intentional dropping, for the counterpart relation in play—as clearly indicated by the way the actual dropping is picked out, i.e. 'the intentional dropping'—is one according to which all the counterparts of the actual dropping have to be intentional. The point, however, is that  $w'$  can very well be a world where no counterpart of the *intentional* dropping occurs in  $r_1$ , provided that the dropping in  $r_1$  in  $w'$  is unintentional and therein there is only one dropping. Thus  $w'$ , where no counterpart of the actual dropping, in  $r_1$ , occurs but a counterpart of the actual breaking, in  $r_2$ , occurs is not a world where the law in question is violated.

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<sup>12</sup> What if intentionality does figure in laws, such that event<sub>1</sub> (action) carried out intentionally leads to something by law<sub>1</sub> but event<sub>2</sub>, however similar to event<sub>1</sub> but carried out unintentionally, can only lead to the same something by law<sub>2</sub>? This view about laws is too alien to be taken seriously.

I will make no further attempts to modify *Reason* into something plausible to be applied to CC. As I see it, no such attempt is likely to succeed, for the general reason that counterparts are determined by context-sensitive aspects that do not track lawful connections or, for that matter, violations of laws. Suppose that all laws in the form of  $(e)(f)(F_e \rightarrow G_f)$ , where  $e$  and  $f$  are variables ranging over events and  $F$  and  $G$  are properties of events, are such that an *abnormal* instance, in the form of  $[\sim F_e, G_f]$ , constitutes a violation of the laws. The idea is that the result of substituting the  $e$ 's or  $f$ 's in the abnormal instances with their counterparts in some world in general does not, in that world, constitute a violation of the laws.

The upshot is that the right flank of the biconditional CC, for want of a reason akin to *Reason*, is ill-founded. If there is no reason to think that, on CC, any causal counterfactual is true, CC as a vacuous claim has to be rejected (of course we want to say that some causal counterfactuals are true!). But then the counterpart-theoretic version of the counterfactual analysis of causation, rested on CC, fails.

**4.** The failure of the counterfactual analysis of causation grafted on a counterpart-theoretic treatment of events speaks against that treatment. Of course, nothing I have said in this paper works against a counterpart-theoretic treatment of objects. Shall we, then, follow Lewis in endorsing the counterpart theory of objects (for all the theoretic benefits) while rejecting a counterpart theory of events (for saving the counterfactual analysis of causation)? Admittedly, this seems an inelegant stance to take. But perhaps we need not be too worried—saving the counterfactual analysis of causation is a *big* deal, and if for that purpose the counterpart theory of events has to go, so be it. After all, let us recall: 'Events

are not much of a topic in their own right. They earn their keep in the discussion of other topics: ... [prominently, I would add] the analysis of causation' (Lewis 1986d: 241).

## References

- Bernstein, S. 2014. Omissions as Possibilities. *Philosophical Studies* 167: 1–23.
- Kaiserman, A. 2017. Causes and Counterparts. *Australasian Journal of Philosophy* 95: 17–28.
- Lewis, D. 1973. *Counterfactuals*. Oxford: Basil Blackwell.
- Lewis, D. 1983a. Counterpart Theory and Quantified Modal Logic. In his *Philosophical Papers: Volume I*. Oxford: Oxford University Press.
- Lewis, D. 1983b. Counterparts of Persons and Their Bodies. In his *Philosophical Papers: Volume I*. Oxford: Oxford University Press.
- Lewis, D. 1986a. *On the Plurality of Worlds*. Oxford: Blackwell.
- Lewis, D. 1986b. Counterfactual Dependence and Time's Arrow. In his *Philosophical Papers: Volume II*. Oxford: Oxford University Press.
- Lewis, D. 1986c. Causation. In his *Philosophical Papers: Volume II*. Oxford: Oxford University Press.
- Lewis, D. 1986d. Events. In his *Philosophical Papers: Volume II*. Oxford: Oxford University Press.
- Lewis, D. 2000. Causation as Influence. *Journal of Philosophy* 97: 182–197.
- McDonnell, N. 2016. Events and Their Counterparts. *Philosophical Studies* 173: 1291–1308.
- Wasserman, R. manuscript. Is Causation Extensional?