

A Critical Reply to Williamson's "Fragility, Influence, and Intrinsicality"

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Abstract

In response to David Lewis' original counterfactual account of causation's inability to deal with late preemption cases, Patrick Williamson suggests that we could adopt extreme standards of fragility. I outline the implications of this solution and defend Lewis' view that spurious causes pose a greater challenge to extreme fragility than they do to the original counterfactual account. I then argue that adopting extreme standards of fragility ultimately fails to adequately address late preemption. Williamson advocates that, in order to allow for the intrinsicality of causal processes, we should adopt the original counterfactual account as quasi-dependence. He indicates that proponents of quasi-dependence must make some metaphysical concessions, namely that all trumping cases involve cutting and that absences not only do not exist, but that propositions describing absences are really describing contrastive positive claims. I address each concession in turn and draw out its implications, showing that not only do they not provide a satisfying solution to the problems they aim to solve, but that they likely generate further problems.

§ 0. Introduction

Traditionally, causation has been thought of as a real and fundamental relation.² Proponents of this traditional view typically hold that causes bring about their

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² Loux, Michael J and Thomas M Crisp (2017) "Causation," in Paul K Moser, ed, *Metaphysics: A Contemporary Introduction*, Fourth Edition, 182.

effects in virtue of their exercising some power or disposition, and that the exercising of that power/disposition necessitates the effect.³

David Hume famously challenged this notion of causal powers and necessary connections between causes and effects, arguing that we have no direct empirical experience of them (and thus, according to Hume, we are not justified in asserting their existence).⁴ Many philosophers who share Hume's rejection of traditional approaches to causation have since developed alternative accounts.

One notable example is David Lewis' original counterfactual account of causation.⁵ Counterfactuals are just subjunctive conditional statements (statements of the form *if A then would have B*). The truth of counterfactuals is assessed by employing the notion of *possible worlds* (a possible world is just a causally closed, maximal description of the way things could have been):⁶ *if A then would have B* is true at some world just in case the closest world at which *A* is true, *B* is also true.⁷ Lewis then uses this method of assessing counterfactuals to define the notion of *causal dependence*: some event *e* causally depends on some event *c* if and only if *e* counterfactually depends on *c* (or in other words, the counterfactuals *if c then would have e* and *had not c, not e* are both true).⁸ Causation is then defined as the ancestor of causal dependence, that is, *c* is a cause of *e* if and only if there is a stepwise-chain of causal dependencies leading from *c* to *e* (even if *e* is not causally dependent on *c*).⁹

³ Loux, "Causation," 182. Additionally, causal powers/dispositions are generally considered to be primitive and irreducible.

⁴ Hume, David (1739/1896) "Of the idea of necessary connexion," in LA Selby-Bigge, ed, *A Treatise of Human Nature*, Clarendon Press, 85–86. He points out that whenever we observe a supposed instance of causation, all we actually observe is a succession of events. For example, for every instance of a person lighting a match by striking it, all we ever observe is the event of a person striking a match followed by the event of a match lighting; according to Hume, we never observe any extra necessitating causal power.

⁵ Lewis, David (1973) "Causation," *The Journal of Philosophy* 70, 556–567.

⁶ Williamson, Patrick (2019) "Fragility, influence, and intrinsicality," *The Undergraduate Philosophy Journal of Australasia* 1, 1–2. For simplicity's sake, I employ Williamson's definition of possible worlds. Additionally, there is a non-empty set of all possible worlds (of which our world is a member), the members of which stand in relations of overall comparative similarity (assessed via similarity in both particular matters of spatiotemporal fact and laws of nature; e.g. if *w₂* is closer to *w₁* than *w₃* is, *w₂* is more similar to *w₁* than *w₃* is).

⁷ *If A then would have B* would also be vacuously true if *A* was false at every world. Additionally, on Lewis' actual view, there would not necessarily be a single closest world at which *A* is true, but rather, a non-empty set of equally close worlds in which there is at least one world at which *A* is true; *If A then would have B* would then be true if and only if *B* was true at every world at which *A* was true within that set: Lewis, "Causation," 560.

⁸ Lewis, "Causation," 561–562. Additionally, *e* counterfactually depends on *c* if and only if *O(e)* counterfactually depends on *O(c)*, where *O(x)* is an event-tracking proposition which is true at all and only those worlds where event *x* occurs. Also, as outlined by Lewis and reiterated by Williamson, only events which are distinct and non-overlapping can enter into relations of causal dependence: Lewis "Postscripts to causation," 212; Williamson, "Fragility, influence, and intrinsicality," 2.

⁹ Lewis, "Causation," 563. This allows causation to be transitive even though causal dependence is not. In other words, if *e* is causally dependent on *c*, then *c* is also a cause of *e*. However, if *e* is causally

§ 1. Fragility

Prima facie, Lewis' original counterfactual account of causation cannot deal with late preemption cases.¹⁰ Late preemption cases are characterised by the following form: we have an actual cause (c_1) and a potential cause (c_2), both of which are sufficient to result in some effect (e). However, c_1 produces e before c_2 can, which is why we want to say that c_1 is the cause of e , rather than c_2 . But because both c_1 and c_2 are sufficient to produce e , the relevant counterfactuals ($had\ not\ c_1, not\ e$; $had\ not\ c_2, not\ e$) turn out to be false, and consequently, neither c_1 nor c_2 are causes of e under the original counterfactual analysis.¹¹

The following example, Example 1, is commonly used to illustrate late preemption: Suzy and Billy each throw a rock at a glass bottle. Suzy throws her rock slightly faster, resulting in it reaching and smashing the glass bottle first, leaving Billy's rock to pass through the space where the bottle had just been standing.¹² We want to say that Suzy's throw (c_1) is the cause of the bottle breaking (e); however, the counterfactual *had Suzy not thrown, the bottle would not have broken* is false because if Suzy's throw had not broken the bottle, Billy's (c_2) would have.

Patrick Williamson suggests that adopting extreme standards of fragility would enable us to deal with late preemption cases.¹³ What Williamson means by *extreme fragility* is that any event e would have been a numerically different event altogether if there had been some minuscule variation in spatiotemporal fact.¹⁴ Late preemption seemingly poses no problem now: it will not be the case that *had not c₁, not e* and *had not c₂, not e* are false, since c_1 and c_2 , being independent causes which differ in spatiotemporal fact, will bring about events which differ in spatiotemporal fact (e_1 and e_2 respectively). Applying this principle to Example 1, we can argue that Suzy's throw (c_1) is indeed the cause of the bottle breaking (or more precisely, the bottle breaking in the time/manner which corresponds to c_1 ; that is, e_1), as the counterfactual that *had not c₁, not e₁* is true. Likewise, c_2 is not a cause of e_1 , as *if c₂ then would have e₁* is false.

Williamson responds to one of Lewis' primary objections to adopting extreme standards of fragility, namely that it allows too many spurious causes, by maintaining that the original counterfactual account is just as susceptible to this issue.¹⁵ I argue that Lewis is correct in suggesting that spurious causation poses a greater problem for extreme fragility than it does for the original counterfactual account. Secondly, I point out that the potential ambiguity concerning the degree of

dependent on d , and d is causally dependent on c , c will be a cause of e , even if e is not causally dependent on c .

¹⁰ Lewis, David (1986) "Postscripts to causation," in *Philosophical Papers*, vol. 2, Oxford University Press, 193.

¹¹ Lewis, "Postscripts to causation," 193.

¹² Lewis, David (2000) "Causation as influence," *The Journal of Philosophy* 97, 82.

¹³ Williamson, "Fragility, influence, and intrinsicality," 3.

¹⁴ Williamson, "Fragility, influence, and intrinsicality," 3.

¹⁵ Williamson, "Fragility, influence, and intrinsicality," 5.

fragility to be applied will require us to adopt standards of fragility that will ultimately result in a failure to properly deal with late preemption.

1.1 *Spurious causes*

The main issue is this: if any small deviation of spatiotemporal fact would have rendered some event a numerically different event, it would seem that anything that influenced the spatiotemporal facts of an event is itself a cause of that event (that is, *had not x, not e* would be true, where *x* is some influencing factor and *e* is some fragile event).¹⁶ With regard to Example 1, factors such as rock type, air pressure, and temperature would all qualify as causes of the bottle breaking, all of which seem spurious.¹⁷ Williamson concedes that this is a genuine problem for extreme fragility; however, he argues that the original counterfactual account is just as susceptible to spurious causation; he points out that because causation is transitive, there will be an endless supply of spurious causes because any member of a chain of stepwise causal dependencies will be a cause of any posterior member.¹⁸

However, it is crucial that we distinguish causes from causal dependencies. Lewis specifically argues that the issue with adopting extreme standards of fragility is its propensity to generate spurious causal dependencies, not causes *per se*.¹⁹ In fact, as long as each case of causal dependency within a stepwise chain is not spurious, it is not clear that distant events qualifying as causes of recent events challenge our intuitions about causation. For example, the event of someone bouncing on a trampoline may be connected to the event of that person getting married by a stepwise chain of causal dependencies: maybe bouncing on the trampoline resulted in that person breaking their leg, which resulted in that person going to the hospital, which resulted in that person meeting their future partner, and so on. Even though that person getting married is likely not causally dependent on their bouncing on a trampoline, their bouncing on a trampoline would nevertheless be a cause of them getting married. Although this might appear spurious at first glance, upon inspecting each case of non-spurious causal dependence connecting the trampoline to the marriage, it is not clear that the impression of spuriousness would remain. The reason we diagnose a supposed instance of causal dependency as spurious is that we think it fails to capture a genuine causal connection at all. In the case of a distant event being connected to a more recent event by a stepwise-chain of causal dependencies, the reason we may initially think that the distant event being a cause of the recent event would be spurious is that, due to the length of the causal chain connecting them (and our ignorance about each *link* of the chain), we may suspect that at least one of the links fails to capture a genuine causal connection (or, in other words, the chain contains at least one spurious causal dependency). Therefore, if we knew that a causal chain did not in fact contain any spurious causal dependencies,

¹⁶ Lewis, "Postscripts to causation," 198.

¹⁷ Williamson, "Fragility, influence, and intrinsicality," 4.

¹⁸ Williamson, "Fragility, influence, and intrinsicality," 5.

¹⁹ Lewis, "Postscripts to causation," 198.

we would have no reason to think it spurious that any prior member of that chain would be a cause of any posterior member.²⁰

Thus, when comparing the degree to which the two accounts of causation are susceptible to spurious causes, we must do so in relation to causal dependency.²¹ Adopting extreme standards of fragility would mean that every event will causally depend on a virtually infinite number of spurious factors.²² Contrastingly, the same is not true of the original counterfactual account. Williamson argues that under the original counterfactual account, a person getting lung cancer would causally depend on them having lungs (that is, their lungs would have caused their lung cancer), as the counterfactual *had I not had lungs I would not have had lung cancer* would be true.²³ However, I think that it is important to point out that only distinct events can stand in relations of causal dependence.²⁴ In order for two events to be distinct, they cannot be identical, one cannot be a proper part of the other, and they cannot share any part in common.²⁵ If we allowed non-distinct events to be the *relata* of causal dependence relations, events like *you having a nose* would causally depend on *you existing*, and *having lungs* would causally depend on *having lungs*.²⁶ In order for the counterfactual *had I not had lungs, I would not have had lung cancer* to be true, the proposition *had I not had lungs* must be the negation of the event of *having lungs* at approximately the time of having the lung cancer.²⁷ Additionally, the event of *having lung cancer* seems to also include the event of *having lungs* (otherwise it would not be 'lung' cancer). Hence, *having lungs* appears to be a proper part of *having lung cancer*, or at the very least, both events share some common part, meaning that they are not distinct events, and consequently, one cannot causally depend on the other (despite the fact that the right counterfactuals are true).²⁸ Even more clearly, the event of *having lung cancer* implies the event of *having lungs*. Lewis points out that, as a general principle, when we have

²⁰ In fact, this implies that as causation supervenes on chains of causal dependencies, a cause is spurious if and only if the causal chain it supervenes on contains a spurious causal dependency. This further supports the fact that the propensity to generate spurious causal dependencies is the fundamental issue.

²¹ Even if we thought that causation *per se* was also relevant, both the original counterfactual account and extreme fragility would be equally susceptible to spurious causes *per se*, as causation is transitive on both views. Thus, any comparisons based on spurious causes would turn on each of the view's susceptibility to spurious causal dependencies anyway.

²² Williamson, "Fragility, influence, and intrinsicality," 5.

²³ Menzies, Peter (2004) "Difference making in context," in J Collins, N Hall & LA Paul, eds, *Causation and Counterfactuals*, MIT Press, 143.

²⁴ Lewis, "Postscripts to causation," 212.

²⁵ Lewis, "Postscripts to causation," 212.

²⁶ Lewis, "Postscripts to causation," 256.

²⁷ It seems that having lung cancer only requires that you have lungs when the lung cancer is occurring; having lung cancer does not necessarily entail that you had lungs prior, that is, *if I had lungs then I would have had lung cancer* requires that *having lungs* and *having lung cancer* temporally coincide in order to be true.

²⁸ Lewis, "Postscripts to causation," 212.

one event that implies another event, we should take it that they are not distinct events, and that any counterfactual dependence between them is non-causal.²⁹

It would appear that many of the potential cases of spurious causal dependency allowed by the original counterfactual account either involve events that are not distinct or involve cases where the effect implies the cause, and thus any counterfactual dependence is either trivial at best or non-causal at worst. It should be conceded, however, that there still are non-trivial examples. For example, it is plausible that a fire started by someone with a match is also causally dependent on the presence of oxygen in the air (as the counterfactual *if there had not been oxygen in the air, then a fire would not have started* would be true), however, it would seem spurious to say that the presence of oxygen in the air caused the fire to start.³⁰ So, although the range of spurious causal dependencies allowed by adopting extreme standards of fragility is far more expansive, the original counterfactual account is still susceptible to a lesser degree.

1.2 Failure to deal with late preemption

I will now turn to another issue: exactly what standard of fragility is to be adopted? It seems that we have various candidates for what we should consider as *events*; some are more fine-grained (more fragile), and some are more coarse-grained (less fragile).³¹ Both the original counterfactual account and the extreme standards of fragility account agree that differences in spatiotemporal fact are what distinguish numerically distinct events; however, they disagree on the extent to which there can be spatiotemporal differences before an actual event would have been a numerically distinct event in some counterfactual scenario.³² I suspect that if we are to avoid the same criticisms of imprecision and context-dependency levelled by Williamson³³ against Lewis' influence account,³⁴ advocates of extreme standards of fragility must apply those standards consistently. That is, if a certain degree of spatiotemporal difference is sufficient to numerically distinguish two events in one case, then that degree of spatiotemporal difference will be sufficient to numerically distinguish two events in all cases.

If the motivation for adopting extreme standards of fragility is to identify the correct cause in late preemption cases, then the degree of fragility that is adopted must be sufficient to deal with all plausible examples of late preemption. Given that we could construct late preemption cases that involve entities like neurons and subatomic particles, it must be that virtually any difference in spatiotemporal fact is sufficient to numerically distinguish events. Williamson does appear to advocate for these standards, given that he rules out troublesome late preemption cases *a priori*, and

²⁹ Lewis, "Postscripts to causation," 256.

³⁰ Menzies, "Difference making in context," 143.

³¹ Lewis, "Postscripts to causation," 196.

³² Lewis, "Postscripts to causation," 195.

³³ Williamson, "Fragility, influence, and intrinsicality," 6.

³⁴ Lewis, "Causation as influence," 91.

asserts that two events cannot independently bring about a numerically identical event (at least in our world).³⁵

However, we do not only want to say that the preempting event is the actual cause in late preemption cases, but we also want to say that the preempted event is not the cause. In other words, we want to say both that *Suzy's throw* is the cause of *Suzy's break*³⁶ and that *Billy's throw* is not the cause of *Suzy's break*. But if we adopt extreme standards of fragility, *Suzy's break* will also causally depend on *Billy's throw*, as although *Billy's* rock did not smash into the bottle, the rock sailing through the air will still have had some influence on the time and manner of *Suzy's break* (for example, wind fluctuations, gravitational effect, and so on).³⁷ Consequently, the counterfactual *had Billy not thrown, Suzy's break would not have happened* would be true, and *Suzy's break* will causally depend on *Billy's throw* just as much as it does on *Suzy's throw*. So, although the original counterfactual account fails to deal with late preemption as neither the preempting nor the preempted event turns out to be the cause, adopting extreme standards of fragility also fails to properly deal with late preemption by diagnosing both the preempting and preempted event as causes.³⁸

§ 2. Quasi-dependence

In order to properly account for the intrinsicality of causation, Williamson proposes that we adopt Lewis' quasi-dependence account of causation (QD).³⁹ On this account, *c* causes *e* if and only if there is either a stepwise chain of causal dependence or *quasi-dependence*⁴⁰ from *c* to *e*. *e* quasi-depends on *c* if and only if *e* counterfactually depends on *c*, not in the actual world, but in some possible world in which both (1) the same intrinsic series of spatiotemporal events connects *c* to *e*, but (2) the extrinsic background details (which include preemptors) of the causal scenario vary.⁴¹

Williamson raises Lewis' main criticisms of QD, namely that it cannot handle trumping or double prevention cases, and concedes that proponents of QD must

³⁵ Williamson, "Fragility, influence, and intrinsicality," 3.

³⁶ *Suzy's break* in this case refers to the event of the bottle breaking in the time and manner in which it actually did, i.e. *e_t*.

³⁷ Lewis, "Postscripts to causation," 205.

³⁸ We could perhaps also argue that this is a category of spurious causes allowed by extreme fragility but not by the original counterfactual account, i.e. preempted events in late preemption cases.

³⁹ Williamson, "Fragility, influence, and intrinsicality," 9. Williamson also notes that the quasi-dependence account allows us to remain agnostic about whether or not to adopt extreme standards of fragility.

⁴⁰ There could also be a mixed chain, i.e. some members of the chain are connected via causal dependence and some via quasi-dependence.

⁴¹ Williamson, "Fragility, influence, and intrinsicality," 9. I have used Williamson's rendition of the quasi-dependence view; however, I will assume that the intrinsic series of spatiotemporal events occurs under the same laws in the possible worlds we are looking at as it did in the case we are analysing. It should also be noted that Lewis allowed for comparison to a similar scenario in the actual world: Lewis, "Causation as influence," 184.

make certain concessions: he argues that firstly, they must maintain that all trumping cases are in fact cutting cases, and secondly, they must deny that absences exist.⁴²

I suggest that considering all trumping cases as cutting cases is unjustified, and that denying absences may create more problems than it solves.

2.1 *Trumping cases*

Trumping cases generally involve two events, c_1 and c_2 , each of which is sufficient to produce an effect e , but the laws render c_1 as the exclusive factor in the entailment of e .⁴³

A commonly used example, Example 2, is as follows. A major (c_1) and a sergeant (c_2) simultaneously shout 'Advance!' to a group of soldiers, who subsequently advance (e). Either of the shouts would have been sufficient by itself to result in the soldiers marching; however, if the major and the sergeant had simultaneously shouted contradictory orders, the soldiers would have followed the orders of the outranking officer (the major, that is, c_1). Thus, we want to say that the major, and not the sergeant, is the cause of the soldiers advancing (as the major's orders 'trump' the sergeant's).⁴⁴

The reason why trumping cases pose a problem for QD is that ostensibly both c_1 and c_2 are connected to e via an intrinsic series of spatiotemporal events and would therefore both be diagnosed as causes of e .⁴⁵ Williamson's solution is to assert that all trumping cases are cutting cases, that is, they involve only one completed intrinsic series of spatiotemporal events.⁴⁶ For example, the major's shout and resulting neural signals in the soldier's brains prevent the neural signals produced by the sergeant from running to completion.⁴⁷

One important thing to note is that Williamson does concede that there may be *alien* (that is, non-actual, non-nomologically accessible, or non-nomologically approximate) worlds in which genuine non-cutting trumping cases occur. However, he argues that the adequacy of a causal theory should first be assessed in the actual world, and in those worlds which are nomologically accessible and approximate, as it is in those worlds where our causal reasoning and intuitions are most applicable.⁴⁸ In light of this, Williamson's claim that all trumping cases are cutting cases is to be understood as the claim that all trumping cases in non-alien worlds are cutting cases.

⁴² Williamson, "Fragility, influence, and intrinsicality," 9–10.

⁴³ Schaffer, Jonathan (2000) "Trumping preemption," *The Journal of Philosophy* 97, 174–175.

⁴⁴ Schaffer, "Trumping preemption," 175.

⁴⁵ Lewis, "Causation as influence," 184.

⁴⁶ Williamson, "Fragility, influence, and intrinsicality," 9.

⁴⁷ Lewis, "Causation as influence," 183.

⁴⁸ Williamson, "Fragility, influence, and intrinsicality," 10.

This is equivalent to saying that given the actual laws of nature (or approximately similar laws), trumping cases are necessarily cutting cases.⁴⁹

Firstly, we might say something about Williamson's insistence that a failure to deal with cases of causation in alien worlds is not a detriment to a theory of causation. Although it may not be a reason to favour some rival theory,⁵⁰ it still gives us reason to think that a theory is incorrect. If we are to think of causation as a relation that holds between events in possible-world space, then a correct theory of causation must make correct predictions across all possible worlds. Therefore, although QD might correctly describe causal relations in the actual world, it would not be a theory of *causation*.

Secondly, the assertion that all trumping cases are cutting cases seems *ad hoc*. Williamson offers no independent reasons for why we should think that trumping cases in non-alien worlds must involve cutting, aside from the fact that it eliminates a counterexample to QD. Additionally, maintaining that trumping cases are necessarily cutting cases given the actual laws of nature (or approximately similar laws) is not merely to assert that the spatiotemporal facts of the actual world are such that every potential case of trumping would contingently turn out to involve cutting. Rather, it asserts that it is a *lawlike* regularity that trumping cases involve cutting. Given that genuine non-cutting trumping cases seem, at the very least, epistemically possible under our current understanding of the actual laws (excluding the identification of trumping cases as cutting cases), there is no reason to think that trumping cases turning out to be cutting cases is lawlike.⁵¹ On the contrary, as causal structure is subsumed under nomic structure on most views (including Lewis'),⁵² increasing the complexity of our theory of the world's nomic structure to save our theory of the world's causal structure misplaces the explanatory priority.

Additionally, Jonathan Schaffer offers us an empirically plausible example, Example 3, of a trumping case which leaves no room for cutting.⁵³ In this example, there is a world (with otherwise similar physical laws to ours) in which there exist three types of fields, namely *black*, *grey*, and *white* (and these fields do not superpose). Whenever some particle is subjected to only one of these fields, it will accelerate along a curved trajectory in a specific direction due to the field's pull. However, if subjected to more than one field, it will accelerate in the direction it would have had it been subjected to only the darkest field. For example, if a particle were subjected to both a *black* and

⁴⁹ However, if there are alien worlds with non-cutting trumping cases, that all trumping cases are cutting cases will be a metaphysically contingent fact.

⁵⁰ As pointed out by Williamson, unless a rival theory of causation maps actual, nomologically accessible, and nomologically approximate worlds in addition to alien worlds, the fact that our preferred theory does not map alien worlds gives us no reason to discard it in favour of the rival theory: Williamson, "Fragility, influence, and intrinsicality," 10.

⁵¹ This is aside from eliminating trumping cases as a counterexample to QD.

⁵² Schaffer, "Trumping preemption," 166.

⁵³ Schaffer, "Trumping preemption," 175.

a *white* field, the particle would accelerate along a curved trajectory in the manner it would have had it only been subjected to the black field. Thus, a physical law of this world would be some sort of colour-field law. Now, if a particle were simultaneously subjected to a *black* and a *white* field, which both pulled in the same direction and with the same magnitude, it would only be the *black* field that caused the particle to accelerate in such a way.⁵⁴

Note that Example 3 has the form of trumping preemption: we have two events, the *black field* (c_1) and the *white field* (c_2), each of which is sufficient to cause the particle to accelerate in the manner that it did (e), but the laws render c_1 as the exclusive factor in the entailment of e . Schaffer points out that although the world in Example 3 is not nomologically accessible to the actual world⁵⁵ (at least according to our current understanding of the actual physical laws), it is more than plausible that physicists in the actual world could discover new types of fields, conduct similar experiments, and consequently update our understanding of the physical laws in accordance with the possibility of similar trumping cases. This provides us with a positive reason for rejecting Williamson's claim that all trumping cases necessarily involve cutting.

2.2 Absences

Williamson notes that cases which seem to posit absences as causes (for example, having an embolism → absence of blood to the brain → absence of oxygen in the brain → having a stroke) present problems for QD, as absences are non-spatiotemporally located and thus there would appear to be no completed intrinsic series of spatiotemporal events connecting the cause to the effect.⁵⁶ He suggests that we not only deny the existence of absences,⁵⁷ but that we might restate absences as *contrastive positive claims*⁵⁸ in order for QD to account for cases of causation which seem to involve absences.⁵⁹

Before I offer my analysis of Williamson's proposals, there are some preliminary matters to sort out. It was not immediately clear to me whether or not the QD account merely extended the original counterfactual account or revised it. In other words, would any two events, which under the original counterfactual account would stand in a relation of causal dependence, also do so under the QD account (even if there was no spatiotemporal series connecting them)? Or does the QD account also require that causal dependence requires a completed spatiotemporal series? On my reading of Lewis, it seems to me that his primary intuition for adopting QD is that he thinks any two intrinsically identical spatiotemporal processes will either both be causal or non-causal, not that all causal relationships

⁵⁴ Schaffer, "Trumping preemption," 173–174.

⁵⁵ Although, it could perhaps be argued to be nomologically approximate.

⁵⁶ Williamson, "Fragility, influence, and intrinsicality," 10.

⁵⁷ More specifically, that we should not add them to our ontology.

⁵⁸ $\sim c$ will instead read: x exists. For example, *not eating cereal* could instead read: *eating toast*.

⁵⁹ Williamson, "Fragility, influence, and intrinsicality," 10.

must involve an intrinsic series of spatiotemporal events.⁶⁰ Thus, it appears that Lewis merely sought to extend his original counterfactual account in order to patch up perceived gaps (primarily late preemption cases).

Williamson does not appear to explicitly restrict relations of causal dependence to only holding between spatiotemporally connected events in his interpretation of the QD account, and therefore, I think he likely follows Lewis in merely extending the original counterfactual account.⁶¹ However, it also seems that his intuitions about the inherent intrinsicality of causation are broader than Lewis',⁶² and hence, it is possible that Williamson does intend for all causal relationships to require a completed intrinsic series of spatiotemporal events. Consequently, I will consider the implications of denying absences under both of these possible interpretations.

Firstly, I do not think that denying the existence of absences necessarily means that we must also deny that they can enter into relations of counterfactual dependence (and consequently relations of causal dependence). Lewis seems to adopt a view that, because negative existential propositions that refer to absences can be true despite those absences not existing,⁶³ absences can enter into relations of causal dependence via such propositions (as the relevant counterfactuals can still be true).⁶⁴ If we accept this, we could maintain that absences do not exist, yet can enter into causal dependence relations, as long as we interpret QD as an extension of the original counterfactual account.⁶⁵

Although adopting Lewis' approach will allow absences to stand in relations of causal dependence, they will not be able to stand in relations of quasi-dependence (because there will be no completed intrinsic series of spatiotemporal events). Consequently, we will have cases where the presence of a potential cause (like in the case of late preemption) will result in an otherwise identical causal chain being non-causal (due to it containing absences). This will undermine one of the primary advantages of the QD account, namely its ability to deal with late preemption cases. It would seem that the only way to rectify this would be to only allow for absences in

⁶⁰ Lewis, "Postscripts to causation," 206.

⁶¹ Williamson, "Fragility, influence, and intrinsicality," 9.

⁶² Williamson, "Fragility, influence, and intrinsicality," 8. For example, he states that the correct account will adjudicate causation based on the intrinsic series of spatiotemporal events which connect causes to effects.

⁶³ At least on most metaphysical accounts of truth, including deflationary theories, truth supervenes on being, atomic truthmaker theory. This may not be the case for certain versions of truthmaker maximalism, however.

⁶⁴ Lewis, "Causation as influence," 196. This does raise some questions about whether causal relations on Lewis' view are fundamentally between events or counterfactual truths. Although Lewis posits events as the *relata* of causal relations, he also states that causal dependence between events just is counterfactual dependence between the relevant propositions: Lewis, "Causation," 562–563.

⁶⁵ Similarly, denying absences would not undermine the counterfactual account as a whole i.e. analysing *c* caused *e* via the counterfactual *had not c, not e* is not problematic, as $\sim c$ and $\sim e$ can be true without having to admit absences into our ontology.

cases of causal dependency while using contrastive positive claims in cases of quasi-dependence, which seems inconsistent.

Thus, it appears that Williamson is right in asserting that proponents of QD must not only deny that absences exist, but also must maintain that propositions describing absences are really just describing contrastive positive claims.⁶⁶ It is not clear to me, however, that counterfactuals describing absences can be smoothly converted into counterfactuals with contrastive positive claims.

Consider the following scenario: a student has an assignment due at 4:30 pm. They complete it to a high standard, but, exhausted, they end up taking a nap from 4:00 pm until 5:00 pm. Consequently, they do not submit their assignment and immediately receive an unsatisfactory grade. It would seem intuitive to say that the student not submitting their assignment caused them to receive an unsatisfactory grade (as the counterfactual *had they not failed to submit their assignment, then they would not have received an unsatisfactory grade* would be true). However, *not submitting their assignment* is an absence, and therefore, we must replace it with some contrastive positive claim. The obvious candidate is *taking a nap from 4:00 pm until 5:00 pm*. However, *taking a nap from 4:00 pm until 5:00 pm* is only accidentally, and not essentially, equivalent to *not submitting their assignment*; the student could have submitted their assignment before 4:00 pm, or, even if the student had not taken a nap, they might have nevertheless still failed to submit their assignment due to some other reason. In other words, *had they not taken a nap from 4:00 pm until 5:00 pm, then they would not have received an unsatisfactory grade* will not be true in every world in which *had they not failed to submit their assignment, then they would not have received an unsatisfactory grade* is true.

It would seem that most, if not all, contrastive positive claims are only accidentally equivalent to the absences which they intend to replace. As Lewis points out, this would require us to adopt special counterfactuals:⁶⁷ in a normal case not involving absences (for example, c_1 causes e), the relevant counterfactual only requires us to suppose away the event *simpliciter* (*had not c_1 , then not e*); in the case of absences (for example, $\sim c$ causes e), first we must replace $\sim c$ with a contrastive positive claim (for example, x), and then see if the relevant counterfactual is true (*had not x , not e*). However, in order for *had not x , not e* to be essentially equivalent to *had not $\sim c$, not e* , we cannot just suppose away x *simpliciter*. We must instead suppose away x *qua* omission; in other words, we cannot just suppose that x did not occur, we must suppose that x did not occur and that no other event occurred that would have resulted in $\sim c$.⁶⁸

⁶⁶ This position will also have to be taken if we interpret the QD account as revising the original counterfactual account.

⁶⁷ Lewis, "Postscripts to causation," 193.

⁶⁸ Lewis, "Postscripts to causation," 192–193.

Similarly, if we were to accept Williamson's concern that interpreting absences as contrastive positive claims threatens to undermine counterfactual accounts entirely,⁶⁹ we would be required to adopt another kind of special counterfactual. For example, in order to analyse a case of $\sim c$ causes e , we have to restate it as x causes e . However, the counterfactual *had not x, not e* (where $\sim x$ is $\sim x$ *qua* omission) would now also have to be restated as *had y, not e* (where y is a contrastive positive claim equivalent to $\sim x$). In order for y to be essentially equivalent to $\sim x$, y must refer to some event kind with the accidental specification that it entails c .

In my view, adopting special counterfactuals would detrimentally inflate the QD account.

§ 3. Conclusion

I began by examining Williamson's defence of adopting extreme standards of fragility as a viable solution to late preemption cases, arguing that Lewis was correct to raise objections based on spurious causes. Additionally, I suggest that adopting extreme standards of fragility in fact fails to properly deal with late preemption, as it diagnoses not just the preempting event as a cause, but the preempted event as one too. Ultimately, Williamson wants to adopt the quasi-dependence account of causation and concedes that proponents will likely be required to maintain that all trumping cases are cutting cases, and that absences do not exist (and that propositions describing absences are really describing contrastive positive claims). I argue that neither of these concessions convincingly addresses the problems they seek to fix, and that they, in fact, create more problems.

⁶⁹ Williamson, "Fragility, influence, and intrinsicality," 11. Williamson points out that as c being a cause of e depends on the counterfactual *had not c, not e*, and $\sim c$ and $\sim e$ are absences, $\sim c$ and $\sim e$ may also need to be converted to contrastive positive claims.

References

Hume, David (1739/1896) "Of the idea of necessary connexion," in LA Selby-Bigge, ed., *A Treatise of Human Nature*: 85–94. Clarendon Press.

Hume, David (1748/2017) "The idea of necessary connection," in Jonathan Bennett, ed., *An Enquiry Concerning Human Understanding*: 29–39. Early Modern Texts.

Lewis, David (1973) "Causation," *The Journal of Philosophy* 70: 556–567. doi:10.2307/2025310

Lewis, David (1986) "Events," in *Philosophical Papers*, vol. 2: 172–213. Oxford University Press.

Lewis, David (1986) "Postscripts to causation," in *Philosophical Papers*, vol. 2: 172–213. Oxford University Press.

Lewis, David (2000) "Causation as influence," *The Journal of Philosophy* 97: 182–197. doi:10.2307/2678389

Loux, Michael J and Thomas M Crisp (2017) "Causation," in Paul K Moser, ed., *Metaphysics: A Contemporary Introduction*, Fourth Edition: 181–197. Routledge.

McDermott, Michael (1995) "Redundant causation," *British Journal for the Philosophy of Science* 46: 523–544. doi:10.1093/bjps/46.4.523

Menzies, Peter (2004) "Difference making in context," in J Collins, N Hall & LA Paul, eds. *Causation and Counterfactuals* 139–180. MIT Press.

Schaffer, Jonathan (2000) "Trumping preemption," *The Journal of Philosophy* 97: 165–181. doi:10.2307/2678388

Williamson, Patrick (2019) "Fragility, influence, and intrinsicality," *The Undergraduate Philosophy Journal of Australasia* 1: 1–12.