



The Battlefield of Indeterminate Causation and its Additivity

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Abstract

A number of philosophers have argued that causation can be indeterminate, particularly in cases of causation by omission such as Sartorio’s *Battlefield*. In *Battlefield*, an inaction is followed by the deaths of three soldiers, though had the inaction not occurred, one and only one soldier would have been saved. Some philosophers claim that with respect to any particular soldier’s death, it is indeterminate whether the inaction caused that death despite its being false that the inaction caused all three deaths. One objection to this “indeterminist option” is that if indeterminate causation is additive, then since it is indeterminate whether the inaction caused each particular death, it should be indeterminate whether the inaction caused all three deaths. But it is false that the inaction caused all the deaths. I will argue that there are restrictions built into the additivity of indeterminate causation that mean that this objection fails.

A number of philosophers have argued that causation can be indeterminate—that in some cases it is neither true nor false that *c* causes *e*—particularly in cases of causation by omission such as Sartorio’s *Battlefield* (Bernstein, 2016; Hoffmann-Kolss, 2025; Swanson, 2017). In *Battlefield*, an inaction is followed by the deaths of three soldiers, though had the inaction not occurred, one and only one soldier would have been saved. Some philosophers hold that with respect to any particular soldier’s death, it is indeterminate whether the inaction caused that death despite its being false that the inaction caused all three deaths. One objection to this “indeterminist option” begins with the thought that, since it is indeterminate whether the inaction caused each particular death, it should also be indeterminate whether the inaction caused all three deaths—the additivity of indeterminate causation. But according to the indeterminist option, it is not indeterminate that the inaction caused all three deaths. It is false. I will argue that this objection should be rejected. If there is an additivity principle for indeterminate causation, there are restrictions on that

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principle and once those restrictions are made explicit, we can see that *Battlefield* does not satisfy them, so the indeterminist option is immune from this objection.

I assume throughout that omission causation is possible, so that causes (and effects as in prevention) may be absences, and that causation can be indeterminate. I work with Ballarin's variation on Sartorio's case.

Battlefield You are at the battlefield and see that three of your soldiers are about to be killed by the enemy. The only action available to you would randomly save one of the three---pressing a button that randomly activates one of three protective shields. You cannot bring yourself to press the button, and all three soldiers die (Sartorio, 2006: 374; Ballarin, 2014: 26).

Since you could have saved at most one soldier, it is false that your inaction caused all three deaths. Yet with respect to any particular soldier, since your only chance to have saved him was by pressing the button—giving him a 1/3 chance of being saved—your failure to press the button was sufficient in the circumstances for his death. So your inaction caused his death. Since this holds for each soldier, it seems true that you caused all three deaths. Sartorio attempts to resolve this apparent inconsistency by distinguishing a collective from a distributive sense of “you caused all the deaths.” It is false in the collective sense but true in the distributive sense. There is no inconsistency. You caused each death, but not the conjunction of those deaths. On Sartorio's proposal, *Battlefield* is a counterexample to the additivity of causation:

Additivity of Causation If c causes e_1 , c causes e_2 , ... and c causes e_n , then c causes $e_1, e_2, \dots$ and e_n (where c and e may be absences).

Arguably, however, abandoning the additivity of causation is a high price to pay. As Ballarin asks, “[h]ow can one bring about each of a series of events without bringing about the larger event which is their mereological sum?” (2014: 28). The rejection is “extremely counterintuitive” (2014: 28).¹ (However, not everyone regards abandoning the additivity of causation principle as theoretically costly. Sartorio, for example, treats the failure of the additivity of causation as desirable rather than as a cost of her view. According to Sartorio, given the rejection of this principle, in *Battlefield*, although for any particular death you are causally responsible for that death, you are not causally responsible for all the deaths together).²

¹ Ballarin's disjunctive-effects proposal preserves the additivity of causation by avoiding the need for a sum of individual causal contribution—since the inaction does not cause any particular death.

² Suppose you could have saved many by donating, but not all, of one million starving people, and that, for each individual, you could have saved that person. But because you failed to donate, no one was saved by you. Sartorio holds that for each death you caused that death. If additivity held, you would also be causally responsible for the million deaths taken collectively. Since this collective causal assessment is of great moral significance, and of greater moral significance than the distributive causal assessment, Sartorio concludes that “[t]he failure of Additivity is a relief, then, in that, although we are causally responsible for all those individual evils, we are not, in addition, causally responsible for the collective evil” (2006, 381–82). Bernstein for her part rejects the main premise of Sartorio's “relief” argument. Bernstein argues that it is implausible to attribute causal responsibility for each individual death to the ommitter. Her example is a safety official who could have prevented any one of one hundred fatal accidents but prevented none. “According to Sartorio's view, the Safety Czar is responsible for each of 100 fatal accidents, but not all of the accidents. But, even with a denial of additivity of causation, this is an undesirable and counterintuitive result” (Bernstein 2016: 437). Once the distributive causal premise is rejected, no appeal to the failure of additivity is needed to avoid collective causal responsibility.

Still, regardless of how one evaluates the costs of rejecting additivity of causation, there is an alternative resolution that invokes indeterminate causation. Rather than holding that your inaction determinately caused each soldier's death, the indeterminist option substitutes:

For any particular soldier who dies, it is indeterminate---neither true nor false---whether your inaction caused that soldier's death (Bernstein, 2016; Hoffmann-Kolss, 2025; Swanson, 2017).

You could have saved one soldier, but it is indeterminate which one, and so for any particular soldier, it is indeterminate whether your inaction caused that death. In Sartorio's terminology, it is indeterminate whether your inaction caused each death in the distributive sense, but false that your inaction caused all three deaths in the collective sense. This combination does not threaten the additivity of causation, since that principle does *not* say that if it is indeterminate whether c caused e_1 , indeterminate whether c caused e_2 , ... and indeterminate whether c caused e_n , then c caused the conjunction. If the three soldiers are Bob, Tom, and Jim, the indeterminist option yields:

- (a) It is indeterminate whether your inaction caused Bob's death.
- (b) It is indeterminate whether your inaction caused Tom's death.
- (c) It is indeterminate whether your inaction caused Jim's death.
- (d) It is false that your inaction caused the deaths of Bob, Tom, and Jim.

This set is consistent with the additivity of causation, so the indeterminist option does not violate that principle, which its proponents claim as an advantage over Sartorio's approach.

It is helpful to place the present discussion in the context of existing defenses of the indeterminist option. Swanson (2017) develops the indeterminist option within a framework of precisifications. He argues that this apparatus is compatible with either a semantic or a metaphysical interpretation of the indeterminacy. On the metaphysical interpretation, the relevant framework is Barnes and Williams' (2011) account of multiple actualities, although Swanson does not commit to this interpretation rather than the semantic alternative. Bernstein (2016), by contrast, offers a metaphysical interpretation of the indeterminist option explicitly in terms of Barnes and Williams' framework.³

The set, (a)–(d), however, although consistent with the additivity of causation, is not consistent with the following principle:

Additivity of Indeterminate Causation If it is indeterminate whether c causes e_1 , indeterminate whether c causes e_2 , ... and indeterminate whether c causes e_n , then it is indeterminate whether c causes $e_1, e_2, \dots$ and e_n .

³ However, unlike Swanson, Bernstein does not develop a general account of what constrains admissible precisifications, such as the role played by Fine's penumbral connections in Swanson's framework (Swanson 2017: 609–610).

The principle says nothing more than that indeterminacy at the level of each individual causal claim transmits to indeterminacy at the level of the causal claim involving the conjunction of those effects. If this principle holds, then from (a)–(c) it follows that if it is indeterminate whether your inaction caused Bob's death, indeterminate whether it caused Tom's death, and indeterminate whether it caused Jim's death, then, it ought to be indeterminate whether your inaction caused all three deaths together. But (d) implies that it is not indeterminate whether your inaction caused all three deaths since according to (d), it is determinately false. Given (d), it is simply false that the inaction caused all three deaths; it is not that the matter is neither true nor false. The additivity of indeterminate causation principle as formulated and the indeterminist option pull in opposite directions and cannot both be affirmed. But neither Swanson nor Bernstein discusses whether indeterminacy in the individual causal claims is in general additive and, thus, whether indeterminacy regarding each particular effect transmits to indeterminacy with respect to the conjunction of those effects. Swanson restricts his discussion to the additivity of determinate causal claims and the corresponding question for indeterminate causal claims is never discussed by him. Bernstein's discussion, in turn, is focused on analyzing particular cases of causation by omission as instances of metaphysical indeterminacy, and the question of whether indeterminate causation is additive does not arise.

Two considerations offer *prima facie* support for thinking that indeterminate causation is additive, though these considerations do not, separately or together, establish it conclusively. First, it is commonly held that causation is additive, though some philosophers, Sartorio in particular, reject this. In addition, it seems clear that non-causation is additive. If c is causally irrelevant to e_1 and c is causally irrelevant to e_2 , then c is causally irrelevant to their conjunction. Given that non-causation is additive, and that causation is widely presumed to be additive, theoretical symmetry favors treating the intermediate case of indeterminate causation as additive too. Second, there are cases that, if they genuinely involve indeterminate causation, provide *prima facie* support for treating the indeterminate causation they exhibit as additive. Of course, whether any of the cases that I describe genuinely involve indeterminate causation can be contested. So the claim for these cases is conditional: if these cases involve indeterminate causation, the indeterminate causation they involve appears to be additive.

Baldness Suppose you perform a single action that causes Bob and Jim, both of whom have full heads of hair, to ingest a substance that sometimes produces clear-cut baldness but not always. After ingestion, it is indeterminate whether Bob is bald and indeterminate whether Jim is bald. Each causal claim---"you caused Bob to go bald," "you caused Jim to go bald"---is therefore indeterminate, at least on the assumption that vagueness of this kind generates genuine indeterminacy in the corresponding causal claims.

Consider baldness, a paradigmatically vague predicate.

For those who accept that assumption, it is *prima facie* plausible that it is likewise indeterminate whether you caused Bob and Jim to go bald. Any indeterminate causation in this case is naturally viewed as additive. There is no apparent basis for

ascribing to the causal claim that you caused both Bob and Jim to go bald a dissimilar status from the two individual causal claims.

But *Battlefield* does not share the structure of *Baldness*. Even if indeterminate causation is additive when indeterminacy concerns whether the effect occurs, that does not show the same for cases in which the cause (including an omission) and the effect determinately occur, and only the causal connection is indeterminate. In *Baldness*, assuming the case involves indeterminate causation at all, each causal claim is arguably indeterminate because it is indeterminate whether the relevant effect event—becoming bald—occurs. In *Battlefield*, by contrast, it is determinate that you do not press the button and that all three soldiers die. According to the indeterminist option, for any particular death, indeterminacy concerns only whether your omission caused that death. To assess the additivity of indeterminate causation in such cases, we therefore need examples in which all the relevant events determinately occur or fail to occur, and only the causal relations are indeterminate. Consider two such cases (substantially modified from Hoffmann-Kolss (2025)).

Vases Close Together Suzy kicks a ball toward two closely positioned amphora vases, *a* and *b*. If the ball stays on its initial course it will knock down and break both vases. Jimmy catches the ball before it can reach the vases. But the ball's exact path is indeterministic. The probability of it hitting both vases, had Jimmy not caught it, is 0.97. There is zero chance that the ball would hit only one of the two vases but not the other, since they are so close together (2025: 269).

On the view that this case involves genuine causal indeterminacy, a view not every philosopher will accept, the following is true of this case. When Jimmy catches the ball, it is indeterminate whether his catch prevents the ball from hitting vase *a* (in conjunction with *b*). Likewise, when he catches the ball, it is indeterminate whether his catch prevents the ball from hitting vase *b* (in conjunction with *a*).⁴ And given these two claims of indeterminacy, that would seem to imply that it is indeterminate whether his catch prevented both vases from being hit. If that

⁴ Why does Hoffmann-Kolss think that the individual causal claims in the case about indeterministic prevention are indeterminate? Her argument runs along the following lines (though in her example there is only one vase). She first identifies a necessary condition for Jimmy's preventing the vase from being hit: had Jimmy not intervened, the ball would have hit the vase. Call this counterfactual *N*. *N* is stipulated to have an objective chance of 0.97. The question is why that intermediate chance should make *N* indeterminate. Hoffmann-Kolss cites Jeffrey (1992: 193) for the conclusion that it follows from the fact that the counterfactual has an intermediate probability that the counterfactual "had Jimmy not intervened, the ball would have hit the amphora" is indeterminate rather than merely unknown. Jeffrey argues that for a coin tossed only twenty times, there is "no telling whether the coin would have landed head up" on a 21st toss that never takes place (Jeffrey 1992: 193). This is because there is no toss, and so no fact of the matter: "... there is no telling whether the coin would have landed head up on a toss that never takes place. That's what probability is all about" (Jeffrey 1992: 193). There is no truth of the matter whether a heads or tails would come up if there is no 21st toss (Jeffrey 1992: 194). The properties of the coin fix the coin's chance of heads, but not what any particular unperformed toss would have yielded. Similar reasoning applies to the indeterministic prevention cases. Jimmy's non-intervention never occurs. Since the non-intervention never occurs, and given the intermediate probability, "the ball would have hit the amphora if no intervention had taken place" is indeterminate. Since *N* is indeterminate, so is the causal claim that depends on it.

is right, then the indeterminate causation involved is additive, even though, unlike *Baldness*, all of the relevant events determinately occur or determinately fail to occur.

Painkiller Jimmy has a headache and a foot pain, each fully treatable by a single painkiller pill. Not knowing the correct dosage, Jimmy takes two pills of the same kind in succession. Taking the first pill is sufficient to relieve both pains. His headache and foot pain both disappear.

Case 1: Jimmy swallows the first pill and the second five seconds later.

Case 2: Jimmy swallows the first pill and the second four hours later.

Case 3: Jimmy swallows the first pill and the second ten minutes later, a borderline interval.

In all three cases, taking the first pill is a sufficient cause of the relief of both pains. In Case 1, the relief of each pain is overdetermined by the two pills (I am assuming that overdeterminers are causes). In Case 2, the second pill is preempted by the first and is not a cause of the relief of either pain. In Case 3 (pills taken ten minutes apart, a borderline interval), it would seem to be indeterminate whether the second pill is an overdetermining cause of the relief of the headache, since it is indeterminate that the first pill preempted the second pill. And, in Case 3, it would seem to be likewise indeterminate whether the second pill is an overdetermining cause of the relief of the foot pain, for the same reason. Finally, regarding the second pill in Case 3, it is plausible that it is indeterminate whether the second pill is an overdetermining cause of the relief of both pains. If that is right, then Case 3 furnishes an additional example in which the indeterminate causation is additive. (This of course depends on accepting the underlying claim that in Case 3 the temporal interval between the two pills generates genuine indeterminacy in the corresponding causal claims.)

It is important to be clear about the dialectic here. Demonstrating that indeterminate causation is additive is not my purpose, nor is demonstrating that there are any cases involving indeterminate causation. My aim is only to show that there is *prima facie* support for the additivity of indeterminate causation, conditional on accepting that there are cases of indeterminate causation. A philosopher who rejects every additivity principle for indeterminate causation, no matter how limited in scope, can simply reject the objection to the indeterminist option outlined above wholesale. But things will appear different for a philosopher who accepts that cases like *Battlefield* involve genuine indeterminate causation and who is persuaded, whether by the analogy to ordinary causation and non-causation, or by cases like *Baldness*, *Vases Close Together*, and *Painkiller*, that indeterminate causation is additive at least in some cases. For that philosopher, there is some basis for being attracted to an additivity principle for indeterminate causation, and hence for taking the objection seriously. However, for that philosopher, an unrestricted version of the principle will not hold up, as we shall see shortly. Getting its restriction right is the mission that is the focus of the remainder of this paper. Once we clarify the restriction, however, the indeterminist option will be safe from this objection even granting that indeterminate causation is additive.

Let's consider cases that show that the additivity of indeterminate causation, on the assumption that there is such additivity, must be restricted.⁵ Here are three such cases (the last two are from Hoffmann-Kolss but substantially modified to make the issue of the additivity of indeterminate causation applicable). I will assume that all of these cases involve indeterminate causation.

Open Future If the future is open, some causal claims will be indeterminate, at least on the view that an open future produces genuine indeterminacy rather than only present ignorance of the future. It is indeterminate whether a coin flipped now will land heads at a future time t , and indeterminate whether it will land tails at t . So it is indeterminate whether the flipping causes the coin to land heads and indeterminate whether it causes the coin to land tails. But it is not indeterminate whether the flipping now causes the coin to land both heads and tails since the latter is not possible. It is determinately false, not indeterminate, that the flipping causes the coin to come up both heads and tails.

If the future is open, and if this generates causal indeterminacy, then indeterminate causation is not additive in every case.

Vases Far Apart Suzy kicks a ball toward two vases that are far apart, such that the ball cannot hit both. The ball has two equally probable courses, A and B , and there is a 100% chance that it will take one of those paths. If it follows Course A , it hits only vase a . And if it follows Course B , it hits only vase b . There is zero chance it hits both. Jimmy catches the ball before it veers onto either course. On the diagnosis under discussion, it is indeterminate whether his catch prevented vase a from being hit, and indeterminate whether it prevented vase b from shattering. But it is determinately false that his catch prevented both from shattering. Prevention requires that the prevented outcome was at least possible in the circumstances. One cannot prevent what could not have happened from the start. The ball could not have hit both vases, given their distance apart and the two and only two possible courses of the ball. So the conjunction of both vases being hit was already not possible, even before Jimmy made the catch and whether or not Jimmy made the catch. His catching the ball could not prevent that conjunction, any more than catching a ball aimed at a thick solid wall prevents a vase on the other side of the wall from breaking. Since the wall already makes impossible the vase's breaking from the ball, there is nothing for the catch to prevent. So it is determinately false that Jimmy's catch prevented vase a from being hit and vase b from being hit, not indeterminate.

So, for anyone who accepts that this case involves indeterminate causation, the indeterminate causation involved is not additive.

⁵ The following argument for restricting the additivity of indeterminate causation principle does not depend on resolving the disagreement about the additivity of causation. The restricted principle is relevant to anyone seeking to preserve some form of additivity for indeterminate causation and to defend the indeterminist option against the objection outlined without abandoning it. It therefore remains of interest even to philosophers who reject the additivity of causation principle or deny that its failure carries any theoretical cost.

King and Queen Turn into Frogs There is an indeterministic system of magic. When two spells are cast on the same day, the first has a 0.9 probability of determining the midnight outcome and the second a 0.1 probability. A further law of magic dictates that no single spell can determine more than one outcome: for example, no single spell can turn both the king and the queen into frogs. Merlin casts the first spell and Morgana the second, both aimed at turning the king and queen into frogs. Both frogifications occur. Given the laws of magic, neither Merlin's spell by itself nor Morgana's by itself can cause both the king and the queen to turn into frogs. On the diagnosis under discussion, since the probability that Merlin's spell caused the king's transformation is less than 100%, it is indeterminate whether Merlin's spell caused the king's transformation, and indeterminate whether it caused the queen's.⁶ But it is determinately false that Merlin's spell caused both transformations, since the laws of magic preclude any single spell from doing so.

The additivity of indeterminate causation, again on the assumption that this case exemplifies indeterminate causation, fails here too.

These three cases show that the additivity of indeterminate causation must be restricted. The relevant restriction concerns causal possibility. The principle applies only when *c* could cause all of the effects in question. This yields the following restricted principle:

Restricted Additivity of Indeterminate Causation If it is indeterminate whether *c* causes e_1 , indeterminate whether *c* causes e_2 , ... and indeterminate whether *c* causes e_n , then it is indeterminate whether *c* causes e_1 , e_2 , ... and e_n only if *c* could cause e_1 , e_2 , ... and e_n .

This restricted principle is not violated in these three cases.

In *Open Future*, the flipping of the coin could not cause both heads and tails since these two outcomes cannot occur together. So the restriction blocks the inference to the claim that it is indeterminate whether the flipping caused the coin to come up heads and tails.

⁶ Hoffmann-Kolss does not argue for the inference from probability to indeterminacy in her *Indeterministic Trumping* case upon which this case is based. She simply asserts that since the laws of magic are indeterministic, it is indeterminate that Merlin caused the king to turn into a frog. What might be the missing argument in this case? One possibility is that the reasoning advances by raising objections to alternative inferences inconsistent with this inference. As such, it depends on how we view probability in this case. The first possibility is an epistemic interpretation, on which the intermediate probability assigned to the causal claim results from our ignorance. The causal claim actually has a non-intermediate probability of 0 or 1. The epistemic interpretation is rejected by Hoffmann-Kolss because she specifies that the processes are objectively indeterministic as are the laws of magic. No underlying factors dictate that Merlin's spell, rather than Morgana's, is the cause of the king's turning into a frog, or conversely. The second interpretation is that the probability is objective. If this were taken to mean that the causal claim is false, not indeterminate, this would wrongly assimilate this case to one in which the laws of magic ruled the outcome out entirely. Or if this were taken to imply that the causal claim is true, then either an arbitrary threshold (say, 0.8 or 0.7) would be treated as sufficient for truth or any probability above zero would be, which is too lenient. On the other hand, if one posited a gray area between the thresholds for truth and falsity, that would just mean that, for some probabilities, the causal claim was indeterminate, which acknowledges that some probabilities are associated with indeterminacy. So it is plausible that the causal claim is indeterminate.

In *Vases Far Apart*, since the ball could not have hit both vases, the restriction applies. So even if it is true that it is indeterminate that Jimmy prevented vase *a* from breaking and indeterminate that he prevented vase *b* from breaking, it does not follow under the restricted principle that it is indeterminate that he prevented both vases from breaking.

In *King and Queen Turn into Frogs*, Merlin's spell could not have caused both frogifications, given the laws of magic, so the restriction correctly blocks the inference to the conclusion that it is indeterminate whether Merlin's spell caused both transformations.

It should be pointed out that the restriction on the additivity of indeterminate causation principle just stated can be derived within Swanson's model of precisifications, for a reader who wants a treatment of indeterminacy along those lines. Within that model, the clause that *c* could cause $e_1, \dots, e_n$ admits of a natural interpretation: *c* could cause $e_1, \dots, e_n$ just in case some precisification makes the causal claim "*c* caused e_1 and ... and e_n " true. On this gloss, the restricted principle is recoverable from Swanson's apparatus, even though he does not himself formulate any additivity principle for indeterminate causation.⁷

This brings us back to the central point at issue in the objection to the indeterminist option. The restricted principle is not violated by the indeterminist option in *Battlefield*, so the objection fails. The omission under consideration is your failure to press the button. That omission could not have caused all three deaths. At most, that omission could have caused the death of a single soldier. The necessary condition for the restricted principle—that *c* could cause $e_1, e_2, \dots$ and e_n —is therefore not satisfied in *Battlefield*. An analogy may help. Suppose three gunmen each have a single bullet and are aiming at three different individuals. Two gunmen intend to shoot Bob and Tom. With a third gun that has only one bullet, you fire at Jim, resulting in his death. Your shooting caused Jim's death. But it did not cause all three deaths. Since a single bullet can kill at most one person under normal circumstances, it is not possible for you to cause all three deaths. Your shot added to the death count, but the causal power of that shot was limited by what a single bullet could do. A similar point holds in *Battlefield*. Your failure to press the button is akin to the single bullet. Your failure to press the button could have caused at the most one soldier's death. Even though all three deaths followed your omission, that omission could not have caused three deaths. Since your inaction could not have caused all three deaths, the restricted additivity principle does not give rise to the result that it is indeterminate whether your inaction caused all three deaths. The indeterminist option is coherent. The combination of (a)–(d) is compatible with the additivity of indeterminate causation once that principle is correctly restricted. The objection to the indeterminist option based on the additivity of indeterminate causation thus dissolves.

⁷ This point was mentioned to me by a referee. But it is not suggested that the restriction requires that account. The recommended restriction should work whatever account of indeterminacy is correct, if there is sufficient reason to grant a principle governing the additivity of indeterminate causation.

I should note again two qualifications before closing. A philosopher who rejects all versions of an additivity principle for indeterminate causation, including principles restricted to certain kinds of cases, is not obligated at all to reply to the outlined objection to the indeterminist option. The objection does not arise for those who take this view. But for those who want some version of an additivity principle governing indeterminate causation, the unrestricted variant cannot be the correct one. *Open Future*, *Vases Far Apart*, and *King and Queen Turn into Frogs*, if those cases involve indeterminate causation, show that it is unsuccessful. What those cases demonstrate is that a restriction centered on causal possibility is required for anyone who wants to defend an additivity of indeterminate causation principle quite independently of *Battlefield*. Once that restriction is implemented, it results in a principle that makes the indeterminist option immune from the objection outlined. The proponent of the indeterminist option is, thus, not required to answer this objection by rejecting every form of an additivity of indeterminate causation principle. The restricted principle gives the proponent of the indeterminist option a basis for claiming that the objection was weak from the start.

Author Contribution D.E. wrote the entire paper.

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Declarations

Ethics Approval and Consent to Participate The research for this paper did not involve humans, animals or plants. The research involved pure philosophy. It did not involve any human participants.

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