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Error Theories of Absence Causation Are Not (Yet) Adequately Motivated

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Abstract In this paper I consider the merits and motivations for eliminativist error theories of absence causation, such as those offered by Beebee, Varzi, and Mumford. According to such views, there is no causation by absence. Here I argue that, despite offering an alternative picture of the practice of citing absences as causes, these views are inadequately motivated. I consider and reject a range of arguments for error-theoretic approaches, including appeals to ontological economy, physicalism and the causal closure of the physical, as well as Mumford's recent appeal to soft Parmenideanism. I also argue that the arguments in the literature which aim to show that causation by absence is conceptually problematic are less forceful than they might initially appear. The result is that there is no compelling reason yet why we should reject absence causation.

Keywords Eliminativist error theories. Absence Causation. Nothingness. Absences. Causation.

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1 Introduction

If we are right to think as the vulgar speak, then not all causation is by some positive existent: absences, wants, lacks, failures, omissions, non-occurrences, etc., cause. Schaffer (2000; 2004) gives an impressive catalog of the ubiquity and centrality of absence causation in both ordinary and scientific thinking about the world. However, this commitment to absence causation raises further questions. Where in our ontology do we place these negative phenomena? How can something come from nothing? Which of the many absences at a given location cause? Why these and not others? Some philosophers have attempted to give coherent answers to these questions, such as Martin (1996), Molnar (2000), and Kukso (2006). But such views seem to lie outside philosophical orthodoxy. We might wonder why. One reason might be as follows: in view of these mounting questions, it would surely be better to abandon this feature of pre-philosophical thinking about causation, and instead insist that causation is always by some positive existent. This is a position attractive to many, but articulated and defended robustly by Beebee (2004), Varzi (2006; 2007), Lavelle and Botterill (2013), and Mumford (2021).

However, some utterances of the vulgar have all the appearance, in many cases, of expressing causal truths: not getting her insulin, she fell into a coma; the lack of rain resulted in devastating forest fires; Flora's failure to water her plant killed it; etc. Rejecting absence causation, then, constitutes an eliminativist error theory.[1] The problem is exacerbated because many of the claims about absence causation to be denied are constituents of well-confirmed scientific theories. The vulgar – or at least their philosophical proxies – are owed reasons for thinking that they are involved in systematic error when citing absences as causes. In this paper I argue that this is not so straightforward as is commonly supposed, if recent discussions of the topic are indicative. The result, I argue, is that the right way to understand the dialectic of the debate, as it currently stands, is as follows.

(i) The best attempts to account for the truth of statements of absence causation without ontological commitment to absences are eliminativist error theories.

(ii) The stated motivations by the leading proponents of these approaches are inadequate to motivate an error theory about absence causation.

1 See Daly and Liggins (2010) for a categorization of error theories and a useful discussion of the kinds of objections to error theories that are dialectically permissible.

(iii) Other motivations which might naturally be thought to tip the dialectic against absence causation, such as ontological economy or physicalism, offer no clear support.

(iv) So, the burden of proof lies squarely on those who would deny absence causation.

Across sections (3) and (4) I make the case for premises (ii) and (iii). Before this, though, I will say something more substantive by way of articulating (i).

2 Causal Explanations, Causal Reports and Error Theories

Those who deny absence causation are committed to an eliminativist error theory. As Mebius observes, a commitment to absence causation is ubiquitous in a range of scientific disciplines: "The specification of negative causes is an integral part of molecular biology and neurobiology" (2014, 43). Here is how Schaffer puts the same point

> negative causation features in paradigm cases of causation including heart failure, gun firings, and all voluntary human actions, and is considered causal by the law and by ordinary language. (Schaffer 2004, 203)

But error theories, to the extent that they require revision to empirically well-confirmed theories, will require justification. Moreover, the more revisionary the position turns out to be, the greater our expectation should be of forceful reasons available in favor of it.

One significant strand of the literature takes the denial of absence causation as a starting point, and attempts to explain our discourse about absence causation without ontological commitment. Following an idea suggested by Helen Beebee,[2] the most well-developed explanation of our causal discourse offered by those who reject absence causation presses into service a distinction between, on the one hand, causal judgments which imply the existence of a negative cause, and, on the other, those which do not. Varzi (2006) and Mumford (2021) both follow Beebee's suggestion that when we speak of absence as causes of an occurrence, we should properly interpret this as providing an explanation of some occurrence. Of course, taking a denial of absence causation as one's philosophical starting point is perfectly legitimate in one sense: working out the most detailed,

2 Beebee 2004.

plausible version of an error theory is a valuable contribution to the debate. But this cannot be the end of the story: the crucial question, to be explored in sections (3) and (4), is whether there are compelling, non-question begging justifications to adopt the error theory as a starting point. First, though, it will be helpful to see how Beebee's proposal is meant to work, how it is developed by Varzi, and the extent to which the approach nonetheless requires us to deny well-confirmed claims of absence causation.

Beebee's proposal is that often when we speak of causes, our aim is to provide a causal explanation of some occurrence. Sometimes this involves citing a cause of the target of our explanation, but Beebee urges that this is not always the case. Following the language used by Varzi in his development of Beebee's suggestion, we can call causal discourse that has this "ontological pregnancy" a 'causal report'. Causal reports can also be used to provide causal explanations, which both Beebee and Varzi, following Lewis, construe as attempts to provide information about the causal history of an effect. Providing a causal explanation need not, the thought goes, involve citing a cause. The following possibility then suggests itself: sometimes our causal discourse involves providing a causal explanation, but without providing a causal report. In these cases, our causal judgements are not ontologically pregnant. Beebee and Varzi both claim that our judgments about absence causation can largely be explained in this way: it is causal explanation, not causal reporting.

Beebee's example illustrates the point of principle:

A. Oswald's shot killed Kennedy

is a true causal report, which could also be used to explain Kennedy's death. The sentence

B. Kennedy died because Oswald shot him

is a true causal explanation, and one in which the *explanans* picks out a cause of Kennedy's death. Contrastingly,

C. Kennedy died because someone shot him

is a causal explanation, Beebee urges, but one in which the *explanans* does not refer to a cause of Kennedy's death. This is because, if there were an event referred to, the event would be a disjunctive event, but there are no disjunctive events.

Beebee's example establishes the general point: causal explanations need not be ontologically pregnant. However, the friend of absence causation is likely to object that the example does not show that causal explanations involving negative *explanans* (or, indeed,

explananda) are not ontologically pregnant. Beebee's example has the peculiarity that (C) is a logical consequence of (B), which is why the truth of (C) is guaranteed by the truth of (B). But there is not yet any clear reason to conclude that other classes of true causal explanation will also involve explanans or explananda that do not refer.

Nonetheless, the proposal appears promising. Varzi (2006) develops the proposal in a way that makes it clear it would cover causal explanations featuring negative explanans. The line of reasoning goes like this: if causation is a relation and the causal relata are events, these can be described using either positive or negative language. As Varzi points out, if there is a true positive description of an event, the fact that it can also be described in a negative way need not entail there exists a negative event. Instead, the negative description simply serves to refer to the positive event. For example (Varzi 2006, 140):

(1) Al's non-jogging last night caused Tom's complaint

does not warrant commitment to negative events in cases where Al did not jog in virtue of some other action on his part, such as taking a walk with Sue. This is because "Al's non-jogging last night" is simply a negative description of what he in fact did: he took a walk with Sue. We might be unprepared to assert:

(2) Al's walk with Sue last night caused Tom's complaint,

but, according to Varzi, this is because (2) is likely to be misleading as a causal explanation of Tom's complaint: it might inappropriately lead us to wonder what Tom has got against Sue. (1) offers a better causal explanation than (2) insofar as it is not potentially misleading in this way, and it highlights a salient feature of the cause: that it is not a jogging. None of this, however, compromises the truth of (2). Given that "Al's non-jogging last night" and "Al's walk with Sue last night" co-refer, (1) and (2) are materially equivalent.

The upshot of this is that, in cases where there is a positive description of the causal antecedent referred to in a causal report by means of a negative description, the negative description can be used unproblematically in a causal report. In these cases, we can speak with the vulgar with impunity. So, Varzi appears to have cleanly identified a class of negative causal claims that we might avoid treating as ontologically pregnant. But, as Varzi also points out, there remain other cases that cannot be dealt in this way, e.g., cases in which there is no good candidate positive description of the causal antecedent. These apparently true claims of absence causation also need explaining consistently with the rejection of absence causation. Varzi's example (2006, 142) of this kind of case is:

(i) Al's failure to turn off the gas caused an explosion.

In the circumstances where Al did not even try to turn off the gas, but simply forgot, it is far less compelling to claim that "Al's failure to turn off the gas" refers to some specific positive event. After all, which would it be? The omission is of a general kind (a turning off) that occurs because Al performed a range of different positive actions over the period of time in question. But, none of those actions need be involved in the causal history of the explosion, at least in the absence of compelling reason to think so.

If no positive event is a plausible candidate for the referent of "Al's failure to turn off the gas", then the proposed explanation of the ostensive truth of (i) cannot get off the ground. If (i) were a true causal report, then it would give us reason to acknowledge negative existents. Varzi's response, following Beebee's lead, is to say that we should deny that (i) expresses a causal report and instead insist that it is "just a causal explanation in disguise". Properly, we should say:

(ii) There was an explosion because Al didn't turn off the gas.

There remains a wrinkle: although (i) can be used to express a causal explanation, strictly speaking it is false. So, in spite of all that has been said, we are still owed a reason to believe we are systematically in error in this kind of case. Why should we not instead take this kind of example to show the reality of absence causation?

It is important to note that it would not be adequate to simply point out that there are a range of other cases in which it is commonplace to assert things that are strictly untrue. Varzi pursues this strategy (2006, 144), observing that we often assert the following falsehoods:

(iii) Holmes lived in Baker Street.

(iv) The average star has 2.4 planets.

The problem with this strategy is that (iii) and (iv) are sharply disanalogous to (i). (iii) and (iv) both represent classes of cases where, when we learn to speak in this way, most of us normally do so with a fairly clear understanding that we are uttering falsehoods. Conan Doyle is rarely read as history of Victorian England, and jokes about 2.4 children during mathematics class serve to instruct the student not to take the surface grammar of some statements involving averages seriously. But it seems to be quite the reverse when we learn to speak about absence causation. When we learn that an absence of insulin causes hypoglycemia we do not learn this with any caveat, implicit or explicit, that really there are no absences. Moreover, as has been emphasized by Roy Sorensen (2008), many absences – holes,

shadows, and silences – seem to be tracked and, in the case of holes and shadows, clearly reified by our perceptual modalities. There seems, therefore, no clear reason why we should think that (i) really is like (iii) and (iv).

The problem, moreover, is not one that can reasonably be called minor. It is not restricted to some small, relatively unimportant subset of causal judgements. Nor is it even restricted to judgments about omissions, which Beebee and Varzi use as their guiding example, but instead applies to most absences of kinds. Consider the following claim medical science would have us believe is true of many patients with Fallot's Tetralogy:

a. An absence of heart wall tissue between ventricles causes hypoxia.

This is not a causal claim about an omission, but rather an absence of a (or various) kind(s) of matter. Nonetheless, it is similar in the following relevant respect: there is no positive event or state of affairs that is plausibly the referent of 'an absence of heart wall tissue'. In this case, the reason for this is that there are multiple different states of the world that could be the referent of 'an absence of heart wall tissue'. At one moment, there might be a certain volume of blood where the heart wall tissue should be; at another moment, there might be a numerically distinct volume of blood there; at yet another moment, whilst undergoing surgery, there might be no blood there, but air…

Consequently, for the same reasons that applied to (i), Varzi would need to say that (a) is also strictly speaking false. But, as with (i), (a) is simply one example of a very large class of claims about absence causation that the vulgar claim to be true: claims about absences of kinds of stuff. Other examples include:

b. The drought of 2017 caused widespread forest fires.

c. With no money in my bank account to pay my mortgage, my house was repossessed.

d. The lack of confidence amongst investors led to low growth.

As the quotes from Mebius and Schaffer at the start of this section point out, these kinds of commitments are ubiquitous in a wide range of scientific disciplines. But this means that those who would deny absence causation in the way proposed by Beebee and Varzi are not innocently committed to a minor set of revisions to which of the claims of the vulgar are, strictly speaking, true. The position is radically revisionary, and we are still owed a justification for thinking we are systematically in error in this kind of case. Indeed, the more revisionary the position emerges, the greater our expectation should

be of forceful reasons being available in favor of it. Let us now turn to look at a range of possible motivations, both extant and possible, for such eliminativism about absence causation.

3 Arguments For Eliminativism About Absence Causation

3.1 Arguments from Theories of Causation

The proposal at hand, which Beebee and Varzi offer among the most well-developed examples of, is that we should adopt an eliminativist error theory about absence causation. I have argued that, in consequence, we should expect compelling reasons to be offered before accepting it. It might be thought that this passes over an obvious line of reply. In Beebee's case, the appeal to the distinction between causal explanation and causal report is motivated by a prior commitment to a picture of causation, according to which causation is a relation holding only between events. This view about causation would make sustaining a belief in absence causation particularly challenging, because the non-occurrence of an event is, plausibly, not an event of any kind. Consequently, on this way of thinking about causation, there can be no causal relation in putative cases of absence causation. This, it might be urged, is a perfectly good reason to reject absence causation. It is not hard to see how this line of argument might be adapted for those committed to other theories of causation that entail the falsity of absence causation. For example, someone for whom causes must be physically connected to their effects might offer precisely the same reply.

The problem is that, although it is correct that if some such theory of causation were to turn out true, the probability of absence causation would be dramatically lowered, appealing to one's prior commitments about causation would not be sufficient to settle the broader dialectical question about absence causation. This is because, were we to accept an error theory of causation by absence, some of the claims we would thereby be required to give up on would be constituents of well-confirmed scientific theories about what causes what. They are casual claims that a philosophical theory of causation must treat as part of the data to be explained by that philosophical theory. Whether or not, for example, event-based, relational accounts of causation should be accepted needs to be evaluated in part by how much of the well-confirmed causal data it accounts for. But the rejection of vast swathes of empirically well-confirmed causal judgments should count rather against the claim that, e.g., exclusively event-based, relational approaches provide the best overall account of causation. The upshot is that, without further sustained argument that

a particular theory of causation is true, appealing to a prior theory of causation to motivate eliminativism about absence causation will be a question begging move.

For the appeal to a prior theory of causation to be dialectically admissible at this juncture, it should be plausible that despite rejecting so much well-confirmed causal data the theory is nonetheless the best available. This is a tall order, and no one in the contemporary debate has offered such an argument. Perhaps the reason for this lacuna is a tacit assumption that absence causation is a minor sub-topic of causation, whose details are to be sorted out after accounting for causation by positive entities. Were this true, it would make sense to think that a prior commitment to a theory of causation could provide sufficient reason for denying absence causation. But, this would be just a form of confirmation bias; absence causation is as central and ubiquitous a feature of our thinking about causation as one could hope to find.

3.2 Soft Methodological Parmenideanism

Stephen Mumford, in his recent book on nothingness and absence (2021), follows Beebee and Varzi in denying absence causation, and similarly recasts our discourse about absence causation as explanation rather than causal report. One crucial difference is that he denies that the explanations involved are causal explanations: "Absences cannot be causes. They can be explanations. But they cannot be causal explanations" (Mumford 2021, 82). Mumford, *contra* Beebee and Varzi, argues that conceding there are true causal explanations mentioning absences will not adequately escape a commitment to absence causation. Overall, though, Mumford's position on absence causation is similarly an eliminativist error theory, and faces the same dialectical question that Beebee's and Varzi's do: what reasons do we have for thinking that common-sense and a range of well-confirmed scientific theories are systematically in error in acknowledging absence causation? Mumford's account of absence causation is offered in the context of two broader claims, however, which need considering in relation to the dialectic of the discussion. One is an ontological claim about absences, and one is a methodological claim about belief in absences. These commitments might be thought to provide justification for denying absence causation, which is how Mumford presents them.

Mumford's ontological claim is just the general denial of negative beings of any sort: that nothing is not. He calls this 'soft ontological

Parmenideanism'.[3] It is 'ontological', because it makes a claim about what there is, and it is 'soft' Parmenideanism because it remains silent on other Parmenidean claims, particularly about negative beings and nothingness, such as whether we can coherently even speak about nothingness and non-being. Mumford contrasts this 'soft ontological Parmenideanism' with a methodological claim, soft methodological Parmenideanism. This is a claim about the dialectic of the debate about negative existents. In contrast to the 'hard' methodological Parmenidean, the soft methodological Parmenidean accepts the defeasibility of the ontological claim that nothing is not.

Let us consider each in turn. Mumford's ontological claim has much the same dialectical force in the present discussion as did Beebee's prior commitment to an event-based theory of causation: none, considered by itself. The difficulty arises here because claims about absence causation, particularly those constituents of well-confirmed empirical theories, count as confounding evidence for soft ontological Parmenideanism.[4] Proper evaluation of the merits of the ontological claim should involve, in part, adjudicating the merits of accepting or rejecting absence causation. Whether soft ontological Parmenideanism provides the best overall theoretical framework will depend on how we weigh the rejection of vast swathes of well-confirmed causal claims against, for example, considerations of ontological economy. The ontological claim, then, cannot be used straightforwardly against absence causation without begging the question.

Perhaps Mumford's 'methodological' Parmenideanism will be of more help. According to this, we should "proceed from the basis that commitment to negative existents is at the very least highly undesirable and ought to be avoided if possible" (Mumford 2021, 13). This assumption, were we to apply it to the question of absence causation, would clearly remove the burden of proof from denying absence causation. There are two problems with this, though. The first stems once again from the fact that many of the causal judgments are constituents of well-confirmed empirical theories. Mumford is not explicit about what he means by the phrase, but these casual claims provide some *prima facie* evidence against the claim that negative existents are "highly undesirable". Theoretical considerations can, of course, lead us sometimes to reject even well-confirmed empirical claims, but rarely without giving due consideration to the weight of evidence.

3 More precisely, Mumford's soft ontological Parmenideanism also includes the claim that there are no levels to reality. See Mumford 2021, ch. 1, for his discussion of these commitments.

4 As Mumford acknowledges: "It is causation *by* absence that is the real problem and sets a serious challenge even for soft Parmenideanism" (2021, 65).

The second problem relates to what the status of the methodological principle is meant to be. Even leaving aside the apparent truth of our causal judgments, what reason do we have to accept this methodological stricture? It does not seem to have the status of a basic methodological principle, in need of no further justification. It is hard to see how the evaluative phrase "highly undesirable" could not demand some justification, let alone careful specification. Understood as a basic methodological principle, it appears to be an expression of theoretical prejudice: a *horror vacui*. But this would be no more argumentatively forceful than Lewis' 'incredulous stare' (Lewis 1973, 86). What *would* give it force is compelling reason that negative existents are, as claimed, highly undesirable, and in some clearly specified sense. But then the force of soft methodological Parmenideanism depends on the strength of available arguments for the claim that negative existents are theoretically undesirable. The problem, though, is that whether it is acceptable to deny vast swathes of our commonsense causal judgments is itself germane to evaluating that claim. So, an appeal to soft 'methodological' Parmenideanism would, as much as the ontological variety, be question-begging as a means of shifting the burden of proof on to those who acknowledge absence causation.

3.3 Considerations of Ontological Economy

At this point, the critic of absence causation might suppose that they can simply motivate their position by appeal to the theoretical virtue of ontological economy. They might urge that the ontology they offer requires acknowledging one fewer category of being, so it should be preferred to the picture of a world shot through with causally efficacious absence. This, it might be urged, provides reason for thinking that, strictly speaking, our claims of absence causation are systematically false. What to make of this line of argument? There is, no doubt, an important place for an appeal to ontological economy in a valid argument against absence causation. However, at this point in the dialectic of the debate, such an appeal is illegitimate. This is because ontological economy can only be used to decide between theories that are 'equal in all other respects', and crucially in respect of their capacity to account for the data.

All parties to the debate about absence causation accept the need to account for the truth of our judgments about absence causation. Beebee's distinction between causal report and mere causal explanation was introduced explicitly to enable the critic of absence causation to preserve as many of these judgments as their opponent, whilst at the same time denying their ontological pregnancy. The same concern motivates Mumford's repudiation of causal explanation by absence in favor of explanation *simpliciter*. There is agreement, then,

about what makes for an adequate metaphysical theory of absence causation: it should be revisionary of our common-sense judgments only where we have good reason to think that those judgments are false. To appeal to ontological economy in favor of the critic of absence causation at this stage in proceedings we must *already* have reason to think that judgments such as (i) and (a)-(d) are, strictly speaking false. But this remains wanting.

The correct role for considerations of ontological economy in relation to the question of absence causation seems to be this: that the parsimony achieved by denying absence causation needs to be weighed against the systematic falsity in our judgments about absence causation. Appealing to considerations of ontological economy will only carry weight if we have some reason to think that those judgments are false. At this stage in the discussion, we have seen no reason for thinking that such judgments false: worse, as many are constituent claims of well-confirmed scientific theories, we have reason to accept them as true.

The foregoing line of reasoning relies on the following attractive methodological principle when answering questions of ontology: *ceteris paribus*, it is preferable to have a more inflationary ontology and deny no well-confirmed scientific claims, rather than have a more minimal ontology and deny such claims. This methodological principle could itself be called into question, but this could hardly help: it seems right to place the burden of proof for addressing this question on the shoulders of someone proposing to deny it. When it comes to claims like (1), Beebee and Varzi are on home ground: they do not violate the principle because the truth of such claims can be preserved in the way proposed by Varzi. Contrastingly, we are told that claims like (i) and (a)-(d) are false, strictly speaking. Insofar as (i) and (a)-(d), and claims like them, are plausibly true, we should, *ceteris paribus*, prefer a more inflationary ontology that secures this. So, appeal to ontological economy, it turns out, is no help to the critic of absence causation at this juncture. After all, we have been given no independent reason to think that these claims are, strictly speaking, false. The suggestion that these claims are false is not a consequence of the proposed distinction between causal reports and causal explanations. Rather, it is a consequence of an independent denial of absence causation. But this, of course, simply begs the question against the defender of absence causation.

3.4 Appeals to Physicalism

One further way we might motivate a denial of absence causation would be to appeal to physicalism. This, as with the foregoing appeal to ontological economy, might seem like a very natural move to

make. Formulating physicalism precisely and unproblematically is, of course, a matter for wider metaphysical dispute. Nonetheless, however formulated, physicalism should imply the following claim: all spatio-temporally located entities are physical. Negative phenomena, particularly e.g. holes, have, in the literature on the subject, been thought to raise a problem for physicalism along the following lines (see Lewis, Lewis 1970): if holes are not physical, then not all spatio-temporally located entities are physical. A similar tension might be thought to obtain between the existence of causally relevant absences and physicalism. The tension arises from the following, plausible enough, principle about causation:

(P) If c causes e, then c and e are spatio-temporally located.

But now, given the following two commitments of the friend of absence causation:

1. Absences cause,
2. Absences are not physical,

It follows that:

3. Absences are spatio-temporally located.

But (1), (2), and (3) imply

4. Not all spatio-temporally located entities are physical.

But, clearly, the denier of absence causation can reason with logical impunity from the falsity of (4), together with the truth of (3) to the falsity of (1). In this way, an appeal to physicalism could provide justification for denying absence causation.

However, the force of appealing to physicalism at this point in the discussion is going to depend on how it proceeds. One way to appeal to physicalism might be to reason in the following way: physicalism is true; physicalism is incompatible with the existence of absence causation; therefore, there is no absence causation. But at this point in the debate over absence causation, such an appeal to the truth of physicalism is clearly going to be question-begging. Insofar as physicalism denies the existence of non-physical concreta, the argument assumes the very thing it is being pressed into service to establish: the non-existence of absence causation.

However, there is another way physicalism might be pressed into service here. It might be urged that physicalism is a well-motivated position, on the grounds of the argument from the causal closure of physics. This is, plausibly, the most powerful consideration

in favor of physicalism; it is the primary motivation for physicalism about the mental, commonly taken to be the domain most problematic for physicalism (see, e.g., Papineau 2002, ch. 1). Consequently, it might be urged, the justification afforded physicalism by that argument transmits to the denial of absence causation. An argument of this sort would not obviously face the same problem as the foregoing line of reasoning. Nonetheless, an appeal of this sort to physicalism is also illegitimate at this point in the debate about absence causation.

To see why, consider one formulation, given by Papineau (2002, 17), of the thesis of the causal closure of physics from the philosophy of mind debate:

(CCP) All physical effects are fully caused by purely *physical* prior histories.

Before we can be clear about the implications of this thesis for absence causation, we need to be clear about the answer to the following question: Should we take 'purely physical prior histories' to *include* absences or not? For an appeal to the principle to successfully transmit justification to the denial of absence causation, absences must be excluded from physical prior histories. If they were included, appealing to (CCP) could hardly warrant denying absence causation. But excluding absences will also be problematic, because this is just what (CCP) is supposed to warrant: there is no causation by absence. So, it turns out that this kind of appeal to physicalism would also be question begging against the friend of absence causation.[5]

4 Absence Causation Is Conceptually Problematic

I have argued that the approaches to defending error theories of absence causation examined so far cannot deliver proper justification. It has emerged at various point in the discussion so far, however, that if we had reason to think that absence causation is somehow conceptually problematic, then this would supply the desired justification. It seems likely that most people are attracted to an error-theoretic approach to absence causation because of something like this thought. However, it is less common to find sustained arguments to this effect.

5 This problem is not restricted to just this one formulation of the thesis of causal closure. The problem arises equally for all the following variations found in the literature (for a useful review of the range of formulations, see Lowe 2000):

(CCP*) All physical effects have complete physical causes (Papineau 1993, 22).

(CCP**) Every physical effect has a fully revealing, purely physical history (Sturgeon 1998, 413).

(CCP***) Every physical effect has its chance fully determined by physical events alone (Noordhof 1999, 367).

In this final section I consider two criticisms of this sort offered by Mumford (2021). The first arises, in Mumford's words, from "the simple lack of a credible understanding of how an absence is supposed to produce an effect" (70). The second concerns the difficulty of showing that absence causation does not proliferate wildly, which Mumford calls the problem of escalation.

Regarding the first criticism, the proposed complaint is that absence causation is conceptually suspect, because it is opaque how absences can cause at all. The trouble, according to Mumford, is that absences which putatively cause their effects are "literally nothing at all, as long as we are not equivocating in some way" (71). The result is an account according to which something is caused by a nothing. But, first, why should this be thought problematic? Mumford writes:

> This is, therefore, a nothing that we are told produces something, in contradiction of the Parmenidean principle that nothing comes from nothing. How would the nothing initiate a new causal chain? What action would the absent water exercise on the plant or its soil? (2021, 71)

These are complaints familiar from those who claim that causation requires some physical connection between cause and effect. As there can be no physical connection between an absence and any positive existent, there can be no absence causation. Mumford concedes, correctly, that this kind of complaint will carry no force for those not similarly committed, but argues that this results in a dialectical impasse: "But this is an unstable dialectical position for both sides. It seems all too easy for each to dig stubbornly in" (71). The critic of absence causation "can say that causation by absence is so ontologically troublesome that a theory of causation that allows it thereby betrays its weakness" (71). The problem for Mumford is that his assessment of the dialectical position can only be correct if there is already some reason to think that causation by absence is ontologically troublesome. But that is precisely what we are lacking. It may be in tension with the Parmenidean principle that nothing comes from nothing, but we have thus far been given no clear reason why we must accept this principle. Indeed, appealing to the Parmenidean principle to justify the claim that absence causation is incoherent puts the cart before the horse. It seems, then, that in the face of our well-confirmed scientific judgments about absence causation, the unmotivated claim that absence causation is conceptually problematic carries the burden of proof.

A second line of criticism of Mumford's argument here concerns the claim that the proposed absence must be "literally nothing at all, as long as we are not equivocating". What Mumford appears to have in mind is that if absence causation is not causation by nothing then

it would not count as absence causation: "It has to be nothing for this to be a genuine case of causation by absence. The cause cannot be an absence in name only: a disguised something" (71). It is not fully clear what manner of 'something' Mumford means here. If Mumford means to say that, for a genuine case of absence causation, the cause must not be a positive existent, then he is surely correct. The example Mumford uses to illustrate what he means here is the identification of an absence of water with some actual water located elsewhere: "By absent water, I do not mean some real water that is merely elsewhere, although that would be bad enough in explaining the plant's death" (71). This suggests that what Mumford has in mind is the restriction that the cause must not be a positive existent. However, this is not the only way in which we might understand the claim that absence causation involves causation by nothing.

Instead of accepting the claim that genuine cases of absence causation must be causation by nothing, we might claim instead that they are cases where the cause is a 'negative existent', rather than a positive existent. This would bring with it the burden spelling out what such entities are, and how they fit into a system of ontological categories; but this is, by itself, no objection. Moreover, there are, as Mumford is aware, a range of attempts to do just this, though not within the context of discussion of absence causation. For some committed to truthmaker maximalism, negative elements in one's ontology have seemed like an acceptable commitment: e.g., either acknowledging negative properties or acknowledging negative instantiation. These negative existents are, as Mumford accepts, sufficiently like a nothing to be objectionable to the soft ontological Parmenidean

> Our soft Parmenidean project requires that we seek to explain what we can about properties without invoking negative existents. If our best theory of properties leaves us no choice but to accept that there are negative properties, then we would have failed at this hurdle. (19)

The obverse of this, though, is that such negative existents are sufficiently like a nothing to be causes in genuine cases of causation by absence. The defender of absence causation is then able to reply to Mumford that absence causation is not causation by 'nothing', but causation by a negative existent. This would have the virtue of rendering irrelevant Mumford's foregoing complaint that nothing comes from nothing.

The line of reply above is deliberately sketched broadly enough to be catholic with respect to which kind of negative existents one believes in: the reply is available irrespective of which negative existents we wind up committed to. My aim here is not to adjudicate between the competing merits of, for example, negative properties and

negative instantiation. That is a larger project. The crucial point is that absence causation need not be understood as causation by nothing. Consequently, it would be no objection to absence causation that causation by nothing is an incoherent doctrine, should we be given compelling reason to accept that assessment.

I have argued, then, that the first of Mumford's two critiques of absence causation is not forceful. Now let us consider the second critique: the problem of escalation. This problem arises because, although *some* absences are treated as causes, there are other absences we normally do *not* consider to be causes. For example, Flora's failure to water her own plant might be judged a cause of its death, whereas *my* failure to water Flora's plant would likely not. The absence of heart wall tissue is identified by cardiologists as a cause of hypoxia in Fallot's patients, but not the absence of a Gore-Tex graft patch commonly used for surgical correction. The problem of escalation arises because many of these other absences seem credible as causes: e.g., the death of Flora's plant is as much counterfactually dependent on my failure to water Flora's, as it is on hers. Moreover, once we start acknowledging such causes, there might seem no end to them: the absence of merely possible gardeners might have to count as causes, as their presence would have prevented the death.

Such escalation, if it is unavoidable, would count as a serious problem for absence causation, because it would mean, as Mumford puts it, "[causation by absence] has consequences that play havoc with our ideas of what-causes-what and of the notion of cause in general" (Mumford 2021, 72). There *is* logical space to accept escalation and the proliferation of causes it brings with it – this is a position adopted by David Lewis[6] – but this is at least a *cost* to the theory. To that extent, it seems right that escalation would be a problem for absence causation, which thereby *would* provide some justification for an error-theoretic approach.[7] The real question, then, is whether escalation and proliferation of causation by absence really is unavoidable. The typical way the problem gets introduced is, just as has been done here, to cite putative examples of causation by absence, and then state absences of other things which, were they present, would prevent the effect. Next, arguments are offered against extant attempts to stop escalation. Mumford's discussion (2021, ch. 4) is a model of this is line of reasoning.

There are, however, two problems with the current state of the debate relevant to the force of this line of reasoning. The first and most serious problem is that the existing literature which attempts

6 See, e.g. Lewis 2000.

7 Though it is not clear that it would *vindicate* the error-theoretic approach: c.f. Mumford 2021, 73.

to explain why escalation does not occur specifically in cases of absence causation is just too thin on the ground to make a compelling case that it is *unavoidable*. Mumford, in his survey of this literature, identifies only four approaches in the literature: Lewis' view that many true claims of absence causation would be inappropriate to assert in most contexts; Hart and Honore's claim that genuine cases of absence causation are violations of norms, but spurious cases are not; Schaffer's claim, in the context of his causal contrastivism, that legitimate claims of absence causation highlight contextually salient contrasts for each cause-and-effect pair, whereas spurious claims do not; and Vaasen's view that genuine cases of absence causation are stable across natural changes to background conditions, but where what counts as a 'natural' change will vary according to conversational context.[8]

Three quarters of these approaches comprising the extant attempts to stop escalation construe either the truth or the assertability of claims about absence causation to be contextually dependent in some way. As Mumford correctly complains, such appeals to context will simply fail to deliver what is needed to consider absence causation a genuine feature of the world:

> As we are looking for a metaphysical solution to the problem of escalation, pragmatic considerations are of limited help only. Normative and contextual accounts have the consequence that a negative causal claim is only spurious, or genuine, relative to some context. This does not banish the escalation of causes, considered ontologically, then. (Mumford 2021, 76)

The problem for the critic of absence causation trying to motivate a blanket denial of absence causation by showing that the problem of escalation cannot be answered, though, is that the upshot of Mumford's complaint is that three quarters of the extant defenses of absence causation were off target from the start. The only metaphysical solution to the proliferation of causes discussed, due to Hart and Honore, appeals to norms, according to which non-normal absences do not count as cases of absence causation. This explains some of the data, such as why we do not treat my failure to water Flora's plants as a cause of their death: because I do not normally water them. One problem with this, as Mumford rightly observes (Mumford 2021, 74), is that there can be cases where an absence is a cause, but not because it is normally a cause. Consider again the example of patients with Fallot's Tetralogy, mentioned in section 2. It is not a 'normal'

8 See Mumford 2021, §§ 4.5.1, 4.5.3, 4.5.4 for detailed discussion of the contextual approaches of Lewis, Schaffer, and Vaasen.

occurrence for children to be born with a hole in their heart's ventricular septum (though it is not vanishingly uncommon). Nonetheless, the hole causes hypoxia in patients with Fallot's Tetralogy.

So, it turns out that in Mumford's discussion – the most recent and comprehensive – there is only one solution to the charge of escalation that is relevant to the claim that escalation is unavoidable. What absence causation faces, then, appears to be no more than a weakly motivated assertion that absence causation proliferates unavoidably. We are still owed a metaphysical account of the difference between genuine and spurious cases of causation by absence, and it may turn out that no good account can be given. But, as the debate stands, we are not entitled to the presumption that such an account is unlikely to be forthcoming. The upshot, then, is that Mumford's second criticism of the coherence of causation by absence also lacks force. In the absence of reasons to think that the doctrine is problematic, error-theoretic approaches to the question of absence causation remain unmotivated.

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