

The Absent Relata Problem: Can absences and omissions really be causes?

Abstract

Things that happen are often causally attributed to an absence or an omission. *Prima facie*, this presents a puzzle: the absent relata problem. How can the cause-effect relation obtain when the relata are absences? In the present paper we consider three accounts, due to Beebe, Dowe, and Schaffer, and find them unsatisfactory. Instead we recommend an approach to the problem that derives from the belief that understanding of causation should be built upon contrastive causal explanation, combined with an investigation of the actual processes of causal production (which is the main business of science, rather than philosophy). Elsewhere¹ we have argued that this approach gives a convincing account of causal *explanation* in terms of absences and omissions. However, it might be thought, as Beebe has indeed maintained, that while absences and omissions can figure in causal explanations, they cannot genuinely be causally efficacious. It might also be supposed that absences and omissions function only preventively, and that the real causal production is to be found in what would have happened if there had not been an absence or an omission – ‘causality by the other path’, as we call it. We refute this supposition, which is integral to Schaffer’s quaternary account of causation, using an argument concerning intervention. This allows us to uphold the causal efficacy of absences and omissions, provided that talk of absences and omissions is understood to be a loose kind of reference which indicates actual worldly states of affairs.

1. The Problem: an overview

Certain general presuppositions about the causal relation make it difficult for us to accept that absences and omissions can be the cause of anything. For one thing, we are still inclined to believe, as Descartes did, that ‘there must be at least as much reality in the cause as in the effect’.² Nowadays we would probably prefer to recast this principle in terms of the idea that there must be a transmission of energy in any causal process (as argued in Fair, 1979). At any rate we think that energy in general is subject to a principle of conservation, and that an effect cannot just spring into existence out of nothing. The problem is sometimes presented in a colourful way by saying that mere absences lack the ‘oomph’, or ‘biff’, required for causal production. We will refer to this as *the potency difficulty*.

A further point of difficulty over accepting absences and omissions concerns the relational character of causality: the terms of a cause-effect relation. There has been significant philosophical dispute over the categories to which the terms of such a

¹ [REFERENCE1 CONCEALED]

² Descartes, *Meditation III*: ‘Jam vero lumine naturali manifestum est tantumdem ad minimum esse debere in causa efficiente & totali, quantum in ejusdem causae effectu. Nam, quaeso, undenam posset assumere realitatem suam effectus, nisi a causa? Et quomodo illam ei causa dare posset, nisi etiam haberet?’. Cottingham translates this as: ‘Now it is manifest by the natural light that there must be at least as much <reality> in the efficient and total cause as in the effect of that cause. For where, I ask, could the effect get its reality from, if not from the cause? And how could the cause give it to the effect unless it possessed it?’ Cottingham, J., 1986, *René Descartes: Meditations on First Philosophy*, Cambridge: Cambridge University Press, p.28.

relation are to be assigned. Some say they are events; others say they are facts³; and Zeno Vendler once said (Vendler, 1967) that since causes are *facts*, and yet effects are *events*, it is a mistake to think in terms of there being any such thing as ‘the cause-effect relation’ at all. On the widely-held view that causes and effects are events, the idea of absences and omissions as causes seems problematic, since it produces an ‘*absent relata problem*’: a putative relation that can obtain even when its relata are missing. For a conception of events according to which something’s not occurring, or not being done, can qualify as an event is liable to seem an overly permissive counting of non-events as events. We will refer to this as *the relational difficulty*.

It may be thought that allowing facts to be causes is a way of avoiding the absent relata problem, on the grounds that both folk and philosophers will accept that it makes sense to say that there are such facts as that something did not happen, or was not done.⁴ Yet even if we are satisfied, on independent grounds, that facts can be causes, it is doubtful whether metaphysical worries about the status of absences and omissions as causes would thereby be allayed. For it is arguable that any genuine causal transition must involve some sort of process, at least at all levels of causation more complex than the most fundamental interactions of microphysics. And what process can start merely from something not happening? *Ex nihilo nihil fit*. Taking causes to be facts is not by itself going to provide a solution to the problem of potency.

On the other hand, there are considerations which seem to count quite strongly in favour of taking absences and omissions to be causes. Two such considerations deserve special attention. The first is that we often *talk* as if absences and omissions can be regarded as causes — sufficiently often to require that some work will have to be put into any attempt to explain this away as merely loose and inaccurate talk. The second is that there are cases in which an absence or an omission can play a mediating role in a causal process which is initiated by some event. Cases of mediation by absence often involve something being stopped from happening, and that non-occurrence may then (or so it seems) go on to have some further effect. A gruesomely memorable example of this sort of causation is decapitation by guillotine; or, indeed, any case in which death results from a lack of oxygenated blood going to the brain.

That sort of mediation by absence should remind us that there is also a further case that should not be overlooked: the case of *prevention*. Prevention is doing something which makes it the case that something else does *not* occur: e.g., by using contraceptives heterosexual couples have intercourse without a pregnancy resulting. There is no general difficulty about preventers being causes, though there may be less clear-cut cases in which there is an issue as to whether we can take an absence or an omission as a preventer: e.g., perhaps one can say that Fleming’s failure to clean out his Petrie dishes prevented bacterial growth in one of them, and thereby remotely prevented millions of deaths which were prevented in a less remote way by penicillin being administered. But what preventers bring about are *non-occurrences*: if those

³ Notably Huw Mellor in Mellor, D.H., 1995, *The Facts of Causation*, London and New York: Routledge ; and Mellor, D.H., 2004, “For Facts as Causes and Effects”, in: N. Hall, J. Collins, and L.A. Paul, eds., *Causation and Counterfactuals*, Cambridge, Ma.: MIT Press.

⁴ Not everyone agrees, some arguing that negative facts are no more ontologically respectable than non-events. Cf. Persson 2002, pp.137-138.

non-occurrences are effects, then there can be effects, as well as causes, which are negative (or absences).

If possible, it would surely be desirable to have an account which yields a unified treatment of prevention and causation by absences. A simple account of prevention suggests a direct counterfactual link:

X prevents Y if and only if:

- (i) X occurs and Y does not occur; and
- (ii) X's non-occurrence would have caused Y.

This account of prevention may be too simple. But improvements are likely to be in the nature of amendments and refinements, rather than total revisions. Furthermore, we should note that the simple account implies that every instance of prevention is a case of potential absence causation: the non-occurrence of the preventer *would have caused Y*.

Cases in which something *is said* to have happened because of an absence or an omission are known to be numerous. So it is clear enough that we often cite absences and omissions in giving causal explanations or causal 'attributions' (where to say that Y happened *because of* X is to attribute the occurrence of Y to X). Elsewhere we have argued that we can make good sense of our practice of explaining outcomes in terms of absences and omissions by applying a *contrastive model* of explanation.⁵ Yet despite the fact that a locution such as 'Y because of X' can be taken to make either an explanatory claim, or a claim that X caused Y, arguing that absences and omissions can justifiably be cited in causal explanations, relative to a contrast between particular outcomes, is not clearly the same thing as arguing that absences and omissions can *genuinely be causes*.

We will consider four different approaches to the problem of absence causation: Beebe's folk error theory; Dowe's counterfactual account; Schaffer's theory that causation is a quaternary relation; and our own account, which combines contrastive explanation with the claim that nominals which mention absences do not merely designate non-events or non-occurrences, but *function to indicate worldly states*. We hope to demonstrate the superiority of our account.

Lurking behind the problem of absence causation, and guiding possible resolutions, are framework issues concerning how we should think about causality. One position, which enjoyed the support of Donald Davidson, would distinguish causation proper from causal explanation. This *separationist* view may make it easier to deal with absences and omissions by assigning them an explanatory role, rather than full causal participation; its weakness is that one then has difficulty in working out how causal explanation and causation fit together. Another major stance, *relationism*, maintains that what is fundamental about causation is a relation between event-like particulars. Relationism has particular difficulty with absence causation, because its relata seem to have gone missing (the *relational difficulty*). It might seem, however, that at least relationism puts causation in the right place, in the world, and so is going to be more congenial to realism than any approach which attempts to build causation on explanatory foundations. One might think we have a more robust grasp on realism if we insist that causal explanations are acceptable because causal relations obtain,

⁵ [REFERENCE1 CONCEALED]

rather than the relations obtaining because the explanations hold good. We will try to show that, even for those who want to support realist commitments, this is not a good reason for being committed to relationism.

Finally, a major division in treatments of absence causation concerns whether it is maintained that absences can be genuine causes. The view that they are, despite the potency and relational difficulties mentioned above, has been called '*genuinism*'. We will first consider two anti-genuinist theories.

2. *Anti-genuinism: Beebee*

Helen Beebee (Beebee, 2004) insists that we should distinguish between causation and causal explanation and says that 'common sense is just mistaken when it asserts that an absence or an omission *caused* some event' (p.305). So one option is to say: There is no particular problem over absences and omissions figuring in causal explanations. However, this does not make absences or omissions the sort of relata that can figure in the cause-effect relation proper: that really would be trying to make something out of nothing.

One can appreciate the motivations behind this view. On the one hand, it appears able to do justice to all those cases in which we are quite ready to say that something happened *because of* an absence or an omission. On the other hand, by insisting on a separation between causal explanation and the causal relation itself, it holds out the hope of both respecting intuitions about causal efficacy, and also upholding the doctrine that if there is a cause-effect relation then it must be possible to identify some actual event which is the cause. Beebee has said that she rejects absence causation because of her attachment to *the network model of causation*, according to which the causal history of any effect is a vastly complex relational structure. She thinks that causation by absence is inconsistent with the network model. The main reason for this inconsistency comes down to the principle that the nodes of the network in the relational structure are events. That principle is inconsistent with absences and omissions being causes, *if* there are no negative events: 'If Jones's failure to close the fire door is not an event, and if this failure was a cause of the fire, then the full causal history of the fire is not exhausted by the network of events and causal relations between them, for there will be no event of Jones's failure, and hence no causal relation between his failure and the fire.' (Beebee 2004, pp.290-1)

Allowing explanation by absences, but denying that absences can be genuine causes might seem like a desirable compromise. But there is something mysterious about this story. These explanations are, after all, supposed to be *causal* explanations. So what justifies us in citing some aspect of the situation which is not itself causally efficacious and which is not the sort of thing which can enter into the supposedly central relation of causality, the cause-effect relation? Such a separation of causal explanation from causation is going to be problematic, unless we can explain how something offered in an explanation can be causally explanatory without being genuinely causally productive or entering into the cause-effect relation.

This problem may not appear insuperable — and so, not obviously a fatal objection to Beebee’s view. One could appeal to the well-known distinction between *causes* and *conditions*. Striking a match causes it to light. But the effect would not have occurred if oxygen had not been present. It takes a bit of ingenuity to construct a context in which we would explain why the match lit by citing the presence of oxygen. We might, though, readily and naturally explain why a match, when struck in an evacuated container, did not light by citing *the absence of oxygen*. So it appears that the presence or absence of oxygen is the sort of thing that can figure as a causal condition without being *the cause*. Therefore it might not seem that the prospects for a satisfactory solution which separates causal explanation from causation proper are entirely hopeless — though this is not our preferred course.

Beebee claims that non-philosophers (‘the folk’) fail to distinguish genuine causal claims from causal explanations, and so are ready to move freely between asserting ‘Y because of X’ (a causal explanation) and saying ‘X caused Y’ (a causal claim). In principle, this seems to be an empirical issue and so potentially capable of investigation by a programme of studies in the youthful genre of experimental philosophy. One such study, allegedly producing a result at odds with Beebee’s claim, is reported in Livengood and Machery 2007. For reasons we cannot go into in any detail here, we do not find the Livengood and Machery study convincing⁶, though we accept that the issue could be investigated further. For the moment, finding Beebee’s claim plausible, we are prepared to grant that she may be right that the folk do not draw a firm distinction between causation and causal explanation. The question at issue is whether this is a metaphysical failure on their part. We will explain how our view resolves this question in the concluding section of the paper.

3. *Anti-genuinism: Dowe*

Phil Dowe is in agreement with Beebee that so-called causation by absences and omissions is not genuine causation: he dubs it ‘quasi-causation’. Dowe’s own counterfactual account has a number of advantages: notably, it provides a unified treatment of absence causation and prevention, and also provides an explanation as to why no firm distinction between absence causation and genuine causation is drawn in ordinary discourse. Probably the best way into Dowe’s account is via his definition of prevention, which is as follows:

‘*Prevention*: A prevented B if A occurred and B did not, and there occurred an *x* such that
(P1) there is a causal interaction between A and the process due to *x*, and
(P2) if A had not occurred, *x* would have caused B.’
Dowe 2001, p.221 (cf. also Dowe 2000, p.132)

This seems extremely plausible, as Dowe illustrates with the example of a father preventing an accident by grabbing hold of his child. There may be some inescapable vagueness in the account over what this ‘process due to *x*’ might be. But we think that

⁶ The examples used in their trials seem so odd to us that little can be safely read off from the responses of participants. But see Dunaway et al. 2012 for evidence that philosophers surveyed were able to predict these responses.

Dowe's account is confirmed by our normal epistemic situation in relation to prevention. There may be cases in which we can be very sure that someone has prevented an accident in this sort of way. But most of the time, when we are not sure whether an accident would otherwise have occurred (i.e., we are not sure whether the counterfactual in (P2) is assertible), we would regard this sort of parental intervention as an alert precautionary step *which may have prevented an accident*.

So the epistemology of prevention counts in support of Dowe's analysis. Equipped with this analysis he can then go on to deal with (quasi-)causation by omissions⁷ in the following way:

'*Omission*: not-A quasi-caused B if B occurred and A did not, and there occurred an *x* such that
(O1) *x* caused B, and
(O2) if A had occurred then A would have prevented B by interacting with *x*'. Dowe 2001, p.222

This analysis can now be applied with some plausibility to a variation on the case of prevention previously considered: this time a father's failure to grab hold of a child is held to cause (or quasi-cause) an accident. We might well feel inclined to agree with Dowe that an application of (O2) is required for the claim of (quasi-)causation by omission to be upheld. In other words, it does seem reasonable to maintain that the accident can be attributed to a failure to grab *just in case grabbing would have prevented the accident*.

We have already noted that epistemological factors support Dowe's account of prevention in a way that he does not himself stress. There is another attractive epistemological feature of Dowe's position which he does point out. This is that he is able to offer an interesting and plausible explanation as to why the folk do not distinguish between genuine causation and quasi-causation: *epistemic blur*. There may be rather a lot of mediation by quasi-causation going on in the world. Johannes Persson has made a similar point (though he speaks of 'fake causation' rather than 'quasi-causation'): 'when looking closely enough at causal chains that link genuine events, parts of them will probably turn out to be composed of fake causation.' (Persson 2002, p.141) If quasi-causation is common and often occurs at a mediating stage, then there may be many cases in which we do not know enough about the details to establish whether we are dealing with a case of genuine causation or quasi-causation, or where genuine causation stops and quasi-causation begins. It is therefore understandable that we should not be insistent upon the distinction between genuine causation and quasi-causation, if we are not very good at drawing that distinction and in many cases are unable to tell whether we have an episode of one or the other, or an episode of one involving an intermediate phase of the other.

⁷ It will be noticed that here and elsewhere we are ignoring any differences between omissions and other absences. This may be wrong. There may be subtle considerations concerning the culpability of non-agents which affect 'attributions', and thereby come to infect our causal discourse. But the simple approach is to treat actions which are not performed in just the same way as any other event which does not occur or factor which does not obtain. Whether non-actions should be treated somewhat differently from other non-events is a topic we will not pursue further here.

So far Dowe's counterfactual account of prevention and quasi-causation seems promising, securing a unification in the treatment of prevention and 'causation by absence' and also fitting with some aspects of the epistemology of prevention and absence causation. Why then should we not be satisfied with his account? For two reasons, we think. The first is that we maintain that Dowe's account threatens to mislocate the causal process involved in absence causation by making the efficacy of a quasi-cause counterfactual: non-A quasi-causes B because A would have prevented B (by Dowe's (O2)). If this is where the quasi-causal 'oomph' is to be located, then we think that Dowe's view is a 'causality by the other path' view of absence causation, and therefore objectionable for the reasons we give below in discussing Schaffer's position. The second defect of Dowe's position is connected with its counterfactual character: excessive proliferation of quasi-causes. If there is anything that anyone could do which would prevent some outcome from occurring (the destruction of the rain forests, a death somewhere from disease, a crash on the markets — cite any potentially preventable outcome you like), then their omission to do that is quasi-causing that outcome. Advocates of a counterfactual analysis are apt to bite this bullet. So we find David Lewis prepared to assert that our current survival, at any moment when we do survive, is caused by the absence of nerve-gas. On this point Dowe only seems to differ from Lewis by calling that 'quasi-causation' rather than genuine causation. But we regard this as a sufficiently horrible consequence to be worth avoiding.⁸

4. Schaffer's Quaternary Contrastive Causal Relation

Jonathan Schaffer takes a different tack altogether. He has argued that, while the cause-effect relation has traditionally been thought of as a binary relation (*c* causes *e*), we would do better to see it as 'a *quaternary, contrastive* relation: *c* rather than *C** causes *e* rather than *E**, where *C** and *E** are nonempty sets of contrast events.' (Schaffer 2005, p.327) Making use of this contrastive account of the relation of causation itself, Schaffer proposes a salvage for the causal efficacy of absences, which he claims will resolve some apparent paradoxes. He points out that at first sight causation by absences is both theoretically problematic and metaphysically abhorrent: (a) *Theoretically problematic* because: it is unclear what is denoted by nominals expressing absences or omissions. What, for example, is denoted by 'the gardener's not watering my flowers', when that is allegedly what caused the flowers to die? Does it designate an event that could figure on the cause side of the cause-effect relation? (b) *Metaphysically abhorrent* because: 'When the gardener does not water my flowers, there is no energy-momentum flow or other physical process connecting this absence (wherever located, if at all) to the wilting flowers. Absences impart no "oomph".' (p.330) As we have seen, we could already have put this point in Descartes' terms by saying that there was '*not as much reality*' in the gardener's not watering my flowers as in the wilting of those flowers.

Schaffer thinks that contrastive causes can enable him to deal with both these difficulties. In the case of the theoretical problem, the problem of what events are available as causal relata in cases of absence or omission, he takes negative nominals

⁸ See [REFERENCE1 CONCEALED] for further explanation of how we can avoid this consequence.

to denote certain actual events, echoing Hart and Honoré's comment (Hart and Honoré 1985, p.38) that negative statements are just as much ways of describing the world as are affirmative statements, though they describe by contrast:

'Thus, the gardener's napping rather than watering my flowers did cause the flowers to wilt rather than blossom, whereas the gardener's napping rather than watching the news did not. Here the role of absence-talk is to set the contrast. ... Contrastivity thus reconciles causation with a counterfactual, event-based framework.' (p.331)

He then attempts to alleviate the metaphysical abhorrence in the following way:

'... the contrastive strategy locates the "oomph" in absence causation. Where c and e are not actually connected, the members of C^* and E^* would have been connected. Or in more complex cases, there is a continuous chain composed of connections and would-be connections. Thus, when the gardener naps rather than watering my flowers, there is a would-be connection from the causal contrast of the watering to the effectual contrast of my flower's blooming. Likewise, there is a would-be connection from the pilot's lowering the landing gear to a safe landing. To take a more complex case, when the governor fails to stay the order of execution, there is a would-be-connection from governor to executioner, then an actual connection from executioner to axe to prisoner's neck, then a would-be connection from prisoner's blood to brain. Contrastivity thus allows causation to be glossed in terms of *differences in "oomph"*'. (Schaffer 2005, pp.331-2)

There are two main features of Schaffer's account of absence-causation which should be noted.

(1) The first is that on this model it would be natural to say that absences derive their causal efficacy from the link between cause-foil and effect-foil. That would be most people's way of putting it. But if Schaffer is right to maintain that causation is a quaternary relation, then according to his model what we *should* say is that the transmission process of causation can be located either between c and e or between C^* and E^* . And when c is an absence or an omission, then the causal transmission process is, or would have been, between C^* and E^* . We are inclined to comment that this does not seem as if it can be right, since it seems to come down to saying that c causes e because C^* causes, or would cause, E^* . But maybe we are just not being quaternary enough in looking at things that way.

(2) The second, less salient, point is that Schaffer has been careful to accommodate the possibility of *mediation by absence causation*. A point sometimes raised against the separationist view (for example, as we noted above, it was well made by Persson in his 2002, p.141) is that many cases which we are certainly inclined to think of as straightforward instances of a causal relation are revealed upon investigation to involve some intermediate process of prevention or cessation. Killing by beheading has become the stock example: death is caused through the blood supply to the brain being cutting off. So this apparently clear-cut example of causation actually has absence causation embedded within the causal transition: it is the absence of oxygenated blood which results in the end of all conscious experience. Schaffer elegantly exemplifies the ability of his model to deal with this phenomenon with the case of the governor's failure to reprieve causing the prisoner's death.

5. *Causality by the Other Path?*

It might be thought that the way in which an absence or an omission can be said to produce some outcome is really through the alternative causal process that would have been developed if the absence had been a presence, the omission an action. We aim to explain why this is at once a plausible, but also an incorrect view of the causal role of absences and omissions. As we have just seen, it is a view which is in effect adopted by Schaffer, via the apparatus of his quaternary account of causation, according to which '*c* rather than *C** causes *e* rather than *E**'. On Schaffer's account, when *c* denotes an absence or an omission, *c* causes *e* via the fact that *C** would have caused *E**. Or at least, that is what his solution amounts to in pre-quaternary parlance.

We can explain the attraction of this solution through our account of how absences and omissions come to figure as frequently as they do in contrastive causal explanation. Our view is that in giving a contrastive explanation we aim to explain a difference between two outcomes (sometimes referred to, not altogether happily, as '*the fact*' and '*the foil*') by citing a critical difference between the causal histories of those two outcomes. Given this general model of contrastive explanation, with its emphasis on explanatory differences, it is no surprise that absences and omissions should appear so often in our explanatory discourse. If we can explain why outcome A obtained in one situation, rather than outcome B, by citing the presence of factor F in the causal history of outcome A, then we should also be able to explain why outcome B obtained, rather than outcome A in another closely comparable situation, by citing the *absence* of factor F in the causal history of outcome B.⁹

So it is indeed going to be the case on this account that whenever we say 'B happened because of the absence of F', or even 'the absence of F caused B', we will have in mind as an explanatory contrast (though quite likely not in conscious awareness; context will often supply the explanatory target and we may respond to contextual factors at a sub-conscious level) a possible or actual alternative scenario in which F was present and resulted in outcome A, rather than B. So whenever it is correct to say 'B happened because of the absence of F', it is required that the circumstances be such that the presence of F would have resulted in (or at least would probably have resulted in¹⁰) A, an outcome distinct from and contrasted with B. (So it's not-B — but we must be careful to note that it is not just *any way* in which B is not the case.) Should we conclude from this that absences derive such causal efficacy as they have by borrowing it from a parallel situation, in which the positive factor was genuinely involved, or would have been genuinely involved, in a causal process?

We would like to point out that Schaffer's model can be seen as a sort of projection of our account. His *e-E** and *c-C** correspond to the two differences present in any case of contrastive explanation, the target difference (*e-E**) and the accounting difference (*c-C**). In fact, we take it to be an advantage of our general approach that it can explain why Schaffer's quaternary model appears to work as well as it does. Schaffer's theory can only appeal to the unifying power of his account (which, we

⁹ For more detailed exposition and defence see [REFERENCE1 CONCEALED].

¹⁰ The qualification is intended to allow contrastive explanation even when laws are probabilistic rather than deterministic; an extremely delicate issue which we must sidestep here. For further discussion see Hitchcock 1999 and [REFERENCE2 CONCEALED].

agree, is quite impressive). Beyond that it is just going to appear to be a brute metaphysical fact that it takes four elements to construct a causal relation. Our account has the advantage of explaining the quaternary aspect of causation as a consequence of the contrastive character of causal explanation.

We are, of course, going to agree with Schaffer that whenever e because of c , there is going to be a C^* such that E^* eventuates or would have resulted. For this is implied by the fact that ideal evidence against the causal claim would be supplied by disproof of the possibility of what we have called *difference closure*: i.e., even if the absence or omission was made good, e would still have resulted. However, we are not inclined to agree that it is the would-be connection between C^* and E^* that constitutes the causal transmission process $c-e$ when c is an absence. Different examples are liable to turn our intuitions in different directions. Naturally Schaffer has chosen cases in which his proposal seems intuitively acceptable. However, we can certainly give apparent counterexamples: in icy weather some pedestrian falls over and injures herself because the pavement was not gritted. We put the question of legal liability (did someone have a responsibility to safeguard pedestrians by gritting the pavement?) to one side, and ask instead: Where's the causal connection? Schaffer's answer has to be that it is the would-be connection between a gritted pavement and the pedestrian striding across it with purchase on the surface and so without falling over. He is clearly right that this must obtain for the causal claim to be correct. For example, if the pedestrian had been jostled so hard by someone else that she would have fallen over even on a gritted pavement, then she did not fall *because* the pavement was ungritted. But surely it is not a would-be gritted pavement supporting upright passage that gives the "oomph" to the pedestrian's fall: it is the slippery surface that fails to supply enough friction to the soles of her shoes.

But we do not wish to base our argument against Schaffer merely on an appeal to intuitions. A more decisive consideration is available, namely *where causal interference would occur*. We take it to be agreed common ground that practically any process of causal generation, apart from the most fundamental, can be interfered with by some factor which prevents an outcome which, absent that interference, would ensue. This is the reason why most laws at levels of organization above the microphysical hold only *ceteris paribus*. But now note that this general fact about causal processes supplies a test as to where causal efficacy is to be found: in the place where interference might occur. Any number of examples could be given of an absence or an omission being interfered with so that some outcome is prevented, and in all such cases it is, we maintain, readily apparent that the interference will be in the $c-e$ process rather than in Schaffer's parallel C^*-E^* process.

To make this point in a memorable way it can be illustrated by a tragic case from the history of medicine, concerning the death of Albert Alexander. Albert Alexander was a constable in the Oxfordshire police force who is often cited as the first patient to be treated with penicillin.¹¹ Constable Alexander was in the Radcliffe Infirmary suffering from a combined staphylococcal and streptococcal infection, acquired from an untreated scratch, when it was decided that his condition was sufficiently desperate to justify administration of a dose of penicillin, whatever the side-effects might be. So

¹¹ This claim probably overlooks the priority of some trials made in Sheffield by Cecil George Paine a decade earlier. See Wainwright and Swan, 1986.

Alexander was given an injection of 160 mg of penicillin on 12 February 1941 and this treatment seemed to be working. Within twenty-four hours his temperature fell and the abscesses covering his head started to heal. But, most unfortunately, Howard Florey's laboratory could not produce penicillin in sufficient quantity at that time, so it was not possible to give Alexander another large injection of penicillin. The bacterial infection took hold again and Albert Alexander died on 15th March 1941. It is clear that Alexander died because he was not given a further course of penicillin, since no more penicillin was available from Florey's Oxford laboratory (Bud 2007, pp.32-3). Had penicillin been extracted from the mould *Penicillium notatum* in greater quantities or in other laboratories, then Alexander's death from the infection could have been prevented. Indeed, anything that could have interfered with the processes of cell multiplication in bacterial infection might have prevented Alexander's death. For, though the lack of extracted penicillin caused Alexander's death, it is clear that the actual mechanism which brought about his death was the usual process of cell multiplication in bacterial infection. So interference with lack of penicillin causing a death has to interfere with the mechanism responsible for death.

We should now be able to see clearly what is wrong with Schaffer's proposal that where *c* is an absence or an omission, the "oomph" of causality is to be found in a would-be *C*-E** causal connection. Schaffer says: 'Where *c* and *e* are not actually connected, the members of *C** and *E** would have been connected... Thus, when the gardener naps rather than watering my flowers, there is a would-be-connection from the causal contrast of the watering to the effectual contrast of my flowers blooming. Likewise, there is a would-be-connection from the pilot's lowering the landing gear to a safe landing.' (Schaffer 2005, p.332) According to Schaffer's quaternary account, in the regrettable case of the want of penicillin causing Constable Alexander's death it is the would-be connection between a possible penicillin injection and Alexander's recovery from the bacterial infection that constitutes the causal connection. *But that is to confound a necessary condition for causal attribution to an absence or omission with the actual causal mechanism involved.* The interference test shows this quite decisively. If we wanted to interfere (if only we could) with the process leading to Alexander's death as a result of his not receiving a second large injection of penicillin, what would be needed would be something that killed off the staphylococcal and streptococcal bacteria that were multiplying inside his body.

Our verdict on Schaffer's account is that it systematically mislocates the process of causal transmission. Processes of causal transmission are ubiquitous indeed. So it is no surprise that Schaffer can find a parallel (or would-be) substitute process. Something similar to this is going on in relation to Schaffer's proposed solution to what he sees as the theoretical problem of finding some event to be the referent of those nominals which appear to denote absences: e.g., what event could 'the gardener's omitting to water my plants' possibly be? Schaffer suggests that the function of absence-talk is to set a contrast, and that there will be some event available such as, say, *the gardener's napping rather than watering my plants.*

Here again, we are in partial agreement with Schaffer: he is right to follow Hart and Honoré in pointing out that negative statements describe actual situations just as positive ones do. He is also right that we should not be disturbed by the potentially disjunctive character of an absence or an omission, as in the example of someone's

not putting the milk back in the fridge causing the milk to go off. That disjunctive character, due to the fact that other absent agencies or factors could equally produce a different outcome, might be problematic in the case of general causal claims, but it is not something we need to worry about in the case of a singular causal claim. However, this does not mean that you can always pull an action or an event out of the hat to be the referent of some 'nominal of absence'. After all, though it might be callous on my part to make much of it, my plants might have died because of lack of watering by the gardener in a case in which the gardener predeceased the plants, and so was not available for napping or other non-watering activities. In some cases in which something is caused by an absence or an omission there may be an event which could be taken as the realization of that absence or omission. But that is not a solution to the problem of absent relata that can be relied upon to stand up generally. So what solution can there be? Our answer is that there is no problem of absent relata because the cause-effect relation is not best thought of as a relation between events. Instead talk of absences and omissions serves as an indicator for situations which are characterized negatively, but which really have to be understood as being densely endowed with positive factors.

6. *Nominals and Indicators: the absence of absences*

So far we hope to have been able to uphold our view as being at least as plausible as other available perspectives. We also believe it is more in accord with intuitive judgements about where the causal processes are to be located, for whatever the deliverances of intuition on such an issue are going to be worth. Elsewhere our main concerns have been with contrastive explanation in general and causal contrastive explanation in particular. Our position in those areas is not incompatible with a separationist view such as that advanced in Beebe 2004. It might be the case that absences and omissions can be cited as *explanatory difference-makers* in contrastive explanations, but cannot be *genuine causes* because absences and omissions cannot be causal relata. It is quite conceivable that the folk should fail to abide by a subtle philosophical distinction between causation proper and causal explanation, and, being accustomed to invoke absences and omissions in explanations, loosely speak as if they could also be causes.

Are there further considerations which can be brought to bear and which may help to resolve this issue? One possible source is linguistic data concerning what categories of referents the nominals (or noun phrases) involved can take. This was the evidence Zeno Vendler deployed, almost half a century ago, in support of his idiosyncratic view that causes are facts and effects are events, and therefore we *must* reject altogether the idea of any such thing as a cause-effect relation. The argument for this surprising claim depended upon drawing a distinction between two different classes of nominals formed from verb-roots: *perfect* and *imperfect* nominals. The perfect nominals have been completely nominalized and so have shed all their verb-like features. Perfect nominals behave just like ordinary substantives, whereas imperfect nominals still bear the marks of their verbal parentage and retain some verb-like features. In particular, imperfect nominal behave like verbs in that they can retain the verb-object; are modifiable by tenses, modals, and adverbs; and are subject to negation. Whereas perfect nominal are not permitted to take a verb-object (instead the

construction ‘of [*object*]’ is found); are not modifiable by tenses, modals, or adverbs; are not subject to negation; and can take relative clauses, adjectives, articles, and prepositions (Vendler 1967, p.707).

In fact, we do not find Vendler’s case convincing, even on the linguistic territory on which he proposes to operate. McCann has pointed out that: (1) Vendler’s category of imperfect nominals fails to distinguish between gerund nominalizations (e.g., *Brutus stabbing Caesar*, *Lily having sung my favourite song so sadly*) and that-clauses; (2) it is far from clear that that-clauses and imperfect gerund nominalizations both designate facts; and (3) in any case, in ‘*x caused y*’, ‘... caused *y*’ is a ‘*loose container*’ (McCann, 1979).

This last point may be particularly germane to the consideration of claims that absences and omissions can be causes. To say that, ‘*x caused y*’ is a *loose container* in respect of the *x*-position is to say that this locution is tolerant of completion by expressions of quite different kinds. So, for example, the following all seem quite grammatically acceptable:

That John sang the song so awfully caused his audience to be in a state of shock.

John’s singing the song so awfully caused his audience to be in a state of shock.

John’s awful singing of the song caused his audience to be in a state of shock.

What John did next — that awful singing — caused his audience to be in a state of shock.

John caused his audience to be in a state of shock by singing so awfully.

Indeed, though it may be strained, we do not hear anything grammatically amiss with:

The event that was John’s awful singing of the song caused his audience to be in a state of shock.

The easy way to introduce some negative aspect into a causal claim is by using one of Vendler’s imperfect nominals, since they can still take a verb-like form of negation.

Thus one can say:

The gardener’s not watering my plants – not once during that whole month – caused them to die.

Vendler’s original thought was that imperfect nominals do not designate events. So if absences and omissions had to be talked about by using negation we would not be able to make a claim about their causal role that could be interpreted as asserting a relation between events.

But it has to be doubtful whether we should be overly impressed by this kind of linguistic consideration. In the first place, it is easy enough to get a substantive (such as ‘absence’ or ‘omission’) into the claim by means of a little circumlocution, as in:

The gardener’s failure to water my plants caused them to die.

In speaking of a failure it is quite possible that one should be making reference to an event, although we would agree that this last sentence does not appear to be that sort of example.

More generally, however, one can reasonably harbour misgivings about the methodological import of any linguistic argument of this kind. Can metaphysical theses in philosophy really be made to depend upon features of surface-grammar? Even more worryingly, can they depend upon features of the surface-grammar of

contemporary English? Into how many other languages can an argument such as Vendler's even be approximately translated? We cannot so much as hazard a guess at an answer to this last question. But it is quite certain that it cannot be translated into all languages. That is worrying, since one would have supposed that the philosophical issue we ought to be addressing is whether it is legitimate for people to think of absences and omissions as causes, no matter what language they would use to express their thinking.

If nothing of major philosophical import can be extracted from the linguistic phenomena, then there is no reason why philosophers with serious and systematic concerns, such as Beebee, should be worried by the fact that 'x caused y' is a *loose container* in ordinary English for the x- and y- positions. If anything, this is a point which might be taken to assist Beebee's case, since the looseness of that locution may help to explain a conflation of causal explanation with causation. At any rate, she is under no obligation to construe the metaphysics of the causal relation in such a way as to fit all locutions which can be presented as instantiations of the 'x caused y' pattern. There is no weighty presumption that every instance of that pattern is an expression of the causal relation of interest to philosophy.

But if the linguistic data are not decisive in giving grounds to reject the view of causation as a relation between events, then they are equally not decisive against other possible positions. We think that taking causation to be at bottom a relation between events is a form of Humean atomism which must eventuate in reducing causation to mere sequence; and which also underestimates the extent to which ordinary causal discourse is obliged to give rather vague indications of causal antecedents for want of detailed knowledge. Instead, we would urge that a much better appreciation of the basic structure of causal thinking can be obtained by thinking of causation as *a relation between a complex worldly situation and an outcome*. In the spirit of this idea we would suggest that doing justice to the role played by context in fixing what we are talking about is crucial to understanding absence causation. The reason why there is such a thing as 'causation by absences' is that we often (if not always) indicate more than we mention. Mere absences cannot bring anything about — on this point everyone should be in complete agreement with Beebee. But what we are indicating as the case when we speak in terms of an absence is not a mere absence but an actual worldly situation, distinguished by the absence we mention from similar worldly situations which lack the same causal power.

The philosophical community should be to some degree prepared for this claim by Kripke-Putnam style argumentation in favour of externalism about reference. So it is now quite widely accepted that by using the term 'water' people can manage to make reference to stuff that is in fact H₂O, whether or not they know anything about water being constituted by H₂O molecules. No particularly strong externalist theses are required in order to give plausibility to the idea that very often we can indicate more than we can appreciate: it's *that stuff* we are talking about, whatever it is.

Somewhat similarly, the salient aspect of some causal 'stuff' may just be, from our perspective, that it is lacking in some way — i.e., that some factor is absent. That does not mean that we are attributing causal power simply and solely to that absence. For this reason we agree with Schaffer that we should follow Hart and Honoré's insight

that phrases with negation operators in them can be used to talk about actual states and happenings in the world. But we think the right way of taking this insight is not to suppose that every non-event (such as *the gardener not watering the flowers*) is realised in an actual event (such as *the gardener taking a nap* or *the gardener watching TV*). If causation is taken to be a relation between linguistically specifiable events, such a conclusion is inevitable. But we question whether this form of relationism is tenable in any case. A positive event may be picked out as ‘the cause’, but it is only causally efficacious because of the conditions in which it occurs. We think Mill was quite right to maintain that ‘[T]he real Cause is the whole of these antecedents; and we have, philosophically speaking, no right to give the name of cause to one of them, exclusively of the others.’ (Mill, J.S. 1843/1973, p.328.)

So whenever we say something of the form ‘the absence of x caused y ’, we speak elliptically. Mere absences cause nothing: without a prior venomous bite the absence of an antidote can do no harm. But in talking of what absences and omissions cause we are not talking about mere absences, we are always talking about situated absences. Lack of penicillin caused Albert Alexander’s death – but only because he already had a raging bacterial infection. In general, a statement of the form:

‘*The absence of x caused y* ’

should be taken as abbreviating the claim:

‘*There was an antecedent worldly situation, S , characterised by the absence of x , which caused y , and in the actual circumstances the outcome y was dependent upon the absence of x .*’

There will be philosophical niceties involved in the analysis of what the dependence of outcome y upon the absence of x amounts to. Something close to Dowe’s account of omission as quasi-causation seems to us as if it will serve as an analysis of this sort of dependence. Our points here are (1) that in order to exclude irrelevant absences the outcome y has to be taken to be contrasted with a range of other possible outcomes (as we have argued at greater length in making out the case for causal explanation in terms of absences and omissions in [REFERENCE1 CONCEALED]); and (2) the fact that the absence of x was required in the given circumstances for y constitutes the dependence of y upon x , but the actual processes through which y comes about, the channels of causal efficacy, are processes which connect the worldly situation S to y . E.g., *contra* Schaffer, it is quite clearly the dehydration of the plant cells, not the gardener’s napping or absorption in TV programmes, that brings about the death of those flowers.

7. Conclusion

In the present paper we have tried to make sense of the claim that absences and omissions can be causes. By deploying an argument from intervention we have shown that Schaffer’s quaternary account of causation mislocates causal efficacy. We have pointed out that once it is appreciated that our talk of absences and omissions as causes is always to be taken as elliptical, it can be seen that it is worldly situations marked out by these absences and omissions that are really causally productive.

It might be doubted whether this constitutes a defence of absences and omissions as being genuine causes. One might object that our approach preserves talk of absences

and omissions as causes at the cost of representing this sort of causal discourse as both elliptical and referentially opaque. For such discourse commits us to there being some worldly situation which is marked by an absence or an omission, and yet we would in most cases be hard pressed to give anything like a full and detailed description of exactly what that worldly situation is.

That much is true. But we do not think it should be considered a problem with the account we have offered. On the contrary, any analysis of ordinary causal thought and discourse must find a way of accommodating our usual situation of ignorance concerning the details of causal production and interaction. As John Locke rightly observed:

‘There is not so contemptible a plant or animal, that does not confound the most enlarged understanding. Though the familiar use of things about us take off our wonder, yet it cures not our ignorance. When we come to examine the stones we tread on, or the iron we daily handle, we presently find we know not their make; and can give no reason of the different qualities we find in them.’ (*An Essay Concerning Human Understanding*, Bk.III Ch.6 paragraph 9; Locke, J. 1690/1975, p.444)

We are now in a position to fulfil the promise made in section two to show how our position is distinct from Beebe’s separationist account. Beebe is both a relationist and a separationist while we are neither. On Beebe’s account, ‘JFK died because somebody shot him’ can be causally explanatory but metaphysically false because causation is a relation between events and there is no event that is ‘somebody shooting JFK’ (such an event would be endlessly disjunctive, an undesirable consequence). On our view ‘JFK died because somebody shot him’ is both explanatory and metaphysically acceptable as it indicates two states where a process explanation is available for the transition from one to the other. Although the antecedent state is indicated in a loose way, this does not preclude the state indicated from having causal powers. Therefore the folk are not to be accused of conflating causal explanation and causation.

A similar outcome ensues for Lewis’s case of the deadly void. Beebe writes, ‘Suppose that as punishment for her negligence [to water the orchids] Flora’s neighbour casts her into the deadly void. Flora’s blood boils, the air is sucked from her lungs, and so on. If, as I claim, there is no causation by absence, then the void causes none of these unfortunate events. Strictly speaking the void is not deadly—if deadliness is the capacity to cause death. [...] When we cite the void in our explanation of Flora’s death we describe how Flora’s causal history would have gone had she not been cast into the void. We do not say what actually caused her death; rather we point out that the sorts of events that would have caused her to remain alive did not occur’. (Beebe 2004, p.306)

Is it false to say ‘the void caused Flora’s death’? We think not. On our view ‘the deadly void’ is simply a way of indicating a state of the world which, as is observed by Beebe, contains many positive factors which contribute to Flora’s death. But as Beebe maintains that causation is a relation between events this precludes the deadly void from entering into a causal relation. We believe that ‘the void caused Flora’s death’ is metaphysically tenable because it indicates a state with particular causal powers. Our position remains genuinist: we accept that it is the positive features of

this state which contribute to the process that brings about Flora's demise. What we do not accept is that a negative indication of this state results in metaphysical error. Our view is therefore not separationist: not only do absences in causal explanations draw our attention to the salient processes leading from one state to another, but they indicate a state which is richly endowed with causal powers.

Despite our rejection of separationism and relationism, there are many aspects of our view that accord with Beebe's. Like Beebe, we take a Lewisian view of explanation, namely, that explanations should provide some information about the causal history of the explanandum. But we believe that we are able to tie explanation much more closely to causation than Beebe's separationism allows. By indicating a state of affairs by reference to some feature that was absent we draw attention to a closely similar alternative state with different causal powers in virtue of having that feature present. We draw attention to the process which must be interfered with in order to bring about the 'foil' against which the 'fact' event is contrasted. Any number of mechanisms within a process could legitimately be cited as a cause of a particular state, but an informative cause will depend on the difference to be explained. Causal explanation does not just provide 'some' information about the causal history of a state; it points to the process that we should interfere with should we wish to bring about the 'foil' state of affairs.

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