

# Whitehead on the Experience of Causality

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*ABSTRACT: In this article I compare Hume and Whitehead on the experience of causality. I examine Whitehead's examples of such an experience and I offer a defense of Whitehead against Hume on this topic.*

## **Introduction**

Both David Hume and Alfred North Whitehead were incisive analysts of experience, but when it came to the presence of causation in experience they came to entirely contrary conclusions. Hume infamously (but persuasively) declared that, upon examination, experience reveals no sign of causality whatsoever; Whitehead, on the other hand, asserted that the experience of causality is in fact the most fundamental aspect of experience. This essay will first briefly review Hume's claim, distinguishing two different but mutually supporting accounts he gives regarding the experience of causality, and then move on to Whitehead's analysis of experience, with an emphasis on the aspect of experience he calls "perception in the mode of causal efficacy," which he believes constitutes our experience of causality.

As Whitehead can be quite enigmatic, the bulk of this essay will be spent charitably interpreting and presenting Whitehead's two main criticisms of Hume regarding the experience of causality. The first of these criticisms argues that Hume's analysis of experience is incomplete, and thus fails to adequately justify his contention that we never experience causality. Yet while this first criticism only asserts that Hume's supporting argument is weak, Whitehead's second criticism aims to directly refute Hume's conclusion by showing that we *do* experience causality. To support this ambitious claim, Whitehead presents three examples of experience in which, he argues, we directly experience causal influence. Finally, once these two criticisms are presented, I will evaluate them both, concluding that although each ultimately succeeds, only the last of Whitehead's three examples unequivocally substantiates his claim that we experience causality.

### I. Hume: No Experience of Causal Influence

As stated, David Hume believed even the most thoroughgoing examination of experience discloses no sign of causality in operation (27, 41-45, 49, 51). In his view, all we ever observe is a regular succession of events, in which we consistently see the same types of occurrences (which we term “effects”) follow another type of occurrences (which we term the “causes” of these “effects”), and due to this regularity come to *assume* that there must be some kind of underlying causal “power” maintaining this regularity by causally connecting these events (21, 50, 52). Thus, for example, when we see time after time that whenever a hard object hits a glass object, the glass object breaks, we form the assumption that something about the hard object “causes” the glass to break. But nowhere in this sequence of events do we ever actually experience the supposed causal influence which connects the “cause” to its “effect.”

Instead, Hume averred, we only observe a series of events which, in and of themselves, give no hint of any causal connection between one another: event one, we see a hard object and a glass object come into proximity; event two, there is contact between the hard object and the glass object; and event three, the glass object breaks. In none of these events does a causal influence reveal itself to our senses, as each event informs us of that one event, and that one event *only*, without even the slightest hint of any connection to the one preceding it, nor to the one succeeding it (17, 41, 49). Thus, on the basis of this analysis, Hume concluded that all experience tells us about causality is that there are certain *regularities* between events, such that one always (or usually) follows another, but the causal *influence* (or as Hume would say, “power”) by which one entity or event effects a change in another, thereby causally connecting the two, is something we never actually experience.<sup>1</sup> Accordingly, whether or not we directly experience such a causal influence will be the central question of this essay.

Interestingly, though, Hume did postulate an empirical difference between witnessing a sequence of events which we suppose to be causally linked, and witnessing a series of apparently unrelated ones. In this sense, then, Hume conceded that there is a distinct experience of causality as opposed to that of a mere coincidence—it’s just that, for Hume, this difference did not consist in the direct experience of causal influence. Instead, Hume said, when we claim to have observed a causal occurrence, we are merely referring to having felt our own *expectation* that what we

have previously termed the “effect” will follow that which we have previously termed the “cause” of that effect, and that this expected succession did actually occur (50, 52).

A moment ago, for instance, I mentioned how Hume would say we come to form the assumption that hard objects “cause” glass to break upon impact. Once this assumption is thereby formed, it becomes a habit to *expect* that whenever a hard object hits a glass one, the glass one will break. Consequently, as we all know, once we form this expectation, upon seeing, e.g., a baseball flying towards a glass window, there is the initial *feeling* of anxious *anticipation* as we await the glass to break, and immediately thereafter the windowpane does indeed shatter.

What this example illustrates is that our habituated expectation is so strong that it is a sentiment which, in Hume’s words, we literally “*feel* in the mind,” (50, emphasis in original) making it a veritable aspect of experience; and yet it is also a feature of experience that only arises because of our own presupposition of causality. In other words, the feeling that distinguishes reputedly causal occurrences from non-causal ones has nothing to do with the empirical character of the events we observe—the events themselves are just as devoid of signs of causal influence whether we think them to be a causal sequence or a coincidence—but is instead a purely psychological phenomenon which we instill in ourselves. Hence, for Hume, a so-called experience of causality is merely the feeling of our own habitual expectation, for the supposed causal influence connecting two events never does directly present itself to our senses.

From what has been said, it is evident that Hume presents two distinct but related accounts regarding the experience of causality, one being a negative claim, the other a positive claim. His primary account, which Whitehead ultimately sought to refute, is what I will call Hume’s “skeptical account,” as it is Hume’s negative claim regarding the experience of causality: to wit, that we never directly experience causal influence, but only series of unconnected events. Yet as we have seen, Hume also had a positive account of the experience of causality, which seeks to explain what a seemingly causal experience truly is if not a direct experience of causality. I will call this account Hume’s “expectational account,” as it holds that what we take to be experiences of causality are distinguished solely by the feeling of expectation, as habituated from our past experiences with similar events. As we will see, both these accounts are seminal in Whitehead’s critique of Hume, and the expectational account will later prove critical for considering how Hume might have replied to Whitehead.

## II. Whitehead's Fundamental Criticism of Hume: Perception in the Mode of Causal Efficacy

Twentieth century mathematician turned philosopher, Alfred North Whitehead, maintained the exact opposite of Hume, arguing that the experience of causality is in fact the most *basic* feature of experience. He called this aspect of experience, in which the causal influence of an entity is directly sensed, "perception in the mode of causal efficacy," as contrasted with another central facet of experience, which he called "perception in the mode of presentational immediacy."<sup>2</sup> Although these two modes of experience always interpenetrate and combine into one holistic sensation, he showed that they are experientially distinct, and can therefore be distinguished from one another for the purpose of phenomenological analysis.

In this regard, Whitehead describes perception in the mode of causal efficacy as being the "perception of conformation to realities in the environment," (*S* 43) as these ambient "realities" force their potency upon us—an inescapable efficacy which is felt as a "transference of throbs of emotional energy." (*PR* 116) Most importantly, this aspect of experience conveys to us feelings not so much of *sensa* as of forceful *influences*. On the other hand, presentational immediacy builds upon these influences, which are only obscurely felt, and illustrates them with the more clear and distinct sensations associated with the five senses (*PR* 119-21, 172-73, 176, 178-79, 312; *S* 21, 24-25, 50).<sup>3</sup> Presentational immediacy, then, is what would usually be called "sense perception," mainly consisting of sights, sounds, tastes, smells, and tactility, whereas causal efficacy, though never experienced entirely without the coloration of presentational immediacy, is most noticeably present in indistinct bodily feelings and emotions, such as fear, sexual arousal, fatigue, proprioception, and bodily aches.<sup>4</sup>

As one can see, then, causal efficacy is a subtle aspect of experience, and this makes it less apt for analysis than presentational immediacy, which is usually the more clear and distinct (and therefore focal) feature of experience. Notwithstanding, Whitehead claimed, causal efficacy is just as important a part of experience as the vivid *sensa* of presentational immediacy (if not even more important), yet a mode of experience which has been historically neglected by philosophers (*PR* 81, 117, 173-74).<sup>5</sup> Among the most guilty of this omission, Whitehead said, is Hume, as he

focused exclusively on perception in the mode of presentational immediacy, and this is where he went wrong in his analysis of experience (*PR* 123, 178). For it is true, even in Whitehead's own account, that our perceptions of colors, sounds, tastes, etc., if taken alone (i.e., devoid of their roots in causal efficacy), reveal no sign of causal influences (*PR* 122-23, 315).

This criticism of Hume is what I will call Whitehead's "fundamental criticism" of Hume, as this is the most basic way in which Whitehead thinks Hume went wrong: by ignoring perception in the mode of causal efficacy, Hume overlooked a critical element of experience. Moreover, this criticism of Hume is more significant than Whitehead's own exposition of it makes clear, for, if correct, it subverts the empirical considerations underlying Hume's skeptical account, and thereby undermines Hume's claim that we do not experience causality.

This is because, as we have seen, Hume's skeptical account is based on a consideration of experience: he observes that all we ever see is one type of event consistently succeed another type, but never a causal influence linking the two, and thereby concludes that we never directly experience causality. But if Whitehead is right, then Hume overlooked a very large and relevant aspect of experience: namely, perception in the mode of causal efficacy. This being so, the upshot of Hume's skeptical account (that we do not experience causality) is insufficiently supported, for such an ambitious claim would require either a fully comprehensive review of experience—a clearly impossible task—or, more realistically, an examination of the most relevant and exemplary instances and facets of experience.<sup>6</sup> Yet, by disregarding an integral feature of experience (perception in the mode of causal efficacy), Hume did neither. Hence, Whitehead's fundamental criticism of Hume implies that Hume's conclusion that we never directly experience causality lacks the necessary support, thus leaving in limbo the question of whether or not we do directly experience causality.

### III. Whitehead: Three Examples of the Experience of Causality

As we have just seen, Whitehead's fundamental criticism of Hume, if correct, upsets the empirical considerations underlying Hume's skeptical account, and thereby staves off his conclusion that we do not experience causality. Still, this would not *disprove* Hume's conclusion that we do not experience causality, for although Hume fails to prove this claim, it is still quite possible that this contention is true. Thus, to show that we *do*

experience causality—and thereby definitively refute the conclusion of Hume’s skeptical account—further argumentation is required. Naturally, this is precisely what Whitehead does, by presenting three common instances of experience wherein perception in the mode of causal efficacy is especially conspicuous, and which he thinks evince the direct experience of causal influence.

Regarding the first example of an experience of causal influence, Whitehead thinks that Hume’s expectational account fails to explain this experience as being anything other than the direct experience of causality it seems to be. To set up this claim, Whitehead prefaces his example by pointing out an implication of Hume’s expectational account. Recall that Hume’s expectational account holds that alleged experiences of causality are distinguished solely by a feeling of expectation—specifically, the expectation that contemporary events that *appear* similar to those we have observed in the past (and have thus come to consider to be “causes”) will be followed by their usual attendant phenomena (i.e., “effects”). In this way, Hume’s expectational account suggests that the *observation* of presumed causes is what evokes the expectational feeling: we *observe* a contemporary event which we take to be a cause, and *thereby* come to expect an effect.

Although Whitehead does not precisely explicate his reasoning, the foregoing seems to be his line of thought when he says that, by Hume’s account, this feeling of expectation—which is to say, Hume’s proposed feeling of causality—“*presupposes* well-marked familiar *sensa*” (*PR* 176, emphasis added) with these “familiar *sensa*” being those thought to be causes. In other words, Whitehead attests that the expectational feeling central to Hume’s expectational account requires the observation of presumed causes for it to arise, which, pivotally, means that if one is unable to discern familiar phenomena (or at least ones they would presume to be causal), then they should likewise lack a feeling of causality.<sup>7</sup> Whitehead goes on to say that this is plainly not the case, for we often do have a sense of causality even *without* being able to identify potential causes; and what is more, the sense of causality felt in these situations—far from being a feeling of expectation—is felt as being the experience of *causal influences* acting upon us. As cases in point, Whitehead illustrates two akin experiences characterized primarily by perception in the mode of causal efficacy:

In the dark, there are vague presences, doubtfully feared; in the silence, the irresistible causal efficacy of nature *presses* itself upon us . . . in the dim consciousness of half-sleep, the presentations of sense fade away, and we are left with the vague feeling of *influences* from vague things around us . . . . Every way of omitting the *sensa* still leaves us a prey to vague feelings of influence. (*PR* 176, emphases added.)<sup>8</sup>

Here Whitehead is asking us to consider the feelings we have, first, in the eerie setting of pitch-blackness coupled with complete silence, and second, in the hazy state of half-sleep. Because of the dearth of presentational immediacy in these situations, Hume's expectational account implies that there should be no feeling of causality, as this deficiency of sense data prevents us from identifying possible causes around us. On the contrary, Whitehead points out, our experiences in these situations are permeated with feelings of causal influence.

In mute darkness, for instance, we are often left with a visceral claustrophobia, a stifling sensation most anyone can relate to, despite the unavailability of sight, sound, smell, taste, or (for the most part) touch. Similarly, when drifting off to sleep, we retain a sense of being nestled in a broader world even though our sensory input is virtually nil. Additionally, in both these situations (especially that of silent pitch-blackness), we often have the unsettling feeling of "vague presences" Whitehead speaks of, as we seemingly sense the influence of our surrounding environment. These experiences are familiar to most anyone, yet almost entirely divorced from perception in the mode of presentational immediacy; and most importantly, in each of them, the sensation is seemingly one of external entities impressing their influence upon us, thereby—and *only* thereby—making their presence known. Hence, Whitehead concludes, Hume's expectational account is unable to explain away this apparent feeling of causal influence as being no more than a feeling of expectation, and so, the fact that we feel this influence so strongly nonetheless forces us to admit that what we are experiencing is indeed causal influence.

The second example of the experience of casualty Whitehead presents has a similar result. Here Whitehead asks us to consider the familiar event of a light suddenly being turned on in a dark room, and, as the occupant of the formerly dark room, blinking. An equivalent example (more common today than when Whitehead was writing) is blinking at the flash of a camera. In this example, as in the last one, Whitehead concludes that Hume's

expectational account fails to make sense of the perceived causality of the occurrence, and that, on the contrary, the feeling of causal influence is integral to the experience. To make his point, Whitehead contrasts the account of this event Hume would give (i.e., focusing solely on the mode of presentational immediacy) with that of “the philosophy of organism” (i.e., his philosophy, which includes a consideration of perception in the mode of casual efficacy). He says:

The sequence of percepts, in the mode of presentational immediacy, is flash of light, feeling of eye-closure, instant of darkness. The three are practically simultaneous . . . . According to the philosophy of organism, the man also experiences another precept in the mode of causal efficacy. He feels that the experiences of the eye in the matter of the flash are causal of the blink. The man himself will have no doubt of it. In fact, it is the feeling of causality which enables the man to distinguish the priority of the flash; and the inversion of the argument, whereby the temporal sequence ‘flash to blink’ is made the premise for the ‘causality’ belief, has its origin in pure theory. The man will explain his experience by saying, ‘The flash made me blink’; and if his statement is doubted, he will reply, ‘I know it, because I felt it.’ (PR 175)

Here Whitehead makes two points against Hume. First, it is obvious that no one would intuitively say “There was a flash, and then I blinked; so, insofar as this is the sequence I have come to expect from such events, I *infer* that the flash caused the blink,” yet this, Whitehead remarks, is precisely what Hume’s expectational account would have us believe. As Whitehead says, this account is “pure theory,” divorced from the facts of experience. After all, the notion that an *extrapolation* must be made to deem the flash as causal seems ad hoc when one considers how this experience would *intuitively* be reported: to wit, anyone would sincerely attest that they *felt* the flash *make* them blink. Hence, not only do we intuitively report this experience as being one of causality, but by ignoring this fact Hume’s (supposedly empirically based) expectational account leaves empiricism—in the sense of examining our experience as it immediately presents itself to us—abandoned.

The second point Whitehead makes in this passage—which attempts to refute the ability of Hume’s expectational account to offer an explanation for this apparent experience of causality—is that the flash of light and the blink of the eye occur virtually simultaneously. With this being so, it is



difficult to see how these two events could ever be pieced together in the way Hume's expectational account suggests, such that we would be led to expect that the flash causes the blink. In fact, if viewed solely in the mode of presentational immediacy, the natural conclusion would be that *neither* was the cause of the other. After all, causes necessarily precede their effects, and these two events are far too temporally proximate to be sequentially distinguished by presentational immediacy alone: we do not see a flash of light and then feel a blink, we see a flash of light *and* feel a blink—it all happens, as it were, in the blink of an eye!<sup>9</sup> Consequently, Hume's expectational account founders, for this account requires that a "cause" be temporally distinguished from its "effect" (as preceding it), but the flash-blink occurrence is much too instantaneous for this distinction to be made.

Putting these two points together, we see (from the first point) that this experience is intuitively felt as being one of causality, and (from the second point) that Hume's expectational account fails to offer an alternative explanation for what we might be experiencing if not causal influence. Thus, as in the case of Whitehead's first example, Hume is unable to explain this apparent experience of causality, and so we must affirm what any layperson already seems to know: that *we feel the causal influence* of the flash impinge upon the eye and cause the blink.<sup>10</sup>

With his third example, however, Whitehead takes a different approach. Unlike the previous two examples, which attempt to indirectly refute Hume's skeptical account by showing how his expectational account fails to explain certain apparent experiences of causality, the final example Whitehead provides does not attempt to confront Hume's expectational account, but instead poses a counterexample squarely against Hume's skeptical account. Whitehead states this final example concisely:

. . . our experiences of our various bodily parts are primarily perceptions of them as *reasons* for 'projected' sensa: the *hand* is the *reason* for the projected touch-sensum, the *eye* is the *reason* for the projected sight-sensum. (*PR* 176; also see *PR* 118)

What Whitehead points out in this example is that when we have sensory experiences, they are not of "free-floating" sensa, detachedly drifting before our mind's eye, but are of sensa definitively associated with specific bodily organs *from* which we *feel* them come. As he states this point in *S*: "sense-data functioning in an act of experience demonstrate that they are

given *by* the causal efficacy of actual bodily organs” (51). For instance, in the experience of touch, we do not *just* experience the tactile qualia (e.g., texture and firmness), but experience these *sensa* as *coming from* our hand—that is, the feeling of the hand as the source of tactile *sensa* is *integral* to the very experience of touch. It is this type of feeling, in which a bodily organ is felt as the source of certain *sensa*, that Whitehead brings to our attention as an overlooked experience of causality; for inasmuch as the organ is felt as being our sensation’s source, we feel that the bodily organ is *causing* our experience of a certain *sensa*. In short, then, Whitehead attests that this feeling of *sensa* being conveyed to us by bodily organs is an experience of causal influence, because in it we experience the causal connection between a bodily location and our experiential panorama, wherein the latter is affected by the former. These experiences, Whitehead seems to think, are so plainly causal that Hume’s expectation-al account need not even be addressed.

#### IV. Critical Analysis: Do we Experience Causality?

As previously stated, Whitehead’s critique of Hume can be broken into two general criticisms. The first is what I called his “fundamental criticism”: that by ignoring perception in the mode of causal efficacy, Hume overlooked a significant portion of experience. This is the appropriate place to begin evaluating Whitehead’s critique, for, as previously explained, if he is right that Hume overlooked this aspect of experience, then he has already made a significant blow against Hume by subverting the empirical considerations underlying Hume’s skeptical account and thereby by discrediting Hume’s rationale for claiming that we do not experience causality.

Unfortunately for Hume, when one considers Whitehead’s distinction between presentational immediacy and causal efficacy, it looks like he is right that Hume’s skeptical account focused exclusively on the former. For example, throughout his polemic, Hume constantly refers to observing sequences of “objects” as revealing no sign of causality (17, 23-24, 27-28, 30, 36-37, 41, 46, 51-52). Needless to say, “objects” is hardly a term applicable to the vague perceptions of causal efficacy, and, indeed, Hume seems to use this term to refer to well defined perceptions in the mode of presentational immediacy, using examples such as “two objects, heat and flame, for instance, weight and solidity” (28) and similarly, “colour and consistence” (21). Likewise, in one of his most well-known examples of

how causality fails to reveal itself in our experience, Hume uses the example of *seeing* one billiard ball hit another and witnessing the formerly motionless one move (41, 50, 52)—an example clearly framed entirely in terms of presentational immediacy.

Of course, one could object that Hume is not missing any aspect of experience—that what Whitehead calls “perception in the mode of causal efficacy” is a fabrication. Nonetheless, I think it must be allowed that the experiences Whitehead directs us to as examples of causal efficacy are experiences familiar to almost anyone, yet they are not entirely captured in terms of the sensations of presentational immediacy. Claustrophobic feelings of vague presences in the dark, the feeling of having one’s eye assaulted when there is a sudden flash of light, and sensory experiences as coming from definite sensory organs, are each experiences which are manifestly present in everyday life, but they are distinct from the clearly defined features of experience which Whitehead designates as belonging to presentational immediacy.

So, it looks like Whitehead’s fundamental criticism of Hume holds, for his distinction between presentational immediacy and causal efficacy appears legitimate, as does his claim that Hume overlooked the latter. As previously stated, this puts the question of whether or not we experience causality in limbo: Hume’s *argument* that we do not experience causality is invalidated, but his claim still may (or may not) be right. Thus, I will now examine the three examples Whitehead uses to substantiate the direct experience of causality. While I think none of these examples succeed as he presents them, I do think his third example, if supplemented, establishes the direct experience of causality, and thereby lends credence to the other two as well.

As we have seen, the first two examples Whitehead offers to prove the experience of causality follow the same general argument pattern. Specifically, both these arguments first draw our attention to an experience which is felt as being that of causal influence—whether it be the feeling of nearby presences pressing upon us, or that of a flash making us blink—and then show that Hume’s expectational account is unable to explain away this feeling of causality. Hence, due to our intuition that this is an experience of causal influence, and due to the unworkability of any explanation other than this intuitive one, Whitehead concludes that we do directly experience causality. Using these points, the general (albeit tacit) argument apparently underlying Whitehead’s first two examples can be

formalized as follows:

1. Experience '*e*' intuitively seems to be a direct experience of causal influence.
2. Either *e* is an experience of what it intuitively seems to be an experience of (i.e., causal influence), or it is not.
3. If *e* is *not* an experience of what it intuitively seems to be of, then there is an alternative explanation for *e* (especially *e* as being a feeling of expectation, à la Hume's expectational account).
4. There is no alternative explanation for *e*.
5. Hence, *e* is a direct experience of causal influence.

Ultimately, where I think Whitehead's argument fails is premise four, while premises one through three appear to hold true. In his examples he does a good job of driving home the fact that the experiences he mentions are intuitively felt as being causal (thereby establishing premise one), premise two is a tautology, and premise three reflects the reasonable notion that if there is no explanation for an experience other than that offered by our intuition, then we must accept our intuition on the matter. But when it comes to premise four, Whitehead's argument founders, for Hume could use his expectational account to persuasively explain these experiences as being of something other than causal influence.

To begin with his first example—that of feeling the encroachment of nearby entities when in mute darkness or in half-sleep—recall that Whitehead says Hume's expectational account is of no avail because there is insufficient sensory data (i.e., perception in the mode of presentational immediacy) to evoke the feeling of expectation Hume says we mistake for a feeling of causal influence. The problem with Whitehead's claim here is that he overlooks the fact that the *lack* of presentational immediacy is itself sensed in the mode of presentational immediacy, and it could be this lack of sensory data which triggers the expectational feeling Hume proposes. In this vein, Hume could say that throughout our lives we have had many experiences in which we were unable to sense our surrounding environment, when, to our surprise, we discovered a previously unknown object; and the repeated occurrence of such events—in which our sensory solitude is interrupted by an unexpected encounter—taught us to expect the presence of nearby objects whenever there is a lack of sensory data. Such conditioning events often occur when stumbling around in darkness, or when suddenly feeling a drip of water or a crawling bug during

half-sleep. From such experiences, Hume would say, we come to form a habit of *expecting* the presence of nearby entities during sensory deprivation despite not truly sensing them, and it is this feeling of expectation—*not* a feeling of causal influence—which gives us the feeling of there being vague presences nearby, as well as the paranoid claustrophobic feeling of being closer to things than our senses reveal and of being nestled in a broader world.

What this Humean reply to Whitehead demonstrates is that Whitehead's first example of supposed experiences of causality fails to unquestionably evince them as being such. In fact, it is not even clear that Whitehead's explanation for the feelings we have during sensory deprivation are even better explained by positing the feeling of causality than by positing the feeling of paranoid expectation Hume would take them to be. And as we will now see, the result is the same for Whitehead's second example, in which he asserts that the feeling of being made to blink by a flash of a light is a direct experience of causal influence.

In this example, Whitehead suggests that it is the virtual simultaneity of the flash and the blink that precludes Hume's expectational account, since this instantaneousness would prevent us from being able to discern (via presentational immediacy) the antecedence of one over the other and thereby establish it as the cause. But here Hume would simply point out that we could easily (albeit subconsciously) *infer* from our *prior* experiences of similar instances that it is the flash that causes the blink and consequently that the flash precedes the blink. For we can tell that it is not the case that every time we blink, there is a flash of light, but that every time there is a flash, we blink. Because of this, the virtual simultaneity of the flash and the blink would not prevent us from realizing which is prior, and thus the cause. So, Hume would say, from the repeated instances of blinking when there is a flash, we come to expect that flashes make us blink, and it is this habituated feeling of expectation—*not* a feeling of causality—that drives our intuition that this occurrence is causal.<sup>11</sup> Consequently, it looks like Whitehead's second example also fails to provide unequivocal evidence of the experience of causal influence.

This leaves only Whitehead's third example: that of feeling bodily organs as being causes of sensations. As we have seen, this example does not follow the pattern of his first two examples, as it is presented simply as an experience of causality without attempting to show that Hume could not explain it away. While it is not clear why Whitehead changes his

approach, a likely reason is that he thought these experiences do not merely *seem* to be causal, leaving room for doubt, but instead present themselves as so indubitably causal that he need not eliminate competing explanations.

Yet if this is what Whitehead was thinking, he was overly ambitious, for the examples he presents of bodily organs being experienced as the cause of sensory impressions could also be explained away by Hume's expectational account. Whitehead's example of "the feeling *of* the stone is *in the hand*" (PR 118) is a good example to show how Hume might have argued that these are not truly experiences of causality, but only feelings of expectation. In this case, Hume would say that our feeling *of* the hand as being the cause of our sensation of the rock is purely the result of our ability to *see that* tactile sensa (such as the feeling of the rock) correspond to contact made with our hands upon other objects. From repeatedly seeing this *correlation* of hand contact and tactile sensa, we would subliminally *infer* that the sensation of the rock is conveyed to us by our hand and we would come to *expect* that these tactile sensa will correspond to whether or not the rock is in our hand. So, Hume would say, although we do feel a connection between the hand and tactile sensations, this connection is not the experience of causality (feeling the hand cause our experience of tactility), but is only our experience of our expectation of such a connection.

Similarly, Whitehead presents the feeling of the eye as being the cause of visual sensa, yet Hume could also explain this as being a feeling of expectation, not of causality. Regarding this example, Hume would say that upon observing that when we cover our eyes we lack sight, and that others likewise lack sight with their eyes covered, we come to suppose that our eyes are the source of visual sensa. But, as in the example of our hand and tactile sensa, we never directly feel the eye causing the visual sensa of sight; rather we feel the persuasion of our own tacit inference, manifested by the *expectation* that sight will correspond to the eye. Thus, concerning Whitehead's third example, Hume's expectational account proves tenacious.

Notwithstanding, I still think Whitehead is correct that our bodily experiences are experiences of casualty, for although Hume can explain away Whitehead's two main examples of such experiences, there are many other examples which he cannot; and when examined, it is evident that the feeling of causality exhibited by these examples (i.e., the feeling of a body part causing our experience of certain sensa) is indeed *inherent* in these experiences. As a case in point, imagine waking up one morning

with a searing toothache. Needless to say, this toothache is completely unexpected, and yet you know exactly which tooth it is—your upper right molar, let's say—because you feel the pain *coming from* that bodily location. In other words, immediately upon awaking, you know that your upper right molar is *causing* you to feel pain.

In this example, Hume's expectational account is of no avail. After all, you certainly were not expecting to awake with a toothache, and what is more, you have no reason to expect that it should be your upper right molar in particular that is hurting, since, unlike in the previous examples, there are no other relevant *sensa* by which you might infer that the feeling of pain is coming from your molar (let alone your mouth) instead of another bodily location.<sup>12</sup> Rather, the pain-experience *itself* is the only means by which to know where the pain is coming from. For this reason, Hume cannot say that the feeling of being pained by the upper right molar is merely a feeling of expectation; on the contrary, it is evident that this feeling of causality is *inherent* in the pain experience as immediately presented.

Furthermore, there are many other bodily experiences wherein the causal influence of a bodily location is experienced in a way that Hume cannot explain away. We can tell, for instance, which ear we are primarily or exclusively hearing a sound with *solely* from the experience of hearing. And like the pain of a toothache, other internal pains (such as a headache, or indigestion in the bowels) also exhibit a specific bodily location as their cause, and this location is typically revealed solely by the experience as immediately presented.

In each of these instances, as in Whitehead's examples of the hand and of the eye, the experience of causality is the same: a sensation is experienced as *coming from* a particular bodily location. In the example of the toothache, for instance, it is not *merely* the *sensa* of pain that is experienced, but this *sensa* as being imposed upon oneself *by* a particular bodily location. There is, in other words, an extrasensory attribute of the experience which might be called its "locational aspect," which Whitehead would say is perception in the mode of causal efficacy (whereas the pain *sensa* are experienced in the mode of presentational immediacy).

It is by virtue of this locational aspect that bodily experiences constitute experiences of causality, for this locational aspect exhibits a causal connection between two loci: specifically, between the locus of a particular bodily location (as revealed by the locational aspect) and the locus of our

own sensory perspective, wherein the former is experienced as affecting the latter with certain *sensa*. In this way, the bodily organ is experienced (in the mode of causal efficacy, which yields the locational aspect) as exerting a causal influence upon us, the result of which is our experience of the *sensa* (in the mode of presentational immediacy). Hence, the locational aspect of the experience, as manifested by perception in the mode of causal efficacy, is what reveals the change in our experiential panorama as being caused by the bodily organ.

In light of these examples, I conclude that Whitehead's third example successfully proves Hume was wrong: in at least some experiences we *do* experience one entity effecting a change in another, such that a causal connection is exhibited between the two. For in our bodily experiences, we experience a bodily location altering our experiential panorama by imbuing our experience with certain *sensa*, thus exhibiting a causal connection between two loci. Hence, from Whitehead's third example, it is evident that we do experience causality.

### Conclusion

In sum, I have attempted to charitably present and evaluate Whitehead's two main criticisms of Hume regarding the experience of causality, concluding that Whitehead's first criticism invalidates the empirical considerations underlying Hume's claim that we do not experience causality, while Whitehead's second criticism successfully establishes his own claim that we do experience causality, in the sense of experiencing the causal influence of one entity affecting another. But although this is an important conclusion in itself, since it provides empirical evidence for the commonsense notion of causality as the influence of one entity upon another, there is still much to be pondered regarding causality, such as the degree to which it is determining, the precise manner of its operation, and numerous other critical questions. Nevertheless, this article's investigation suggests that further phenomenological analyses of bodily experiences, *qua* experiences of causal influence, could shed light on these questions—and possibly related questions as well.

Indeed, the previously noted feature of bodily experiences as presenting two loci—the very feature that makes them experiences of causality—also suggests two further implications. For one, as Whitehead was aware (*PR* 81; *S* 28-29), the fact that our experience reveals itself as coming from



elsewhere undermines the most pernicious and haunting form of external world skepticism: solipsism. Second, the indication of a secondary experiential locus (the bodily location) *within* our own experiential locus lends support to Whitehead's metaphysical schema of internal relations in which each entity's individual experience is inclusive of other entities' experiences. As Whitehead would say, these bodily experiences seem to be those of the percipient experiencing *the body part's* experiences. While both these potential implications require a more thorough examination than can be offered here, they both demonstrate how the feeling of being directly influenced by a world beyond oneself, as exhibited foremost by bodily experiences, is a salient feature of experience that deserves further investigation.

#### ENDNOTES

1. As a terminological note, I will also use the phrase "the experience of causality" to refer to this just stated experience of "causal influence."
2. These are only the two most basic modes of experience Whitehead posited. He also posited a more complex mode which he called "symbolic reference." However, this latter mode of experience is mostly unrelated to his critique of Hume, so I will not delve into it.
3. That presentational immediacy builds upon causal efficacy is an important way in which Whitehead considers perception in the mode of causal efficacy to be more fundamental than perception in the mode of presentational immediacy (*S* 49-50).
4. See Whitehead (*S* 45) for more on causal efficacy vis-à-vis emotions.
5. Here Whitehead explicitly mentions Descartes, Locke, Hume, and Kant as focusing on presentational immediacy while ignoring causal efficacy, as well as (vaguely) "the Greeks." Also, in chapter two of *S* (especially 31-41), he expounds Kant and Hume's failings in this regard at length.
6. As an interesting side note, it seems as though Hume's skeptical account is based on induction, despite his infamous polemic against inductive reasoning. After all, Hume gives no purely logical reasons for why we do not experience causality, but instead argues on the basis of a survey of experience—a survey that is inevitably incomplete. In particular, he overviews the sensory qualities that present themselves to our senses (see Hume 28, 30, 42), and scrutinizes several exemplary instances of our experiences of reputedly causal occurrences

(41-46, 50). But, of course, an overview of a domain as vast and complex as human experience could never be exhaustive; consequently, Hume bases his claim that we *never* experience causality upon a *partial* overview of experience. It is for this reason that Hume's argument appears inductive, as he extrapolates from *some* aspects and instances of experience (those covered by his overview) to a conclusion pertaining to *all* aspects and instances of experience. The only way it seems Hume's argument could be construed as deductive is by assuming that he had truly accounted for *every* feature of *every* instance of experience even remotely pertaining to causality, but this seems far-fetched, at best, and, at any rate, this is precisely the assumption that Whitehead's fundamental criticism brings into question.

7. Whitehead's full statement to this effect is: "The 'causal feeling,' according to that doctrine [i.e., Hume's] arises from the long association of well-marked presentations of sense . . . . It would seem therefore that inhibitions of sense . . . should be accompanied by a corresponding absence of 'causal feeling'; for the explanation of how there is 'causal feeling' presupposes well-marked familiar sense . . ." (PR 176).

8. Also see Whitehead in *S* (43), where he gives an earlier version of this same argument.

9. Of course, one might object that we could not see the flash while blinking, and this is how we know that the flash precedes the blink, but this objection is specious. The point is that the blink and the flash are indistinguishable as to which comes *first*. So, even if we could not see the flash with our eyes closed (though if the flash was bright enough, we could), we still might suppose that the flash occurred immediately *after* the blink, or even while our eyes were already in the *process* of opening or closing.

10. A referee has offered an alternative interpretation of Whitehead's argument here, which rests on an alternative interpretation of what perception in the mode of causal efficacy consists of. According to this alternative interpretation, perception in the mode of causal efficacy *only* consists of the feeling of compulsion (e.g., of being forced to blink), and correspondingly, Whitehead only argues that Hume cannot explain the feeling of being caused to blink. By contrast, in my interpretation both the feeling of compulsion and the recognition of the cause are elements of the perception in the mode of causal efficacy, so Whitehead thinks Hume can explain *neither* this feeling of compulsion *nor* the percipient's ability to causally associate the flash with the blink. Given these two possible interpretations, I see two reasons to maintain my interpretation over this alternative one.

First, most compellingly, is that Whitehead says (in the passage above) "it is *the feeling of causality* which enables the man to distinguish the priority

of the flash . . .” thereby implying precisely what I interpret his argument to be: that without the feeling of causality, the flash and the blink would be temporally indistinguishable, and thus that Hume’s expectational account, which does not admit to a feeling of causality, cannot explain the percipient’s ability to distinguish the flash as the cause of the blink. Moreover, Whitehead’s statement here further implies that he thinks the causal connection between the feeling of being forced to blink and the flash is known from the perception in the mode of causal efficacy (i.e., “the feeling of causality”), not from subsequent inference.

Second, in each of his other two examples, Whitehead takes the feeling of causality to be experientially associated with an external cause. In the previous example, the percipient’s feeling of causality is associated with “vague presences” that are experienced as being causal of the percipient’s sensation of claustrophobia, etc. Likewise, in the example we will be looking at next, the feeling of causality is associated with specific bodily organs from which we feel certain sensations come. In each of these examples, then, the feeling of being affected *by* an external entity is what Whitehead claims to be perception in the mode of causal efficacy, and this shows that Whitehead thinks perception in the mode of causal efficacy is more than just the feeling of being forced—rather, perception in the mode of causal efficacy is the perception of being forced *by* a certain external entity (see *S* 55, where Whitehead talks about how perception in the mode of causal efficacy reveals a world of ambient entities). By the same token, these other two examples also support my interpretation of Whitehead’s argument in the flash-blink example.

Nevertheless, this alternative interpretation does point to an important caveat which must be added to the interpretation I have offered: that the flash *as such* is *not* revealed by perception in the mode of causal efficacy as being the cause of the blink. Rather, the notion of the flash as such (i.e., as a named and conceptually and experientially well-defined entity) is the product of what Whitehead calls “symbolic reference”—a higher-order interplay between presentational immediacy and causal efficacy (see note 2). Instead, “the flash,” as it is revealed purely in perception in the mode of causal efficacy, is a sketchily defined “this,” mainly characterized by its forcefulness *vis-à-vis* our blinking and an approximate spatiotemporal location.

11. Interestingly, this explanation Hume would uphold could probably be tested with a clever study of an infant’s response to a light being suddenly turned on a dark room. If the infant shows signs of taking the flash of light to be the cause of its blink, then, because the infant presumably would not have had enough similar experiences to begin to expect that the flash causes the blink, this would be strong evidence against Hume’s expectational account. Conversely, if the infant showed no such signs, then this would be strong evidence against Whitehead’s account.

12. Of course, one might feel around their mouth in order to find the sore tooth, but as most of us know from experience, which tooth is sore can be felt even without such a tactile investigation.

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