

## On the Principle of Causality and *Brownian* Intuition

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In response to David Hume's skeptical solution to the problem of induction, Thomas Brown identifies intuition as the foundation of knowledge of causality. By doing so, Brown has sought to secure causal necessity. In this essay, I will examine in what sense Brown might have thought that intuition would ground causal necessity. Based on this examination, I argue that the principle of causality is intuitive in the sense that it functions as a conceptual framework for making empirical judgments. Furthermore, I speculate that, for Brown, there is no clear sense in which intuition serves as the epistemic foundation for induction (or has a normative value) apart from his religious or moral motivation to defend the existence of God. In § 1, I will distinguish between the two non-intuitive candidates for the ground of causal necessity (or the foundation of our knowledge thereof), viz., experience and reason, as articulated by Hume and Mary Shepherd respectively. In § 2, I will trace out the sense in which Brown regarded intuition as the epistemic foundation *in contrast to* the non-intuitive candidates. In § 3, I will explain my speculation that *Brownian* intuition grounds causal necessity in respect to the apologetic motivation.

### § 1

According to Hume, the three sources of knowledge (or certainty) are intuition, reason, and experience. The first two deal with relations of ideas whereas the latter, Hume argues, deals with matters of fact including causation, thus serving as the foundation of our knowledge of causality.<sup>1</sup> Hume makes this argument by elimination. First, our knowledge of causality is not

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<sup>1</sup> David Hume, *An Enquiry Concerning Human Understanding* (1751, 1777), 4.1, 4.6-7, 4.21.

intuitive because the principle of causality—“[W]hatever begins to exist, must have a cause of existence”—does not belong to any of the four intuitive relations of ideas, viz., resemblance, contrariety, degrees in quality, and proportions in quantity or number.<sup>2</sup> Second, this knowledge is not based on reason either because the denial of causal relation involves no contradiction.<sup>3</sup> Thus, if the knowledge of causality is based on neither intuition nor reason, it must be based on experience. Furthermore, the principle based on which one draws the causal inference upon experience is *custom*. In short, when one repeatedly observes that one object, phenomenon, or idea is followed by another, he develops the propensity to conjoin the two.<sup>4</sup> This psychological habit is what Hume identifies as that on which our knowledge of causality rests.

In contrast, Shepherd argues that reason is the foundation of such knowledge. To make this argument, Shepherd rejects Hume’s claim that the denial of causal relation (or the principle of causality) does involve no contradiction. In short, Shepherd points out that “beginning to exist” or “coming into existence” is an action, which is a quality of an object. This quality must belong to some object. It cannot belong to the object that has just come into existence, for this object did not exist back then. The quality then should belong to another object by whose action the new object has come about. If so, the argument goes, it is contradictory to posit that things can come into existence causelessly; what has come about should have been caused by another.<sup>5</sup> As you can see, this argument rests on the assumption that nature conforms to reason, i.e., the course of nature cannot disobey the laws of logic, which Shepherd takes for granted.<sup>6</sup> Thus, if

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<sup>2</sup> David Hume, *A Treatise of Human Nature* (1739-40), 1.3.1.2, 1.3.3.1.

<sup>3</sup> E 4.2, 4.21

<sup>4</sup> E 5.5.

<sup>5</sup> Mary Shepherd, *An Essay upon the Relation of Cause and Effect*, (London: 1827), 34-6.

<sup>6</sup> *Ibid.*, 69.

one rejects this assumption, there is no reason for him to accept that the denial of causal relation involves a contradiction—in which case Hume’s theory of causation is not disproven.

Regardless of whether the *Shepherdian* assumption is warranted or what metaphysical principle it presupposes, each of the two theories of causality above has a substantial implication about the nature of (our knowledge of) causal necessity. Before proceeding further, however, it must be noted as Saul Kripke points out in *Naming and Necessity* that *necessity* is a metaphysical notion.<sup>7</sup> Just because one cannot *know* that a proposition is necessarily true does not mean that the referent phenomenon of that proposition is not necessary. We may be able to have the *assurance* that a proposition is necessarily true only via *a priori* methods (one of which is testing whether the proposition is analytic<sup>8</sup>). Yet, it is possible that a proposition is necessarily true while there is no way for us to *assure* this fact or that we may come across a necessary truth without knowing that it is one. If *causal relation* is construed as a logical or linguistic framework one uses in making judgments about matters of fact (which seems to be the case for Shepherd<sup>9</sup> and eventually for Brown as well, but more on this below), then Shepherd’s argument amounts to contending that our judgments about nature in terms of cause and effect capture necessary truths—all because the structure of the world and of mind are isomorphic. In other words, (the *analytic* language-game of) causal relation, or more precisely the inference from the past to the future, tells us how things really are; that the future resembles the past is reality, not a mere psychological habit or an imagination we fancy about nature.

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<sup>7</sup> Saul Kripke, *Naming and Necessity* (1972, 1980), 35-9.

<sup>8</sup> G. W. Leibniz, “On Contingency” (1686), *G. W. Leibniz Philosophical Essays*, edit. and trans. by Roger Ariew and Daniel Garber (Hackett Publishing Company, 1989).

<sup>9</sup> Shepherd, 29-4.

In contrast, Hume's argument (that our knowledge of causality is based on experience) implies that our judgments about nature in terms of cause and effect do not inform us any necessary truth. Better put, the *feeling* of necessity we sense in making causal judgments (that B *necessarily* follows A) is a habit of mind to conjoin two objects, phenomena, ideas constantly observed to follow one another. It is not clear whether Hume thought that this feeling is all there is to the idea of necessity (although it is safe to infer that he is committed to this conclusion due to his theory of idea). Regardless, it may not be fair to expect that Hume and his contemporaries had developed a clear distinction between necessity as a metaphysical notion and analyticity as a linguistic notion. The best one can do is to apply the most current philosophical apparatus to analyze their arguments, based on which it is sound to interpret that Hume and Shepherd differed in opinion on whether causal necessity (or the inference from the past to the future) reflects or tells us how things really are in nature.

## § 2

That Brown identifies intuition as the foundation of our knowledge of causality implies that he rejects both of the two senses above in which causal necessity is grounded. Brown agrees with Hume that reason is not the epistemic foundation (of induction).<sup>10</sup> Yet, he rejects Hume's account of causality as well. The main reason why Brown thinks that experience cannot be the source of our knowledge of causality is that experience (or custom) does not tell us how things will be in future. Brown explicitly writes,

Experience is always of the past; and the longest custom can tell us only what changes have been in the phenomenon with which we have been familiar; while the belief of Power is the belief of changes that are to be, when we may no longer exist to observe

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<sup>10</sup> Thomas Brown, *Inquiry into the Relation of Cause and Effect*, originally published in 1818, 4<sup>th</sup> ed. (London: 1835), 176-8.

them ... Custom, which is of the past along, does not render the extension through futurity less indefinite, nor the future itself a more distinct object of our knowledge.<sup>11</sup>

According to John A. Mills, Brown presents four groups of arguments to establish why Hume's appeal to custom cannot account for causality.<sup>12</sup> Of these four arguments, the fourth one brings out the point of disagreement most sharply. Mills notes that, for Hume, custom is our general ability to "project past experience into the future."<sup>13</sup> Since custom is our psychological habit to associate one set of ideas (or objects) with another rather than the others, on Hume's view, the principle behind the knowledge of causality is the laws of association (or conjunctions of ideas). Brown rejects this account because, as Mills points out, he believes that mere associations cannot capture the nature of causality (or, more precisely, the force of judging something as a cause of another).<sup>14</sup> This rejection stems from his definition of causation, which characterizes cause as an *invariable* antecedent to its effect—i.e., that which, in Brown's own words, "*has been always, and will be always, immediately followed by a similar change.*"<sup>15</sup> Associations of ideas cannot quite capture invariableness since nothing prevents an idea that has so far been associated with some other idea from being associated with a different one, were there an impulse to be so. Thus, to the extent that invariableness is a feature of causality, Brown rejects Hume's theory.

Having rejected both reason and experience as viable candidates, Brown identifies intuition as the epistemic foundation of induction. The question then is in what sense intuition is supposed to ground causal necessity. Before getting into Brown's own positive account, it is worth discussing the intuitionist position John K. Kearney attributes to John Locke. Based on his

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<sup>11</sup> Ibid., 279.

<sup>12</sup> John A. Mills, "Thomas Brown's Theory of Causation," *Journal of the History of Philosophy*, Vol. 22, No. 2, pp. 207-27 (Johns Hopkins University Press, 1984), 215-22.

<sup>13</sup> Ibid., 218-9.

<sup>14</sup> Ibid., 219-20.

<sup>15</sup> Brown, 13-4.

analysis of Locke's first letter to Stillingfleet and argument for the existence of God in the fourth book of *An Essay Concerning Human Understanding*, Kearney discloses that Locke held the principle of causality to be indemonstrable in the sense that it is intuitively certain as a clear and distinct idea.<sup>16</sup> According to Kearney, Locke thought that knowledge is the "perception of the agreement or disagreement between ideas."<sup>17</sup> The connections between some ideas such as *black* and *white* or *triangle* and *circle*, on Locke's view, require no further demonstration or justification, for the mind, so to say, plainly perceives that these ideas are in disagreement as their (negatory) connections are not mediated by further ideas. Kearney remarks that, for Locke, the knowledge of causality is intuitive precisely in this sense: one could perceive the connection between the idea of cause and that of effect without referring to any mediating ideas.<sup>18</sup> Whether this view is correct or not, the key point is that what it is for knowledge to be intuitive is for it to be plain, i.e., to be about the bare minimum connections among ideas.

I argue that it is reasonable to interpret this *Lockean* sense of intuition as the provision of a conceptual framework, or inferential pattern of ideas. What it is for the affirmative or negative connections (or identity relations) between the idea of black and that of white or triangle and circle to be unmediated by other ideas is for them to be constituting the pattern in which one is to make inferences or organize thoughts. If black is *not* white, and one *cannot but* accept this relation *tout court*, the network between these two ideas (and between them and other ideas and *so on*) constructs the conceptual or linguistic framework that formulates syntax and semantics. The overall connection of these basic ideas provides the inferential pattern to follow in making

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<sup>16</sup> John K. Kearney, "Lock, Hume, and the Principle of Causality," *The Thomist: A Speculative Quarterly Review*, Vol. 41, No. 3, pp. 418-423 (The Catholic University of America Press, 1977), 420-1.

<sup>17</sup> *Ibid.*, 420.

<sup>18</sup> *Ibid.*, 421-2.

judgments. If this interpretation of *Lockean* intuition is correct, and I think it is, then the effect of treating the principle of causality as intuitive is that causal relation is to be construed as a conceptual framework, or inferential pattern of ideas, for making judgments.

It is methodologically adequate to apply this interpretation of *Lockean* intuition in tracing out the sense in which Brown considers the principle of causality to be intuitive, for the Scottish School of Common Sense engaged in the Lockean empiricist paradigm. There are two ways in which this interpretation can explain the status of *Brownian* intuition as a conceptual framework. First, Brown compares the *belief* in causality (or the proposition expressing the principle of causality) to the major premise of a proof. The truth of the conclusion is proven by the inference from major and minor premises. But to make this inference, the truth of each premise must be given or pre-established. To avoid an infinite regress in proof, some propositions must be taken for granted or be self-evident. On Brown's view, the principle of causality as the major premise of a proof (of a particular case of causation) functions as the self-evident proposition.<sup>19</sup> As such, the principle of causality is where one comes to a full-stop in reasoning and thereby encounters the basic framework in which one is to make inferences about particular cases of causation. The inferential connection between the idea or concept of cause and that of effect cannot be further dissected, but is taken granted to *frame* the employed material implication.

Second, as aforementioned, for Brown, the causal chain is a(n invariable) sequence of changes. According to Brown, what constitutes this sequence is the appearance of one substance after another.<sup>20</sup> All there exist in Brown's metaphysics are substances. Power, property, and quality are our convenient ways of speaking about the complex sequential flux of substances.<sup>21</sup>

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<sup>19</sup> Brown, 178-9.

<sup>20</sup> *Ibid.*, 389.

<sup>21</sup> *Ibid.*, 14-21, 112-3, 133, 393.

At the bottom of each causation is a connection of substances, and nature cannot be broken down further than into these units. Thus, there is no sense in speaking of observed changes in nature beyond these connections between substances. Accordingly, the network of these smallest units of nature constitutes the very framework in which one is to understand the phenomena in nature. That is, the language-game of sequentiality (antecedent and consequent) formulates inferential rules for making judgments about natural phenomena in observation.

In summary, what it is for the principle of causality to be intuitive in the *Lockean* manner is for it to function as or provide a conceptual framework. Applied to Brown's theory of causation, the interpretation of *Lockean* intuition yields that the principle of causality is based on neither reason nor experience, but on intuition in the sense that the sequential connections among substances (smallest units of nature) that constitute causal relation form the most basic inferential patterns to follow in making judgments, and the proposition that expresses this relation, viz., the principle of causality, serves as the foundation of our knowledge of (particular) causation. The logical way in which this proposition serves as that on which our inductive knowledge rests is by functioning as the major premise of a proof—as a self-evident proposition where our reasoning about natural phenomena comes to a full-stop—as a law of nature.<sup>22</sup> One cannot help coming to a full-stop at such a proposition because its inner logic frames inferential rules that arrange a set of propositions into a particular form of material implication.

### § 3

Demonstrating that the principle of causality is a conceptual framework for induction is *not* enough to secure it as the epistemic foundation. For it is one thing to show that the principle

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<sup>22</sup> *Ibid.*, 83.



is a framework and another thing to explain why one should accept this framework (over its competing ones). As a framework, the principle of causality is where one comes to a full-stop in reasoning. However, that this is so does by no means prevent one from reasoning *about* (rather than *within*) the framework. That is, it is one thing to argue that the knowledge of causality is an intuition of its own and another thing to argue that *this* intuition and not others *should* be the one to have our inferences based on. One way to argue for the need to accept a particular framework is by giving pragmatic reasons. In fact, Brown comes very close to making a pragmatic argument when he contends that the belief in causality is essential to the preservation of life.<sup>23</sup>

Nevertheless, Brown does not assent to a pragmatic account of causality, and perhaps the reason is that, if the knowledge of causality were grounded in practicality, it depends on what the subject sees as advantageous. As such, the knowledge of causality cannot secure invariableness of causal sequence since the principle rests on a whim of the subject.<sup>24</sup>

Likewise, the sense in which the principle of causality is foundational hinges on what it is for causal sequences to be *invariable* (or, differently put, for our knowledge of causality to be infallible<sup>25</sup>). Here, ‘invariableness’ in Brown’s terminology is synonymous with ‘necessity’ (and this seems to be the case as both terms point to the vague idea that something *always* is the case regardless of what we think). The question then comes down to this: How does causal necessity (or sequential invariableness) *bind* the subject? As explained above, Shepherd seeks to answer this question by implicitly assuming isomorphism between the world (matters of fact) and mind (logic); in some sense, Shepherd comes close to endorsing the Kantian view that the normative force of empirical judgments originates from ourselves. However, this option is unavailable for

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<sup>23</sup> Ibid., 11.

<sup>24</sup> Ibid., 82.

<sup>25</sup> Ibid., 351.

Brown because he rejects reason as the ground of causality. Intuitive invariableness cannot be modeled on logical necessity, the sort of normativity displayed in analyticity. The kind of *normativity* involved in sequential invariableness as a conceptual framework (or a law of nature) *qua* intuition must be different from the kind that is involved in logic and language. It may be proposed that the kind of normativity involved in causal necessity *qua* intuition—in the absence of any extra-logical trait—is best understood as a *brute* force. However, for all its efforts, this is not to explain anything, but only to give a place-holder name for the explanandum.

Why should one accept the principle of causality as a law of nature that frames the inferential rules for material implication? In what sense does this principle hold authority over one's activity of making and appraising judgments? Why *this* intuition rather than others (no matter how instinctive *this* intuition is while other intuitions are relatively unnatural)? What I am about to suggest as the reason why Brown thinks that one should accept the principle of causality as a conceptual framework (or, more precisely, that there is such a thing as causal necessity or invariableness) is a speculation. I suspect that Brown *needs* one to accept the principle because otherwise the cosmological argument for the existence of God has no force. The textual evidence for this speculation is that the reason why Brown and other major figures in the Scottish School of Common Sense are concerned with Hume is because they are worried of whether Hume's skeptical problem and solution lead to atheism.<sup>26</sup> This is because it is based on the principle of cause these philosophers argue for the existence of God.<sup>27</sup> Assume that there is no need to accept the principle of causality as a ground of one's reasoning. Then, there is no need to accept the

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<sup>26</sup> Dugald Stewart, *The Philosophy of the Active and Moral Powers of Man*, Vol. II (1828), 12-28; James Beattie, *An Essay on the Nature and Immutability of Truth, in Opposition to Sophistry and Scepticism* (1770), 85-102, 261-75; Brown, 366-83; Shepherd, 5-6.

<sup>27</sup> Stewart, 12-28; Brown, 77-103.

existence of God, either. The force of the cosmological argument is effective only for those who reason according to the inference that posits the principle of causality as its axiom. If the authority of this axiom comes from mere practicality, one is not prevented from abandoning his belief in God, should atheism turn out to be more instrumental; at any rate, proclaiming the belief in God for pragmatic purposes would not be considered as a genuine confession of faith.

The *need* to accept the existence of God is grounded in reasoning insofar as the principle of causality (based on which the cosmological argument is made) is assumed. Meanwhile, the *need* to accept the principle of causality itself cannot be grounded in reasoning at least for some of the Scottish philosophers including Thomas Reid, Dugald Stewart, and James Beattie as well as Brown insofar as these thinkers have rejected reason as the epistemic foundation of induction. In the absence of logical normativity, these thinkers had to figure out the way to delegate the same quality of authority to the premise of their faith. Whether appealing to intuition as the ground of (causal) necessity (and the foundation of our knowledge thereof) is successful is a topic worthy of further inquiries, but beyond the scope of the current discussion. Rather, what I hope to have brought to attention is that the sense in which *Brownian* intuition serves as the epistemic foundation of induction—as a provision of a conceptual framework, i.e., as the law of nature—cannot be grasped without the apologetic motivation of the Scottish School of Common Sense. In other words, the principle of causality, i.e., the language-game of making judgments in terms of cause and effect, is deemed to be necessary or capturing how things *really* are (matters of fact) to the extent that the acceptance of the existence of God is demanded. Furthermore, alethic modalities and notions such as *necessity*, *reality*, and *fact* operating as to uphold the principle of causality is paired with this religious or moral interest in securing the belief in God.

## Works Cited

Beattie, James. *An Essay on the Nature and Immutability of Truth, in Opposition to Sophistry and Skepticism*. 1770.

Brown, Thomas. *Inquiry into the Relation of Cause and Effect*, 4<sup>th</sup> ed. London: 1835.

Hume, David. *A Treatise of Human Nature*. 1739-40.

Hume, David. *An Enquiry Concerning Human Understanding*. 1748, 1777.

Kearney, John K. "Lock, Hume, and the Principle of Causality." *The Thomist: A Speculative Quarterly Review*, Vol. 41, No. 3. The Catholic University of America Press, 1977.

Kripke, Saul. *Naming and Necessity*. 1972, 1980.

Leibniz, G. W. "On Contingency." 1686. *G. W. Leibniz Philosophical Essays*, edit. and trans. by Roger Ariew and Daniel Garber. Hackett Publishing Company, 1989.

Mills, John A. "Thomas Brown's Theory of Causation." *Journal of the History of Philosophy*, Vol. 22, No. 2. Johns Hopkins University Press, 1984.

Shepherd, Mary. *An Essay upon the Relation of Cause and Effect*. London: 1827.

Stewart, Dugald. *The Philosophy of the Active and Moral Powers of Man*, Vol. II. 1828.