

11 Regularities All the Way Down

Thomas Brown's Philosophy of Causation

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I. INTRODUCTION

Thomas Brown (1778–1820) was one of the tail-enders of the Scottish Enlightenment. He shared with Dugald Stewart (1753–1828) the chair of moral philosophy at the University of Edinburgh from 1810 until his premature death in 1820. He is sometimes classed with the Scottish commonsense philosophers and, to some extent at least, his basic philosophical principles were akin to those of the commonsense philosophy. He did, for instance, forfeit the issue of the justification of some of our most basic beliefs and rested them, instead, on their being intuitively irresistible; in particular, he thought that some of our most basic beliefs could be seen as permanent principles of human nature—a claim made popular by Thomas Reid. Based on his theory of the workings of the human mind—which was developed in a course of lectures on the philosophy of mind presented at the University of Edinburgh and appeared posthumously as a book titled *Lectures on the Philosophy of the Human Mind*—some philosophers and psychologists have characterised him as an ‘associationist’.¹

Brown’s main contribution to the philosophy of causation was his book *Inquiry into the Relation of Cause and Effect*, published in 1818.² This is, actually, the third (substantially enlarged and developed) edition of his little book titled *Observations on the Nature and Tendency of the Doctrine of Mr. Hume Concerning the Relation of Cause and Effect*, which was published in Edinburgh in 1805 and made a second edition in 1806.³ This little pamphlet was motivated by the so-called Leslie affair. When the chair of mathematics became vacant in the University of Edinburgh, John Leslie applied for it. But the city ministers were vehemently opposed to this appointment, arguing that Leslie was a defender of Hume’s view of causation, which was taken to deny the existence of an almighty God. Brown’s pamphlet aimed, among other things, to save a Humean view of causation from the charge of atheism.

This work on causation was Brown’s defining philosophical moment. His views were discussed in the nineteenth century, but more recent philosophers and historians of causation have paid very little attention to

them. The only relatively recent paper that aimed to discuss Brown's views is John Mills's.⁴ The truth is that Brown's views constitute a carefully crafted attempt to develop a theory of causation that differed substantially from those offered by the two main figures of his era: David Hume and Thomas Reid.

Brown took it that causation as it is in nature is regular and invariable succession but he argued against Hume's theory of the locus of the idea of necessary connection. However, Brown aimed to save Hume from the then popular criticism that he denied that we have an idea of power. At the same time, he wanted to show that Hume was wrong in allowing that talk about powers might be taken to be talk about something different from the very invariable succession of events. In terms of the current New Hume debate, Brown did perceive that Hume might be taken to be a sceptical causal realist of a sort.⁵ Though Brown wrote after Hume and was deeply influenced by him, we might say that he was the first defender of a pure and simple regularity theory of causation. If the friends of a new Hume were right about Hume, the doctrine that has been called Humeanism had better be renamed *Brownianism*.⁶

The immediate intellectual milieu within which Brown developed his theory of causation was dominated by Reid's power-based account of causation (cf. 1863, Essay 1). Brown's philosophy was a revolt against powers. We shall characterise his view as an identity theory of powers. Brown did not deny that we can meaningfully talk about powers. He did deny, however, that there is anything like a causal nexus or a tie between distinct existences in virtue of which they fall under patterns.

It is remarkable that Brown (1822, 212) ends his book on causation with the claim that Reid and Hume share belief in power as, ultimately, something distinct from invariable sequences of events in nature. They differ, among other things, in how this belief arises. On Brown's view (1822, 203), however:

Power is only a shorter synonymous expression of *invariableness of antecedence*: and the invariableness is not a thing separable or distinguishable from the antecedents and consequents themselves. In all the changes which the substances in nature undergo, the substances themselves alone have real existence; and what we term Power, in the anticipation of any future change, is itself the antecedent substance, or it is nothing.

This chapter offers a systematic account of Brown's philosophy of causation in relation to Reid's and Hume's. It will be argued that Brown had a very sophisticated theory of causation that aimed to answer all three of the following questions: (i) What is causation as it is in the world? (ii) What do we mean when we talk about causation? (iii) How does belief in causation arise? In the course of answering these questions, Brown vehemently denied

that there need to posit anything metaphysically more robust than uniformity to account for all there is to causation. At the same time, he developed a challenging theory of the grounds for belief in uniformity. The bottom line of this is that if we allow for no Archimedean points in epistemology (that is, for beliefs we are entitled to without being able to justify them, according to some strict conception of justification), there is no way to avoid scepticism. Finally, in trying to show how a regularity view of causation does not fall prey to some objections levelled against it, Brown gave to this view a sophisticated twist, arguing that though causation is a species of regularity, what regularities underpin certain causal relations are not to be read off directly from the rough-and-ready descriptions of the causal relata.

II. REID VS. BROWN

II.1 Reid on Causation and Active Powers

Reid spoke freely of active powers and took it that (a) the very concept of power is simple and undefinable; (b) power is *not* something we either perceive via the senses or we are aware of in our consciousness (we are conscious only of the *operation* of power and not of the power itself); (c) power is something whose existence we infer by means of reason based on its operation; (d) power is distinct from its manifestation/exertion in that there may be unexerted powers; (e) the idea we have of power is relative, namely, as the conception of something that produces or brings about certain effects—hence, ‘our conception of power is relative to its exertion or its effects . . . *as something that has a certain relation to [an] effect*’ (1863, Essay 1, Chapter 1, 514); (f) power always requires a subject to which it belongs: it is always the power *of* something; the power that something *has*; (g) causation is the production of change by the exercise of power. Reid insisted that though we are not conscious of powers, we are conscious of their exertion when our own mental active powers are exercised, as when we decide to raise our hands.

Despite this rich conception of active powers, Reid did not think that, strictly speaking, there is causation *in* nature. He did think that the cause of a change is that which produces the change by the exercise of its powers. Since the very idea of exercising a power requires agency and there is no agency in nature, strictly speaking, there is no causation in nature. Indeed, Reid (1863, Essay 1, Chapter 6) insisted that properly understood, active powers require subjects that have intelligence and will to exercise them. Inanimate matter then can be no such subject. Only God—who is an ‘off-stage agent’—can be the cause possibly by means of secondary causes.

In an undated letter to James Gregory, Reid distinguished between the ‘strict and proper’ sense of ‘cause’ and the ‘lax and popular’ sense of

it. According to the first, causes are active powers to produce an effect.⁷ According to the second sense, ‘a cause . . . means only something which, by the laws of nature, the effect always follows’. This second sense is akin to the view that causation is regular succession, though Reid took it that laws of nature are principles of necessitation. Even thus understood, the second sense of ‘cause’ is not enough for causation—which, properly understood, has to be *efficient* causation. He added: ‘I think natural philosophers, when they pretend to shew the causes of natural phenomena, always use the word in this last sense; and the vulgar in common discourse very often do the same’. In (1863, Essay 1, Chapter 6, 527), Reid explained that this subsumption under laws of nature does not constitute causation; nor does it amount to causal explanation. For him,

the laws of nature are the rules according to which the effects are produced; but there must be a cause which operates according to these rules. The rules of navigation never steered a ship. The rules of architecture never built a house.

Hence, a cause is something that has the power to bring about an effect *in accordance with the law*; but knowing the laws does not amount to knowing the causes. From all this, he drew the rather pessimistic conclusion that in spite of the fact that scientists have discovered a number of laws of nature, ‘they have never discovered the efficient cause of any one phenomenon’ (ibid.). Which, for Reid, is just as well since those scientists who understand what science is about and what the laws of nature are do not claim that science discovers (or aims to discover) causes. For Reid, as we have already noted, causation is tied to agency and laws of nature are not agents. As he (1863, Essay 4, Chapter 3) put it:

[laws of nature] are not endowed with active power, and therefore cannot be causes in the proper sense. They are only the rules according to which the unknown cause acts.

Reid was a vocal critic of the view that causation amounts to regular succession—a doctrine he associated with Hume. One of his chief points was that the regularity of succession could never lead us to the notion of cause unless we were already convinced that every event has a cause. This, for him, is a principle of the constitution of the human mind—a *first principle*—which is universal and basic and yet not a truth of reason. More concretely, he criticised Hume for having reduced consequence to mere sequence. The claim that was to become famous was that Hume’s doctrine—the regularity view of causation—implies the absurdity that the day is the cause of night and the night is the cause of day because they have constantly followed each other. As Reid (1863, 606) characteristically put it:

Nor is that always the cause of a phenomenon which is prior to it, and constantly conjoined with it; otherwise night would be the cause of day, and day the cause of the following night.

Though Reid based his account of causation on active powers, and though he insisted on a sharp metaphysical separation between the power and its manifestation, he admitted that powers cannot be observed and that it is only the regular sequence of events that can. As he (1863, Essay 4, Chapter 6, 617) put it: ‘We perceive one event to follow another, but we perceive not the chain that binds them together’.

II.2 Brown on Regularity

It is precisely claims such as this that gave Brown the basis for his critique of a power-based account of causation. The sought-after chain of causation is a chimera, based—at best—on a metaphorical use of language. Insofar as there are loops in the ‘chain’ that links cause and effect, they are just intermediate steps in the regular association between events like the cause and events like the effect. Interestingly, for Brown the only sense of causation is Reid’s ‘lax and popular’ one. Laws of nature, he thought, are ‘the accustomed order of the sequences of the phenomena of Nature’ (1822, 56) and to ascribe a power to a thing is to place it in relation to a law of nature, namely, to an order of succession.

The clearest summary of Brown’s account of causation is this (1822, 21):

A cause, in the fullest definition which it philosophically admits, may be said to be, that which immediately precedes any change, and which, existing at any time in similar circumstances, has always been, and will be always, immediately followed by a similar change. Priority in the sequence observed, and invariableness of antecedence in the past and the future sequences supposed, are the elements, and the only elements, combined in the notion of a cause. . . . [P]ower . . . is only another word for expressing abstractly and briefly the antecedence itself, and the invariableness of the relation.

Brown insists that when we try to understand causation, we try to understand at least two things: first, what causation is; and second, how belief in it arises. Given, however, the popularity of power-based accounts of causation, Brown adds a further task, namely, to understand and unravel the sources of the ‘illusion’ that have led philosophers to think that there is something behind or beyond the regularity that enforces it.

Why, one might ask, is the thought appealing that causation involves regularity? Brown starts with some standard observations. One is that though there is a lot of change in the world (‘The world is a mighty system

of changes', 1822, 17), changes fall under regular patterns. When there are deviations from regular patterns, the natural tendency is not to deny regularity but rather to attribute them to interfering circumstances. When a regularity (e.g., All As are B) is denied, another (more complicated one) is affirmed (e.g., All As and Cs are D), since when present the interfering circumstances will give rise to a new effect. Brown claimed that had there not been regular patterns in the world, we would not have the concepts of causation or power. This is, at least partly, because the concept of causation arises in connection with activities such as action, planning, predicting, and controlling. The presence of regularity renders effective strategies (such as planning and prediction) possible. As Brown put it, it is because 'the future, when it arrives, we find to be only the past under another form' that we can materialise our wishes, fulfil our plans, and succeed in our actions.

Reid, as we have seen, would definitely disagree with tying the concept of causation with regularity, since he took it that we have at least a relative conception of power stemming from the exercise of our own will. But Brown, taking Hume's side, denied that there is anything like mental power distinct from uniformity; nor is there, according to him, any direct conception of mental power. Here is a nice summary of his views:

The theory of Power, then, seems to receive no additional light from consideration of mental energy, as exhibited in the bodily movements that depend upon the will; for we find, as before, only a sequence of two phenomena, that are believed to be, in the same circumstances, uniformly antecedent and consequent (1822, 40).

Regularity might be present in the world. It might be important for effective strategies. It might even be a sign of causation. Still, causation might be more than regularity. Brown is certainly aware of this problem. He wants to defend the strong view that regularity (invariable sequence) is constitutive of causation as it is in nature. Hence, he needs to block arguments to the effect that causation might well have some other essential characteristic in virtue of which it is exemplified in regular sequences of events and hence that invariable sequence is *merely* a sign of causation—which is actually something else. Brown's strategy was precisely to show that regularity is all there is to causation; it 'is itself the only essential circumstance of causation' (1822, viii). To achieve this, he advanced two kinds of argument. On the one hand, he developed a positive argument against powers—advancing what might be called the *identity-theory of powers*: powers are nothing but the regularity, the uniformity of sequence. On the other hand, he articulated a number of negative arguments aiming to show 'the sources of various illusions' which have led philosophers to posit powers and to consider causation something more 'mysterious' than regularity.

III. POWERS UNMASKED

Powers, according to Brown and the then (and now) standard conception, were supposed to be inherent in objects and yet distinct from them; they were supposed to account for the efficiency of causation. But Brown forcefully denied that between the cause and the effect there is something else (an ‘intermediate tie’ or an ‘invisible bondage’) that connects them or binds them together; in particular something of a radically distinct metaphysical nature.

III.1 Brown on Properties

Being a nominalist, Brown has reasons to suspect this hypostatisation of powers, anyway.⁸ His general view (cf. 1822, 24) was that there were only individual substances—that is, particulars. He denied that there were universals. General terms, like *Man* or *Animal*, were classificatory schemes introduced for convenience. They do not refer to anything other than classes of resembling particulars. They do not denote any separate substances (like substantial universals). Similarly, predicates do not denote nonsubstantial universals that exist, somehow, independently of the individual substances and are, somehow, possessed by (instantiated in) them. It is, as he put it, a ‘monstrous species of realism’ that has led a number of philosophers to hypostatise universals. Perhaps the worst case of this monstrous realism is the hypostatisation of powers. It has fostered the thought that there are necessary connections in nature, where there are none.

So, according to Brown, there are no powers distinct from substances. In any case, to attribute powers to substances is to attribute properties or qualities to them. To say, for instance, that water has the power to melt salt is to say that water has the *property* to melt salt; or that it is a *quality* of water to melt salt. For Brown, the properties of substances, for example, the greenness of the emerald, or the yellowness of gold, or the specific gravity of gold, are understood as conditional attributions to substances. To say that a substance *x* has the property *P* is to say that if *x* is in circumstances *C*, then effect *E* follows. The effect might be a successive state of the very same substance (as, for instance, in inertial motion) or a change in a different substance (as, for instance, in the heating of a body). So to attribute properties to a substance is to place it in a relation of cause and effect, either to other substances or to later states of the same substance. Powers are treated in a similar fashion. Talk of powers, Brown argues, merely signifies what a substance does under certain circumstances—for example, that when water is poured on salt, what was previously a crystalline substance gets liquefied. More generally, to say that a substance has certain powers (that is, properties) is ‘to consider it as existing in a variety of circumstances, and to consider at the same time all the changes that are or may be in these circumstances its immediate effect’ (1822, 20). Here is a nice example that summarises Brown’s views:

In the beautiful experiment of the prismatic decomposition of light, for example, the refracting power of the prism is not any thing separate or separable from it, more than its weight or transparency. There are not a prism and transparency, but there is a prism giving passing to light. In like manner, there are not a prism and refracting power, and coloured rays, but there are a prism and rays of various colours which we have perceived to be deflected variously from their original line of direction, when they approach and quit the lens, and which we believe will, in the same circumstances, continually exhibit the same tendency (1851, 39)

Brown is unclear as to whether this view of properties extends to the primary qualities of a substance, but the overall tone of his argumentation suggests that it does. He favours a worldview according to which there are (simple) substances and they stand in certain spatiotemporal relations to one another and fall under certain patterns of invariable succession: whenever this-type of thing happens, that-type of thing follows. The laws of nature are these general patterns, namely, the regularities. The properties attributed to the substances simply codify the ways that the substances are related to each other. So properties (and powers) are conceived of as a relational net, the nodes of which are substances. To ascribe powers to a substance is to consider it in various circumstances and to then consider what changes, as a matter of fact, follow. The powers thereby attributed to a substance are its properties and its qualities. They are not distinct from the substance ('superadded to it') but instead it is a way to view the substance itself 'in relation to various changes that take place when it exists in peculiar circumstances'. This is not an eliminativist view of properties. Brown accepts that a substance (matter, as he would put it) without qualities 'seems to be a contradiction in terms' (1822, 70). But for him the very conception of a substance (matter) with qualities requires taking for granted that this substance is the invariable antecedent of certain changes. This is an important point. For Brown, to attribute qualities to a substance is precisely to place this substance in a network of regularities (or laws, if you like) that relate this substance with others as cause and effect:

All this regularity of succession . . . is assumed in our very notion of substances, as existing (1822, 70).

In his *Lectures*, Brown summarised his metaphysics in a very interesting way. When we ask of an object (a substance) *what is it?*, the answer is to place it in space and time and to consider (a) the objects that coexist with it in space (that is, its *constitution*) and (b) the objects that are related to it in time, that is, its causes and its effect: 'all the series of changes, of which it forms an invariable part, the objects to which it is related as antecedent or consequent' (1851, 36). Let us picture this as a vast spatiotemporal mosaic (to use a well-known Lewisian expression) of objects and let us include in

this mosaic all the regularities (regular patterns of succession) of which these objects partake. This vast mosaic determines all there is in the world. In particular, it determines all causal facts; and it fixes all powers that there are in the world.

Criticising Brown, James Peterson invited us to consider a possible world in which ‘there should never be two causes alike and therefore never two events alike’.⁹ In that world, he claimed, there would still be causation: ‘every event in that world would have its cause as surely as in this world’. This is exactly what Brown denies. This would be a world of *casual* and not of causal sequences.

III.2 An Identity Theory of Powers

Brown (and the Reverend David Welsh, his biographer and follower) warn us that moving from the claim that powers are nothing but X, to the claim that powers are *nothing*, is a fallacy. To say, in particular, that power is nothing more than ‘invariableness of antecedence’ is not to say it is nothing. Welsh draws a nice parallel between the powers of a substance and a net.¹⁰ A net is so constructed that it retains objects of certain sizes and allows the passing of other objects. These are powers of the net. But they are wholly constituted by the structure of the net and the relations it has to other objects (e.g., the fish). Different powers attributed to a substance then are simply nothing other than different relations to which this substance stands to different objects. Even then, however, Brown warns us not to proliferate powers. Heat does *not* have the power to produce a certain sensation of warmth and a distinct power to melt wax. There is simply the heat in relation to two distinct objects, my body and the wax.

Arguably, Brown advanced an identity theory of powers, according to which, ‘power is [the] uniform relation [between cause and effect] and nothing more’ (1822, 26). Hence to ascribe a power to an object is nothing, but to assert that in similar circumstances, it will do similar things. Apart from the general philosophical motivation noted earlier, this theory is based on a number of arguments, aiming to show that there is no need to posit powers over and above the regularities.

First, powers are mere abstractions (cf. 1822, 19ff.). A causal sequence is a concrete sequence between events. It is *causal* in virtue of the fact that this sequence is invariable (it exhibits regularity of order), namely, its antecedent (the cause) has been followed, is followed and will be followed by its consequent (the effect). When we consider this relation (*this* is always followed by *that*) abstractly, that is independently of the particular circumstances in which it takes place, we render the ‘—is always followed by—’ as ‘—has the power to—’. This move is supposed to unravel the form of causation, namely, what several concrete causal sequences have in common and in virtue of which they are causal. This move, for Brown, is akin to the hypostatisation of substantial forms and suffers from exactly the same

problem: it converts an abstraction to reality, thereby creating the further problem to explain what this kind of new entity is and does. Power, then, is merely the very invariableness of the order of succession, abstractly understood (See also 1851, 35).

Second, powers are the products of double vision (cf. 1822, 28–29). There are substances and they stand in causal relations to each other (that is, in relations of invariable succession). If we knew all these invariable sequences, we would know everything there is to know about what causes what. If we then, based on this kind of knowledge, we added that these substances have the *power* to produce certain changes, we would not gain any further information about the world. If we thought of power as distinct from these invariable sequences, that is, as something over and above the invariable sequences, something that an object possesses and in virtue of which causes whatever it does, then it would be possible that we could have information about invariable sequences without having knowledge of a single power.

Third (and relatedly), powers do not explain the regularities. The existence of regularities in nature is not rendered ‘less wonderful’ by an appeal to powers. (cf. 1852, 36). Actually, since powers can exist unexerted, there may be no regularities.

Fourth, positing powers as distinct existences arises out of the confusion between casual and causal sequence (cf. 1822, 29). A single spatiotemporal sequence of events is not enough for causation (this is a *casual* sequence). It is only ‘similarity of sequence’ that underpins causation. Powers may be thought as necessary to bridge the gap between a casual sequence and a causal one, but there is no such need provided that causal sequences are understood as invariable sequences: ‘to know events as invariably antecedents and consequents is to know them as causes and effects; and to know all the powers of every substance, therefore, would be only to know what changes or events would, in all possible circumstances, ensue, when preceded by other changes or events’ (1851, 40).

Fifth, powers are not needed for the explanation of action (cf. 1822, 56–57). Action amounts to making a difference. An object does not act on anything if its presence or absence makes no difference to anything. But this difference-making can be understood as invariable sequence. Objects that act and are acted upon (that is, causes and effects) are ‘truly, in certain circumstances, the reciprocal and immediate antecedents and consequents, in a series of changes’ (1822, 56–57).

III.3 The Sources of Illusion

When it comes to the sources of illusion which have led philosophers to posit powers, Brown argued that they are of three kinds. The *first* (cf. 1822, Second Part, Section II) relates to language and the use of a number of metaphorical phrases when we think of causation, such as ‘connection’ or

'bond'. For Brown, this metaphorical use of language has led us mistakenly to assume that there is something other than the 'regularity of succession' that constitutes causation. The *second* (cf. 1822, Second Part, Section III) relates to a folk metaphysical belief that there can be latent powers, that is, that things have the power to act in certain ways even if they are not acting—powers being that in virtue of which they can bring about the effect even if they do not. Here, Brown takes a hard line. He stresses that, strictly speaking, it makes no sense to talk about powers when they are not exerted, that is, to talk about powers as being latent in the intervals of their exertion. His argument for this claim can be reconstructed as follows. Powers are supposed to be the producers of change. When a power is exerted, it produces a change. When, however, a power is not exerted, there is no change whatsoever brought about by it. So an unexerted power produces no change and hence it cannot be a power. The *third* (cf. 1822, Second Part, Section IV) stems from a folk epistemological view that since we do not know how and why a cause produces the effect, there must be something intermediate and distinct from the cause, which is unknown to us, that is to say, a power of the cause to bring about the effect. Here, Brown insists that there is nothing of a distinct metaphysical kind to be found between the cause and the effect—just more of the same stuff: invariable antecedents to the effect.

It is noteworthy that Brown's point is not that powers are suspicious because they are unobservable. He allows that there can be things we do not observe and that 'we see only parts of the great sequences that are taking place in nature' (1822, 92). His point is that even if we could see much more than we do, we could see more links between the cause and the effect, that is, more and more invariable antecedents, but we could not find the metaphysically distinct entity we call 'power', that 'mysterious unintelligible something, between entity and nonentity, which we now conceive it to be, or rather, of which we vainly strive to form a conception' (1822, 92–93).

III.4 Efficiency in causation

One worry that one may have about a regularity theory of causation concerns the modal force that causation is supposed to have. Brown did not deny that causation involves efficiency. As he put it: 'Causation is efficiency; and a cause which is not efficient, is truly no cause whatever' (1822, 59). But he did not think that efficiency has anything to do with a productive power. Criticising Malebranche's distinction between efficient causes and physical causes, he argued that (a) physical causes are efficient causes; and (b) physical causes are immediate and constant antecedents. Insofar as a causation is invariable succession, insofar, that is to say, that *C* is the cause of *E*, is to say that *E* is an invariable consequent of *C*, prefixing the word 'cause' with the word 'efficient' or 'physical' is superfluous. The idea that efficiency is something distinct from invariable succession is fostered by the feeling that if *C* causes *E*, the cause will never appear without being

followed by the effect and the effect will never appear without being preceded by the cause. Brown is ready to allow for this claim and he suggests that it might be understood in terms of counterfactual conditionals. As Welsh notes, the notion of cause gives rise to counterfactuals of the form: ‘if the cause had not existed, the effect would not have taken place’.¹¹ But Brown was careful not to think that causation could be defined in terms of counterfactuals. Indeed, Brown discussed in some details (in endnote A of his 1822) Hume’s famous ‘other words’ that he appended to his first definition of causation, namely,

[W]e may define a cause to be *an object, followed by another, and where all objects, similar to the first, are followed by objects similar to the second*. Or, in other words, where, if the first object had not been, the second never had existed (1974, 76).

These are not ‘other words’, of course, and Brown picks on this. His point is twofold. *First*, this counterfactual account is admissible if there are simple trains of events, where there is no overdetermination; but *second*, the possibility of overdetermination cannot be excluded. Here is his example. Take a piece of iron being attracted by a magnet. The very same effect in terms of the motion of the piece of iron could have taken place if the piece of iron were held by a hand and was moved by it towards the magnet. Or take Welsh’s example: a sword might enter a vital part of a body and cause death; but at the same time there can be another cause in operation.¹² The point of all this, of course, is that in light of the possibility of overdetermination, a counterfactual *definition* of causation such as that noted earlier would be inadequate. As Brown put it: ‘the first object might not have been, and yet the second might have existed’. In the end, Brown takes it that it is enough to characterise causation as invariableness of sequence, since he takes it that it is not necessary for defining causation to take into account what it might or might not have been, in other circumstances where the antecedent was different from the actual one. For Brown, the locus of whatever modal force causal claims might have is found in their future extendability, and in particular in our belief that the sequence is (and it will be) invariable.

IV. INTUITIVE BELIEFS

Brown agreed with Reid that not all beliefs are based on either reason or experience. Some beliefs are intuitive. In fact, some beliefs present themselves with such a force that they are irresistible. These are beliefs or opinions, which it is impossible for us not to hold, because of ‘the very constitution of our nature’ (1822, 149). Of this kind is, for Brown, the belief in regularity. It stems from a ‘peculiar tendency of our constitution, which we must take for granted’ (1851, 35). As we shall see in detail in the next section, Brown took to heart Hume’s claims that causal beliefs (and belief in causation in general)

cannot be the product of reasoning based on past experience. Unlike Hume, however, Brown found little consolation in the observation of similarity of sequence, that is, in the observation of constant conjunction between event-types, as the source of this belief. There is, to be sure, constant conjunction and similarity of sequence in nature, but this cannot be the source of our belief in regularity because, as Hume himself noted, there is no qualitative difference between what is observed in a single sequence and what is observed in a thousand of them. The observation of single sequence of events is as embedded in the past as the observation of a thousand of those and the belief in regularity concerns the future as well as the past (and the present). This leaves only one option available, namely, that the source of this belief is intuition. When we believe that an event caused another, we believe that their relation is permanent, namely, that when similar circumstances arise, the same cause will be followed by the same effect. This belief does not rely on argument but it is impossible for us not to have it.

The distinctive marks of intuitive beliefs are: they are universal, immediate, and irresistible. The principles which are the content of intuitive beliefs are ‘first truths’, such as our own personal identity through time, or the reliability of memory, or the uniformity of nature. Belief in them is direct; noninferential. It is not a product of reasoning. In his *Lectures*, Brown went as far as to claim that principles such as the aforementioned are ‘so irresistible in evidence as to preclude the possibility of denial’. That’s clearly too strong a claim, since (as Hume himself noted) denying principles such as these is not self-contradictory. But Brown was influenced by Reid in accepting that unless some first principles are taken as self-evident starting points of inquiry, there is no possibility of inquiry and the road to scepticism is open. In highlighting this point, he takes these principles to be Archimedean points of inquiry. To deny them is ‘to set [our] feet upon the air rather than on the ground . . . and to throw away the single fulcrum on which [our] lever rests and from which alone all its power is derived’ (1851, 82). Where he actually disagreed with Reid was not the inevitability of such first principles (which Brown took them to be ‘a necessary part of our intellectual constitution’, 1851, 78) but their extent. Brown thought they should not be multiplied beyond necessity.¹³

Given his identity theory of power, Brown can easily claim that ‘The belief in power is an original feeling, intuitive and immediate on the perception of change; not borrowed from any *resemblances* in the transitions of thought’ (1822, 199).

V. BROWN VS. HUME

Brown’s account of Hume’s views of causation is both a qualified defence and a critique. The defence has mostly to do with blowing away a widespread misreading of Hume that has followed the inception of the *Treatise*,

namely, that Hume takes the concept of power to be meaningless. Brown agreed with Hume on the following three principles. *First*, causation is not a relation that can be known a priori; *second*, reason cannot lead to the establishment of causal relations even when aided by experience; *third*, therefore, causation is only an object of belief. But he disagreed with two more principles of Hume's. *Fourth*, belief in causation arises only after observations of constant conjunctions; and *fifth*, this belief is marked by a transition of the mind from the idea of the cause to (an even more vivid) idea of the effect.

V.1 The Third Factor

Brown (1822, Part IV, Section VI) starts with a masterly discussion of one of Hume's central arguments in the *Treatise*. According to a common reading of Hume, his argument is this:

- (A)
 We have no idea which is not copied from impressions.
 We have no impression of power.
 Therefore, we have no idea of power.

The major premise of this argument is undeniably Hume's own—it is his major methodological maxim, which ties the presence and meaningfulness of ideas to impressions. So: no idea can be contentful, unless it corresponds to a (prior) impression. The minor premise of (A) has been attributed to Hume, not altogether without justification—since he does deny that there is anything corresponding to power that can be *observed* in a causal sequence of events. But Brown takes it that (A) is not Hume's argument—so Hume is not committed to its conclusion. Hume's argument, instead, is:

- (B)
 We have no idea which is not copied from impressions.
 We have an idea of power.
 Therefore, there must be an impression from which the idea of power is derived.

Indeed, (B) is much closer to what Hume had been doing in the *Treatise*. After all, Hume never denied that part of the concept of causation was the idea of necessary connexion (where 'that relation is of much greater importance, than any of the other two above-mention'd' [—viz., *contiguity* and *succession*])' (1978, 77). In fact, Hume did not stop looking for an impression that corresponded to the idea of necessary connexion. Rather, he abandoned the route he had initially chosen, namely, the direct hunt for an impression of sensation that leads to the idea of necessary connection, and looked into what happens to the mind when it is engaged in inferences

from causes to effects in an attempt to ground the idea of necessary connexion to impressions in a roundabout way.

Brown does not for a moment deny that (B) is the way to understand Hume's project. It follows from this that Hume never took it that the idea of power (which for Hume, Brown, and all the rest is 'synonymous' to the idea of necessary connection) lacks content. For him, however, Hume's project was misguided: he looked for an impression where none can be found. He thought he had found the 'real prototype' (1822, 194) of the idea of power, but in the end he found nothing like an impression and he should have rested simply with the similarity of the of events that constitute a regularity. Nor, of course, does Brown deny that we have an idea of power. But, as we have already seen, he takes it that the idea of power arises from the belief in the future similarity of events like the cause and events like the effect.

What then is the idea of power an idea of? On Brown's reading of Hume, Hume (a) accepts that we possess the idea of power; (b) finds its origin in an impression of reflection (the felt determination that is conditioned by the observation of constant conjunction); (c) therefore, takes it to be an idea of *something* (notably, of the transition from the idea of the cause to the idea of the effect) distinct from the sequence of events. So, Brown's Hume thinks of the transition of the mind as a third factor—something we *feel*. On this third factor, then, is the idea of power based. Indeed, Hume does *posit* a new impression—'determination'—which carries the weight of his explanation of the origin of the idea of necessary connection. Hume started with an aspect of his own positive theory, namely, that habit or custom operates on the mind to make it form a *belief* of the usual attendant of an object, and takes this *aspect* of his theory as a *datum* which will give rise to the required impression. For Hume, there is *something* that happens in the mind as a result of the observation of constant conjunction. This something is not an 'impression of sensation'. If it were, the observation of a single instance of two events following each other would have the same effect on the mind. But it does not. This something, as Stroud has nicely put it, is 'a peculiar feeling that arises from the repeated occurrence of associated perceptions'.¹⁴ Hume calls it an 'internal impression, or impression of reflection' (1978, 165). In the *Enquiry*, he calls it a 'sentiment' (1974, 75). No matter what exactly it is, it must be there to ground the idea of power. That there must be an impression corresponding to the idea of necessary connection follows from Hume's Basic Methodological Maxim. That it isn't an 'impression of sensation' follows from his analysis of what is perceived *in* the objects. That, nonetheless, something happens to the mind when a 'multiplicity of resembling instances' is observed follows from his own positive psychological theory of causal belief formation, that is, from his own account of causation as a 'natural relation'. Then, it *must* be the case that this something that happens to the mind is the sought-after impression. This something that happens to the mind is what Hume calls the feeling of 'determination'. Indeed, Hume notes: 'this

determination is the only effect of the resemblance; and therefore must be the same with power or efficacy, whose idea is derived from the resemblance' (1978, 165). Its presence in the human mind after the observation of 'resemblance in a sufficient number of instances' (1978, 165) is, as Stroud has rightly put it, 'simply a fundamental fact about human beings that Hume does not try to explain'.¹⁵

But that's precisely the problem for Brown. For him there is no third factor. Nor is there need to posit it to give content to the idea of power. There is no extra feeling of determination or whatever, but only the 'feeling of invariable antecedence' (1822, 189) that is encapsulated in a causal belief. Talk of powers, for Brown, is meant to enable us to distinguish between sequences of events that are *casual* from those that are *causal*. Powers are future-oriented. They are 'indefinitely extendable'. Belief in power is belief in future invariable sequence. No impression can afford this orientation-to-the-future corresponding to the idea of power. The impression (even the impression of past constant conjunctions) will have to be of something that has happened in the past. The idea of power cannot be 'a copy from that of which it is completely different' (1822, 189).

V.2 The Customary Transition

Hume, as is well-known, laid emphasis on the role of habit or custom, of which he said that it is 'the great guide of human life' (1974, 44) in the formation of causal beliefs. The basic psychological inferential procedure by which the observed past co-occurrence of *Cs* and *Es* leads us to conclude (and to form the belief) that upon the fresh perception of a *C*, an *E* will (or *must*) follow is based on 'a new relation betwixt cause and effect', namely, constant conjunction. This 'new relation' is a relation among sequences of events. It says: 'like objects have always been plac'd in like relations of contiguity and succession' (1978, 88). Hume, of course, does not identify the necessary connection with the constant conjunction. The observation (or memory) of a constant conjunction generates *no* new impression in the objects perceived. The mere *multiplication* of sequences of tokens of *C* being followed by tokens of *E* adds no new impressions to those we have had from observing a single sequence. Yet, constant conjunction is the source of the inference (better: the customary transition) we make from causes to effects.

Brown is very unhappy with this way of explaining the origin of the idea of power because it gives the wrong description of the psychological mechanism by which causal beliefs arise. There is no evidence that there is a moment in time in a person's psychological life in which the observation and memory of constant conjunction generates a new belief that a sequence of events is causal. In other words, there is no moment before which some similar sequences of events are considered casual and after which are believed to be causal (cf. 1822, 157).

Nor can custom help us justify the belief that some sequences are causal while others are not simply because custom is past-oriented while causal beliefs are future-oriented. Take as evidence that *E* has succeeded *C* once and consider the belief that *E* will follow *C* forever. This belief is no less justified than if it were based on evidence that *E* has succeeded *C* one thousand times. Hume himself has shown that past repetition does not give us *reason* to expect that the future will resemble the past. Brown, of course, is not a sceptic. But that is precisely his point, namely, that scepticism cannot be avoided by an appeal to custom. Take the belief in a principle of uniformity of nature. If we could offer reasons for this belief, as we cannot, an appeal to custom would be unnecessary. If, as is the case, we cannot offer reasons, an appeal to custom is powerless, simply because what we are concerned with is the reason for the part of the belief that is future-oriented (viz., the future uniformity of nature) and custom can only tell us something about what has already happened. As we have seen, Brown's own way out is to deny that belief in uniformity (or similarity) is based on reasons, while at the same time denying that this would make it unjustified.

V.3 A New Role for Experience

What then is the role of experience (and of the observation of repetition) in the formation of causal beliefs? To answer this, we need to bear in mind Brown's own positive view about belief in causation. Brown, you might recall, was adamant that there is no more to causation than regularity of sequence; and in particular that there is no regularity enforcer: a power, or an intermediate tie, or whatever that enforces that the causal sequence is invariable, or that it ensures its future extendability. Hence, to say that *c* causes *e* is to make a general claim about the invariable succession between events like *C* and events like *E*. Causal claims (or causal beliefs) are future-oriented. However, though for Brown causation *is* regularity, belief in causation is *not* grounded in experience of repetitions, customary transitions, and the like. Belief in causation is neither perceptual nor based on reasoning. It is what Brown called 'an intuitive belief'. As we have already seen, the key feature of an intuitive belief is that it does not rely on argument and yet it is impossible for us to disbelieve it. So, when we believe that an event caused another we believe that their relation is permanent, namely, that when similar circumstances arise, the same cause will be followed by the same effect. But this belief is intuitive. If to believe that *c* causes *e* does not require observation of repetition, what is the role of experience? Brown gave experience a prominent role, but it is more complicated than is normally assumed. To put the point briefly, experience is indispensable in finding out what regularities underlie and make true causal claims. Let me expand on it.

It is part of our constitution to have the mental tendency to attribute causes to any change in the regular pattern of things and to regard as the

cause of the change ‘the circumstances that preceded it’ (1822, 160). But being the immediate antecedent of the change is not sufficient for causation. What is necessary is this immediate antecedent being *invariable*. So it is not the case that *c* causes *e* if *c* is the immediate antecedent of *e*. Some regularity should hold between events like *c* and like *e*. Still, we believe that *c* causes *e* if we observe that *c* is the immediate antecedent of *e*—without the need to see the sequence being repeated. This is based on ‘an irresistible intuition’ (1822, 168), which carries with it the belief that *c* and *e* are invariably associated. Experience then has two roles to play. The primary role is to weaken the belief that *c* causes *e* simply because experience teaches us either that there has been a lot of irregularity in nature or that the events under consideration may be classed under very different and complex patterns. The secondary role of experience is to help us find out the actual regularities that underpin a certain sequence of events—that is, to break down complex trains of events into their constituents and find out the types of events to which an instance this causal sequence is. Here is exactly where observation of repetition and experimentation plays a crucial role. As he (1822, 160) put it, their role is

to enable us to fix with precision, where there are many antecedents and many consequents, the order in which there are to be reciprocally paired.

Here is an example Brown employs. Suppose we mix two substances for the first time and ‘a peculiar product appears’ (1822, 162). This is a causal sequence of events, the chemists believe; the mixture is the effect of mixing the two substances. This belief, according to Brown, is not conditioned on past experience. He disagrees with Hume’s line on this, which he takes it to imply that prior to repetition the belief that this sequence of events is as casual as the sequence that consists of the entering of a friend in the laboratory and creation of the new substance. What is the role of experimentation then? Not to establish that there is a causal connection but to establish what exactly it is. And it does that by carefully removing circumstances that—past experience has taught us—could causally influence the effect, for example, the presence of light or air, the impurities of the substances, and so on. In this example, experience functions in both of the ways mentioned by Brown: first, it makes us wary of the fact that there may be other causes in operation (since there have been in the past) and second it helps us establish (or acquire greater certainty) that they are not in operation.

V.4 Against the Ultimate Objection

What transpires is that Brown had a very interesting and innovative combination of the following two views.

Causation, as it is in the world, is regularity (regular and invariable association between certain types of events).

Causal beliefs do not require (in fact, they do not rely upon) observation or experience of invariable associations or repetitions.

(I) suggests that Brown defended the Regularity Theory of Causation. Hence, causation is not a singular relation between events. But (II) can be described as a view of singular causal belief. Belief in causation arises in observations of single instances of change; and yet it is belief in a regularity.

This kind of combination might sound odd. But it is not. To see why, let us examine Brown's answer to the chief objection levelled against a regularity theory of causation. This is Reid's: there can be sequences that are regular but not causal in that the regular and invariant antecedent is not the cause of the consequent. Brown made an extra effort to neutralise this objection. There is a general point to be made first. Brown (1822, 76) took as one of the sources of illusion about what causation the thought that something of distinct metaphysical sort must be added to (or must be present in) an invariable sequence of events for it to be *causal*. This, he thought, stems from the common fact that we rightly want to distinguish between something causally following something else and something *casually* following something else. We then take casual sequence to be a *mere* sequence: a relation of priority and succession between two events. We are tempted into thinking that a *causal* sequence must not be a species of sequence but something totally distinct—something that leaves no possibility open that a casual sequence might be mistaken for causation. But *cause* and *sequence* are not opposed to each other; they are similar: causation is a species of sequence, namely, invariable and uniform sequence.¹⁶ Isn't then Reid's objection immediately forceful?

Brown (1822, 170–1) was not moved by Reid's objection because he thought that Reid's example of night causing day either does not describe a case of regular and invariable succession or, if it does, it can be fully captured by the regularity theory of causation (1822, 170–1). All depends on how exactly the event-types that are supposed to constitute the regular succession are identified. Given a 'vulgar' (that is, coarse-grained) description of the event-types that are supposed to be in a relation of invariable succession, there is no invariable succession and hence no causation. The night, understood as various degrees of *darkness*, is not invariably followed by day, understood as various degrees of *light*: 'they . . . rather appear to follow each other loosely and variously, like those irregular successions of events, which we denominate Accidental' (1822, 171). Given, on the other hand, a fine-grained description of the event-types, there is regularity and hence causation. Strictly speaking, night and day are not events—they are not even single phenomena, but series of phenomena grouped together by reference to some similarity and difference: degrees of darkness and degrees of light. If we

focus on ‘the successive *pairs* of that multitude of events, which we denominate night and day’ (1822, 170), and if, further, we take these events to be the positions of the earth in relation to the sun during its rotation around its axis, the motion of the earth immediately before the sunrise does cause the subsequent position of the earth in which the sunlight directly reaches the ground. In this way, the succession of night and day is explained by being reduced to a more complex regularity (picked by a more appropriate description of the causal *relata*). Brown was fully aware of the fact that an advocate of the Regularity Theory of Causation can claim that an invariable succession between *A* and *B* need not imply that *A* causes *B* or that *B* causes *A*, since *A* and *B* might be the effects of a common cause *C*.¹⁷

Brown turns on its head the problem raised by Reid. Precisely because regularity constitutes causation, where there is no causation there must be an explanation in terms of the *absence* of regularity; and where there is causation, some regularity must be present, though the grounding regularity need not be described in the vocabulary in which the causal claim is made. Hence, Brown identified the claim that the advocates of a Regularity View of Causation should make: the regularities that constitute causation need not be read off directly from the description of events that constitute the *relata* of a certain invariable sequence; but insofar as there is causation, there is a suitably described underlying regularity. As he nicely put it: ‘The generalisations of language are already made for us before we have ourselves begun to generalise.’ And this may well lead us ‘to suppose a physical relation in many cases where there is none, and to neglect it as often where it truly is’ (1822, note M). And as his biographer noted:

A cause is not always that which *appears* to be the immediate antecedent of a change, but that which is in nature the immediate antecedent.¹⁸

VI. CONCLUSION

The points made in the last section suggest that Brown might well have been entertaining a view that has been made popular in the twentieth century by Donald Davidson, namely, that though all causation is nomological, the law under which a causal sequence is subsumed may not be stated in the vocabulary in which the singular causal statement is stated.¹⁹ This, however, is an issue that cannot be pursued here.²⁰ The aim of this chapter has been to show that Brown’s philosophical theory of causation was intricate, deep, and interesting—that he did try (and at least partly succeeded) to carve a conceptual space between Reid and Hume and to combine the thought that causation as it is in the world is invariable sequence with the thought that belief in causality need not require observations of invariable successions. In light of this, Brown’s place in the history of the philosophy of causation needs to be favourably reassessed.²¹

NOTES

1. For a relatively detailed discussion of Brown's philosophy of mind, see M. W. Landes, "Thomas Brown: An Associationist?", *The Philosophical Review*, 35 (1926): 447–64.
2. Abbreviations used: 1822: Thomas Brown, *Inquiry Into The Relation of Cause and Effect* (Andover: Flaggand Gould Printers, 1822). 1851: Thomas Brown, *Lectures on the Philosophy of the Human Mind* (19th edition) (Edinburgh: Adam & Charles Black, 1851). 1863: Thomas Reid, *Essays on the Active Powers of Man*, in *The Works of Thomas Reid*, preface, notes and supplementary dissertation by Sir William Hamilton, Vol. II, 6th edition (Edinburgh: Machachland & Stewart, 1863). 1974: David Hume, *An Enquiry Concerning Human Understanding*, in *Enquiries Concerning Human Understanding and Concerning the Principles of Morals*, edited by L. A. Selby-Bigge & P. H. Nidditch (Oxford: Clarendon Press, 1974). 1978: David Hume, *A Treatise of Human Nature*, edited by L. A. Selby-Bigge & P. H. Nidditch, (Oxford: Clarendon Press, 1978).
3. The book had a fourth edition (identical with the third) in 1835.
4. John A. Mills, "Thomas Brown's Theory of Causation", *Journal of History of Philosophy*, 22 (1984): 207–27.
5. The New Hume was a causal realist, albeit a sceptical one. This interpretative line was inaugurated in the early 1970s, when John P. Wright published his book on Hume and has been reinvigorated in the work of Edward Craig and Galen Strawson. See John P. Wright, *The Sceptical Realism of David Hume* (Manchester: Manchester University Press, 1973); E. J. Craig, *The Mind of God and the Works of Man* (Oxford: Oxford University Press, 1987); and "Hume on Causality: Projectivist and Realist?", in *The New Hume Debate*, edited by Rupert Read & Kenneth A. Richman (London: Routledge, 2000), 113–21; and Galen Strawson, *The Secret Connexion* (Oxford: Clarendon Press, 1989). My view is that the Humean view was Hume's view too, give or take a bit; for the reasons why, see my *Causation and Explanation* (Chesham: Acumen, 2002), Ch. 1. For an excellent recent discussion of Hume's theory of causation, advancing a projectivist interpretation of his views, see Helen Beebe, *Hume on Causation* (Abingdon: Routledge, 2006).
6. This is suggested, but not explored, by N. Kemp Smith, *The Philosophy of David Hume* (London: Macmillan, 1941), 91, n2) and endorsed by Strawson, *The Secret Connexion*, 7, n.1.
7. To be more precise, Reid spoke of a being or a mind that has the power and the will to produce the effect. The quotations are from N. Wolterstorff, *Thomas Reid and the Story of Epistemology* (Cambridge: Cambridge University Press, 2001).
8. To be sure, he was a resemblance nominalist in that he took it that there are resemblances in nature and that searching for resemblances is a principle by means of which the minds works. This is how Welsh puts the matter on behalf of Brown: 'We perceive two or more objects—we are struck with their similarity in certain respects—we invent a common appellation to express the object that agree in exciting the same relative feeling'. See D. Welsh, *Account of the Life and Writings of the Thomas Brown, M.D.* (Edinburgh: W & C Tait, 1825), 287. This feeling of resemblance, Brown took it to be a simple (not further analysable) state of mind. For Brown's critique of realism and conceptualism, see Welsh, 268–88.
9. James B. Peterson, "The Empirical Theory of Causation", *The Philosophical Review*, 7 (1898): 43–61, quotation from 49.
10. *Account of the Life and Writings of the Thomas Brown, M.D.*, 114.

11. *Account of the Life and Writings of the Thomas Brown, M.D.*, 106.
12. *Account of the Life and Writings of the Thomas Brown, M.D.*, 106.
13. This is not to imply that Brown had an account of how these intuitive principles arise and what exactly they are. He did not.
14. B. Stroud, *Hume* (London: Routledge, 1977), 43.
15. *Hume*, 86. For my own reading of Hume, see my *Causation and Explanation*, Chapter 1. See also P. Millican, "Against the New Hume", in *The New Hume Debate*, edited by Rupert Read & Kenneth A. Richman, 2nd Revised Edition (London: Routledge, 2007).
16. One of Brown's critics, Lady Mary Shepherd, suggested that it is a mistake to represent causation as a species of sequence, since it is better viewed as transference. She claimed that cause and effect should be represented not as a conjunction but rather in the form $A \times B = C$, where the effect C is included in the 'mixture of the objects called cause'. (See *An Essay upon the Relation of Cause and Effect, Controverting the Doctrine of Mr. Hume Concerning the Nature of That Relation with Observations upon the Opinions of Dr Brown and Mr Lawrence Connected with the Same Subject* (London: Hookham, 1824), 141. Then, the effect *must* follow whenever the cause ($A \times B$) is present, since it is included in it (in the same way in which the result of an arithmetic operation is included in it). Of course, this sense of inclusion is exactly what Brown had denied.
17. See also Welsh, *Account of the Life and Writings of the Thomas Brown, M.D.*, 109.
18. *Account of the Life and Writings of the Thomas Brown, M.D.*, 107.
19. D. Davidson, "Causal Relations", *Journal of Philosophy*, 64 (1967): 691–703. Reprinted in *Causation*, edited by E. Sosa & M. Tooley (Oxford: Oxford University Press 1993), 75–87.
20. For the details, see my "Regularity Theories" in *Oxford Handbook of Causation*, edited by Helen Beebe, Peter Menzies, and Chris Hitchcock (Oxford: Oxford University Press, 2009), 131–57.
21. An earlier version of this chapter was presented at the annual conference of the *British Society for the History of Philosophy* at the University of York in March 2008. Many thanks to the participants for useful comments, but especially to Martha Bolton and Eric Schliesser.