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ARTICLE

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Who killed the causality of things?

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Modern analyses of causation standardly treat cause and effect as events. Disagreement persists over what exactly events are, and whether some nearby analysis—perhaps in terms of facts or states of affairs—might be superior. There is, however, not much sympathy for the traditional understanding of causes as persisting things, whether those be substances, powers, or properties. One does still find hearty bands of enthusiasts who defend such old-school ideas. But to endorse things as causes requires setting oneself against the mainstream of research in the metaphysics of causation.

Although the shift in causal theory from things to events is well-known, the precise point at which that shift happened has been lost to time. It is familiar enough that the long run of Aristotelianism was sympathetic to things as causes. But as to when, in the post-Aristotelian modern era, the transformation occurred, no one seems to know. Some see the change as coming with the rise of the mechanical philosophy in the seventeenth century, and others with David Hume in the eighteenth century.[1] Both of these suggestions are relevant to the story, but each fails to identify the true culprit. The question of who killed causation as a relation between things thus remains unsettled. We have on our hands a murder mystery, which the present paper means to solve.

In the spirit of that genre, I defer revealing my answer until the end of the paper. (Readers in no mood for games can look ahead to §5.) To pursue my quarry, I begin by tracing the modern story back until the trail grows cold (§1). At that point I start my canvass anew, with the old Aristotelian tradition (§2). There we will find a climate that both fosters the causality of things and discourages events as causes. Even so, the late medieval context will offer us one important clue, the murder weapon, even if not the murderer himself (§3). That sets the stage for looking at the seventeenth century, where we will find a climate in which the event-causal framework becomes at least conceivable, and yet where thing-causation remains unchallenged. That brings us to Hume, who might appear to have the requisite motive, but who in fact can be exonerated

[1] There has been, so far as I can find, no systematic historical treatment of this issue, and only occasional discussions in passing. Among those, Harré and Madden (1975) remark that the origin of the event-causal framework is "obscure," but go on to invoke Hume (p. 3). Swinburne (1997) also ascribes the shift to Hume (p. 80), Buckareff (2017) speaks of "the neo-Humean emphasis on events" (p.1025), and Van Cleve (2015) remarks that "in Reid's day, agent causation was taken for granted and event causation regarded as a Humean innovation of doubtful intelligibility" (p. 377). Lowe (2008) invokes the more general early modern shift toward an anti-metaphysical empiricism (p. 139), and Rowe (1991) adverts to "the influence of seventeenth- and eighteenth-century physics" (p. 55).

(§4). Having come that far, we will have all the clues required to identify our murderer (§5) and consider the appropriate sentence (§6). Throughout, my focus will be mainly on whether events can be *causes*, but in the end, when we arrive at the doorstep of our killer, we will find that he is a double murderer.

1 | WHERE THE TRAIL GOES COLD

Within recent philosophy, the standard analysis of causation treats it as a relationship between events.[2] This is not, however, a new development. Back in the early 1960s, Roderick Chisholm's classic argument for a libertarian theory of freewill already treats the event-causal framework as an entrenched assumption. Donald Davidson's influential work on actions and events from this same period likewise takes as its default starting point the idea that causation is a relationship between events. Following the trail back another half century, to Bertrand Russell's famous attack on causation, one finds that he too takes for granted as his target the event-causal framework. And if one goes back to the mid-nineteenth century the situation seems unchanged. The most-influential English-language treatment of causation from this period, John Stuart Mill's *System of Logic*, criticizes at length the mistake of limiting causation to a relationship between events: he refers to "the illusion which disposes us to look upon the proximate event as standing more peculiarly in the position of a cause than any of the antecedent states."[3]

Having gone back this far, one might naturally expect it to be Hume who has the blood on his hands. At times Hume does speak of events as the relata of causation, as when he writes that "one event follows another, but we never can observe any tie between them."[4] At least as often, however, Hume treats the relata as "objects," most strikingly in his two definitions of causation, the first of which holds a cause to be "an object precedent and contiguous to another, and where all the objects resembling the former are placed in like relations of precedency and contiguity to those objects that resemble the latter."[5] On the face of things, then, it does not seem to be Hume who is the guilty party.

Our murderer is also, even more clearly, not the mechanical philosophers of the seventeenth century. Thomas Hobbes, for instance, takes for granted that it will be bodies that are agents, and their accidents that will serve as causes and effects. So, when a fire warms a hand, the heat and location of the fire are causes, and the newly produced heat in the hand is the effect.[6] And if one looks further afield, for instance at the more exotic causal theories of Malebranche and Leibniz,

[2] For useful overviews of the state of the art regarding the relata of causal relationships see Ehring (2009) and Gallow (2022). For a recent statement of the case for causation between things see Baron-Schmitt (2024). The complexities of the contemporary discussion outrun any simple bifurcation into things and events, and I will not attempt to do justice to the variety of views. Nor will I even seek to define with precision the categories of things and events. For my historical purposes a good first approximation is in terms of the distinction between *permanent* entities that fully exist at each moment of their existence (paradigmatically substances and their properties) and happenings that unfold *successively* through time. For most of the authors I will be discussing this would have been the most familiar framework for drawing a distinction between things and events. For the medieval origins of that framework see Pasnau (2011) ch. 18.

[3] See Chisholm (1966); Davidson (1980), which takes Mill's discussion as its principal stalking horse; Russell (1917); Mill (1862) III.5.3, p. 369. I return to these developments in §6.

[4] *Enquiry concerning Human Understanding* 7.2 (Hume 1975, p. 74). Quotations from early English texts modernize orthography, typography, and punctuation.

[5] *Treatise* I.3.14 (Hume 1978, p. 170).

[6] *De corpore* 9.1–3 (Hobbes 1839–1845, I:120–21, reprinted in Hobbes 1905, pp. 69–70).

even though their stories are quite different in many ways, still they take for granted that the relata of causation are things rather than events. I will return in more detail to this period in §4, but suffice it to say for now that, on a first survey, the trail seems to have grown quite cold.

2 | ARISTOTELIAN CAUSES REGIMENTED

Let us start afresh, and consider, if only briefly, the victim in its carefree premodern years. Here the dominant causal framework is Aristotelian, but the kinds of Aristotelianism on offer vary enormously, as one would expect from two millennia of philosophy. Without pretending to do justice to this massive subject, we can at least get a sense in brief of how causal theorizing among Aristotelians became increasingly regimented over the centuries. In its beginnings, Aristotle's thinking about cause (*αἰτία*) is highly pluralistic, most famously with respect to the four kinds of causes that he postulates, and also within each class. Since our focus is exclusively efficient causes, we can focus on that case, which he canonically describes as follows:

> Again, the primary source-from-which of change or rest is a cause. For example, someone who has deliberated is a cause, the father is a cause of his child, and in general what makes is a cause of what is made and what brings about change is a cause of what is changed.[7]

In singling out the "primary source," Aristotle seems to want us to focus on the substance that is the initial source of the change. The examples that follow all fit that pattern: the rational agent, the father, and in general that which is the maker or changer. Effects, similarly, seem to be things: a child or the thing that is made or changed. So although the start of the passage defines the efficient cause in terms of an event—"change or rest"—the event itself is neither cause nor effect.

Although these two sentences might suggest a fairly clear view of what Aristotle has in mind, he nowhere explains *why* efficient causation should be so defined. Moreover, in other passages Aristotle is much more permissive. Sometimes he treats the effect of an efficient cause as an event.[8] Sometimes he treats the efficient cause as a quality within the substance.[9] Sometimes he even adverts to events—an insult or a raid—as efficient causes.[10] And so even though there are still other passages where he returns to the idea that the efficient cause is somehow the *initial* source of change,[11] his overall attitude seems quite relaxed about the sorts of things that might count as efficient causes. Commentators have long wondered, accordingly, whether Aristotle can be said to have a theory of causality at all, or whether instead he means to offer a highly pluralistic account

[7] *Physics* II.3, 194b29–32 (Aristotle 1984): *ἔτι ὅθεν ἡ ἀρχὴ τῆς μεταβολῆς ἡ πρώτη ἢ τῆς ἠρεμήσεως, οἷον ὁ βουλεύσας αἴτιος, καὶ ὁ πατὴρ τοῦ τέκνου, καὶ ὅλως τὸ ποιοῦν τοῦ ποιουμένου καὶ τὸ μεταβάλλον τοῦ μεταβαλλομένου*. This same extended discussion of the four causes appears verbatim at *Meta*. V.2, 1013a24–b3 (Aristotle 1984). The first clause can alternatively be translated as "that from which the primary source of change or rest arises is a cause." Translations throughout are my own, although for ease of reference the bibliography lists published translations when they are available.

[8] See, e.g., *Physics* II.3, 195b6–7 (Aristotle 1984).

[9] E.g., when the cause is the art within the agent's soul; see Aristotle (1984): *Meta*. V.2, 1013b6–7 and *Meta*. VII.7, 1032b22–23, and also Huismann (2022).

[10] See Aristotle (1984): *Meta*. V.1, 1013a9 and *Phys*. II.7, 198a19.

[11] See, e.g., Aristotle (1984): *De an*. II.4, 415b22: "the first thing from which the motion arises" and *Phys*. II.7, 198a33: "the first mover."

of the sorts of explanations that are valuable within one or another science.[12] He is, in any case, very far from supposing that causality must be a relation between events.

Although Aristotle's influence on later discussions was preeminent, his was not the only version of Aristotelianism that mattered. If we jump all the way forward to the later Middle Ages, an influence that in some domains was equally important was Ibn Sīnā, whose creative eleventh-century refashioning of Aristotle decisively shaped subsequent causal theory in both the Arabic and the Latin traditions. Although Ibn Sīnā—'Avicenna' is the corrupted Latin form—accepts in broad outlines Aristotle's four-causal scheme, he transforms that scheme in critical ways. Most importantly for our purposes, he carefully regiments efficient causation. The tendency in Aristotle, as we have seen, is to treat the efficient cause as the initial source of a motion. The cause of a building, for instance, is the builder. Ibn Sīnā registers that this is how people commonly talk, but he thinks that it rests on a misunderstanding of efficient causation, which can be said to be the cause only of what it immediately brings about. Here is how he understands Aristotle's example:

> As for the builder, his motion is the cause of a certain [further] motion. Subsequently, his rest and cessation from motion—or the absence of his motion and of his carrying [of materials], after that carrying—is the cause of the termination of that [further] motion. And that carrying in its own right, and the termination of that [further] motion, is the cause of a certain combination [of materials], and that combination is the cause for a certain taking-of-shape. Each one of these is a cause, and each coincides (معا) with its effect.[13]

The key idea here is that causal relationships require coincidence. The builder is an efficient cause, but it obfuscates the situation to say simply that the builder is the cause of the house. Strictly speaking, we should focus on the builder's motion, which is the cause not of the house but of a further motion, the motion of the building materials. When the builder finally stops, the building materials stop as well, and that cessation is the cause of the materials' being combined in a certain way. That combination is in turn the cause of the materials' having a certain shape, at which point we finally have the formal cause of a house, and accordingly at that point in the analysis we have a house. These distinctions matter to Ibn Sīnā, because they explain why we ought not to say, after the house has been built, that the builder is (currently) its cause. That would be absurd, he thinks, because the builder no longer plays a role in the house's existence. To specify the efficient cause at this later point requires attending to the causes that explain why the building materials remain combined in a way that gives rise to the house shape that is the formal cause of the building. The builder does not figure into that explanation.

In offering this fine-grained causal analysis, Ibn Sīnā opens the door to event causation. Aristotle, as we saw, recognizes that motions and other events play a critical role in causation, but he does not usually conceive of them as causes. With Ibn Sīnā, that changes. The builder's motion is the cause of a further motion, and that further motion, together with its terminating at just the

[12] For useful recent accounts see Tuozzo (2014) and Stein (2023). Stein puts particular weight on the pluralistic character of Aristotle's account. Frede (1987), pp. 135–138, concludes that ancient theories in general treat effects as sometimes a substance and sometimes an event or something like it, but that causes throughout antiquity are thing-like rather than event-like (p. 128). Among the countless attempts to regiment Aristotle's theory there have been the occasional suggestion, in recent years, that Aristotle's account at bottom rests on event causation (see, e.g., Annas 1982, p. 321 and Fine 1987, pp. 70–76). But the main basis for this reading of Aristotle seems to be a desire to conform to modern theorizing.

[13] *Metaphysics of the Healing* VI.2.2 (Ibn Sīnā 2005).

right place, is the cause of the materials' combining in a way that gives those materials the shape of a house. Events, on this analysis—motions and rests—are explicitly characterized not just as effects but also as causes. The story, moreover, requires this, because of Ibn Sīnā's insistence on causal coincidence. As soon as we deny that the builder is the cause of the house, we need there to be some other effect with which the builder coincides, and the natural candidate becomes the motion of the materials. But then, if the causal sequence is to continue, that further motion, and its cessation, must *itself* be a cause. Causal coincidence, in short, demands the sort of fine-grained analysis that can be had only when events are introduced into the causal sequence.

Ibn Sīnā's fine-grained approach militates against treating the initial source of change as the proper efficient cause. Quite apart from this line of thought, moreover, Ibn Sīnā could hardly suppose that we should identify efficient causes as *first* causes of motion, because he thinks everything that happens in the natural world is determined to happen by some prior cause: "the existence of every effect is necessary, given the existence of its cause, and the existence of its cause necessitates the existence of the effect."[14] If one looks narrowly at a thing, or an event, its existence may seem contingent, because there is nothing about it intrinsically that necessitates it. But as soon as one looks at the broader circumstances it becomes possible to see that, given those circumstances, the thing (or event) could not be otherwise. It would thus make no sense, in the context of Ibn Sīnā's broader theory, to single out some privileged remote cause as the one that initiates the motion—not unless one wants to go all the way back to God, the unique first cause that exists necessarily of itself.

Ibn Sīnā's is by no means the first defense of causal determinism. It is attested as the doctrine of Democritus, and defended at length among the Stoics. But it is not at all clear—or at any rate was not clear before Ibn Sīnā—that Aristotelianism should be understood deterministically. As we have seen, Aristotle happily identifies some causes as first causes of motion, and he makes central to his natural philosophy the idea that many effects occur only for the most part. Scholars continue to dispute whether this entails some kind of brute contingency in the natural world.[15] But for Ibn Sīnā that possibility is foreclosed by his commitment to a version of the Principle of Sufficient Reason: everything that happens must have a cause that determines precisely that outcome. Given this picture, Ibn Sīnā has no reason to privilege any particular item in the causal sequence as *the* efficient cause. The builder is a cause of the motions that bring the materials together into one place, but the builder himself is the result of prior causes that fully account for his motions. The story goes back *ad infinitum* (since the world has always existed), and so if we want to single out the cause that is properly *the* efficient cause for a certain outcome, the only principled way to do that is to focus on the most proximate cause, which will often be an event. Hence Ibn Sīnā's determinism encourages the demand for causal coincidence, which requires a fine-grained analysis, which in turn gives particular salience to the role of events as causes.

It is from these roots in Ibn Sīnā that subsequent theorizing about causation takes on its classical modern form, expecting causes to be contiguous with and necessary related to their effect. Even so, it is not Ibn Sīnā who killed causation between things. Despite giving special salience to events as causes and effects, he nowhere insists that causation occurs only between events, nor does he ever suggests that event causation is more fundamental than thing-causation. Still, his way of regimenting Aristotle's approach creates the climate in which such possibilities might be considered.

[14] *Metaphysics* IV.1.11 (Ibn Sīnā 2005, p. 127).

[15] Against a deterministic reading of Aristotle is Sorabji (1980). In favor, among many others, is Meyer (1993).

3 | AGENT CAUSATION AND THE PASS-THROUGH ARGUMENT

When the scholastic philosophy of the European universities, from the early thirteenth century forward, takes Aristotle as its overarching authority, it does so through an Arabic lens. The Latin Aristotle gets read side by side with Latin translations of Ibn Sīnā (now Avicenna), Ibn Rushd (Averroes), and al-Ghazālī (Algazel). All three of these Arabic authors appeared to advance an Aristotelianism committed to causal determinism and to the coincidence of cause and effect.[16] For the first three quarters of the thirteenth century it seems not even to have occurred to Latin scholastic authors that this causal framework might stand in the way of Christian ethics and theology. Albert the Great holds that "there is no efficient cause that stands open both ways (*ad utrumlibet*)."[17] Thomas Aquinas routinely invokes the Arabic tradition in support of this same doctrine, and makes clear that he endorses the principle in all cases other than God: "A cause that is of itself contingent must be determined to its effect by something external."[18]

At the same time, scholastic authors are not at all tempted to question the causality of things. The paradigmatic examples of efficient causes continue to be substances of various sorts: people, animals, fire, rocks, and so on. Rather than shift away from this thing-based conception of causality, scholastic authors expand it, offering increasingly elaborate accounts of how a substance's causal agency can be analyzed in terms of the activity of its various metaphysical parts. It is, indeed, a characteristic feature of the period to develop Aristotle's framework of formal explanation not purely in metaphysical terms but also in physical terms, as a theory of efficient causation. A soul, for instance, a so-called substantial form, is a paradigmatic *formal* cause. But it also serves as an *efficient* cause, responsible for the animal's behavior and for its various accidental forms. So conceived, forms are not universal properties nor in any sense abstracta; they are concrete causal forces within substances, invoked as the fundamental causal principles in scientific explanation.[19] Every soul, moreover, contains a variety of distinct powers, which can themselves serve as efficient causes. In general, within these scholastic discussions, causal narratives become steadily more regimented into a hierarchy of forms and powers that explain the events we observe around us.

As in Aristotle, events remain essential to causal theorizing, inasmuch as the very phenomenon in need of explanation is why a thing undergoes change. Even so, the idea that the changes themselves might serve as causal relata was never a serious option, for two reasons. First, there was a strong ontological preference among Aristotelians for things rather than events. Aristotle himself

[16] The discussion in Ibn Rushd most often cited by Latin authors is from his *Long Commentary on the Physics* II.48 (Ibn Rushd 1562, vol. 4), a text that is triply difficult to study inasmuch as the Arabic original is no longer extant, no English translation of the Latin has yet been made, and the best available text is the 1562 Latin edition of Aristotle, printed with Ibn Rushd's commentary. Medieval Latin readers took their information about al-Ghazālī's causal views from the metaphysical part of his *Doctrines of the Philosophers*, divisions 7–8 (Ghazālī 1933). They did not realize that this was intended merely as a preliminary study of what the philosophers thought, much of which al-Ghazālī would systematically refute in his then unknown (in Latin) but now more famous treatise, *The Incoherence of the Philosophers*. The *Doctrines* is extant in Arabic as well as Latin but has also not yet been translated into English.

[17] *Physica* II.2.12 (Albert the Great 1951–, IV:118b).

[18] *Summa theologiae* 1a 19.3 ad 5 (Thomas Aquinas 2014). See also, for instance, *Summa contra gentiles* II.15.6 (Thomas Aquinas 1975).

[19] I have argued elsewhere that this tendency toward a concrete, physical understanding of Aristotelian forms becomes steadily more prominent among later scholastic authors, eventually setting the stage for the seventeenth-century rejection of Aristotelianism not as bad metaphysics but as bad science. See Pasnau (2004) and, in more detail, Pasnau (2011).

had held in the *Physics* that "there is no such thing as motion over and above the things."[20] Some medieval scholastics did countenance the reality of so-called successive entities—the domain of motions and events more generally—but this was regarded as a dubious mode of existence at best, and no one seems to have supposed that such *res successivae* might bear the weight of causal efficacy. Accordingly, causal theories always looked to the things—to one or another sort of *ens permanens*—to explain necessary connections within nature.

Second, even if someone had thought to look to events as their causal relata, Aristotelian science did not postulate a sufficient number of events to do the requisite work. Aristotle's study of change in *Physics* III.3 had argued that in cases where one thing changes another there is just a single actuality, located within the thing that is changed. What might seem on their face to be distinct events—an action and a passion—are no more distinct than, to use Aristotle's analogy, the road from Thebes to Athens is distinct from the road from Athens to Thebes. Now, in certain kinds of causal examples—Aristotle here gives the example of a teacher and student—the agent obviously does engage in various motions, such as speaking and gesturing with her arms, that the student does not engage in. But in premodern science there are many causal examples where no motion at all is required on the part of the cause. When something hot (or cold) heats (or cools) water, for instance, this occurs in virtue of the thing's elemental composition rather than as the result of any motion analogous to the teacher's speaking and gesturing. The only motion required for heating and cooling is the motion of the thing that becomes hot or cold. The same holds true for many other qualitative changes.[21] Medieval science is largely organized around such purely qualitative explanations, and as a result the event-causal framework remains a non-starter. And when scholastic authors do discuss the role of events in causation, they often build on Aristotle's analogy. As Francisco Suárez puts it in his comprehensive late-scholastic treatment of efficient causation, "the action is a path to the effect." It is "that by which the efficient cause actually attains its effect, and by which the effect hangs on its cause." With this Suárez makes it clear that neither the cause nor the effect is an event. Instead cause and effect are things that instigate the change and undergo the change. As for the change itself, "it is involved between cause and effect, as if between two endpoints."[22]

Yet although the scholastic period is plainly not the scene of our crime, a careful canvass of the era reveals an important clue, emerging from the debates over causal agency that arise after Aquinas's death in 1274. On the three-year anniversary of his death, the bishop of Paris prohibited the teaching of 219 propositions, dozens of which proscribe various forms of determinism. Philosophers and theologians at the University of Paris and beyond quickly fell into line behind this doctrinal guidance. Henry of Ghent, who had been a member of the commission that produced the 1277 condemnations, sets out his own indeterministic conception of will at this same time, reverting to Aristotle's language of a "first mover," applying it to the faculty of will, and concluding that the will is therefore free from any sort of causal determination. This marks the start of the so-called voluntarist movement, which quickly comes to dominate later medieval philosophy.

[20] *Physics* III.1, 200b33 (Aristotle 1984): Οὐκ ἔστι δέ τις κίνησις παρὰ τὰ πράγματα.

[21] Tuozzo (2014), p. 28 remarks in this connection that "unmoved movers, it turns out, are ubiquitous in Aristotle's physics." For scholastic accounts that distinguish action from passion see Frost (2019), which registers the relevance of this debate to the event-causal framework. On the dominance of qualitative change within medieval science see Maier (1982), ch. 6.

[22] *Metaphysical Disputations* 17.1.6, 18.10.6, 18.10.6 (Francisco Suárez 1994). For discussion of Suárez's causal theory see Schmid (2015) and Tuttle (2016).

In place of the compatibilism that had prevailed, philosophers now coalesce around a libertarian conception of human freedom, an orthodoxy that prevailed until the Reformation.[23]

Although the 1277 condemnations made it impossible to defend causal determinism in European universities, the voluntarists' broader conception of causality did not go unchallenged. In particular, Godfrey of Fontaines, whose long career on the theology faculty in Paris largely coincided with Henry of Ghent's, disagreed vehemently and at length with Henry's conception of the will as a first, undetermined cause. The starting point of his attack is a principle that has become known as *the act–potency axiom*, which holds that "the same thing, in the same respect, cannot be in actuality and in potentiality." This principle, which he describes as "the most general of first principles," entails that nothing can bring itself into motion, or more broadly into actuality. Alleged cases of self-motion, or self-actualization, in fact involve some sort of internal distinction between an active and a passive component within the thing.[24] The act–potency axiom does not entail causal determinism. But it blocks the voluntarists' claim that the will moves itself into action from a previous state in which it was indifferently open to various possibilities. Nothing, Godfrey argues, can be self-actualizing in this way.

The relevance of this to our inquiry is that when the voluntarists reply to Godfrey, they do so by engaging with the fundamentals of causal theory. Rather than treat the will as a mysterious *sui generis* power, capable of violating the first principles of metaphysics, they insist that Godfrey's act–potency axiom fails throughout the natural world. Henry of Ghent argues that a stone self-actualizes whenever it falls toward the earth, and that a substance (such as a tree) is self-actualizing whenever it realizes its characteristic accidental features (such as its size and pattern of branches).[25] In taking this position Henry defends a particularly bold version of thing-causation, according to which substances, powers, and forms are somehow able to move themselves toward their own activity. This doctrine, now known as *agent causation*, allows a thing to go from potentiality to actuality without there being any outside cause to set it in motion. This kind of self-motion is precisely what Godfrey intends the act–potency axiom to preclude, and so he is quick to extend his argument to block all such self-actualization in nature. When an oak tree grows, Godfrey argues, the tree itself is merely the passive material cause. The efficient cause of its growth are external factors like sun, water, and soil. The same goes for the powers of the soul: "neither the will nor the intellect properly moves itself or brings itself from potentiality to any actuality. Instead, will and intellect are moved per se by their object."[26] On Godfrey's anti-voluntarist account, the will cannot be a self-mover, but must be passively moved by the information the soul takes in through the senses.

[23] Among Henry's many treatments see *Quodlibet* I.14 and IX.5, both translated in Henry of Ghent (1993). And see Pickavé (2012). Other leading voluntarists are Peter John Olivi, John Duns Scotus, and William Ockham. Notable book-length treatments of these debates include Hoffmann (2020), Kent (1995), Putallaz (1995) and Schierbaum and Müller (2024). The present paper is an outgrowth of my own book in progress on medieval voluntarism.

[24] Godfrey's initial statement of his position comes in *Quodlibet* VI.7, where this principle first appears in the initial argument to the contrary (Godfrey of Fontaines 1914, p. 149), and subsequently appears over and over in this and later discussions. He lists it among "the most general of first principles" at *Quodlibet* XIII.3 (Godfrey of Fontaines 1932–1935, p. 193). Godfrey's writings on this subject have not yet been translated into English, but there are a handful of worthwhile recent studies, including preeminently Wippel (1981), pp. 172–202, and also Hartman (2014), Hoffmann (2020), pp. 105–18, and Adams (2022) ch. 2.

[25] Henry discusses these cases in detail in *Quodlibet* IX.5, in Henry of Ghent (1993).

[26] *Quod*. X.14 (Godfrey of Fontaines 1924–1931), p. 379. See also *Quod*. XIII.3 (Godfrey of Fontaines 1932–1935), p. 204: "we should hold, then, that a substance is not an active principle, neither mediate nor immediate, of any operation or perfection that is within it. It is instead a passive principle." And see *Quodlibet* VIII.2 (Godfrey of Fontaines 1924–1931).

All of this poses a terrible threat to the causality of things. Consider the familiar example of a fire's warming some water in a pot. On the usual premodern story, the fire warms the water because the fire itself has the quality of heat. But whereas Henry thinks that the fire, due to its nature as fire, causes itself to become hot, Godfrey argues that the fire is merely a passive, material cause of its own heat, and that the efficient cause of the fire's heat is something external to it. Let that be the spark of a flint. Now the terrible threat looms. For if the fire is simply the material cause of its own heat, passively serving as the subject in which its heat is kindled, then it is not clear why we should regard the fire as an efficient cause of anything else's becoming hot. For it looks as if the only agent on the scene is the spark, and that the fire simply serves as a passive vehicle through which the spark's agency passes through to the water. Moreover, what goes for the fire generalizes to other cases. The spark too will be merely the passive material vehicle for some prior agent, and back the story will go until we reach a first cause. The threat looming in this analysis, then, is that efficient causation, beyond that first cause, might disappear entirely, leaving us only a chain of material causes through which causal efficacy is passively transmitted.

I call this the *pass-through argument* against thing-causation. In basic outline, the argument looks like this:

1. A natural thing gives rise to some effect only insofar as it is moved from without.
2. Insofar as a thing is moved from without it has no efficient causality of its own.

∴ 3. When a natural thing gives rise to some effect it is not an efficient cause.[27]

The first premise amounts to rejecting agent causation and asserting the passivity of things: in cases where a thing gives rise to some effect, it does so only in virtue of being itself moved by something else. Nothing in the natural world can be a first cause or an unmoved mover. This is the heart of Godfrey's complaint against the voluntarists. The second premise holds that what passively gives rise to an effect is not an efficient cause of that effect. It may be a material cause, or in some other way transmit causal efficacy, but it should not itself be identified as the efficient cause of the effect. The conclusion denies efficient causation between things in nature.

Although Godfrey's attack on voluntarism suggests the pass-through argument, in fact he never endorses it. For although he accepts the first premise he does not accept the second, and so he does not endorse the conclusion. Instead, he distinguishes between two sorts of efficient causation, immanent self-actualization and transeunt causation. Consider again the case of fire. Its *immanent* action, as described above, is simply to become hot. The fire is not the efficient cause of this initial action but merely the material cause, the subject. Still, in virtue of becoming hot, the fire is capable of *transeunt* actions, like heating water, and Godfrey accepts that with regard to this secondary act the fire is the efficient cause. The act–potency axiom therefore does not preclude efficient causation between things; it requires only that such causation be transeunt.[28]

[27] The phrase 'insofar as' is included in the premises to register that things, in their complexity, may be active and passive in different respects. The second premise thus leaves room for a thing that might be passively acted on in one respect while working as an efficient cause in some other respect. (This is how the will works, on some medieval accounts.) But the first premise is intended to rule out that scenario, insisting instead that efficient causes in nature always work by passing the impetus they have received onto some further effect.

[28] In this connection Godfrey regularly invokes Aristotle's account of what it is to be an active power: "an active power is one that is the principle of change *in another* insofar as it is another" (*Quod*. VIII.2 [Godfrey of Fontaines 1924–1931, p. 19], paraphrasing *Meta*. V.12, 1019a15–19 and *Meta*. IX.1, 1046a11–12 [Aristotle 1984]). See also, for instance, *Quod*. VI.7 (Godfrey of Fontaines 1914, p. 152) and *Quod*. XIII.3 (Godfrey of Fontaines 1932–1935, pp. 193, 198). See too Wippel (1981) pp. 176–77.

Still, even if we do not yet have the murderer, we do have our murder weapon, the pass-through argument. What we need next is to find someone who would endorse both of its premises. That, however, would be a long time in coming. Scholasticism after 1277 is overwhelmingly voluntaristic, and Godfrey's influence gradually fades away.[29] Indeed, to the extent his views have an impact, it is generally the opposite of what he intended. Subsequent generations, rather than abandon voluntarism, tend to respond to the threat of passivity in nature by doubling down on the doctrine of agent causation. Scotus, for instance, takes it to be an Aristotelian principle that, where there is doubt, we should ascribe to nature the greater perfection. But to be self-actualizing is more perfect than to depend on other causes. "Therefore whenever it is not clear that a certain nature does not have an active source for its own perfection, and it rather seems that it has one, this should be fully granted."[30] Later scholastics generally take Scotus's side on these issues, and assume when in doubt that nature is full of self-actualizing causal agents. At this stage, then, neither premise of the pass-through argument gets much traction. Its main influence is to deepen its opponents' commitment to agent causation.

4 | LIKELY SUSPECTS EXONERATED (HOBBES TO HUME)

The scholastics' embrace of agent causation throughout the natural world offers them a foolproof alibi. Nothing like event causation was going to disturb the peace on their watch. Let us turn, then, to the anti-Aristotelian movement that emerges in the seventeenth century. Here our trail grows slightly warmer but still ultimately runs cold. The most important difference in seventeenth-century causal theory, for our purposes, is its shift toward mechanical explanation. With this comes the rejection of the scholastic approach to formal and final causation. It also entails rejecting the real qualities of premodern science—hot, cold, and all the rest—and replacing them with a story about particles in motion. With this development it becomes possible to imagine, at least in the material domain, that causation runs between events. Even so, this is not a step that anyone in the seventeenth-century takes.

Consider Thomas Hobbes's *De corpore*. For all of Hobbes's scorn for his Aristotelian predecessors, his account of efficient causation might have been taken straight from a scholastic textbook:

> A body is said to act, that is to say, do something to another body, when it either generates or destroys some accident in it; and the body in which an accident is generated or destroyed is said to suffer, that is, to have something done to it by another body. As when one body by putting forwards another body generates motion in it, it is called the *agent*; and the body in which motion is so generated, is called the *patient*; so fire that warms the hand is the agent, and the hand, which is warmed, is the patient.[31]

[29] Unlike comparably distinguished high scholastic figures such as Henry of Ghent and Giles of Rome, Godfrey's work was not printed during the Renaissance, when the new printing press allowed many scholastic texts to achieve wide circulation. As a result, Godfrey fell into almost complete oblivion until his works were published in the early twentieth century. Moreover, even since that time, almost none of his work has been translated.

[30] *Questions on the Metaphysics* IX.14 (John Duns Scotus 1997–1998, n. 63). The Aristotelian dictum is Scotus's rendering of *De caelo* II.5, 288a2–3 (Aristotle 1984). For further discussion of Scotus's reasoning see Adams (2022), pp. 29–35.

[31] *De corpore* 9.1 (Hobbes 1839–1845, repr. Hobbes 1905). This is the first section of Hobbes's *Elements of Philosophy*. I quote the careful English translation, produced under Hobbes's supervision (see Hobbes 1839–1845, I:vi).

Hobbes goes on to explain that the effect is the accident that is produced in the patient, and that the cause is those accidents in the agent and patient "which, when they are all present, the effect is produced."[32] Causation is thus described as a relation between things: bodies and their accidents. Although there are events in play here, inasmuch as Hobbes is describing the "motion" that connects one body with another, these motions are not themselves accidents but are changes to the accidents. Hobbes offers no sign that we should think of such events as either the cause or the effect.

Further examples abound. When Descartes, in his Third Meditation, lays down the key causal premise in his famous proof for God's existence, he takes for granted the causality of things: "a stone … cannot begin to exist unless it is produced by something that contains, either formally or eminently, everything to be found in the stone," and so on.[33] When Locke sets out to explain the ideas of cause and effect, his examples are the fluidity of wax, caused by heat, and the ashes from the wood, caused by the fire. In general, "whatever is considered by us to conduce or operate to the producing any particular simple *idea*, or collection of simple *ideas*, whether substance or mode, which did not before exist, has thereby in our minds the relation of a cause, and so is denominated by us."[34] Although events ("operate to the producing") are of course involved in causation, it is the thing that operates that is the cause, and the thing that comes into existence ("substance or mode") that is the effect. Among those who hold more eccentric causal theories—such as Malebranche, Leibniz, and Berkeley—the terms of the discussion are of course different, but still the background assumption is that the causal relata will be substances or their powers. To take just the case of Malebranche, he opens his defense of occasionalism by invoking the tendency of philosophers to suppose that "there are in bodies certain entities distinct from matter," entities of which "they have not the slightest distinct idea," allowing them to "easily imagine that they are the true or principal causes of the effects we see arise." All of this is a course a mistake, or so he thinks: "there are no forces, powers, or true causes in the material and sensible world."[35] But the way forward is not to shift toward event causation. Instead, we should look in the right place for causal agency; we should look toward the one eternal and constantly efficacious substance, God.

A critical part of Malebranche's case for occasionalism is the widely accepted claim that matter is purely passive: that "bodies have no action; and when a ball that is moved collides with and moves another, it communicates to it nothing that it has, for it does not itself have the force it communicates to it."[36] In Berkeley a similar claim helps to undermine the very existence of a material world.[37] With this we return to Godfrey of Fontaines's pass-through argument, now with both premises fully embraced. Malebranche and Berkeley accordingly accept a version of that

[32] *De corpore* 9.3 (Hobbes 1839–1845; repr. Hobbes 1905).

[33] Meditation 3 (Descartes 1984–1991, VII:41).

[34] *Essay* II.26.1 (Locke 1975). This passage is a good example of Locke's using '*idea*,' in italics, to refer not just to the contents of our mind but also to sensible qualities in the world. Although to modern readers this is liable to seem an embarrassing blunder, for Locke it was his considered view about how the Greek term should best be deployed in philosophical English. (He warns the reader of this usage at II.8.8.) It strikes us today as confused only because this is one of the rare places where Lockean terminology did not become standard.

[35] *Search after Truth* VI.2.3 (Malebranche 1997, pp. 446, 449).

[36] *Search after Truth* VI.2.3 (Malebranche 1997, p. 448). Hume, with the occasionalists in mind, remarks that "matter, say they, is in itself entirely unactive, and deprived of any power by which it may produce, or continue, or communicate motion" (*Treatise* I.3.14 [Hume, 1978, p. 159]).

[37] *Principles of Human Knowledge* (Berkeley 1948–1957, par. 70). See also *De motu* (Berkeley 1948–1957, par. 22) and a letter to Samuel Johnson on 25 Nov. 1729 (Berkeley 1948–1957, II:280).

argument's conclusion—that there is no efficient causation among bodies. But although they pick up the murder weapon and give it a mighty swing, they aim at a different target. Instead of wielding the pass-through argument against the causation of things in general, they use it to shift the locus of causal agency toward immaterial things. As for authors who retain the causal efficacy of bodies, like Hobbes and Locke, the passivity of matter implies only that material bodies cannot be self-actualizing. As Locke puts it, "matter, then, by its own strength, cannot produce in itself so much as motion; the motion it has must also be from eternity, or else be produced and added to matter by some other being more powerful than matter."[38] But this tells us only that a body cannot move itself. That leaves room for Locke to treat bodies and their qualities as Godfrey had, as transeunt causes, set in motion by some prior cause. Locke, then, at least in the case of bodies, endorses the first premise of the pass-through argument but not the second.[39]

We are, then, getting closer to our quarry. What we still have not found, however, is anyone who even entertains the idea that causality is a relation between events. The main reason for this is that post-scholastic authors, all the way through Berkeley, retain the Aristotelian assumption that efficient causes will have real efficacy. At the same time, however, they are even less inclined than their predecessors to give serious ontological standing to events. Scholastic talk of *entia successiva* was dismissed as typical scholastic obscurantism. And although one finds in Descartes the idea, drawn from Suárez, that motion might be a mode of body,[40] even this was subject to much doubt. Leibniz, for instance, denies that motion is a real being at all. And Malebranche dismisses the whole subject as hopeless: "others would have secondary causes act truly through their *action*, but they find such great difficulty in explaining precisely what this action is, and there are so many different views on the matter, that I cannot bring myself to relate them."[41] For Malebranche the very idea of a causal role for events is a non-starter, because if created things are too passive to count as agents then how could events fare any better? The pass-through argument, after all, might apply to events just as well as it applies to things.

Enter David Hume. For as long as the default assumption was causal realism—understood as a cause's exercising real efficacy on its effect—there was not a single author who championed events as causes. With Hume, we get for the first time the serious possibility—what the *Treatise of Human Nature* calls "the most violent" paradox of the entire work—that "the efficacy or energy of causes is neither placed in the causes themselves, nor in the deity, nor in the concurrence of these two principles; but belongs entirely to the soul. . . ."[42] Once philosophers begin to take such causal anti-realism seriously, the principal objection to event causation disappears. For if we follow Hume

[38] *Essay* IV.10.10 (Locke 1975).

[39] In a passage added to the fourth edition of the *Essay*, at II.21.72 (Locke 1975), Locke endorses self-motion in the context of voluntary action. There he distinguishes "passive power" from a special sort of case where "the substance, or agent, puts itself into action by its own power, and this is properly active power. . . . The active power of motion is in no substance which cannot begin motion in itself, or in another substance when at rest." Locke affirms that human beings have this active power, but he cautiously omits any specific guidance about where exactly this active power is found. Although this looks very much like an endorsement of agent causation, recent commentators tend to doubt that this was Locke's intention (see e.g. Yaffe 2000, pp. 80–81). The general verdict of Locke's contemporaries was that this chapter of the *Essay* was a disappointing confusion (see Harris 2005, ch. 1).

[40] See *Metaphysical Disputations* 48–49 (Francisco Suárez 1597) and Descartes, *Principles of Philosophy* I.48 (Descartes 1984–1991).

[41] *Search after Truth*, elucidation 15 (Malebranche 1997, p. 659), original emphasis. For the denial of the reality of motion see Leibniz (1969), pp. 99, 102, 445.

[42] *Treatise* I.3.14 (Hume 1978, p. 166). Here I take for granted the usual anti-realist reading of Hume. Those who think that Hume does not really mean this claim quoted in the main text, and that he intends only to raise skeptical worries about

in treating causation as nothing more than those constant conjunctions whose occurrence we expect, then *anything* can in principle be the termini of the causal relationship, including even the hitherto dubious category of events.

As noted in §1, Hume consistently describes causal relata as "objects." In speaking this way, he is in part simply following the orthodoxy of two millennia, supposing that his readers will be thinking of causation in terms of the things that act and are acted on. But the consistency with which he uses that term suggests that he has chosen his language with some care. The term 'object' (deriving from the Latin *obicio* = to set before) has as its initial core meaning *that which is placed before the senses*. Early on, the term takes on its more general modern sense, as referring to a concrete substance-like thing, but in Hume's discussion of causation it is important to hear that initial core meaning.[43] When he speaks, as he does hundreds of times in the *Treatise*, of the causal connection between "objects," he plainly does not mean to limit himself to any particular category of being. Sometimes an object will be the thing "possessed of quantity and quality," but other times substances and qualities get mixed together, as when he speaks of "all other objects, such as fire and water, heat and cold."[44] Sometimes he includes events as causal relata, as when he writes that "it is only causation which produces such a connexion as to give us assurance, from the existence or action of one object, that it was followed or preceded by any other existence or action."[45] That the term 'object' is meant to range over all such causal relata is clear when he offers his concluding twin definitions of cause as "an object precedent and contiguous to another…."[46]

At first glance, the *Enquiry concerning Human Understanding* proceeds differently. Here talk of "events" is suddenly rampant, and many of Hume's most memorable formulations are rendered in that language, as in these lines:

> It appears that, in single instances of the operation of bodies, we never can, by our utmost scrutiny, discover anything but one event following another.… All events seem entirely loose and separate. One event follows another, but we never can observe any tie between them.[47]

Passages like these have suggested to casual readers that Hume is committed to the event-causal framework. There is, however, no reason to think that Hume's views in this respect have shifted in any substantive way. First 'event' is another word that, in Hume, still has Latinate overtones, as referring to an outcome, or to what has happened.[48] In some cases, as with his familiar example of the motion of two billiard balls, the "events" in question are clearly events in our modern

our knowledge of the grounds of causal efficacy, reduce his treatment of causality to little more than the sort of banal skepticism that had already been familiar for centuries.

[43] See the principal entry for the noun 'object' in the *Oxford English Dictionary* (Simpson and Weiner 1989): "Originally: something placed before or presented to the eyes or other senses. Now (more generally): a material thing that can be seen and touched." For a general discussion see Grene (1994).

[44] *Treatise* I.1.7 (Hume 1978, p. 20); *Treatise* I.1.5 (Hume 1978, p. 15).

[45] *Treatise* I.3.2 (Hume 1978, pp. 73–74). See also *Treatise* I.3.14 (Hume 1978, p. 166). References to "action" in the *Treatise*'s discussion of causation are, however, rare, and there are no reference to "events."

[46] *Treatise* I.3.14 (Hume 1978, p. 170). See also Hume's Abstract to the *Treatise*, speaking of billiard balls: "'Tis evident likewise, that the motion, which was the cause, is prior to the motion, which was the effect" (Hume 1978, p. 649).

[47] *Enquiry* sec. 7 pt. 2 (Hume 1975, pp. 73, 74).

[48] The *Oxford English Dictionary* defines 'event' in its primary (now rare) sense as "the outcome of an action or occurrence; a result, a consequence." Another influence on Hume's usage is the technical sense of 'event' in early modern probability

sense. But when he famously speaks, as above, of "all events" being "loose and separate" he is speaking quite inclusively, ranging over everything that comes about. Accordingly, the *Enquiry* elsewhere continues to treat bodies and their qualities as both cause and effect,[49] and also to refer to events as themselves objects.[50] Most tellingly, when he reformulates his two definitions of cause, he continues to speak, as he had in the *Treatise*, of the "object" that lies on each end of the causal relationship.[51] To eighteenth-century ears, Hume's varying talk of 'object' and 'event' would not strongly suggest relata of fundamentally different sorts.

That Hume's conception of cause and effect would be so inclusive should not, on reflection, be surprising. If causation is simply a matter of an observed sequence to which we become accustomed, then it is unsurprising that he saw no reason to privilege one sort of sequence over another. One motion can necessitate another, giving us something that looks like event causation, but on the face of things it looks as if one body, situated in a certain way, can just as well necessitate another. Since the necessity that characterizes causation "belongs entirely to the soul" (as above), the only constraint on what counts as cause and effect, from Hume's point of view, is the limits to what sorts of connections we can come to expect. And Hume is clear from the start of his discussion that there can be no limitation to the candidates for being causal relata: "there is nothing existent, either externally or internally, which is not to be considered either as a cause or an effect."[52] Accordingly, the very terms of his theory ensure the survival of causation between things.

5 | DÉNOUEMENT

If Hume was not the killer, who was? Back in §3, seeking to instill a certain Hitchcockian suspense into the proceedings, I revealed the bomb beneath the table, the pass-through argument. Although many pages have passed, the weapon has not yet claimed its victim. The closest we have come is Malebranche, who accepts both premises of the argument, but only in the case of material things. Accordingly, rather than reject thing-causation, he restricts it to the immaterial domain, and denies that there is any kind of real causation connecting material entities. That may be a crime, but it is one that would require its own separate inquiry.

Our trail grows warmer when we come to Samuel Clarke. In 1717, Anthony Collins had imprudently listed Clarke among those who shared Collins's enthusiasm for determinism. Clarke immediately penned a response that dismantles, piece by piece, Collins's rather amateurish essay.

theory, as "any of the possible outcomes of a given trial" (*OED* n. 6), a usage that appears extensively in *Treatise* I.3.11–12 (Hume 1978) and *Enquiry* sec. 6.

[49] See, for instance, *Enquiry* sec. 4 pt. 1 (Hume 1975, pp. 31–32): "When we reason a priori, and consider merely any object or cause as it appears to the mind, independent of all observation, it never could suggest to us the notion of any distinct object such as its effect, much less show us the inseparable and inviolable connexion between them. A man must be very sagacious who could discover by reasoning that crystal is the effect of heat, and ice of cold, without being previously acquainted with the operation of these qualities."

[50] *Enquiry* sec. 7 pt. 2 (Hume 1975, p. 75): "when one particular species of event has always, in all instances, been conjoined with another… we then call the one object *Cause*, the other *Effect*."

[51] *Enquiry* sec. 7 pt. 2 (Hume 1975, pp. 76–77).

[52] *Treatise* I.3.2 (Hume 1978, p. 75). It might be charitable to Hume to read his causal theory inclusively. But, as a referee observed, a reader seeking greater precision might instead conclude that Hume's various conditions cannot be jointly satisfied by any one kind of entity, "thereby rendering the causal relation ontologically incoherent" (Jaegwon Kim 1973, p. 218).

To Collins's claim that the will must have a necessitating cause or it would have no cause at all,[53] Clarke responds with a version of the pass-through argument for the converse conclusion: that anything that is to count as causation must be non-necessitated, because merely passive links in a necessitated chain of events should not be regarded as causes at all. Like Malebranche, Clarke accepts the conclusion of the pass-through argument when it comes to inanimate bodies: "whatever acts necessarily does not indeed act at all but is only acted upon, is not at all an agent but a mere patient, does not move but is moved only."[54] But Clarke does not go as far as Malebranche, both because Clarke thinks finite minds are capable of moving bodies, and because he thinks other animals are also capable of serving as causal agents.[55]

Here we find the same pattern that we saw in the Middle Ages: that the threat of the pass-through argument serves mainly to provoke an interest in agent causation, now limited to the domain of sentient beings. This might suggest that our investigation, far from making progress, is heading in precisely the wrong direction. Yet in the best tradition of the whodunit genre, it is in this unlikely precinct that we need to look to find our assassin. For if we continue down this path a little farther, to the next generation of libertarian theorists of freewill, we find a picture of causation inspired by Clarke, but now viewed through a Humean lens. Here, in the later eighteenth century, is where our investigation ends, with the most unlikely of assassins, the man who is generally thought to be the great historical champion of causation between things but who in fact turns out to be its killer, Thomas Reid.

The scene of the crime is Reid's *Essays on the Active Powers of Man*, where he makes an extended case for the thesis that only minds can be efficient causes, and that ordinary bodies are merely vehicles through which causal efficacy is communicated down long chains of transmission. The critical line of thought that is meant to secure this result is the pass-through argument:

> Matter cannot be the cause of anything; it can only be an instrument in the hands of a real cause. Thus, when a body has a certain force given it by impulse, it may communicate that force to another body, and that to a third, and so on. But, when we trace back this motion to its origin, it must have been given not by matter but by some being which had in itself the power of beginning motion—that is, by a proper efficient cause of motion.[56]

I take this passage to offer as clear a statement of the pass-through argument as one could want. The argument in Reid's hands plays its now-familiar role: not to undermine thing-causation in

[53] *A Philosophical Inquiry concerning Human Liberty* (Collins 1717, p. 57): "A second reason to prove man a necessary agent is because all his actions have a beginning. For whatever has a beginning must have a cause; and every cause is a necessary cause." Clarke is invoked as a champion of determinism at Collins (1717), pp. 109–11.

[54] "Remarks upon a Book Entitled *A Philosophical Enquiry concerning Human Liberty*," in Clarke (1738), IV:722. See also Clarke (1738), IV:730 and the first paragraph of IV:729. Clarke's earlier *Demonstration of the Being and Attributes of God*, sec. IX, gestures toward this same idea very briefly (Clarke 1998, p. 46; Clarke 1738, II:548). For the broader context of Clarke's thinking about freewill see Rowe (1991) ch. 2, and Harris (2005) ch. 2.

[55] "Remarks" (Clarke 1738, IV:729). Clarke at this point draws a distinction between the sort of self-motion required for agency, which animals in general have, and the sort of moral agency required for freedom, which only rational agents have.

[56] Letter to James Gregory, 14 June 1785 (Reid 2002, p. 175; Reid 1863, I:66a). Most studies of Reid in this domain focus on his conception of the mind's agency and its relationship to human freedom. So far as I can find, no one has noticed the way that Reid highlights the role of events in causation. For general discussions of Reid's account of causality see Rowe (1991) ch. 4; Tuggy (2000); Van Cleve (2015) ch. 14; Yaffe (2004) chs. 1–2.

general, but merely to restrict "real" and "proper" efficient causality to beings that are capable of self-motion. What we can be most confident of is that we ourselves are causes: "Every man knows infallibly that what is done by his conscious will and intention is to be imputed to him, as the agent or cause."[57] From there we extend causal agency analogically to other human beings.[58] Beyond that, there is no reason to think that other natural agents have any causal power:

> It seems, therefore, to me most probable that such beings only as have some degree of understanding and will can possess active power, and that inanimate beings must be merely passive, and have no real activity. Nothing we perceive without us affords any good ground for ascribing active power to any inanimate being; and everything we can discover in our own constitution leads us to think that active power cannot be exerted without will and intelligence.[59]

To call this conclusion "most probable" is to stress that it has not been proved. For all we know, Reid admits, there may be active powers everywhere in nature. But given that the only active powers we are acquainted with operate through "understanding and will," it is most likely that real causal efficacy lies only there. So although Reid does not go as far as Malebranche and embrace a fully occasionalist picture, he does go beyond Clarke. Whereas Clarke thought it clear that all sentient beings are possessed of genuine causal efficacy, Reid thinks genuine agency is found only among immaterial beings possessed of minds.

By itself, this constriction of the sphere of true efficient causation does nothing to prove Reid's guilt, any more than it did Malebranche's or Clarke's. The difference in Reid's case is that, beyond this narrow sphere, he tends to conceive of the natural world at large as merely a sequence of events. The following passage offers a good sense of his worldview:

> From the course of events in the natural world, we have sufficient reason to conclude the existence of an eternal intelligent First Cause. But whether he acts immediately in the production of those events, or by subordinate intelligent agents, or by instruments that are unintelligent, and what the number, the nature, and the different offices of those agents or instruments may be, these I apprehend to be mysteries placed beyond the limits of human knowledge. We see an established order in the succession of natural events, but we see not the bond that connects them together.[60]

Our evidence for God's existence is "sufficient," but outside of that the workings of nature go "beyond the limits" of what we will ever understand. Reid makes an exception for our first-personal infallible awareness of our own agency, which can then be extended by analogy to other human beings, but, these narrow exceptions aside, the workings of nature are a mystery.

The first and last sentences of this last passage provide key pieces of evidence. Like everyone writing in the wake of the empiricist tradition, Reid is persuaded that we do not see "the bond" that connects things causally. But what is new in Reid is that he identifies the observable relata as events. Thus, here, it is "the course of events" that gives us reason to believe in God. And, rather

[57] *Essays on the Active Powers of Man* I.5 (Reid 2010, p. 31; Reid 1863, II:524a).

[58] Letter to Lord Kames, 16 December 1780 n. 14 (Reid 2002, p. 144; Reid 1863, I:58b).

[59] *Essays on the Active Powers* I.5 (Reid 2010, p. 33; Reid 1863, II:525a).

[60] *Essays on the Active Powers* I.5 (Reid 2010, p. 28; Reid 1863, II:522b).

than see causal connections, "we see an established order in the succession of natural events." Earlier on the same page, he fleshes out that idea a bit more:

> We can derive little light in this matter from the events which we observe in the course of nature. We perceive changes innumerable in things without us. We know that those changes must be produced by the active power of some agent; but we neither perceive the agent nor the power, but the change only. Whether the things be active, or merely passive, is not easily discovered.[61]

Reid means here to flourish his credentials as an empiricist but, whether he knows it or not, he is innovating. The earlier tradition had put no such weight on events—"changes"—in their analyses of causation. For Reid, this has become the key empirical element in the story:

> It seems to me that if I was not conscious of activity in myself I could never, from things I see about me, have had the conception, or idea, of active power. I see a succession of changes, but I see not the power that is the efficient cause of them.[62]

The influence of Hume seems clear in this passage.[63] But Reid departs from Hume in ways that are critical to our story. First, he takes the utterly un-Humean view that there is a special domain of real agency. Second, he emphasizes, in a way that Hume never did, that the successions we observe are successions of events, where events are understood specifically as "changes." Third, for the first time I can find in the history of philosophy, Reid consistently treats all *effects* as events.[64] That all by itself is a remarkable witness to Reid's importance in the reorientation of causal theory away from things and toward events.

Our inquiry, however, concerns mainly the *cause* side of the causal relationship, and here the reader is likely still to harbor reasonable doubts. For even if Reid regularly treats effects as events, and even if he conceives of the natural world as simply a great sea of one event crashing into another, still he resolutely insists that these events are *not* causes, and that the *only* causes are immaterial minds. After all, as noted earlier, if the pass-through argument works against bodies it should also work against bodily events. And yet, despite Reid's official position, the principal result of his theory is to ensure the success of the event-causal framework within English-language philosophy going forward. The reason this happens is that, rather than flatly deny that there are inanimate causes, Reid offers a distinction between *efficient* or *metaphysical* causes, where there is true causal agency, and *physical* causes, where we find merely Humean regularity between events.

[61] Ibid.

[62] Letter to Lord Kames, 16 December 1780 n. 19 (Reid 2002, p. 145; Reid 1863, I:59a).

[63] Dugald Stewart remarks that "it is but justice to Mr. Hume to acknowledge, that his *Treatise of Human Nature* furnished to Dr. Reid all the premises from which his conclusions were drawn" (*Elements of the Philosophy of the Human Mind* II.4.1 [Stewart 1854–1860, III:248]). One might also point to Locke's influence, insofar as Reid treats the first-personal case as a basis for our familiarity with active power (compare Locke 1975 [*Essay* II.21.4]). But Reid himself regularly invokes Hume, albeit generally at an arm's distance. See e.g. his letter to James Gregory, March 1786 (Reid 2002, p. 180; Reid 1863, I:67b): "What D. Hume says of causes, in general, is very just when applied to physical causes, that a constant conjunction with the effect is essential to such causes, and implied in the very conception of them."

[64] Reid is very consistent in treating effects as events. See, e.g., *Essays on the Active Powers* I.1 (Reid 2010, p. 13; Reid 1863, II:515a): "That which produces a change by the exertion of its power we call the cause of that change, *and the change produced, the effect of that cause*." See also *Essays on the Active Powers* IV.9 (Reid 2010, p. 249; Reid 1863, II:626b), where he reformulates Priestley's determinism in terms of events.

Why would he encourage such a distinction? He does so because he wants to allow some sort of place for the achievements of natural philosophy:

> Modern philosophers know that we have no ground to ascribe efficiency to natural causes, or even necessary connection with the effect. But we still call them causes, including nothing under the name but priority and constant conjunction. Thus the giving the name of causation to the relation of connected events in physics is, in modern philosophers, a kind of abuse of the name, because we know that the thing most essential to causation in its proper meaning—to wit, efficiency—is wanting. Yet this does not hinder our notion of a physical cause from being distinct and determinate, though, I think, it cannot be said to be of the same genus with an efficient cause or agent.[65]

Reid is not here arguing for why, in the first sentence, "we have no ground to ascribe efficiency to natural causes." For that one needs the pass-through argument, which we saw him deploy earlier. What Reid gives us here are his instructions for how the new science can move forward without appealing to genuinely efficient causes. Even if event causation is an "abuse of the name," Reid sees it as essential to the new science, inasmuch as it grounds the laws of nature, the discovery and application of which he takes to be "the whole object of natural philosophy."[66] As long as physicists are clear about what they are doing—and Reid holds up Newton as exemplary in this regard—we can happily celebrate their achievements. We should not suppose, however, that they have made even the slightest progress in discovering the true, metaphysical causes of things.

With these remarks, Reid unwittingly imposes a sentence of death on causation between things. For despite his heroic efforts to safeguard a sphere for true metaphysical agency, his strategy for so doing leaves such a narrow space for thing-causation, and requires such an implausible divide between human nature and the rest of the natural world, that the mainstream of subsequent theorizing simply sets to one side Reid's metaphysical speculations, and embraces the story he had to offer about physical causation. The tendencies of philosophy in the two centuries to come, at least in the English-speaking world, move away from speculative metaphysics toward a modest naturalism. Aside from small clusters of enthusiasts for agent causation, the part of Reid's causal theory that he cared about the most would be doomed to obsolescence, leaving his true influence to be felt in what he tossed off as a sop to the natural philosophers. In seeking to protect the causality of things, Reid instead showed the way toward dispensing with thing-causation entirely.

6 | VERDICT AND SENTENCE

The irony in all of this can hardly be overstated. It turns out to be the greatest modern champion of agent causation who is responsible for the general shift in philosophy away from causation between things, toward a causality of events. To be clear, Reid's crime is not murder but some-

[65] Letter to James Gregory, circa 1792 (Reid 2002, p. 243; Reid 1863, I:76a). Reid distinguishes between the "physical" and "metaphysical" sense of causation in an earlier letter to Gregory, from 23 September 1785 (Reid 2002, p. 178; Reid 1863, I:67a). Usually, though, he contrasts merely physical causes with real *efficient* causes.

[66] *Essays on the Active Powers* I.6 (Reid 2010, p. 37; Reid 1863, II:527a). Here Reid refers to these laws as themselves physical causes. In his essay "Of Power" he describes Newton's quest for laws as an attempt to rid science of causes (Reid 2001, p. 7).

thing more like involuntary manslaughter. He did not mean to kill off thing-causation, only to limit it to its proper sphere. And in introducing events as physical causes, he did not mean to suggest that this would be an adequate replacement for the causality of things. On the contrary, Reid took that prospect to be so obviously intolerable that he supposed it would deter anyone—other than the most rabid Humean—from treating physical causes as true causes. Reid was, in effect, counting on his readers to see that the pass-through argument applies to events even more clearly than it does to things. It is "a kind of abuse of the name" to characterize the bare relation of connected events as causation, because "the thing most essential to causation in its proper meaning—to wit, efficiency—is wanting" (as above). Accordingly, in describing a world without agent causation as a world of mere events, connected by utterly mysterious laws, Reid supposed we would feel no choice but to postulate real agency somewhere in nature.

Here, then, lies Reid's motive: he intended to poison the well of deterministic, material causation, forcing even the strictest of empiricists to take seriously the need for immaterial agent causes. The pass-through argument serves as his weapon inasmuch as it spoils any prospects for causation beyond the special domain of agent causation. Alas, as has been known to happen in the annals of true crime, the poison worked on the wrong target. Rather than prove the need for immaterial minds as the true agents in nature, Reid pointed the way to a wholly naturalistic story of causation as a regular connection between events. Whereas earlier figures (Hume, Ibn Sīnā, even Aristotle) had allowed that events *could be* causes, Reid offered a developed account of how events could be treated as the *only* causes, and gifted this account to the natural sciences. The account leaves the pass-through argument intact in the sphere of genuine "efficiency," and so precludes anything other than a self-moving cause from counting as a true cause. At the same time it licenses a different way of talking about causes. Inspired by Hume, Reid allows that a regular sequence of events can count as a causal sequence even though the only genuine efficiency to be found in such a story is one that merely passes through from link to link. Speaking with metaphysical strictness, no such link counts as a cause, but for the purposes of physics Reid deems it acceptable to talk that way. Crucially to subsequent developments, he stresses that if one is going to set aside the demand for real efficiency then one should treat the relata in causation as events. Reid's gift proved so satisfactory to subsequent generations that it was here that Reid's causal theory exercised its greatest influence. His own cherished doctrine of agent causation, and thing-causation in general, faded into irrelevance.

The case for Reid's guilt requires establishing that it was his thought in particular that led philosophers away from the causality of things. That influence is not hard to establish. Start with Reid's younger compatriot and philosophical ally, Dugald Stewart. Stewart champions a view of causation much like Reid's, and emphasizes even more strongly that, in the sphere of mere physical causation, the relata at issue are events. Consider this remarkable passage, which compares the connection of two bodies to the connection between cause and effect:

> Our language, with respect to cause and effect, is borrowed by analogy from material objects. Some of these we see scattered about us, without any connexion between them; so that one of them may be removed from its place without disturbing the rest. We can, however, by means of some material *vinculum*, connect two or more objects together, so that whenever the one is moved the others shall follow. In like manner, when we see some events which occasionally follow one another, and which are occasionally disjoined, we see others where the succession is constant and invariable. The former we conceive to be analogous to objects which are loose and unconnected with each other, and whose contiguity in place is owing merely to accidental position; the

> others to objects which are tied together by a material *vinculum*. Hence we transfer to such events the same language which we apply to connected objects. We speak of a connexion between two events, and of a chain of causes and effects.[67]

We think of causation, Stewart argues, analogously to how we think of two objects tied together with a rope or some other bond (*vinculum*). In the causal case, however, what are tied together are *events*, in cases "where the succession is constant and invariable." By contrasting object and event in this way, Stewart makes unmistakable the shift that has occurred toward an event-causal framework.

As the comparison suggests, Stewart does not think there is anything of metaphysical substance to this sort of "chain of causes and effects." Like Reid, Stewart thinks that when we leave real causal agency out of the story and consider only events, the best we can do is a broadly Humean account. But Stewart, again following Reid, embraces this side of the story as an account of how the sciences should be pursued:

> According to the doctrine now stated, the highest or rather the only proper object of physics is to ascertain those established conjunctions of successive events which constitute the order of the universe, to record the phenomena which it exhibits to our observations, or which it discloses to our experiments, and to refer these phenomena to their general laws.[68]

Again it is clear that, as far as physics is concerned, the event-causal perspective has taken control. Nor is it implausible to suppose that Reid and Stewart would be so important to subsequent developments, given their massive influence on British philosophy.[69] Beginning in the early nineteenth century, the event-causal framework starts to take hold. It is clear, for instance, in Thomas Brown:

> To know events as invariably antecedent and consequent 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 certain other changes or events.[70]

Not long thereafter, John Stuart Mill singles out "Reid and Stewart" as "the principal legislators (as far as the English language is concerned) of modern metaphysical terminology." And when Mill takes up the question of scientific method in the final book of his *System of Logic*, he begins by

[67] *Elements of the Philosophy of the Human Mind* I.1.2 (Stewart 1854–1860, II:98–99). This first volume of the *Elements* was first published in 1792. Other passages describing physical causation as a sequence of events can be found throughout *Elements* I.1.2 and II.4.1. Reid dedicated his *Essays on the Intellectual Powers of Man* to Stewart, and Stewart later published an "Account of the Life and Writings of Thomas Reid," which appears at the start of Reid (1863).

[68] *Elements* II.4.1 (Stewart 1854–1860, III:240). This second volume of the *Elements* was first published in 1814.

[69] Regarding Stewart's reputation, he "was enormously highly thought of in his own day, and had a European-wide reputation. At the time of his death he was described as 'the pride and ornament of Scotland', and a striking monument to him was erected on Edinburgh's Calton Hill" (Graham 2021, §2). For Stewart on freewill see Harris (2005), pp. 218–26.

My argument at this point focuses on English-language philosophy in part due to limits of space and expertise and in part because this is the tradition in which event causation became preeminent. Readers wondering about Kant should see Watkins (2005), ch. 4, which ascribes to Kant a causal power theory of causation rather than an event theory.

[70] Brown (1824), I:80. See also Brown (1835), p. 27. For Brown in general see Graham (2021) §2.

quoting the passage from Stewart that I have just quoted here.[71] Although Mill thinks it a mistake to limit causation to a relationship between events, he regards that as the default view against which a case needs to be made.

Even if Reid's influence is granted, an advocate for the defense might still accuse me of prosecutorial overreach, on the grounds that none of these consequences are Reid's fault.[72] Now, I have granted already that Reid's crime is not murder. What puts him at fault is his gross philosophical negligence. To advance the view that only rational minds are capable of causation is to make a proposal that is doomed from the start to be generally rejected. Now that, by itself, is hardly a crime, or else none of us shall escape whipping. Reid's fault is that he pairs his preferred doctrine with an event-causal alternative, and effectively tells the reader that, if they are *not* going to embrace his incredible agent-causal framework, then they should instead treat causes as mere events. Given this dialectic, the outcome was entirely predictable. Here again is Mill:

> To adopt a distinction familiar in the writings of the Scotch metaphysicians, and especially of Reid, the causes with which I concern myself are not efficient, but physical causes. They are causes in that sense alone, in which one physical fact is said to be the cause of another. Of the efficient causes of the phenomena, or whether any such causes exist at all, I am not called upon to give an opinion.[73]

What Mill here calls "efficient causes" are Reid's agential first causes, immaterial minds. Mill does not even bother to argue against them; he simply, and rather archly, sets them aside. This is a response that Reid should have foreseen and that, if he had wanted to save the causality of things, he ought to have fought much harder to prevent. Reid's crime, then, is philosophical negligence.

This leaves just one final task, to determine the appropriate sentence. Here we might want to hear from the friends and family of the victim, but it is not entirely clear who should be allowed to testify. We might distinguish four groups. First, there are the Humeans, and they plainly have nothing to complain of. Hume's anti-realist causal theory could indeed have had no greater champion than Reid, who managed with one blow both to discredit the causality of things and to make Humean causes scientifically respectable. Second, there are the Humeans' close cousins, the causal eliminativists. They too should do nothing but applaud Reid's deed. When Russell, in 1912, recommends the "complete extrusion" of causal vocabulary from philosophy,[74] he is barely even original. As we are now in a position to see, Russell is simply taking Reid at his word about so-called physical causes: that they are not causes at all. Third, there are those who seek to systematize the event-causal framework. The great modern champion of this approach is Davidson. But although his debt to Reid should now be clear, it is worth remembering how he concludes his great 1967 paper on event causation:

> This claim is persuasive only if there are such things as events to which singular terms may refer. But the assumption, ontological and metaphysical, that there are events, is one without which we cannot make sense of much of our most common talk; or so,

[71] *System of Logic* III.1 (Mill 1862, p. 318n and p. 312, quoting *Elements* II.4.1 [Stewart 1854–1860]).

[72] Here I am indebted to *amici* briefs for the defense filed by David Brink and Samuel Rickless.

[73] *System of Logic* III.5.2 (Mill 1862).

[74] Russell (1917), p. 180.

> at any rate, I have been arguing. I do not know any better, or further, way of showing what there is.[75]

With this Davidson acknowledges that the empiricist turn toward events as causes, if it is going to do serious explanatory work, comes at a price: we have to rethink our metaphysical commitments. Here, even if Reid's influence has been entirely beneficent, its tumultuous impact is clear, inasmuch as it effectively turns the whole history of metaphysics on its head. Those most obscure of entities, events, have become fundamental to causal explanation, even while what was previously most familiar, substances and their powers, are treated as doubtful legacies of our prescientific past.

Is there a victim here at all? The final irony is that the real victims are the members of a fourth group, the defenders of thing-causation. When Chisholm attempts in 1964 to rescue agent causes from the neglect into which they had fallen, he naturally cites Reid as an early inspiration. And because Chisholm does not see the blood on Reid's hands, he makes matters worse for agent causation by following in Reid's tradition, treating agent causation as an exceptional ability not available to the natural world in general, "a prerogative which some would attribute only to God."[76] If modern philosophers required a reminder of why they had given up on the causality of things, they could not have asked for anything better. Proponents of thing-causation have in this way been doubly wronged by Reid: first, by his giving their opponents a roadmap to the event-causal framework; secondly, by his saddling them with a wholly implausible account of what causation between things should look like. Those who would revive thing-causation today face the challenge of persuading the world that it need not be a supernatural phenomenon but might instead be embedded in a comprehensive theory of natural causation.[77] Have members of this fourth group incurred any real damages? Is philosophy instead better off without the causality of things? I leave that for the jury to decide.[78]

BIBLIOGRAPHY

Adams, M. M. (2022). *Housing the Powers: Medieval Debates about Dependence on God*. Oxford: Oxford University Press.

Albert the Great. (1951 –). *Opera omnia*, ed. B. Geyer et al. Münster: Aschendorff.

Annas, J. (1982). Aristotle on inefficient causes. *Philosophical Quarterly*, *32*, 311–326.

Aristotle. (1984). *The Complete Works of Aristotle: The Revised Oxford Translation*, ed. J. Barnes. Princeton: Princeton University Press.

Baron-Schmitt, N. (2024). Thing causation. *Nous*, Advanced online publication. https://doi.org/10.1111/nous.12494

Berkeley, G. (1948 –1957). *The Works of George Berkeley, Bishop of Cloyne*, ed. A. A. Luce & T. E. Jessop, 9 vols. London: Nelson.

Brown, T. (1824). *Lectures on the Philosophy of the Human Mind,* 3 vols. Philadelphia: John Grigg.

Brown, T. (1835). *Inquiry into the Relation of Cause and Effect*, 4th ed. London: Henry G. Bohn.

Buckareff, A. A. (2017). A critique of substance causation. *Philosophia*, *45*, 1019–1026.

[75] Davidson (1980), p. 162.

[76] Chisholm (1966), p. 23.

[77] For various recent efforts in this direction, more or less naturalistic in their approach, see Baron-Schmitt (2024), Ingthorsson (2021), Jacobs and O'Connor (2013), Lowe (2008), Skow (2018) ch. 5.

[78] I am grateful for the help of Nathaniel Baron-Schmitt, Jeffrey Brower, Rosalind Chaplin, Dinh-Vinh Colomban, Claire Etchegaray, Don Garrett, Tyler Huismann, Dan Jacobson, Monte Johnson, Marcy Lascano, Christopher Shields, Eric Watkins, an anonymous referee, and audiences at Chapel Hill, Paris-Nanterre, Hamburg, and UC San Diego.

Chisholm, R. M. (1966). Freedom and action. In K. Lehrer (Ed.), *Freedom and Determinism* (pp. 11–44). New York: Random House.
Clarke, S. (1738). *Works*, 4 vols. London: John and Paul Knapton.
Clarke, S. (1998). *A Demonstration of the Being and Attributes of God and Other Writings*, ed. E. Vailati. Cambridge: Cambridge University Press.
Collins, A. (1717). *A Philosophical Inquiry concerning Human Liberty*, 2nd ed. London: R. Robinson.
Davidson, D. (1980). Causal relations. In *Essays on Actions and Events* (pp. 149–162). Oxford: Clarendon Press.
Descartes, R. (1984 –1991). *The Philosophical Writings of Descartes*, tr. J. Cottingham, R. Stoothoff, D. Murdoch, & A. Kenny, 3 vols. Cambridge: Cambridge University Press.
Ehring, D. (2009). Causal relata. In H. Beebee, Ch. Hitchcock, & P. Menzies (Eds.), *Oxford Handbook of Causation* (pp. 387–413). Oxford: Oxford University Press.
Fine, G. (1987). Forms as causes: Plato and Aristotle. In A. Graeser (Ed.), *Mathematics and Metaphysics in Aristotle* (pp. 69–112). Bern: Paul Haupt.
Francisco Suárez. (1597). *Metaphysicae disputationes*, 2 vols. Salamanca.
Francisco Suárez. (1994). *On Efficient Causality: Metaphysical Disputations 17, 18, and 19*, tr. A. J. Freddoso. New Haven, CT: Yale University Press.
Frede, M. (1987). The original notion of cause. In *Essays in Ancient Philosophy* (pp. 125–150). Minneapolis: University of Minnesota Press.
Frost, G. (2019). What is an action? Peter Auriol vs. Thomas Aquinas on the metaphysics of causality. *Ergo*, *6*, 1259–1285.
Gallow, J. D. (2022). The metaphysics of causation. In E. N. Zalta & U. Nodelman (Eds.), *The Stanford Encyclopedia of Philosophy* https://plato.stanford.edu/archives/fall2022/entries/causation-metaphysics/
al-Ghazālī. (1933). *Algazel's Metaphysics: A Medieval Translation*, ed. J. T. Muckle. Toronto: St. Michael's College.
Godfrey of Fontaines. (1914). *Les Quodlibets cinq, six et sept*, ed. M. De Wulf & J. Hoffmans. Leuven: Institut supérieur de Philosophie de l'Université.
Godfrey of Fontaines. (1924 –1931). *Le huitième Quodlibet, Le neuvième Quodlibet, Le dixième Quodlibet*, ed. J. Hoffmans. Leuven: Institut supérieur de Philosophie de l'Université.
Godfrey of Fontaines. (1932 –1935). *Les Quodlibets onze–quatorze*, ed. J. Hoffmans. Leuven: Institut supérieur de Philosophie de l'Université.
Graham, G. (2021). Scottish philosophy in the 19th century. In E. N. Zalta & U. Nodelman (Eds.), *The Stanford Encyclopedia of Philosophy* https://plato.stanford.edu/archives/fall2021/entries/scottish-19th/
Grene, M. (1994). The objects of Hume's *Treatise*. *Hume Studies*, *20*, 163–177.
Harré, R. and E. H. Madden (1975). *Causal Powers: A Theory of Natural Necessity*. Oxford: Blackwell.
Harris, J. A. (2005). *Of Liberty and Necessity: The Free Will Debate in Eighteenth-Century British Philosophy*. Oxford: Clarendon Press.
Hartman, P. J. (2014). Causation and cognition: Durand of St.-Pourçain and Godfrey of Fontaines on the cause of a cognitive act. In A. Speer et al. (Eds.), *Durand of Saint-Pourçain and His Sentences Commentary: Historical, Philosophical, and Theological Issues* (pp. 229–256). Leuven: Peeters.
Henry of Ghent. (1979 –). *Opera Omnia*, ed. R. Macken et al. Leiden: Brill.
Henry of Ghent. (1993). *Quodlibetal Questions on Free Will*, tr. R. J. Teske. Milwaukee: Marquette University Press.
Hobbes, T. (1839 –1845). *The English Works of Thomas Hobbes of Malmesbury*, ed. W. Molesworth, 11 vols. London: J. Bohn.
Hobbes, T. (1905). *The Metaphysical System of Hobbes*, ed. M. W. Calkins. Chicago: Open Court.
Hoffmann, T. (2020). *Free Will and the Rebel Angels in Medieval Philosophy*. Cambridge: Cambridge University Press.
Huismann, T. (2022). Aristotle on how efficient causation works. *Archiv für Geschichte der Philosophie*, *104*, 633–687.
Hume, D. (1975). *Enquiries concerning the Human Understanding and concerning the Principles of Morals*, ed. L. A. Selby-Bigge, 3rd ed. rev. by P. H. Nidditch. Oxford: Clarendon Press.
Hume, D. (1978). *A Treatise of Human Nature*, ed. L. A. Selby-Bigge, 2nd ed. rev. by P. H. Nidditch. Oxford: Clarendon Press.
Ibn Rushd. (1562). *Aristotelis opera cum Averrois commentariis*, 10 vols. Venice: apud Junctas.
Ibn Sīnā. (2005). *The Metaphysics of 'The Healing*,' tr. M. E. Marmura. Provo, UT: Brigham Young University Press.
Ingthorsson, R. D. (2021). *A Powerful Particulars View of Causation*. New York: Routledge.

Jacobs, J. D. & T. O'Connor (2013). Agent causation in a neo-Aristotelian metaphysics. In S. C. Gibb, E. J. Lowe, and R. D. Ingthorsson (Eds.), *Mental Causation and Ontology* (pp. 173–192). Oxford: Oxford University Press.

John Duns S. (1997 –1998). *Questions on the Metaphysics of Aristotle*, tr. G. J. Etzkorn and A. B. Wolter. St. Bonaventure, NY: Franciscan Institute.

Kent, B. (1995). *Virtues of the Will: The Transformation of Ethics in the Late Thirteenth Century*. Washington, DC: Catholic University of America Press.

Kim, J. (1973). Causation, nomic subsumption, and the concept of event. *Journal of Philosophy*, *70*, 217–236.

Leibniz, G. W. (1969). *Philosophical Papers and Letters*, ed. L. E. Loemker, 2nd ed. Dordrecht: Reidel.

Locke, J. (1975). *An Essay concerning Human Understanding*, ed. P. H. Nidditch. Oxford: Clarendon Press.

Lowe, E. J. (2008). *Personal Agency: The Metaphysics of Mind and Action*. Oxford: Oxford University Press.

Maier, A. (1982). *On the Threshold of Exact Science: Selected Writings of Anneliese Maier on Late Medieval Natural Philosophy*, tr. S. D. Sargent. Philadelphia: University of Pennsylvania Press.

Malebranche, N. (1997). *The Search after Truth*, tr. T. M. Lennon and P. J. Olscamp. Cambridge: Cambridge University Press.

Meyer, S. S. (1993). *Aristotle on Moral Responsibility: Character and Cause*. Oxford: Blackwell.

Mill, J. S. (1862). *A System of Logic, Ratiocinative and Inductive*, 5th ed., 2 vols. London: Parker, Son, and Bourn.

Pasnau, R. (2004). "Form, substance, and mechanism," *Philosophical Review*, *113*, 31–88.

Pasnau, R. (2011). *Metaphysical themes 1274–1671*. Oxford: Clarendon Press.

Pickavé, M. (2012). Que signifie 'être libre'? Le cas Henri de Gand. *Médiévales*, *63*, 91–104.

Putallaz, F.-X. (1995). *Insolente liberté: controverses et condamnations au XIII^e siècle*. Paris: Cerf.

Reid, T. (1863). *Works*, ed. W. Hamilton, 6th ed. Edinburgh: Maclachlan and Stewart.

Reid, T. (2001). Of power, ed. J. Haldane, *Philosophical Quarterly*, *51*, 1–12.

Reid, T. (2002). *The Correspondence of Thomas Reid*, ed. P. Wood. University Park, PA: The Pennsylvania State University Press.

Reid, T. (2010). *Essays on the Active Powers of Man*, ed. K. Kaakonssen and J. A. Harris Edinburgh: Edinburgh University Press.

Rowe, W. L. (1991). *Thomas Reid on Freedom and Morality*. Ithaca: Cornell University Press.

Russell, B. (1917). On the notion of cause. In *Mysticism and Logic and Other Essays* (pp. 180–208). London: George Allen.

Schierbaum, S. & J. Müller (2024). *Varieties of Voluntarism in Medieval and Early Modern Philosophy*. New York: Routledge.

Schmid, S. (2015). Efficient causality: the metaphysics of production. In J. L. Fink (Ed.), *Suárez on Aristotelian Causality* (pp. 84–120). Leiden: Brill.

Simpson, J. A. & E. S. C. Weiner (1989). *The Oxford English Dictionary*, 2nd ed. Oxford: Clarendon Press.

Skow, B. (2018). *Causation, Explanation, and the Metaphysics of Aspect*. Oxford: Oxford University Press.

Sorabji, R. (1980). *Necessity, Cause, and Blame: Perspectives on Aristotle's Theory*. London: Duckworth.

Stein, N. (2023). *Causality and Causal Explanation in Aristotle*. Oxford: Oxford University Press.

Stewart, D. (1854 –1860). *The Collected Works*, ed. W. Hamilton, 11 vols. Edinburgh: Thomas Constable.

Swinburne, R. (1997). The irreducibility of causation. *Dialectica*, *51*, 79–92.

Thomas A. (1975). *Summa contra gentiles*, tr. A. C. Pegis et al. Notre Dame, IN: University of Notre Dame Press.

Thomas A. (2014). *Basic Works*, tr. J. Hause and R. Pasnau. Indianapolis: Hackett.

Tuggy, D. (2000). Thomas Reid on causation. *Reid Studies*, *3*, 3–27.

Tuozzo, T. M. (2014). Aristotle and the discovery of efficient causation. In T. M. Schmaltz (Ed.), *Efficient Causation: A History* (pp. 23–47). Oxford: Oxford University Press.

Tuttle, J. (2016). Suárez's non-reductive theory of efficient causation. *Oxford Studies in Medieval Philosophy*, *4*, 125–158.

Van Cleve, J. (2015). *Problems from Reid*. New York: Oxford University Press.

Watkins, E. (2005). *Kant and the Metaphysics of Causality*. New York: Cambridge University Press.

Wippel, J. F. (1981). *The Metaphysical Thought of Godfrey of Fontaines: A Study in Late Thirteenth-Century Philosophy*. Washington, DC: Catholic University of America Press.

Yaffe, G. (2000). *Liberty Worth the Name: Locke on Free Agency*. Princeton: Princeton University Press.

Yaffe, G. (2004). *Manifest Activity: Thomas Reid's Theory of Action*. Oxford: Clarendon Press.

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