EFFICIENT CAUSATION – A HISTORY. Edited by Tad M. Schmaltz. Oxford Philosophical Concepts. Oxford New York: Oxford University Press, 2014. Pp. xiv+372. Hard Cover \$99, ISBN: 978-0-19-978218-5; Paperback: \$35, ISBN: 978-0-19-978217-8.

A new series entitled Oxford Philosophical Concepts (OPC) made its debut in November 2014. As the series' Editor Christia Mercer notes, this series is an attempt to respond to the call for and the tendency of many philosophers to invigorate the discipline. To that end each volume will rethink a central concept in the history of philosophy, e.g. efficient causation, health, evil, eternity, etc. "Each OPC volume is a *history* of its concept in that it tells a story about changing solutions to specific philosophical problems" (xiii). The series presents itself as innovative along three main lines: its reexamination of the so-called "canon," its reconsidering the value of interdisciplinary exchanges, and its encouraging philosophers to move beyond the current borders of philosophy. By engaging with non-Western traditions and carefully considering topics and materials which are not strictly philosophical, the collections from this series aim to render the history of philosophy accessible to a wide audience.

The first OPC volume to appear in print is "Efficient Causation – A History" edited by Tad Schmaltz. Using careful historical and philosophical analysis as well as interdisciplinary reflections this anthology proposes to tell the story of how efficient causation, equated nowadays with "causation" tout court, came to play its prominent role in our philosophical and scientific vocabulary. Eleven contributions cover the period from Ancient times (Aristotle and the Stoics), through the Middle Ages (both the Western and the Islamic traditions), passing through the Early Modern times (represented here by Descartes, Spinoza, Leibniz, Malebranche, Berkeley and Hume), all the way to Kant and finally contemporary philosophers (classified into two opposing camps: Humean and Neo-Aristotelian). There are also four reflections which explore the applications of the notion of efficient causation to areas different from philosophy, especially the arts (literature, music, painting, etc.).

In the *Introduction*, the volume's editor Tad Schmaltz addresses methodological questions stemming from Kuhn-inspired worries about incommensurability. Schmaltz states: "If there is a chain of development that connects earlier to later concepts, there may well be sufficient overlap to warrant a history of the concept-type that comprises historically diverse concept-instances" (6). Let us trace the chain of development this anthology uncovers. We will look at each essay and briefly characterize the elements that push the concept of "efficient causation" along its path toward its contemporary use.

Although, chronologically Aristotle marks the acknowledged start of this history, Reflection One takes us back to a time long before Aristotle. By means of an analysis of Homeric passages recounting Achilles' withdrawal from battle, Tobias Myers raises questions that are still at the forefront of metaphysical inquiry nowadays, e.g.: "Can omissions be causes?" and "What is the connection between causal responsibility and moral responsibility?". In Chapter One, Thomas Tuozzo mentions the Atomists Democritus and Leucippus who proposed a model of efficient causation close to the mechanistic billiard balls we are so familiar with. Tuozzo notes that Aristotle sharply criticizes these Atomist thinkers and prefers to make Anaxagoras' "unmixed Mind" his paradigm of an efficient cause. Aristotle's efficient cause is "where the *first beginning* of the change or being at rest [comes] from" (26); "that which brings the potentiality in the thing moved into actuality" (29). It is also "necessarily unmoved- unmoved, that is to say, with respect to the motion it originates" (28).

The Stoics are the next important stop on our journey. R.J. Hankinson provides the canonical Stoic definition of cause: "a body which brings about in another body an incorporeal predicate" (55); or more precisely, "a's being G is a cause to b of b's being F" (65). However, in order to safeguard responsibility, the Stoics emphasize the agent as the proper referent of the term "cause." Hankinson

shows that despite the emphasis they placed on the idea that all causes are bodily, because the Stoic theory of causation is closely linked with their materialist physics, providentialist theology, and compatibilist view of human action, we should be cautious about attributing to the Stoics the contemporary concept of efficient causation.

In Chapter Three, Ian Wilks guides us through the period between the first centuries of the Common Era and the eleventh-twelfth centuries, from infusing Christianity into pagan thought to reinfusing pagan thought into the Christianity of the Latin West. As a result of the influence of Platonism true efficient causality is restricted to incorporeal beings (in the works of Augustine and John Scotus Eriugena, among others). Explanations of natural phenomena were thought to require appeals to final, rather than efficient, causes. Later, starting with the eleventh century, non-Platonic themes begin to emerge in the writings of Anselm, Adelard of Bath, and William of Conches. Although twelfth-century physicists give physical bodies an increasing role in causal explanations, they all work within a theistic belief system based on the following hierarchy: divine generation is the prime instance of efficient causation; then comes humanly sourced generation; and finally nongenerative efficient causation (101).

Later Medieval philosophers (eleventh to fourteenth centuries, roughly from Avicenna to Ockham) make the move opposite to that of late antiquity and the early Middle Ages by extending the label "efficient cause" to creative rational as well as natural agents (105). In keeping with the series' commitment to recover so-far-neglected traditions, Kara Richardson (chapter four) brings to our attention the contributions of Ibn Sina (Avicenna), Ghazali, and Ibn Rushd (Averroes). Influential ideas developed during this period include the definition of the efficient cause as a giver of being (in Ibn Sina -108) and the view that causal necessity is akin to logical necessity (a view rejected by Ghazali who, nonetheless, contributed to its later popularity - 115-117).

Ockham anticipated a more modern view which will eventually allow for the possibility of efficient causation without final causation. In Chapter Five, Tad Schmaltz maintains that the Early Modern Scholastic Francisco Suarez (1548-1617) continues this trend and gives efficient causes a type of priority (without going as far as completely separating them from final causes - 143). The priority of efficient causes is also stressed by René Descartes. Schmaltz proves that Descartes' break with the past is not quite as clean as the standard narrative concerning the history of philosophy suggests. This is shown by the fact that Descartes uses terms and principles strikingly similar to those employed by Suarez in his *Metaphysical Disputations* as well as by the similar ways they both deal with body-body causation in physics and with mind-body interaction.

The Stoics held that the primary and proximate causes necessitate their effects (81). Ibn Sina also endorsed the necessitation of effects by their causes (116). In Chapter Six, Martin Lin seeks the reasons for which Early Modern Philosophers (e.g. Hobbes, Descartes, Locke, Malebranche, Spinoza as well as Leibniz - 165) were committed to the view that the type of necessity involved in the connection between cause and effect is akin to logical or absolute necessity. After close textual analysis Lin concludes that Spinoza's endorsement of this position is motivated by the commitment to the principle of sufficient reason. On the other hand, Leibniz (who also allows for final causation) is forced to accept the logical necessity of efficient causal relations by his account of essences.

Lisa Downing (chapter seven) brings to the fore the problem of occasionalism in Malebranche and Berkeley. In the twelfth century, the Arabic philosopher Ghazali had already argued that God is the only genuine efficient cause (114). Later, some philosophers (e.g. Gabriel Biel) who espouse sine qua non causality refer to their view as "occasionalist" (113). There are also occasionalist readings of Descartes' philosophy (e.g. Daniel Garber's interpretation, mentioned by Schmaltz – 157). Downing contends that both Malebranche and Berkeley were aware of and tried to account for the consequences

of Newtonian physics. Malebranche's solution was the identification of bodily forces with the divine creative will. Berkeley, on the other hand, treats bodily forces as technical notions in mechanics with no metaphysical import. Berkeley holds that physics deals with regularities (as opposed to the genuine causes of metaphysics), thus prefiguring Hume.

Hume rejects metaphysical distinctions among various types of causes and proposes an understanding of causation simply in terms of constant conjunction and a mental expectation that an event will follow from a given cause. P.J.E. Kail distinguishes between the "modesty" interpretation (Hume dealt with what causation is for us) and the "immodesty" one (Hume dealt with what causation is in itself). According to Kail, the necessity Hume claims our idea of causation must include is not that of the causal relata themselves but that of the way in which we are compelled to think about these relata. This lends support to the modesty reading and highlights Hume's nonreductionist approach to causation, his claims being confined to "a vaguely Kantian" phenomenal world (249).

Eric Watkins discusses Kant's views on causality in Chapter Nine. Kant justifies fundamental causal principles transcendentally: these principles are synthetic a priori propositions required for the very possibility of experience (258) and involving epistemic necessity (as opposed to logical necessity or psychological compulsion). Watkins reconstructs Kant's picture of causality as follows: substances bring about changes by means of the temporally indeterminate activity of their causal powers. Because of his distinctive ontology (linked to his own version of Newtonian physics), Kant has only a *reply* to, but not a direct refutation of, Hume's position on causality as constant conjunction (278). Furthermore, Kant reintroduces final causes for the purpose of explanation in life sciences: in natural organisms there is reciprocal causal interaction between the parts and the whole.

The third and final part of this anthology covers contemporary views of causation divided into two competing camps: Humean (non-disposition-based theories of causation) and Neo-Aristotelian

(dispositional theories). Douglas Ehring's article surveys the many available versions of Humean positions focusing on the causal relation and touching just in passing on the causal relata. Ehring discusses regularity theory (defended by Hume, Davidson, Mackie), David Lewis' counterfactual theory, probabilistic theory (espoused by Reichenbach, Good, and Suppes), process theory (presented by Aronson; Fair, Castaneda, Salmon, Dowe, etc.) and manipulability theory (proponents of which are Collingwood. Gasking, von Wright, and Menzies).

In the final chapter, Stephen Mumford argues that Neo-Aristotelians (so labeled because of their similarities to Aristotle's philosophy of nature) consider Humeanism inadequate since the latter's supervenience doctrine gets the direction of explanation the wrong way around: it is powers or dispositions present in things that account for the regularities that we do notice (318). The following point-by-point contrast of Humean and Neo-Aristotelian theories can be extracted from Mumford's paper: a metaphysics of dicreta versus a metaphysics of continua; a perdurantist against an endurantist account of change; a stimulus-response model of change opposed to a mutual partnership model; a contingent link between cause and effect confronting a conditional necessary link; and finally, causes being prior to rather than simultaneous with their effects.

This collection of essays offers a high-level picture of efficient causation starting with Aristotle, coming full-circle and ending with contemporary Neo-Aristotelians. The volume showcases crucial elements that at one point or another entered into philosophical views of efficient causation. It provides a useful framework for taking a fresh look at existing work on causation as presented in, to name just a few texts: *The Oxford Handbook of Causation* (OUP 2009); *Causation – A User's Guide* (OUP 2013); *Causation and Creation in Late Antiquity* (Cambridge University Press 2015); *Causation* (Polity 2014); *Causation and Counterfactuals* (MIT 2004); *Causation and Explanation* (MIT 2007), etc. It also invites further study to fill in the details, and we can expect debates, controversies, and even stark

disagreements. This *Oxford Philosophical Concepts* anthology represents a great first step toward a better, since historically-situated, understanding of efficient causation. As such it is a welcome addition to the philosophical literature.

ANDREEA MIHALI

Wilfrid Laurier University