This book concerns the nature of time. It shows how presentism, the view that only the present exists, can be defended. Part I of the book shows how presentism is the only viable alternative to the tenseless theory of time. It then develops a framework for solving problems traditionally associated with the position, such as finding truthmakers for past-tensed statements; McTaggart's argument; the need for other times other than the present time; how to give the proper semantics for future contingent statements; how to deal with transtemporal relations between the past and the present; how we can meaningfully talk about past individuals; and how accounts of causation relations can be formulated. Part I concludes with a discussion of the direction of time and causation, the decision-theoretic problem known as ‘Newcomb's problem’, and the possibility of time travel and causal loops. Part II focuses on the problems for presentism raised by relativity theory. It begins by giving a self-contained exposition of the concepts of special relativity and its philosophical implications. The last two chapters focus on certain cosmological models of general relativity: namely, the expanding universes, and Gödel's infamous model. The necessary physics is explained, with the aid of diagrams.

John McDowell’s attempt to revive the doctrine of empiricism in a ‘minimal’ or ‘transcendental’ form is seriously undermined by inadequacies in the way he conceives what he styles the ‘order of
justification’ connecting world, experience, and judgement. For example, his conception of the roles played by causation and nature in this order is threatened with vacuity. The requirements of self-consciousness and verbal articulacy which he places on subjects participating in the justificatory relation between experience and judgement are unwarranted, and have the implausible consequence that infants and non-human animals are excluded from the ‘order of justification’, and thus deprived of experience of the world. Above all, McDowell’s position is vitiated by a substantial error he commits in the philosophy of language: following ancient tradition rather than Frege’s radical departure from that tradition, he locates concepts at the level of sense rather than at the level of reference in the semantical hierarchy. This error generates an unwanted Kantian transcendental idealism which in effect delivers a reductio ad absurdum of McDowell’s metaphysical economy. To correct this mistake, Frege must first be followed in his location of concepts at the level of reference. Second, one must move beyond Frege to locate not only concepts but also propositions at that level. This, in turn, requires the serious consideration of an idea which McDowell mentions only to reject, that of objects as speaking to us ‘in the world’s own language’. Despite the correction recommended here, if empiricism is to have any chance of success, it must be still more minimal in its pretensions than McDowell allows. In particular, it must abandon the individualistic and intellectualistic construction which McDowell places on the ‘order of justification’.

Projection and Realism in Hume's Philosophy

P. J. E. Kail

Hume talks of our ‘gilding and staining’ natural objects, and of the mind's propensity to ‘spread itself’ on the world. This has led commentators to use the metaphor of ‘projection’ in connection with his philosophy. This book spells out its meaning, the role it plays in Hume’s work, and examines how, if at all, what sounds ‘projective’ in Hume can be reconciled with what sounds ‘realist’. In addition to offering some original readings of Hume's central ideas on God and the Self among other things, this book offers a detailed examination of the notion of projection and the problems it faces.
What fundamental account of the world is implicit in physical theory? Physics straightforwardly postulates quarks and electrons, but what of the more intangible elements, such as laws of nature, universals, and the direction of time? Do they have a place in the physical structure of the world? This book argues that the ontology derived from physics takes a form quite different from those most commonly defended by philosophers. Physics postulates irreducible fundamental laws, eschews universals, does not require a fundamental notion of causation, and makes room for the passage of time. The book contains a series of linked essays in the form of chapters and through them it outlines an approach to metaphysics opposed to the Humean reductionism that motivates much analytical metaphysics.

Bayesian Nets and Causality
Jon Williamson

This book provides an introduction to, and analysis of, the use of Bayesian nets in causal modelling. It puts forward new conceptual foundations for causal network modelling: The book argues that probability and causality need to be interpreted as epistemic notions in order for the key assumptions behind causal models to hold. Under the epistemic view, probability and causality are understood in terms of the beliefs an agent ought to adopt. The book develops an objective Bayesian notion of probability and a corresponding epistemic theory of causality. This yields a general framework for causal modelling, which is extended to cope with recursive causal relations, logically complex beliefs and changes in an agent's language.

Guilt by Descent
N. J. Sewell-Rutter
Blighted and accursed families are an inescapable feature of Greek tragedy, and many scholars have treated the questions of inherited guilt, curses, and divine causation. This book gives these familiar issues a fresh appraisal, arguing that tragedy is a medium that fuses the conceptual with the provoking and exciting of emotion, neither of which can be ignored if the texts are to be fully understood. It pays particular attention to Aeschylus' Seven against Thebes and the Phoenician Women of Euripides, both of which dramatize the sorrows of the later generations of the House of Oedipus, but in very different, and perhaps complementary, ways. All Greek quotations are translated.

Conclusion
N. J. Sewell-Rutter

in Guilt by Descent: Moral Inheritance and Decision Making in Greek Tragedy

This concluding chapter presents a synthesis of the discussions in the preceding chapters. It argues that issues of familial interaction, causation, human action, and moral responsibility in Attic tragedy are by no means settled; and that interpreters of these endlessly absorbing and undeniably intoxicating texts ignore them at their peril.

By Parallel Reasoning
Paul Bartha

This book proposes a theory of analogical arguments, with special focus on analogies in mathematics and science. The core principle of the theory is that a good analogical argument must articulate a clear relationship capable of generalization. This idea leads to a set of distinct models for the critical analysis of prominent forms of analogical argument, corresponding to different logical, causal and probabilistic relationships that occur in scientific reasoning. The same principle allows us to relate analogical reasoning to broad norms and values of scientific practice, such as symmetry and unification. Elaborating this principle, the book raises questions and proposes answers regarding (1) criteria
for evaluating analogical arguments, (2) the philosophical justification for analogical reasoning, and (3) the place of scientific analogies in the context of theoretical confirmation.

**Personal Agency**

E. J. Lowe

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Item type: book

This book has two Parts. Part I prepares the ground for this theory of rational free action by seeking to undermine the threat that physicalism presents to it. This it does by challenging the cogency of the causal closure argument for physicalism in all of its forms. It shows that a dualistic philosophy of mind — one which holds that human mental states and their subjects cannot simply be identified with bodily states and human bodies respectively — is both metaphysically coherent and entirely consistent with known empirical facts concerning mental causation and causation in the physical domain. Part II defends a middle path between classical agent causalism and volitionism. It accords to volitions the status of basic actions, maintains that these are free and spontaneous exercises of the two-way power of the will, performed in the light of reason, and contends that agents are the causal source of all change in the world — with rational, free agents like ourselves having a special place in the causal order as unmoved movers, or initiators of new causal chains. Rather than accepting the notion of event causation as perfectly legitimate in the inanimate domain and representing agent causation as a sui generis phenomenon restricted to rational beings, in which an agent as such is a cause, it holds that all causation is causation by agents, but that agents can only cause things to happen by acting in suitable ways. And it says that what is special about rational agents is that they possess a distinctively rational power — the power of will or choice. It also defends a thoroughgoing externalism regarding reasons for action, holding these to be mind-independent worldly entities rather than the beliefs and desires of agents.

**Thoughts**

Stephen Yablo

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Item type: book
This book presents a collection of twelve essays which together constitute a modern-day examination of Cartesian themes in the metaphysics of mind. The book offers penetrating discussions of such topics as the relation between the mental and the physical, mental causation, the possibility of disembodied existence, the relation between conceivability and possibility, varieties of necessity, and issues in the theory of content arising out of the foregoing. The collection represents almost all of this book's author's work on these topics, and features one previously unpublished piece.

The Contingent Reality of Natural Necessity
Galen Strawson

in Real Materialism: and Other Essays

Some think the regularity theory of causation must be true. They argue that the regularity of the world must in the end be a ‘brute’ fact, something for which there is no reason or explanation. This chapter argues that the sense in which regularity must be ‘brute’ does not support the regularity theory of causation. This is fortunate, since to say that regularity is all there is to causation is to say that the regularity of the world is — aeon after aeon — a continuous fluke or chance matter, which is crazy.

Descartes on Causation
Tad M. Schmaltz

This book is a systematic study of Descartes's theory of causation and its relation to the medieval and early modern scholastic philosophy that provides its proper historical context. The argument here is that even though Descartes offered a dualistic ontology that differs radically from what we find in scholasticism, his views on causation were profoundly influenced by scholastic thought on this issue. This influence is evident not only in his affirmation in the Meditations of the abstract scholastic axiom that a cause must contain the reality of its effects, but also in the details of the accounts of body-body interactions in his physics, of mind-body interaction in his psychology, and of the causation that he took to
be involved in free human action. In contrast to those who have read Descartes as endorsing the “occasionalist” conclusion that God is the only real cause, a central thesis of this study is that he accepted what in the context of scholastic debates regarding causation is the antipode of occasionalism, namely, the view that creatures rather than God are the causal source of natural change. What emerges from the defense of this interpretation of Descartes is a new understanding of his contribution to modern thought on causation.

Eternal God
Paul Helm

The book is a new edition of Eternal God first published in 1988, and contains four new chapters. It offers a defence of divine timeless eternity. After sketching the nature of such eternity in the first two chapters, a number of philosophical objections are considered, such as the argument from personality and from the incompatibility of divine eternity and indexical knowledge. A number of standard objections are discussed, and the account is further developed in the light of these. Among them are the nature of an eternal God's foreknowledge of what happens in time, and its relation to human choice, and how and in what manner such divine foreknowledge differs from fatalism. This leads to a consideration of foreknowledge and human responsibility, the sense in which timeless divine choice is free, and how it is possible to refer to an eternal God. The first of the final four new chapters explores the view of W. L. Craig that God is timeless sans creation but temporal thereafter. This leads to a consideration of timelessness and causation, in connection with creation, and then the importance of the distinction between a timeless God's perspective on his creation and those of agents in time. Assuming that God is triune, the final chapter discusses the relation between the three persons of the divine, first if God is considered to be in time, and then if he is eternal.

Occasionalism
Steven Nadler
This book is a collection of essays on the problem of causation in seventeenth-century philosophy. Occasionalism is the doctrine, held by a number of early modern Cartesian thinkers, that created substances are devoid of any true causal powers, and that God is the only real causal agent in the universe. All natural phenomena have God as their direct and immediate cause, with natural things and their states serving only as “occasions” for God to act. Rather than being merely an ad hoc, deus ex machina response to the mind-body problem bequeathed by Descartes to his followers (especially Malebranche, Cordemoy, and La Forge), as it has often been portrayed in the past, occasionalism is in fact a full-blooded, complex, and philosophically interesting account of causal relations. These essays examine the philosophical, scientific, theological, and religious themes and arguments of occasionalism, as well as its roots in medieval views on God and causality.

Things
Stephen Yablo

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Item type: book

This book contains a collection of twelve metaphysical chapters that address a range of first-order topics, including identity, coincidence, essence, causation, and properties. Some first-order debates are not worth pursuing, the book argues; there is nothing at issue in them. Several of the chapters explore the metaontology of abstract objects, and more generally of objects that are ‘preconceived’, their principal features being settled already by their job-descriptions. The book rejects standard forms of fictionalism, opting ultimately for a view that puts presupposition in the role normally played by pretense.

Time, Space, and Metaphysics
Bede Rundle

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DOI: 10.1093/acprof:oso/9780199575114.001.0001
Item type: book

This book engages with major philosophical questions concerning time and space — a framework for the investigation being provided by the debate between the absolutists and the relationists, so between Newton and Leibniz, and their followers. The investigation brings to the fore questions of the nature and reality of time and space, and leads on to more recent debates, as those relating to their possible infinitude, to
anti-realism, time travel, temporal parts, geometry, convention, and the direction of time. These in turn raise more general issues, issues involving such concepts as those of identity, objectivity, causation, facts, and verifiability. Their examination falls within metaphysics, thought of as the investigation and analysis of fundamental philosophical concepts, but there is also metaphysics of a more contentious character, where the subject-matter is provided by propositions which transcend what can be known either through experience or by pure reasoning. In this connection, a central aim is to show how, without dismissing them as nonsensical, we may arrive at a fruitful interpretation of such propositions. While the focus of the work is not primarily on issues which presume an understanding of physical theory, it is hoped that the arguments developed will throw some light on relevant scientific concerns.

Introduction
Steven Nadler

in Occasionalism: Causation Among the Cartesians
Published in print: 2010 Published Online: January 2011
Publisher: Oxford University Press
Item type: chapter

This introduction is a summary of the themes of this book, which is a collection of previously published essays on the problem of causation in seventeenth-century philosophy. In particular, these essays consider the various philosophical, theological, scientific, and historical aspects of occasionalism and the variations of that doctrine found among Cartesian philosophers.

Causation and Laws of Nature in Early Modern Philosophy
Walter Ott

Published in print: 2009 Published Online: September 2009
Publisher: Oxford University Press
Item type: book

Some philosophers think physical explanations stand on their own: what happens, happens because things have the properties they do. Others think that any such explanation is incomplete: what happens in the physical world must be partly due to the laws of nature. This book follows the debate between these views from Descartes to Hume. The book argues that the competing models of causation in the period grow out of the scholastic notion of power. On this Aristotelian view, the connection
between cause and effect is logically necessary. Causes are “intrinsically directed” at what they produce. But when the Aristotelian view is faced with the challenge of mechanism, the core notion of a power splits into two distinct models, each of which persists throughout the early modern period. It is only when seen in this light that the key arguments of the period can reveal their true virtues and flaws. To make this case, the book explores such central topics as intentionality, the varieties of necessity, and the nature of relations. Arguing for controversial readings of many of the canonical figures, the book also focuses on lesser-known writers such as Pierre-Sylvain Régis, Nicolas Malebranche, and Robert Boyle.

**Particulars**  
David M. Armstrong

in *Sketch for a Systematic Metaphysics*  
Published in print: 2010 Published Online: September 2010  
Publisher: Oxford University Press DOI: 10.1093/acprof:oso/9780199590612.003.0007

It is argued that particulars have only a ‘loose and popular’ identity over time (Bishop Butler), ‘perdurantist’ rather than ‘endurantist’. For an unchanging particular we need to go to a four-dimensional object, a ‘space-time worm’. Such an object is primarily held together by a causal relation (immanent causation in W.E. Johnson's terminology). Following Russell, an ordinary particular can be described as a ‘causal line’. Particulars are contingent entities.

**Where There's a Will There's a Way: Causation and Freedom**  
Robert Hanna

in *Kant, Science, and Human Nature*  
Published in print: 2006 Published Online: January 2007  
Publisher: Oxford University Press DOI: 10.1093/acprof:oso/9780199285549.003.0009

This chapter explores the same basic Kantian presuppositional links with respect to causation. It begins by unpacking the basics of Kant's metaphysics of causation, with special reference to the three Analogies of Experience and the Third Antinomy of Pure Reason. It then analyzes the problem of free will and works out a new version of Kant's theory of freedom, called the Embodied Agency Theory. Some of the intimate Kantian links between freedom and nature are explored, and a biological
interpretation of the Embodied Agency Theory is developed. It is argued that for Kant, the irreversibility of time — ‘Time's Arrow’ — entails a necessary connection between naturally mechanized causation and the possibility of human practical causation.