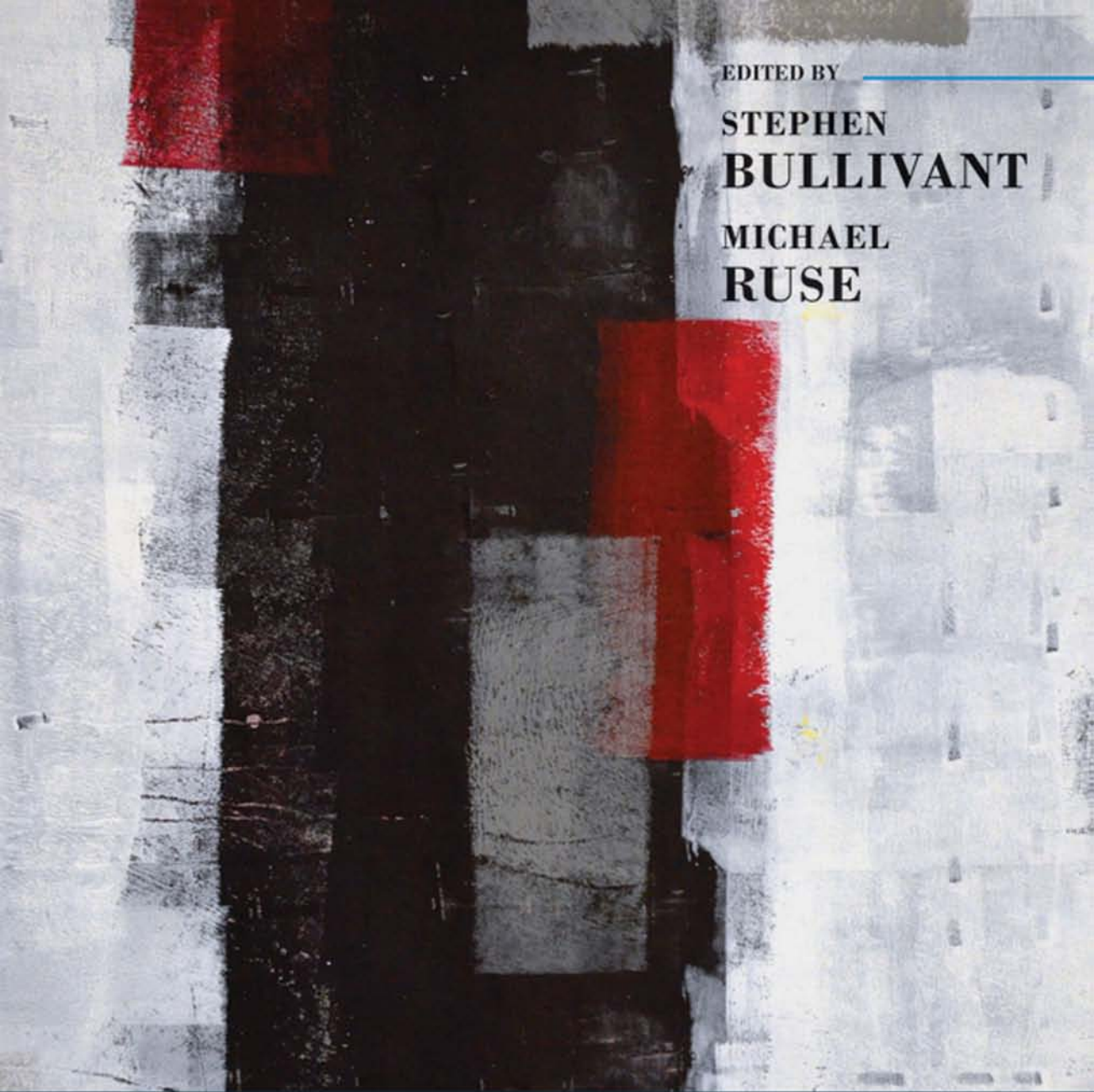




EDITED BY

STEPHEN
BULLIVANT

MICHAEL
RUSE

≡ The Oxford Handbook of
ATHEISM

THE OXFORD HANDBOOK OF

ATHEISM

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ATHEISM

Edited by

STEPHEN BULLIVANT

and

MICHAEL RUSE

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While not without its rewards, editing a book of this size and scope is a long and time-stealing process. Our own sleep and sanity notwithstanding, the major losers here have been our friends and family. As such, we would like publicly to thank them all—and especially Lizzie Ruse, and Jo and Grace Bullivant—for their clemency and forbearance.

This book contains forty-six separate chapters, and the labours of fifty-five individual contributors. It has been a pleasure to work with each and every one of them. It is an honour to be presenting their cumulative endeavour to the world. Thanks to them all.

Finally, two names are missing from our contents list. The British sociologist Peter B. Clarke and the American philosopher Paul Kurtz were among the first scholars we signed up to contribute to the Handbook. Sadly, neither lived long enough to grace these pages with their wisdom and insight—at least, not directly. We therefore dedicate *The Oxford Handbook of Atheism* to Peter and Paul.

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INTRODUCTION

THE STUDY OF ATHEISM

STEPHEN BULLIVANT AND MICHAEL RUSE

THE DEATH OF GOD

‘God is dead!’ A cry greeted with despondency in some quarters—including that occupied by one of the editors of this volume—and with joy tinged with relief in other quarters—including that occupied by the other of the editors of this volume. The cry of course is that of the great nineteenth-century German philosopher Friedrich Nietzsche, and it is worth giving the whole passage (in *The Gay Science*) from which this famous aphorism is taken:

God is dead! God remains dead! And we have killed him! Yet his shadow still looms. How can we console ourselves, the murderers of all murderers! The holiest and mightiest thing the world has ever possessed has bled to death under our knives: who will wipe this blood from us? With what water could we clean ourselves? What festivals of atonement, what holy games will we have to invent for ourselves? Is the magnitude of this deed not too great for us? Do we not ourselves have to become gods merely to appear worthy of it? (Nietzsche [1882] 2001: 120)

The death of God is more, far more, than the demise of the distinguished-looking elderly fellow in the paintings of Michelangelo, someone trying hard to imitate Charlton Heston in a bed sheet. The existence of the deity—to be a believer, a theist in some sense, or to be a non-believer, an atheist in some sense—is no mere matter of academic concern and interest. Nor is it something merely of moment for the hereafter, beyond the deaths of each and every one of us. A world with God and a world without God are two very different places, with very different meanings and obligations for us humans who occupy them. Humans created, loved, and supported by the deity are humans very different from those who wander alone, without external meaning or purpose, creating their own destinies. Whether Nietzsche was right about the death of God, he was surely right about the importance and significance of the death of God. Hence this volume.

STUDYING ATHEISM

It would be fair to say that the scholarly study of *atheism*—understood in this volume in the broad sense of ‘an absence of belief in the existence of a God or gods’—has, historically, been something of a mixed bag. In certain times and places, and in specific disciplines, a reasonable amount of careful and serious attention has been devoted to the subject. Theologians, not surprisingly, have a longstanding interest—and one which, at least in the West, almost certainly predates the existence of (m)any *actual* atheists (see Buckley 1987; and Alan Charles Kors’ ‘The Age of Enlightenment’ chapter). Philosophers of several stripes—not just ‘of religion’, but in across a range of specialisms including ethics, language, science, and the meaning of life—can also hold their heads up high. Albeit to a lesser extent, so too may historians, literary critics, psychologists, sociologists, and anthropologists.¹ In recent years students of atheism have, moreover, been blessed by the publication of several tough-act-to-follow multidisciplinary collections (Baier et al. 2001; Martin 2007; Flynn 2007; Amarasingam 2010; Zuckerman 2010a).

Yet while it is important to give credit where it’s (over)due, it is true that atheism has not always received the attention it both deserves and, we would argue, needs. The familiar academic squalls of ‘unjustly neglected’, ‘significant lacunae’, ‘much work still to be done’—so often a case of protesting too much—can, for once, undoubtedly be justified here (see Pasquale 2007; Zuckerman 2010b). To give but a single example, probably the very first international conference on the social-scientific study of atheism was held in Rome in 1969, featuring a veritable ‘Who’s Who’ of contributors (e.g., Charles Glock, Robert Bellah, David Martin, Bryan R. Wilson, Harvey Cox, Karl Rahner, Peter Berger, Henri de Lubac, Milan Machovec—and even Pope Paul VI; see Caporale and Grumelli 1971). And yet, despite other signs of early promise (esp. Campbell [1971] 2013), it would be fully four decades until the next such gathering was held, on a much more modest scale, at Oxford in 2009 (Bullivant and Lee 2012). Those forty lean years coincided—it is worth pointing out—with a time of both unprecedented growth in the numbers and social significance of atheists and other nonreligionists in the West (see Callum Brown’s ‘The Twentieth Century’ chapter), and with the continued rise and subsequent fall of many (though not all) of the world’s first atheist states in the East (see Irena Borowik, Branko Ančić, and Radosław Tyrała’s ‘Central and Eastern Europe’ chapter). Similar—or rather, in most cases, far worse—tales could be told of the fortunes of atheism in other academic fields. Which is not, of course, to say that nothing of scholarly value has been done in these areas already—far from it!—but rather that there is far more that could (and should) be done. Though they need not pretend to be lone voices crying in the scholarly wilderness, working *ex nihilo*, atheism researchers in all disciplines do indeed

¹ Evidence and bibliographical details for all these claims may be found, in abundance, throughout this Handbook.

face a great deal of *terra incognita*—a prospect at once daunting (so much tedious bush-whacking...) and exhilarating ('treasures of darkness and hidden riches of secret places' and all that).²

The Oxford Handbook of Atheism, we believe, constitutes a fair reflection of this situation. Evidently, the authors of our 46 chapters have collectively drawn on a huge corpus of existing research—a corpus which, like the authors themselves, spans several continents, and an array of different disciplinary perspectives. In common with other volumes in this august series, readers should be confident of finding in these chapters reliable and sure-footed guides to the existing—and, on certain topics, voluminous—literature. (Though even the most well-trodden of paths can, to the keen and experienced eye, yield surprises.) This Handbook is, however, far from being simply a survey and synthesis. The past several years have witnessed a remarkable growth in studies of atheism and related topics. As editors, it gives us very great pleasure to introduce our readers to some of the first fruits of this. There is scarcely a chapter in this book that has not benefitted from major new pieces of insight or information, in many cases published within only the last five or so years. What is more, a good number of the entries—including, but no means limited to, those on 'Jewish Atheism', 'Atheism, Gender, and Sexuality', 'Atheism, Health, and Well-being', 'The Islamic World', 'Japan', 'The Visual Arts', 'Music', and 'Film'—are among the (or even are *the*) first such scholarly treatments of the topic to be published. With so rich and diverse a subject, and the growing vim and vigour of the scholarship surrounding it, we look forward to current and future researchers—aided and abetted, we humbly hope, by our current offering—delving deeper into these areas (and, indeed, trailblazing several more). The 'work-in-progress', 'more-to-follow', 'stay-tuned' nature of much that is in this collection is by no means a failing. Rather, it is one of its cardinal strengths. After all, *catching up* with it all this ever-growing research is precisely what second (and third, and fourth) editions are for...

Finally, as editors we are naturally well aware that atheism is an at-times hotly contested subject. Indeed, in our view, that is a large part of what makes this Handbook so interesting and—given positive atheism's much commented-upon new 'visibility' within (especially) Western society and culture (cf. Taira and Illman 2012)—timely. In choosing topics and contributors we have aimed at balance, rather than a blandly uniform 'neutrality'; this is most obvious in Parts I (philosophy) and IV (the natural sciences). All our authors can be expected to approach their topics in a scholarly and rigorous manner, and to present the full nuances of their given topics. But as leading experts in their fields—and in some cases, high-profile figures in popular or media discussions in this area—one may also assume them both to have, and to express, their own views. Some of the contributors to this volume are themselves atheists, whether

² The *reason(s)* for the relative lack of attention given by scholars to atheism, and its myriad manifestations and implications, is itself an interesting question. However, it is the study of atheism, and not 'the study of the study of atheism', that is our concern here. For some theories concerning atheism's comparative neglect (at least within the social sciences), see Stark 1999 and Bullivant and Lee 2012.

‘positive’ or ‘negative’ (see Bullivant’s ‘Defining “Atheism” chapter’); some of them are not. All of them, we aver, have something of significant value to say on their chosen subjects.

OVERVIEW OF CONTENTS

In light of the wide-ranging nature of the current scholarship on atheism—in all its varied and diffuse social, cultural, and intellectual manifestations—the Handbook is divided into seven main sections.

Part I (‘Definitions and Debates’) is primarily philosophical in nature. In the opening chapter, Stephen Bullivant surveys the various meanings of ‘atheism’, while explaining and justifying the Handbook’s own definition as ‘the absence of belief in the existence of a God or gods’. The following four chapters engage arguments for and against the existence of God (and *vice versa*, against and for atheism). Rather than merely offering standard summaries of the various positions (teleological, ontological, moral argument, etc.), the first three of these instead allow three leading philosophers to present their own cases: T. J. Mawson against atheism, A. C. Grayling against theism (i.e., for negative atheism), and Graham Oppy for positive atheism. This is followed by Michael L. Peterson’s in-depth treatment of what has aptly been described as ‘the rock of atheism’ (Küng 1976: 432): the existence and extent of evil and suffering, and its manifold philosophical implications. Bold chapters on two major, academic and ‘real-life’, concerns then follow: morality (Erik J. Wielenberg), and the meaningfulness of life (Kimberly A. Blessing). The section’s final chapter, by Brian Davies, engages the thought of the medieval theologian and philosopher St Thomas Aquinas to explore religious language, the meaning of ‘God’, and the possibility of atheism.

Part II narrates the intellectual and social history of (predominantly) Western atheism,³ from antiquity right up to the present day. David Sedley ranges from the pre-Socratics to Lucretius, noting especially the difficulties of positively identifying actual atheists in this period (as opposed to those denounced as such, as most famously with Socrates). Mark Edwards continues this theme, covering the entirety of the first millennium CE, and discussing, *inter alia*, the Cynics, Sceptics, and uses of the epithet

³ Ethnocentric though this may seem (and indeed is), it would be fair to say that resources for constructing a truly global history of atheism are not yet available. Those interested in the non-Western history/ies of atheism will, though, find much of value elsewhere in the Handbook, especially in the chapters on ‘Buddhism’, ‘Jainism’, ‘Hinduism’, ‘The Islamic World’, ‘Japan’, and ‘India’. Our focus here on the *Western* history of atheism may also be justified on positive grounds, since this sets the primary backdrop to so many of the other topics dealt with in this volume. It is also worth pointing out that, such is the nature of things, ‘Western’ and ‘non-Western’ histories of atheism cannot be neatly disentangled. For example, the Arabic world features prominently in Dorothea Weltecke’s chapter on the ‘Medieval World’ (as does Byzantium in Mark Edwards’ ‘The First Millennium’), and the chapters on ‘The Islamic World’, ‘Japan’, and ‘India’ all highlight the influence of (originally) Western ideas within these contexts.

‘atheist’ both by and about the early Christians. Chapters on atheism (and accusations thereof) in the medieval period (Dorothea Weltecke), the Renaissance and Reformation (Denis Robichaud), and the Age of Enlightenment (Alan Charles Kors) all follow. Turning more to social history, and the great cultural and societal changes shaping (and being shaped by) unbelief in Europe, North America, and beyond, David Nash narrates the nineteenth century, and Callum Brown the twentieth. Finally, Thomas Zenk brings the section right up to the twenty-first century by exploring the cluster of intellectual, social, cultural, media, and political phenomena loosely (and not un-problematically) referred to as the ‘New Atheism’. Together, these eight chapters are one of the most comprehensive and up-to-date treatments of the history of Western atheism(s) yet available.

Part III offers detailed treatments of eight atheistic systems or worldviews. These are intentionally diverse, and serve to underline the intellectual, cultural and geographical range of atheism. By including such topics as Hinduism (Jessica Frazier) and Buddhism (Andrew Skilton)—traditions that both (historically as well as in their contemporary manifestations) possess strong and influential sceptical strands—alongside Jainism (Anne Vallely) and Judaism (Jacques Berlinerblau), not to mention the classic topics of humanism (Stephen Law), Marxism (Peter Thompson), existentialism (Alison Stone) and analytic philosophy (Charles Pigden), this section helps to balance the Western emphasis of the previous section. In all cases, these chapters incorporate both historical and theoretical aspects, demonstrating the concrete manifestations and implications of unbelief in all its ‘endless forms’.

Part IV will engage a number of significant, and often very contentious, debates in the natural sciences. Rather than dilute the controverted nature of some of these topics, we have instead commissioned leading figures to survey the contemporary terrain, in addition to presenting their own views: Michael Ruse on naturalism; Taner Edis on atheism’s role (or not) in the rise of science; David P. Barash on Darwinism; and Victor Stenger on the physical sciences. These contributions are particularly important and timely, given the high status accorded to scientific arguments and concerns in much recent atheistic literature, and the buoyant media and popular interest in issues relating to science and religion—not all of it explored or expressed in a rigorous scholarly way.

Parts V and VI focus on the contemporary, social-scientific engagement with atheism—an area which, more than any other, has witnessed a notable upsurge in the past decade. **Part V** reviews and presents some of the most significant work emerging in the disciplines of sociology, psychology, and anthropology, much of it from early career scholars who are opening up new avenues of research. Among these chapters are investigations of: the relationships between atheism and secularization (Frank L. Pasquale and Barry A. Kosmin), the psychological and cognitive-anthropological understandings of unbelief (Miguel Farias and Jonathan A. Lanman respectively), societal health (Phil Zuckerman), gender and sexuality (Melanie Elyse Brewster), health and well-being (Karen Hwang), and conversion and deconversion (Ralph W. Hood Jr. and Zhuo Chen).

Complementing such thematic studies, **Part VI** explores the contemporary sociology of atheism in specific regions of the globe. Following a comprehensive, global

demographics chapter (Ariela Keysar and Juhem Navarro-Rivera), we highlight six, notably diverse areas. In line with the overarching aims for this volume, these bring out the sheer breadth and variety of atheism in the modern world. Three of these chapters—on Western Europe (Lois Lee), Central and Eastern Europe (Irena Borowik, Branko Ančić, and Radosław Tyrała), and North America (Ryan T. Cragun, Joseph H. Hammer, and Jesse M. Smith)—engage with existing empirical research, both quantitative and qualitative, while updating this in light of newly emerging work. While each of these three regions forms part of the same Western history of atheism (as delineated in Part II), nevertheless they present markedly different case studies of atheism in contemporary culture and society. The other three chapters in this section—the Islamic world (Samuli Schielke), India (Johannes Quack), and Japan (Sarah Whyly)—have been selected to offer contrasting perspectives from the non-Western world. While exploring key historical considerations—necessary for comprehending the present—these too rely substantially on original, and in many cases pioneering, empirical work.

Finally, **Part VII** engages historical and contemporary expressions of positive and negative atheism in the arts—subjects which have, until now, received very little attention. Breaking new ground, then, are Bernard Schweizer on literature, J. Sage Elwell on the visual arts, Paul A. Bertagnolli on music, and Nina Power on film. Given the great amount of scholarly and popular interest which the field of ‘religion and the arts’ generates, this section promises to be the most original and influential in the entire volume. It will, therefore, form a fitting conclusion to what we hope our readers will find to be a novel, useful, and illuminating collection.

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PART I

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DEFINITIONS AND
DEBATES

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CHAPTER 1

DEFINING ‘ATHEISM’

STEPHEN BULLIVANT

ATHEISM AND AMBIGUITY

THE precise definition of ‘atheism’ is both a vexed and vexatious issue. (Incidentally, the same applies to its more-or-less equivalents in other languages: *Atheismus*, *athéisme*, *ateismi*, etc.) Etymologically, atheism is derived from the classical Greek *a-* (normally meaning ‘not’ or ‘without’) and *theos* (‘god’). Its first extant appearance in English occurs in the mid-sixteenth century, as a translation of Plutarch’s *atheotēs* (Buckley 1987: 9). Even from its earliest beginnings in Greek and English, however, atheism/*atheotēs* admitted of a variety of competing, and confusing, definitions—often bearing no straightforward relationship to its strict etymology. While these lie outside the scope of the present chapter, some of the more interesting definitions and applications are discussed elsewhere in this volume.

Even today, however, there is no clear, academic consensus as to how exactly the term should be used. For example, consider the following definitions of ‘atheism’ or ‘atheist’, all taken from serious scholarly writings published in the last ten years:

1. ‘Atheism [...] is the belief that there is no God or gods’ (Baggini 2003: 3)
2. ‘At its core, atheism [...] designates a position (not a “belief”) that includes or asserts no god(s)’ (Eller 2010: 1)
3. ‘[A]n atheist is someone without a belief in God; he or she need not be someone who believes that God does not exist’ (Martin 2007: 1)
4. ‘[A]n atheist does not believe in the god that theism favours’ (Cliteur 2009: 1)
5. ‘By “atheist,” I mean precisely what the word has always been understood to mean—a principled and informed decision to *reject* belief in God’ (McGrath 2004: 175)

Of course, these definitions share certain features: all regard atheism as relating, in a negative way, to a thing or things called ‘god’, and all but one describe this relationship in terms of belief. But beyond this, it is obvious that these authors are not all talking about the same thing at all. The first and second include *gods*; the final three specify only

one (which the final two give a capital G). The fourth definition, moreover, restricts this scope even further. Definitions two and three regard atheism as simply being the *absence* of a certain belief; the rest, contrariwise, see it as implying a definite belief. Moreover, the fifth definition also demands a level of intellectual—and perhaps also emotional—*conviction*, over and above simple believing.

Though our focus in this chapter is on scholarly usage(s), it is worth pointing out that everyday speech is no more monosemic. This is, perhaps, partly to be expected: after all, English is very much a global language, and is the native tongue of approaching 400 million people. Nevertheless, even relatively homogeneous groups often display a notable lack of uniformity. For instance, a 2007 study of over 700 students—all at the same British university, at the same time, with a clear majority being a similar age and from the same country—found that, from a list of commonly encountered definitions of ‘atheist’, the most popular choice was ‘A person who believes that there is no God or gods’ (Bullivant 2008). This was, however, chosen by only 51.8 per cent of respondents: hardly an overwhelming consensus. 29.1 per cent opted instead for ‘A person who is convinced that there is no God or gods’, 13.6 per cent took the broader ‘A person who lacks a belief in a God or gods’, and 0.6 per cent answered ‘Don’t know’. Thirty-five respondents, eight of whom had already affirmed one of the suggested meanings, offered their own definitions. These included:

- ‘A person who lacks a belief in supernatural forces, without suggesting that they might exist’.
- ‘Someone who denies the validity of using the word “God” to indicate anything (other than a concept) which might be said to “exist”’.
- ‘A person who has no belief in any deity and finds that religion is not an important part of their life’.
- ‘Someone who isn’t a member of any religion that believes in one God’.

Once again, despite general similarities, it is clear that the word is used and understood in a wide variety of different ways, even in so relatively uniform a group. (Note too the introduction of wider concepts such as ‘religion’ and ‘supernatural forces’, rather than confining themselves to just God/gods, into these definitions.) Thinking more widely, it is also worth noting that both ‘atheism’ and ‘atheist’ can carry a considerable number of overtones and connotations, positive and negative: even among people agreeing on a given abstract definition, calling someone an ‘atheist’ might well communicate very different things in, say, McCarthy-era Dallas, post-communist Krakow, or twenty-first-century London.

THE BABEL HANDBOOK OF ATHEISM?

It is important to recognize that plurality of usage, as sketched above, need not imply that some scholars are right and others are wrong. Atheism simply possesses no single, objective definition: it can be used correctly in a number of related, sometimes overlapping, and often mutually exclusive ways. This is not necessarily a problem, so long as

one is always clear how exactly each author is deploying the term. (There is also a valid case to be made for certain disciplines to use the word in their own, highly specialized senses.) That is not to say, however, that all definitions are equally *useful*: a too-narrow definition may inadvertently airbrush out all kinds of interesting potential data, while a too-broad one may capture a large number of 'atheisms' with few meaningful connections between them. Alternatively, a definition that is too idiosyncratic, or culturally bound, may obviate comparisons with other work ostensibly on the same subject. Furthermore, and quite obviously, the sheer lack of agreement creates a great deal of, at best, time-consuming effort, and at worst, hopeless confusion, for all concerned. There is, therefore, a great deal of utility to be gained from finding a generally agreed-upon, serviceable (if not perfect), scholarly definition of the word atheism.

The merits of this may be grasped if one imagines this Handbook—drawing together dozens of scholars, from widely diverse disciplines, and several continents—as a microcosm of the scholarly study of atheism. Without a 'standard' definition, outlined and explained in a chapter such as this, each contributor would need to explicate his or her own definition at the beginning of their chapter—or else, as happens all too often, their readers would simply have to infer quite how he or she is using the term. The reader, of course, would need to remember this definition throughout the duration of the chapter, before consciously relearning and rerelearning what would *probably* (but not necessarily) be a different definition for the next chapter. With different authors defining the term in different ways, like-for-like comparisons between chapters would become next to impossible: the 'atheists' whose psychological tendencies one learns about in one chapter may well be a different (and possibly mutually exclusive) set of 'atheists' whose demographic trends are charted in the next. Such a collection would not, it must be said, be without value: each individual chapter could well constitute an exemplary and illuminating piece of scholarship. Furthermore, every single one of its definitions of atheism might be perfectly *valid* (if not necessarily, for the reasons mentioned above, optimally useful): clearly and precisely defined, with a weight of historical usage behind it, and having sufficient consonance with popular usage. And yet, viewed as a whole, *The Babel Handbook of Atheism* would be a frustrating morass of contradictions and cross-purposes. Such, writ large, is the state of the scholarly study of atheism today.

Throughout this volume, by contrast, and unless otherwise stated, 'atheism' is defined as *an absence of belief in the existence of a God or gods*. As with most mainstream definitions of the term, it is simply the fruit of two basic decisions: the meaning and scope of *a-*, and the meaning and scope of *-theism*. Neither decision, of course, is either straightforward or uncontroversial. So let me explain, explore, and defend each of them in turn, while giving special attention to the question of *utility*.

***a-* IS FOR . . . ?**

According to this definition, *a-* signifies a simple absence, or lack, or 'state of being without'. In Greek grammar, this usage of *a-* is called a 'privative *a*' (or *alpha*

privativum/privans), and features in such English words as amoral, asexual, anarchy, and anaerobic. Hence anaerobic respiration occurs in the absence of oxygen, but it is not, in itself, necessarily *opposed to* oxygen; anarchy is a principally state of lawlessness, rather than a state of denying or opposing the existence of laws (although individual anarchists, having elaborated an ideology from the concept, may or may not do just that). By analogy, atheism thus becomes an absence of something called ‘theism’. Importantly, it does not *require* a specific denial or rejection of, nor any animus against, this ‘theism’—although, also importantly, it does not rule it out.

While this interpretation of atheism’s *a-* is indeed consonant with its Greek etymology, that is not, in itself, a strong reason for advocating it. Actual Greek usage, in fact, was itself rather variable. For example, Liddell and Scott define *atheotēs* as ‘godlessness’ (1869: 27), citing the comment in Plato’s dialogue *The Statesman* about those ‘impelled to *atheotēs* and to vaunting pride and injustice by the drive of an evil nature’ (308e; quoted from Hamilton and Cairns 1961: 1081). While this is indeed an instance of *alpha privativum* (being ‘without’ god in the sense of being ‘godless’ or ‘ungodly’), the meaning intended is evidently a moral one. The same is, for example, also true in Aeschylus’ *Eumenides* when Orestes is described with the adjective *atheos* (‘atheist’). However, *atheos* could also connote ‘one who denies or dishonours the God’ (as used of Socrates in Plato’s *Apology*), a sense that goes beyond a simple, privative *absence* of belief. Furthermore, irrespective of its Greek descent, atheism is now an English word, and has been in use for over four and a half centuries. There is a long tradition in English of understanding atheism’s prefix as demanding, not merely an absence of theism, but instead a definite rejection of it. (Hence McGrath’s definition, quoted earlier: ‘a principled and informed decision to *reject* belief in God’.) As noted above, this is arguably the most usual common-speech meaning (though it is far from ubiquitous), and it is well-represented in recent scholarly literature (among others, see: Baggini 2003: 3–4; Hyman 2007: 28–9; Cliteur 2009: 1; and Walters 2010: 171).

Nevertheless, and irrespective of any etymological arguments in its favour, a strong case can be made for preferring our interpretation on the basis of scholarly utility. Defining atheism as ‘an absence of...’ permits it to function as an umbrella concept, comprising a range of significantly related positions and phenomena. These may usefully be subdivided into different categories, at different analytic levels. It is common, for example, for advocates of this kind of definition to distinguish ‘positive’ (or ‘strong’/‘hard’) and ‘negative’ (or ‘weak’/‘soft’) varieties of atheism (Martin 1990: 464). On this schema—which the Handbook adopts—‘negative atheism’ is consonant with our basic definition of an *absence*. It thus includes such positions as agnosticism (in both its classical sense of a specific belief that there is insufficient evidence either to believe or disbelieve in the existence of a God or gods, and in its more popular sense of not having made up one’s mind), and the view of some linguistic philosophers that the word God is literally meaningless (see Charles Pigden’s ‘Analytic Philosophy’). Any person who does not, at present, have a belief in the existence of a God or gods is thus a negative atheist. By contrast, a ‘positive atheist’ is someone who is not only without such a belief, but holds a specific belief (which may, of course, be held with varying levels of certainty or

interest) that there is no God or gods. Clearly, anyone who holds *that* belief—unless they are very confused—thereby is also without a belief in God's/gods' existence. Thus positive atheism implies negative atheism, but not vice versa. Positive atheism too may be further subdivided into various kinds: Promethean antitheism, existentialist atheism, Soviet scientific atheism, New Atheism, and so on.

To adopt a zoological metaphor, it might be helpful to think of atheism as a 'family', divisible into two 'genera' (negative and positive), each made up of various 'species' (agnosticism, Promethean antitheism, etc.). This taxonomic approach to atheism permits exploration of a diverse range of stances and worldviews, united by their shared absence of theism. It encompasses, for example, the positive atheisms of the humanist Bertrand Russell, the existentialist Jean-Paul Sartre, and the Marxist Mao Zedong, but also the negative atheisms of the agnostic Anthony Kenny, the logical positivist A. J. Ayer, and some—but not all—of the secular 'indifference' of a large and increasing number of Westerners. It would also include any genuinely *religious* atheisms, as are sometimes identified in strands of Hinduism, Buddhism, and Jainism (though see Jessica Frazier's, Andrew Skilton's, and Anne Vallely's chapters later in this Handbook). Needless to say, the great bulk of this (coherent) richness and diversity—and with it, the potential for illuminating comparisons and correlations—is lost if atheism's prefix is understood exclusively in the sense of a rejection and/or denial.¹ Of course, scholars are not obliged to take into account all of atheism's 'endless forms', whenever they want to write about a particular 'genus' or 'species': positive atheism, for example, is and will remain a discrete and significant focus of enquiry in itself. Nonetheless, there is clear value in being at least aware of how one's specific topic relates to the bigger picture. One positive result, for instance, may be to reduce the data-skewing tendency of some students of religion to bifurcate people into 'religious believers' and 'convinced atheists', as though there were no possibility of anything in between.

Not insignificantly, this way of defining *a-* has precedents in both the writings of influential atheist writers, and in key works in the philosophical and social-scientific study of atheism (e.g., Flew 1976; Smith [1979] 1989; Martin 1990; Hiorth 2003; Hwang et al. 2009; Eller 2010). Furthermore, given the benefits of finding an agreed-upon definition among scholars of atheism (as outlined in the previous section), its recent employment in another major, multi-author reference work—*The Cambridge Companion to Atheism* (see Martin 2007)—is a key point in its favour.

One final comment: it is important to note that this definition of *a-* in terms of an 'absence' is intended in a wholly value-neutral, non-pejorative sense. It is not meant to imply that there is something 'missing' in the atheist that he or she *ought* either to have or to be (which is, of course, a separate question entirely). However, the possibility of the definition being (mis)taken to have negative connotations is indeed a troubling one. One might, of course, substitute 'a *lack* of belief in the existence of a God or gods' as a direct

¹ On a small scale, the problem can be seen in attempts to discuss the closely related phenomena of disbelief and agnosticism in, say, Victorian Britain together under the awkward headings of 'doubt' or 'freethought'.

synonym. This would, moreover, lend an elegant symmetry to the corresponding definition of ‘atheist’ as ‘one who lacks a belief in the existence of a God or gods’. However, *lack* is susceptible to the same, or worse, kinds of misunderstanding: describing something as lacking normally implies a deficiency. Unfortunately, *absence* genuinely does lack such elegant symmetry when applied to the definition of ‘atheist’, creating the decidedly tortuous ‘one from whom a belief in the existence of a God or gods is absent’. Instead, it would probably be best to choose ‘one who is *without* a belief in the existence of a God or gods’ (which, unfortunately, results in the ludicrous, cognate definition of atheism: ‘a “without-ness” of a belief in the existence of a God or gods’). On balance, ‘absence’ for atheism and ‘without’ for atheist, while far from perfect, are probably still to be preferred.²

THE MEANING(S) OF *-THEISM*

In the above discussion of *a-*, I have been glossing *-theism* with ‘belief in the existence of God or gods’. Yet, as with its companion, this too is the result of a conscious—and contentious—decision. Whereas defining *a-* is largely a binary affair (*either* it is understood as meaning ‘without’ or ‘an absence of’, *or* as signifying a specific denial), *-theism* admits of a far wider range of credible options. So let me explain what I do and don’t mean by defining it as I have done, while once again comparing it with (and defending it against) some of its recent competitors.

Obviously, this understanding of *-theism* is contingent upon the individual meanings of ‘existence’ and ‘God/gods’. Equally obviously, there is no space here to give comprehensive accounts of either of these ideas. It will be helpful, though, to make a few brief remarks about ‘existence’, before commenting in more detail on the crucial category of ‘God/gods’—upon which, as one might expect, the greatest disagreements among definers of atheism have centred.

‘Existence’ is not, perhaps, overly problematic. That is not to say that the concept does not present interesting philosophical issues and problems, but these are not specific to our current concerns. Admittedly, there are also strands within Christian theology which might want to deny, or at least qualify, the claim that God ‘exists’ (at least in the normal sense that everything within the universe is said to exist)—the influential fourth- or fifth-century theologian Pseudo-Dionysius could write that God ‘falls neither within the predicate of nonbeing nor of being’ (Luibheid and Rorem 1987: 141), for example—but this is a technical issue, beyond the scope of the present essay.³ That said, in the interests of precision, it is important to underline the role of the word ‘existence’

² I am grateful to Joseph Hammer for prompting me to refine my thoughts—and, especially, for arguing me out of my predilection for ‘lack’—on this important issue.

³ And besides, even Pseudo-Dionysius would presumably admit that God ‘falls outside the predicate of being’ in a different way than does, say, Hamlet, or the one-eyed, one-horned, flying purple people-eater.

in defining atheism. Frequently, the word is omitted, resulting in definitions of (a)theism in terms simply of 'belief in God(s)'. While this is fine as a handy abbreviation, as it stands the phrase is ambiguous: it can mean either *belief that* there is a God or gods, or *faith/trust in* God or the gods (Lash [1992] 2002: 18–21). In the vast majority of cases, including here, atheism relates only to the former sense (although an absence of that would, of course, ordinarily imply an absence of faith too).⁴ The presence of the word 'existence' also rules out those who might claim to 'believe in God', but only in some figurative, or anti-realist sense—in the same way that an adult, while not believing that Santa actually *exists*, might insist 'I believe in Santa Claus!' in order to affirm a general commitment to the magic of Christmas. These too, being without a belief in the *existence* of a God or gods, are still atheists on our definition.

The proposed definition draws on a conventional distinction between 'God' (singular, capitalized) and 'gods' (plural, lower case). According to this, the former normally signifies the 'genre' of God traditionally worshipped in Judaism, Christianity, and Islam (the differences between or within those traditions notwithstanding): a supreme, personal, transcendent, omnipotent, omniscient, and omnibenevolent Creator. This is sometimes referred to as the 'Judeo-Christian God', or the 'God of Classical Theism'. 'God' can and does, though, also refer to the supreme beings of other monotheistic religions or belief systems—e.g., Zoroastrianism, Sikhism, Neoplatonism—who may or may not conform precisely to the above description. Our second category of 'gods' is, however, rather harder to pin down: religious studies reference books are oddly reticent about giving a generic, non-tradition-specific definition of what a 'god' actually is. Certainly, most 'gods' are not simply multiple versions of the 'God' of classical theism. The Greco-Roman gods and goddesses, for example, are typically neither omnipotent, omniscient, omnibenevolent, nor transcendent (in the sense of being *outside* of creation).⁵ It may well be, in fact, that despite there being any number of widely accepted claimants of the epithet 'God/god'—Nyami Nyami, Hera, Odin, Baal, Wakan Tankah, Pachacamac—there is no set of essential characteristics that all gods possess, and all non-gods do not. (Being immaterial, immortal, and possessing supernatural powers, for instance, are often also considered properties of beings not normally regarded as gods, such as demons or sprites. On this point, see below.) It may also be that our Western concept of 'a god'—arguably like 'religion'—is one that has been artificially foisted upon belief systems, and where it now sits uneasily. If so, then perhaps it would be best to

⁴ That said, the term 'practical atheism'—'a lifestyle in which no (discernible) conclusions are drawn from the (theoretical) recognition of the existence of God' (Rahner 1957: 983)—relating primarily to the latter sense has some currency within Christian literature. This is an interesting topic in its own right, but concerns Christian believers, rather than atheists proper. Since practical atheists, by definition, are *not* 'without a belief in the existence of God or gods', the topic is not included in this Handbook (though see, at length, Bullivant 2012a: 22–6).

⁵ There is a persistent tradition within Christian theology of pointing out that *its* God is not 'a god'. Thus in the words of the second-century saint, Justin Martyr: 'We do proclaim ourselves atheists as regards those whom you call gods, but not with respect to the Most True God' (Falls 1948: 38–9). On this, see Bullivant 2012b.

adopt a Wittgensteinian ‘family resemblance model’—such as has been proposed for defining ‘religion’ itself (e.g., Clarke and Byrne 1993)—for deciding what does or does not count as a ‘god’. This would acknowledge that there is no set of necessary and sufficient properties common to all putative ‘gods’ (thus recognizing the genuine ambiguities of the term’s real-world application), while preserving what is, after all, a useful and well-established concept.⁶

The above considerations, while seemingly a little off-topic, are worth thinking about here. Partly because of the relative difficulties involved in defining ‘god(s)’ as opposed to ‘God’, some scholars insist on defining atheism *solely* in relation to monotheism, if not in fact, to one specific instance of it. Kerry Walters, for example, affirms ‘The God whose existence atheists reject is the deity worshipped by the three “Religions of the Book”: Judaism, Christianity, and Islam. [...] Each of them proclaims what’s come to be known as “the God of classical theism”’ (2010: 17). And for Paul Cliteur: ‘Atheism is concerned with *one specific concept* of god: the theistic god. The theistic god has a name and this is written with a capital: God’ (2009: 3). Relatedly, one commonly meets the claim that atheism’s definition is always relative to whatever form of theism happens to be dominant. In the words of Gavin Hyman: ‘atheism defines itself in terms of that which it is denying. From this it follows that if definitions and understandings of God change and vary, so too our definitions and understandings of atheism will change and vary. This further means that there will be as many varieties of atheism as there are varieties of theism. For atheism will always be a rejection, negation, or denial of a *particular* form of theism’ (2007: 29).

Certainly, there is some truth to this claim: *positive* atheism, at least, frequently expresses itself in opposition to some specific understanding of theism. In times and places where Christianity is prevalent, it would be strange to expend much energy critiquing the Neoplatonists’ One, or Pharaoh Akhenaten’s sun-god Aten. And nor is it surprising that Western proponents of positive atheism should now direct their attentions to Islam, as well as to their traditional target of Christianity. But the fact that prevailing theisms condition the focus and expression of certain types of atheism, need not mean that either they or atheism in general have no wider referent. Even when specific attention is understandably given to one type of theism, this is normally accompanied and motivated by a general disavowal of all gods. (By analogy, an opposition party normally expresses itself against the policies of the government. But it would be something of a stretch to claim that, say, the essence of the Labour Party—or socialism itself—is defined exclusively by ‘what the Tories are not’.)

The practical disutility of such a definition can, moreover, be easily grasped. If atheism is defined exclusively in terms of (say) the prevailing Abrahamic monotheism,

⁶ Some of the issues—and difficulties—surrounding the cross-cultural applicability of the Western-influenced terms ‘God’ and ‘god’, and thus of the concept of atheism itself, are well brought out in several of the later chapters in this volume. (See, for example, Andrew Skilton’s chapter on ‘Buddhism’, and Johannes Quack’s on ‘India’.)

then all non-adherents in that society—including huge numbers of other types of theists, both poly and mono—are thereby made 'atheists'. But not even the proponents of such definitions, in practice, use the concept in so broad and unwieldy a way. Furthermore, it becomes meaningless to speak of 'atheism' in times and places where this kind of monotheism is basically unknown: depending on one's understanding of *a-*, either everyone in ancient Athens was an atheist (in the negative sense), or nobody was (in the positive sense). But again, even those proposing such ethnocentric definitions of atheism *still* want to single out specific groups of 'atheists' in classical Greece (cf. Cliteur 2009: 5).

At the other end of the spectrum, there are those who, rather than restricting the scope of *-theism* to one specific understanding of God, wish instead to extend it to encompass *all* supernatural beings, forces, and phenomena. James Thrower, for instance, distinguishes 'relative atheism' (such as we have just discussed) from 'absolute atheism', which he regards as synonymous with metaphysical naturalism ([1971] 2000: 4). Other scholars, while not defining atheism in terms of naturalism, nevertheless regard the two as intrinsically linked. Kerry Walters, for example, asserts: 'The worldview that undergirds atheism is one whose deepest core belief is that the natural world is all that there is' (2010: 36). He continues:

[A]ll atheists are both methodological and what might be called 'ontological' naturalists. They don't just insist that scientific hypotheses must be kept free of occult explanations. They argue that scientific explanations are legitimate because there is nothing in reality that can't be understood ultimately in material, physico-chemical, naturalistic terms. For the ontological naturalist, there is nothing apart from nature, and nature is self-originating, self-explanatory, and without overall purpose. (ibid.: 37)

But while this may well be the worldview of many atheists, especially Western positive atheists (though I expect many of these would wish to qualify the above *précis*), there seems no need to regard this as being *the* atheist worldview. There are vast numbers of people who have no belief whatsoever in anything 'theistic', and yet believe in other supernatural beings or phenomena (see Eller 2010: 3, 10). These may include impersonal 'forces' or 'energies', nature spirits, dead ancestors, demons, sprites, or ghosts, as well as any number of paranormal possibilities such as clairvoyance, telekinesis, messages from beyond the grave, etc.⁷ Furthermore, this applies both to the followers of multiple non-theistic world religions, as well as to wholly nonreligious, self-defining 'atheists' in the secular West (see, for example, Lois Lee's chapter on 'Western Europe'). These cases, atypical and anomalous as they may (or may not) be, are certainly interesting, and there would seem to be little gained by defining such people as non-atheists out of hand. The same applies, of course, to other attempts to identify atheism-in-general

⁷ Of course, given the above adoption of a 'family resemblance' model of defining 'god', it may well be that a belief in some of these things either is, or implies, a form of theism. This is an interesting question to consider on a case-by-case basis, but does not affect the main point.

with a specific worldview (such as, most commonly, humanism). The words of George Smith are worth recalling:

From the mere fact that a person is an atheist, one cannot infer that this person subscribes to any particular positive beliefs. One's positive convictions are quite distinct from the subject of atheism. While one may begin with a basic philosophical position and infer atheism as a consequence of it, this process cannot be reversed. One cannot move from atheism to a basic philosophical belief, because atheism can be (and has been) incorporated within many different and incompatible philosophical systems. ([1979] 1989: 21–2)

Yet again, the primary concern here is utility: the study of atheism has far too much to lose in terms of richness and diversity by artificially excluding great sectors of those from whom a belief in the existence of a God or gods is absent.

CONCLUSION

The purpose of this chapter has been to explore the troublesome question of what *atheism* actually means, and to elucidate and justify the specific way in which it is being used in this volume. After introducing a number of background issues—the variability of word's historical and contemporary usage, and the benefits of a generally agreed-upon scholarly definition—the task was broken down into its two constituent parts: the definition of *a-*, and the definition of *-theism*. It was argued that the former is best interpreted in the privative sense of an 'absence'. This permits atheism to function as an umbrella concept, uniting a wide (but coherent) set of positions and phenomena. It is then possible to construct a systematic taxonomy of different types of atheism—the most basic division being between negative (simple absence) and positive (specific denial)—to bring clarity to further researches. The discussion regarding *-theism* was more complicated, with a broader range of credible options. Here it was argued that the central idea should be 'belief in the existence of a God or gods' (without needing to define too sharply what does or does not count as a 'god', a concept lacking a certain clarity in the field of religious studies). This steers a course between confining theism to only a specific form of it (e.g., Abrahamic monotheism), and needlessly coupling atheism itself to a particular metaphysical or ethical worldview. The resulting union of these two decisions gives us the following definition of atheism: *an absence of belief in the existence of a God or gods*. Since it has been a key contention in this chapter that the definition of atheism is to be guided by the principle of scholarly utility—and not least the extent to which it helps, or hinders, the pursuit of interesting and genuinely illuminating research—then this particular one can, to a significant degree, be judged by its fruits in the rest of this Handbook.

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CHAPTER 2

THE CASE AGAINST ATHEISM

T. J. MAWSON

INTRODUCTION

‘ATHEISM’ is sometimes defined as the view that we know (or are, some or most of us, in a position to know) that there is not a God. This then naturally pairs with defining ‘theism’, by contrast, as the view that we know (or are, some or most of us, in a position to know) that there is a God, leaving ‘agnosticism’ as the view that we don’t know (many or even any of us), either way. Had this publication defined ‘atheism’ in this fashion (see Stephen Bullivant’s ‘Defining “Atheism”’), it would have been a view that had more to be said against it than atheism as it has actually defined; and, in saying some of these things against it, I would have found myself making common cause with agnostics, so understood, as well as with theists. This is because atheism, so understood, doesn’t rest content with making a claim about the truth of the belief that there’s not a God; it goes beyond that and makes a claim about this belief’s being an item of knowledge for all or some of those who have it.

A second, less bold, view thus suggests itself as one that might nevertheless be deserving of the name ‘atheism’, the view which doesn’t venture an opinion on the knowledge-status of the belief that there’s no God, but confines itself instead to its truth. And such a view is indeed frequently found in the literature under the name ‘atheism’. So, ‘atheism’ is sometimes defined simply as the claim that there is no God and theism as the claim that there is a God. An agnostic then may be taken as someone who is neither a theist nor an atheist.

This publication opts for a third way, one which makes atheism an even less bold thesis than it is on the second way of defining it, which I have just sketched. When a person claims to be an atheist in the *Oxford Handbook of Atheism*’s sense, he or she says of himself or herself that, as a matter of fact, he or she has failed to come to the belief that there is a God. This may be because he or she has in fact come to the belief that there’s not a

God and thus is an atheist in the second (positive) sense, but it may be because he or she has simply failed to come to a belief one way or another and thus is an agnostic in the second (negative) sense.

The case against atheism, understood as it is here, must then be the case for it being *unreasonable* to fail to believe that there's a God. That is to say, in advancing the case against atheism as it is understood by the contributors to the volume, I must argue that the arguments or some subset of the arguments of natural theology (by which I mean the project of advancing arguments for God's existence from premises concerning the natural world) are rationally compelling. Fair enough, those are the terms of the debate framed by Bullivant's 'Defining "Atheism"', and I do in fact believe this about some of the arguments of natural theology with respect to the God of classical theism, so that is what I'll argue. (It's because I believe this with respect to this god [the God] that I don't then bother to mention the 'or gods' clause in the definition of atheism.) But, before I do so, I want to pause to make two points, the first being the one that many theists, quite consistently with their theism, would be happy to concede that such a case cannot be made.

The sort of theist who says that whilst, given his or her particular religious experiences, it's not unreasonable for him/her to believe in God (possibly even would be unreasonable for him/her not to believe in God), but who refuses to claim that it's true of all or most others that, regardless of their individual experiences (or lack of them), it's unreasonable for *them* not to believe in God, is obviously not committed to *any* of the arguments of natural theology being rationally compelling. Such a theist could, no doubt, be pressed to agree that he or she needs a counter-argument (a defeater-defeater, as it's usually called) to the problem of evil (which otherwise, being an undefeated defeater to his or her theism, would render it unreasonable). But theism *per se* doesn't commit one to atheism's being unreasonable for everyone or even most.

This view is worth noting in part as it is not by any means an unusual one. Indeed, it is that of one of the two most prominent philosophers of religion alive today, Alvin Plantinga (e.g., 2000). (The other, Richard Swinburne, would support the general line I take below (see, e.g., 2004).) Theists influenced by Plantinga in this particular, thinking that their theism is properly basic, could accept that atheism—understood as failing to come to the belief that there is a God—is a position that it is reasonable for many or even most people to adopt. Some people, such a theist may say—perhaps even the majority of people—may indeed be not unreasonable in failing to come to the belief that there's a God, but, then again, such people won't have had the experiences that he or she has had, the experiences which make Theism not unreasonable, possibly even rationally compelling, for him or her. Such a theist can go on to say that if these atheists who are at the moment not unreasonable in being atheists *did* have similar experiences to those of this theist, then, but perhaps only then, they'd be unreasonable in remaining in their atheism. But, unless or until they do so, their atheism is indeed a not-unreasonable position. Such a theist may even consistently assert that atheism is the *only reasonable* position for them to adopt. These theists then have no dispute with atheism understood in the

Handbook's broad sense. In fact, Plantinga thinks that there are good natural theological arguments, but the view of his that I'm focusing on here is the 'meta' one, that good natural theological arguments are not needed for theism to be rational (and indeed knowably true) for a certain subset of people, those in receipt of the right experiences (and with suitable 'defeater-defeaters' to hand should the problem of evil be presented to them). The sorts of theists I'm talking about at the moment are the sorts of theists who are inspired by him to take this meta view whilst being less optimistic than he happens to be about the prospects of natural theology understood as I am understanding it.

As well as this sort of view being worth noting as it is by no means an unusual one, it is worth noting as noting it allows us to see that the rational defensibility of Theism is not directly threatened if the argument that I'll advance against atheism doesn't in fact have the strength that I shall attribute to it or even if no argument does. That is to say that failing to show that it's unreasonable not to believe that there is a God, is not showing that it's unreasonable to believe that there is a God. To get from this failure to that conclusion, one would have to mount an extended campaign against these Plantinga-following theists. This is worth pointing out as many of those who say that there aren't any good arguments for theism go on to conclude from this that atheism is the only reasonable position without appearing even to realize that they need to engage in (and win) such a campaign. They make a few hand-waving comments about where the 'burden of proof' lies and think that that suffices; it does not.

The second point I want to make by way of introduction concerns the general issue of when it's reasonable to fail to come to a belief that x . My point here is that such an issue is a substantial one, for all values of x , and in one manner it's more than ordinarily intractable when x takes the value of 'God exists'.

When we decide whether or not it is reasonable to fail to come to a belief that x , we need to think of ourselves as having a pretty good idea of where the virtuous mean falls between two opposing vices, at least for that particular value of x (perhaps it falls in different places for different values). On the one hand, we should not be overly credulous—so desperate not to leave a truth out there in the cold, as it were, languishing un-believed—that we carelessly fling open the doors of our minds and allow in all manner of unworthy falsehoods, to make themselves at home. People who tell us that, on the basis of the testimony of a man they met in the pub, they now believe in the healing power of crystals will strike us as having erred on this side of virtue. On the other hand, we ought not to be so desperate not to allow an unworthy falsehood into the hallowed halls of our minds, that we close the doors prematurely in the face of all sorts of belief-worthy truths, truths that were rightly expecting admission. This is the vice towards which professional philosophers naturally err.

Can we—theists and atheists alike—agree and be pretty confident in our being right about where the virtuous mean lies between the two vices of being overly credulous and overly sceptical in the context of the particular belief that there's a God? No, because—although I don't have time to argue it here (see Mawson 2010 for more)—where the virtuous mean lies in this case depends on whether or not there is a God: roughly, if there is, then it's closer to the credulous end and, if there's not, then it's closer to the sceptical end.

That being so, we can't expect an agreement between theists and atheists on where the virtuous mean lies and thus even in those cases (should there be any) where there is an agreement between theist and atheist on how good a particular argument for the existence of God is we can't always expect an agreement on whether that argument renders it unreasonable to fail to come to believe that there's a God.

So, by way of introduction, I have made two main points. First, given the way atheism has been defined (an atheist is someone from whom a belief that there's a God or gods is absent), not all theists would think that atheism is unreasonable for all or even most people; some theists indeed would insist that atheism is the only reasonable approach for those not in receipt of the sorts of religious experiences that they have received. These theists, taking Plantinga's line on this issue, are not committed to the success of any of the arguments of natural theology and thus their theism is not directly threatened if my natural theological argument below fails. Secondly, what standards it is reasonable for one to expect an argument in favour of the truth of a belief that x to reach before it becomes unreasonable to fail to come to the belief that x will vary between theists and atheists when x takes the value of 'God exists'. Thus, even were a given argument of natural theology to be agreed by each to have a certain degree of strength, they might, quite consistently with agreeing this, disagree on whether it thus made remaining in unbelief unreasonable. Both these points have obvious bearing on whether one should be in the business of demanding of the theist that he or she 'defeat' atheism with arguments and whether one will be able to agree on a standard that needs to be met for defeat to be declared. Be that as it may, the business I find myself in today is meeting that demand. So, without further ado, I'll do my best to get on with it.

CUMULATIVE CASES AND KILLER FACTS

The strongest natural theological case seems to me a cumulative one, composed of many arguments which collectively, and weighing the problem of evil in the balance too, are overall sufficient to raise the probability of there being a God to an extent where one has more reason to believe that he exists than one has to believe that he does not. This (bracketing rather the concerns raised in my introductory comments) may be taken to be equivalent to rendering it unreasonable to fail to believe that there's a God; thus, the case against atheism would be made. And, as to the elements, I'd say that there's at least something to be said in favour of many of the traditional arguments of natural theology. That is, I think that many of these arguments do in fact do something to raise the probability of there being a God on their premises, premises which are themselves at least somewhat more plausible than their negations. But I'd also concede that there's no one 'killer fact', e.g., a fact that everyone agrees is a fact; that everyone can see needs explanation; and that obviously needs God for its explanation. It's not that atheists are simply missing something obvious. Due to considerations of space, I want to narrow my focus in what space remains to me to just one element of the larger cumulative case that

I'd present were space to permit. As I say, I don't believe that there are any 'killer facts', but I've chosen this element out of the larger cumulative case as the facts from which it starts seem to me to come pretty close to being killers. The argument is a variant of the fine-tuning version of the Design Argument. On this topic, I have some original things to say, but also much that is unoriginal, so I hope that those familiar with the literature will forgive me for repeating some material which they already know.

GOD AND THE UNIVERSE

First, allow me to state how I understand a couple of crucial terms. By 'the universe', I mean the physical reality that we encounter in everyday life—we presume—and all things causally connected to it which admit, at least in principle, of scientific explanation. So, the universe includes not merely the observed universe, but also the unobserved—sections of space-time beyond our light cone. If, as the Everett interpretation of quantum mechanics suggests, each time a quantum state 'collapses' as the rest of us might put it, the universe branches, then all the branches taken together make up one universe in my sense of universe. I won't labour the point with more examples, the point being that, as I shall be using the term, the universe includes all and only entities the explanation of which would be part of a completed science. Secondly, by 'God' I shall mean the God of classical theism: a supernatural person who is omnipotent, omniscient, perfectly good, and creator of everything other than himself. I take it that the existence of such a God is logically possible. (Of course this is controversial; for a defence of it, see the first half of Mawson 2005.) And I also take it that, were God to exist, He would—of necessity—not be a part of any universe as, were he to exist, he would lie outside scientific explanation in principle.

In what follows I shall be focusing on the hypothesis that every possible universe is actual, what I shall call the 'maximal multiverse hypothesis' and be considering its probability relative to that of God's being actual, the 'God hypothesis' if you will. And I shall be considering their relative probabilities on the evidence provided by certain general features of the laws of nature which we take to be operative in our universe, what might be called the 'fine tuning of the universe to us' and the 'fine tuning of us to the universe'. (I shall explain what I mean by fine tuning in a moment.) I've focused on the maximal multiverse hypothesis and the God hypothesis as these two hypotheses are, I am assuming, the simplest naturalist and supernaturalist hypotheses that one might suggest as explaining the fine tuning. The simplicity of the maximal multiverse hypothesis is an issue to which I shall return in due course; the relative simplicity of the God hypothesis amongst supernaturalist hypotheses is one that space considerations force me to assume.

In considering these hypotheses I shall be allowing myself then to think that in principle the probability of various explanatory hypotheses which make reference to things beyond the universe—specifically other universes or God—might be raised or indeed lowered by our discovery of features of this universe.

Some people are very chary of talking of probabilities in this area for they hold exclusively to a frequentist understanding of probability, thinking that whenever one talks of probability one is gesturing to a series of trials and talking about the relative frequency of a certain outcome across that series. Where that sort of background is lacking (as it is in this case), such people say, attributing probability to a hypothesis doesn't make sense or perhaps—more minimally—makes sense but is something for which one cannot have any reasons. To see the error in this, engage in the following thought experiment with me if you please.

Suppose that scientists had discovered that the universe was composed of a certain type of fundamental particle each one of which had inscribed on it in Times Roman zero, point zero, zero, zero, some-tiny-size font, 'This Particle Created by the God of Classical Theism.' What would we say to someone who, on being made aware of this startling discovery, said this? 'My notion of probability is such as to mean that I cannot allow that this evidence raises the probability of theism for it does nothing to allow me to stand back and look at multiple universes, observing the frequency with which this property is conjoined with God and the frequency with which it is conjoined with no God.' Well, we'd surely say that they'd just shown themselves to have an overly restrictive notion of probability. That sort of evidence—had it been forthcoming—really would have raised the probability of there being a God beyond reasonable doubt and anyone whose notion of probability is such as to mean that they'd say that it wouldn't is someone whose notion of probability is one we have *ipso facto* good reason to reject as exhaustive of legitimate notions of probability.

Now we'll all have noticed that we're not actually in a universe where scientists have discovered that written on every fundamental particle is a small but unambiguous message purporting to be from the creator—that *would be* a 'killer fact' for atheism. But we are in a universe where scientists—and indeed philosophers—have discovered lots of interesting things and some of these, I suggest, have a bearing. Let's turn to the scientists first.

COSMIC FINE-TUNING

Scientists tell us that had the Big Bang had slightly more force, then the universe would have expanded at such a fast rate that no stars, planets, or life could ever have formed. Had it expanded slightly more slowly, everything would have collapsed back in on itself under gravitational attraction before life could have formed too. As well as that which controls the force of the Big Bang, there are a number of other quantities in the laws of nature, and scientists are approaching consensus on what are the maximum deviations in these quantities that would nevertheless have allowed life to have formed. Thus, they tell us, the Cosmological Constant could only have deviated by a factor of one over ten to the power of 120; the ratio of electrons to protons by one over ten to the power of 37. And so on. (There are many good discussions of these things; some are Leslie 1989; Rees

2000; Barrow 2002; Collins 2002; and Holder 2004.) We may thence be led to picture our universe as one amongst many possible universes, in each of which the same natural laws operate, yet in only a very few of which life is possible as in only a very few of which do these constants manage to hit just the right values, thus concluding that our universe is 'fine tuned' to life. And this fact, it might be suggested, needs explanation, an explanation best provided—it has often been suggested—by the God hypothesis. Thus, the classic 'fine tuning' version of the Design Argument.

By far the most common objection to the fine tuning version of the Design Argument may be put as follows: 'Fine tuning can't be in need of explanation because we couldn't observe a universe which wasn't fine tuned. We wouldn't be here to think about it if it hadn't happened, so the fact that it has happened isn't worth thinking about.' This, despite its almost universal appeal, is, I take it, shown to be misguided by thought experiments such as the following, which I adapt from Swinburne.

A terrorist ties you up in a room with a machine. The machine is linked up to a bomb which will, if it explodes, kill you. You see the terrorist put ten ordinary packs of cards into the top of the machine. He tells you that the machine will thoroughly shuffle these cards and then select ten at random and drop them into a little tray at its front. Only if the ten it dishes out are all aces of hearts will the bomb not go off. He leaves you. The machine whirs away. The first card comes out—it's an ace of hearts; the second, another ace of hearts; the third, ace of hearts; and so on. In fact, all ten are aces of hearts. The machine goes silent; the worrying red light on the bomb turns to green. You have survived. (Mawson 2005: 145)

This would require some explanation. The chances of ten aces of hearts being dished out in a row if the machine worked as the terrorist said it did are very small and the fact that something very improbable has happened needs explanation in terms of something that would make it less improbable, for example the machine selecting cards on a basis which actually gives it a preference for aces of hearts. It may be true that you could not have observed any other outcome, but another outcome was—if what the terrorist told you was correct—immensely more likely. So, from the fact you have survived, you have reason to believe that what the terrorist told you was not correct.

Similarly then, if there were nothing outside the universe, there would be no process selecting values for these constants, constants which have to be finely tuned for life to be possible. The fact that they have the values they do would then be a matter of random chance. That is a possibility. But then the probability of their coming out in the way that they have would have been fantastically small in the one and only universe. It's far more likely then, so the argument goes, that there's something outside the universe, in some sense selecting these values. From the fact that the universe is fine tuned to life, one has reason to believe that there's almost certainly a fine tuner. At this stage, another objection is usually raised.

If the machine had dished out what we'd all think of as a random selection of cards and the bomb gone off as a result, then that state of affairs—the bomb's being set off by just that particular selection of cards—would have been just as improbable as is the state of

affairs of its ending up not being set off as a result of the ten cards all being aces of hearts. Yet one would not say that the bomb's going off in this manner needed an explanation. Here we come upon an important—yet usually suppressed—premise of the traditional Design Argument: the improbable feature which one takes to be evidence of a fine tuner has to be special, and special by reference to a standard objective enough to mean that it would have applied regardless of what had happened (see Bradley 2002). Of course, the proponent of the fine tuning argument may simply assert that obviously life *is* special, if not the life of slugs or beetles, then the morally sentient life of rational, conscious, significantly free agents such as ourselves. However, such a response, whilst I would maintain in every respect true, would not go far enough.

The universality of at least some values—their holding throughout the universe—need not be questioned by the opponent of the fine tuning argument pressing this objection. The point at issue here is the putative *trans*-universality of at least the value of life of the sort we are concerned with—its holding *across* universes. (Remember: in the case of the ten aces of hearts needing an explanation, they did so because the outcome was special *by standards which would have obtained regardless of what outcome had obtained.*) The trans-universality of at least some values is less obviously correct than the universality of at least some values (and even that would be questioned by many), but, I believe, it is correct nevertheless. We can, I suggest, see that a universe consisting of only one hydrogen atom, for example, would have certain good features: it can be imagined to have a certain simple beauty about it (although of course there'd be no-one in it to appreciate that beauty); there would be no suffering in it; there would also be no shameful viciousness or wilful ignorance. But there would equally certainly be bad features of a universe consisting of only one hydrogen atom: as I say, there'd be no-one in it to appreciate whatever beauty it had; there'd be no pleasure; no justifiable pride, virtue, or knowledge in it. That, in any case, would be my view. I am spared from having to defend it further as the premise of the trans-universality of value is not needed to support my final conclusion. For the moment then I shall proceed on this assumption, noting in due course when it drops out. For the moment then, allow me to assume that if the universe is fine tuned for the life of morally sentient significantly free creatures such as ourselves, it is fine tuned for something that is trans-universally valuable. Even on this assumption, so far the proponent of the fine tuning version of the Design Argument has given us no reason to posit any *extra-universal* fine tuner.

Were our universe in fact one where each of the values of what are then somewhat misleadingly called 'constants' is 'tried out' somewhere or 'somewhen', as it were, then what is sometimes called the 'wider landscape' of other possible universes would actually be encompassed within this universe and thus the fine tuning of which I have so far made mention would disappear. Perhaps ours is an oscillating universe, where each Big Bang is the other end of a Big Crunch, the curvature of space-time gradually altering with each crunch and bang towards being life-permitting. In any of a multitude of such cases, the fine tuning spoken of so far would not need an extra-universal (i.e. outside the universe in my sense of 'universe') fine tuner. It is this very fact that explains the attractiveness of views of this sort to some scientists. (Confusingly—given my use

of the terms ‘universe’ and ‘multiverse’—these views are sometimes called multiverse views.) According to some such scientists, the fine-tuning of the force of the Big Bang, for example, does need an explanation, but it gets an explanation that doesn’t posit anything God-like from the fact that the wider universe (in my sense of ‘universe’; those propounding these views often call this wider whole the ‘multiverse’), has parts which instantiate each of the different values that the relevant constant might in principle take. The same thing goes for the other constants. If Swinburne’s terrorist tried his machine out enough times to make sure that every possible series of ten cards was eventually dished out, then of course one of his victims would eventually end up surviving.

Such views (that is the multiverse views in the literature which are not maximal—see below) might seem then to make the fine tuning disappear. But in fact they merely relocate it to a higher level, in the natural laws that, for example, determine the evolution towards life-permitting conditions of the oscillating universe. If the universe as a whole (in my sense) creates space-time subsystems randomly or in an evolving way such that a life-permitting subsystem, whilst improbable in any particular instantiation or oscillation, becomes a statistical certainty over the infinite range, there is still fine tuning in that it is still a general feature of the universe that it permits in principle life-conducive space-time subsystems to come into being, rather than confines what may come into being to parameters that necessitate lifelessness. Thinking in terms of our imaginary persistent terrorist, the fact that he feeds *ten* packs of cards into the machine on each occasion he tries it out, rather than say nine (which would of course then render it impossible for anyone to survive it however many times he tried it out), permits—indeed over an infinite number of runs makes a statistical certainty of—a victim surviving. So, there is higher-level fine tuning even here.

THE ‘MAXIMAL MULTIVERSE’ HYPOTHESIS

There is another hypothesis that suggests itself as the natural extension of the one we’ve just been considering. It pushes one step out. On the hypothesis we’ve just been considering, the universe had one set of natural laws, but varied in the values various ‘constants’ took in sub-systems within that universe. A natural extension of this hypothesis, what I call the ‘maximal multiverse’ hypothesis, asserts that every possible universe is actual. The higher-level fine tuning which remained on the previous hypothesis disappears on this one: the maximal multiverse hypothesis explains more; as well as explaining why the ‘constants’ are as they are (they’re every value that they can be somewhere) it explains why the natural laws are as they are (they’re every form they can be somewhere). Thus, it is preferable. The moral of the story so far then might be summed up as follows: on the assumption of the trans-universality of the value of life of our sort, you should think that the fine tuning of the universe to this sort of life needs explanation and, if you’re going to believe in a naturalistic explanation of this fine tuning, you should believe in the maximal multiverse (compare Tegmark 2007).

If you're a terrorist who can link enough devices to enough other devices according to enough principles, you'll find yourself trying out a bomb/card set-up such as Swinburne's, infrequently to be sure, but an infinite number of times to be sure too, and thus a victim will, now and again, survive. If you stick enough animals in front of enough pieces of equipment, then, sure, you'll get a frustrating proportion of slugs in front of typewriters and monkeys in front of vacuum cleaners, but you'll occasionally get a monkey in front of a typewriter; and—if you do it enough times—this occasional happening will eventually lead to Monkey Shakespeare. So, it is a certainty that in a maximal multiverse composed of an infinite number of infinitely variable universes 'somewhere' in the maximal multiverse, there'll be a universe like ours.

At this stage, we appear then to have two reasons to suppose that the maximal multiverse hypothesis is in fact a better explanation for the fine tuning of our universe to us than theism. Firstly, and most obviously, on it, the probability of our universe existing is one. Theism, by contrast, in picturing the existence of the universe as the result of a free choice on God's part, a choice which—being free—he did not have to make in the way that he did, may be able to raise the probability of this universe existing on the hypothesis, but it cannot raise the probability of its existing on the hypothesis to one. Of course, we're primarily interested in the probability of the hypothesis on the evidence, not that of the evidence on the hypothesis. However, as an explanation of some evidence, a hypothesis that gives that evidence a probability of one is in that respect at least the best sort of explanation one could ever get. Secondly, the maximal multiverse hypothesis is simpler than the theistic hypothesis. The maximal multiverse hypothesis might seem *prima facie* much more complicated than the hypothesis that there's one universe and one God, but it is not really more complicated in the way we care about when comparing hypotheses. Simplicity considerations operate on types of entity as well as tokens of a type. The maximal multiverse hypothesis is simplest on types of entity; there's only one type of thing, universes. The God hypothesis is simplest on tokens of type; on it (at its simplest) there are only two tokens, one each of two types of thing, the first God and the second the universe. I suggest that simplicity with regard to type is to be preferred over simplicity with regard to token and thus that the infinite number of infinitely variable universes hypothesis is actually a simpler hypothesis than the God hypothesis (though contrast Moreland and Craig 2003: 487, and Holder 2004: 16). If you think you might disagree with me, not to worry: rather as with my premise of the trans-universality of value, my argument doesn't ultimately depend on this premise in that it concludes that *even if simpler*, we still shouldn't prefer the maximal multiverse hypothesis. If it's *not* simpler, that's just another nail in its coffin. So, I'll move on.

What can be said *against* the maximal multiverse hypothesis? There is something, and it is something decisive. Let us approach saying it somewhat obliquely, by looking at a danger to which the maximal multiverse hypothesis *need not* succumb.

It may look as if the maximal multiverse hypothesis, in making every possible universe actual, 'explains too much'. It might appear to suggest that *whatever* feature of the laws of nature was discovered and posited as giving reason to believe in God, the maximal multiverse hypothesizer could, on his or her hypothesis legitimately, explain

it by saying, ‘Well, every possible thing happens somewhere and this is somewhere after all’. If that *were* what the maximal multiverse hypothesizer could always—by his or her own lights, legitimately—say regardless of the feature, then that would surely be implausible. We may imagine a modified terrorist example to bring this implausibility out.

The situation is as in the original example except that the terrorist tells you that the machine will dish out *twenty* cards selected at random from the *twenty* packs it shuffles. As before, only if the first ten are aces of hearts will you live, but only if the next ten are aces of hearts *as well* will you be given a Singapore sling to toast your good fortune. The first ten are aces of hearts; you survive; the next ten are aces of hearts too; the terrorist enters, mixing your Singapore sling.

The terrorist can brush off your surviving by pointing out that he’s used the machine an infinite number of times, but he cannot brush off your getting the Singapore sling by pointing out that he’s used the machine an infinite number of times. Why? The Singapore sling needs an explanation—I take it—precisely because of those people who do manage to survive only a tiny proportion go on to enjoy a Singapore sling in addition. Assuming the terrorist tries his machine out an infinite number of times, people—an infinite number of people indeed—will survive and people—an infinite number of people indeed—will enjoy Singapore slings. But amongst the set of people who survive (amongst whom you may safely number yourself after the tenth card has been drawn) the frequency of Singapore sling drinkers is very low. The chances of you getting a Singapore sling after you’ve survived are the same as the chances of you surviving in the first place and those are very small, very small indeed. That being so (and a Singapore sling being—I am taking it—something rather special, even if not trans-universally but only to humans), the Singapore sling needs an explanation of a new sort.

So, the maximal multiverse hypothesizer must—but can—leave the door open to the possibility that there may turn out to be features of our universe that need an explanation which takes one beyond the hypothesis, i.e. features which show the maximal multiverse hypothesis to be explanatorily inadequate, ‘Singapore sling’ features if you will. Now we have noted that the door is open, let us go through it.

THE ARGUMENT FROM INDUCTION

So far we have been considering the fine tuning of the universe to us, or—more specifically—to us *qua* morally sensitive and significantly free creatures. Let us now turn to consider the fine tuning of us—or, more specifically, us *qua* morally sensitive and significantly free creatures—to the universe. We shall concentrate on a feature of our relationship to the universe that one need not posit is trans-universally valuable; one need only recognize that it is a feature which is valuable, indeed essential, to us and this nobody will deny. (So, at this stage in the argument, the assumption of the trans-universality of values is dropping out.) It is a feature that has been discovered and the significance of

which has been pointed out, not by scientists, but by philosophers—arguably Kant and certainly, more recently, Walker (1999: ch. 11). The feature is the continuing tractability of the universe to the process of induction as we find ourselves engaging in it.

The process of induction is the process of believing that the future will resemble the past in the broad sense that the simplest laws that can be made to harmonize with past experience will continue to hold in the future. This principle lies at the root of all action; induction's inescapability is secure, but its applicability—*its continuing to work*—is not. This is a point that Hume was first to press upon us and that Goodman has since made all the more pressing. Goodman famously introduced to the philosophical lexicon two portmanteau words, 'grue' and 'bleen' (Goodman 1955). We may define them—following him in spirit if not letter—thus: an object is grue in colour just if it is green before time t (where time t is a particular but arbitrary time in the future, let us stipulate then whatever time it is that will be two seconds after you finish reading this essay) and blue after time t . An object is bleen in colour by contrast if it is blue up until time t and green thereafter. Goodman pointed out that we all believe (or at least think we believe) that emeralds are green and thus believe that we are thinking that the future will resemble the past when we think that emeralds will stay green tomorrow. However, as he also pointed out, the evidence we have collected to date—all of it of course being collected before time t —equally well supports the claim that all emeralds are grue. Someone to whom the concepts of grue and bleen came naturally, in expecting nature to continue on as it has done in the past, would thus expect emeralds to stay grue, which in our terms would amount to their expecting them to change from green to blue. But *we* are not such people and it is *we* who get things right, get them right time after time. This is a remarkable co-incidence, the equivalent of a continuing run of aces of hearts, a continuing succession of Singapore slings being mixed up for us by the universe.

The most frequent first reaction to this point is to say that grue is a more complex concept than green, but (a) this is not obviously so from any transcendent standpoint and (b) it is irrelevant.

With regards to (a): a person who had been brought up using grue and bleen would have to have what would strike them as our hopelessly time-indexed terms 'green' and 'blue' translated for them. An object is green in colour, we would have to explain—trying our best to meet their incredulous gaze steadily—just if it is grue up until t and bleen thereafter. An object is blue, we would continue, if it is bleen up until t and grue thereafter. They would be astonished that we projected such 'bent' predicates as green and blue. 'Why are you expecting emeralds to change colour at that time?' they would ask us. 'Why not believe as we believe', they would say, 'that emeralds will continue to be the colour they always have been, grue?' On hearing this, we would naturally think that our positions were precisely the reverse: 'It's not *us* who are believing that things will change', we'd protest. And we'd think our fates were reversed too: it won't be *us*, we'd think, who will be surprised. That's what we'd confidently expect, but what are our grounds for such a confident expectation? Not, it appears, the relative simplicity of green and blue over grue and bleen. In any case, moving onto (b), the relative simplicity—even if it could be

established—seems irrelevant to our concerns. What if grue and bleen were more complex by some concept-transcendent standard? What is to say that our universe will turn out to be as simple by this standard as we suppose it to be?

Evolution cannot help us here, because—so far—evolution has of course, like everything else science might draw upon to explain anything, only operated in the past and thus it cannot yet have selected against grue/bleen projectors whose time t is in the future (as the time t stipulated is). It just *couldn't* have harmed us *yet* if we happened to live in one of those logically possible universes where everything goes along just as in the universe we suppose ourselves to be in up until t and then takes what from our green/blue projecting framework would strike us as a radical turn and what would strike someone from a grue/bleen projecting framework as no change whatsoever. It's no good saying, 'But we just don't live in a universe where things change colour arbitrarily', for that is precisely what is at issue: what reason do we have to suppose this from the fact, which we may grant, that we don't live in a universe where things have changed colour arbitrarily in the past (changed by reference to our, apparently arbitrary [see point (a)], standards of arbitrariness that is)? 'Well, it would be simpler (at least by our standards) if things did continue the same (by our standards)' is of course true, but then what reason we have to suppose that that which is simplest (by our standards) will continue to obtain is again just the point at issue. In short, there can be no solution to this problem from any feature of this universe, for whatever feature this universe is posited as having and used in the putative explanation will be indistinguishable by us on the evidence we have collected to date from a feature which is about to break down by reference to our standards of simplicity and sameness, a feature the time t of which is about to arrive. So, if we cannot solve this problem, even in principle, with resources drawn from within the universe, if we are to solve this problem, we must go outside the universe. The maximal multiverse model posits entities outside the universe; does *it* have the resources with which to provide an explanation of the continuing fine tuning of us to the universe? No, it certainly does not.

On the maximal multiverse hypothesis, as every possible universe is actual, so for every moment that passes for a creature in a universe without recalcitrant experience demolishing its inductively based expectations, there are an infinite number of creatures in other universes who, whilst hitherto having shared that creature's happy fate, now find their continuing experience recalcitrant in the most extreme ways. For every emerald that stays green over a moment in the actual universe, there is another universe that was precisely as ours up until that moment in which it goes blue; in another, it goes red; in another, yellow. And so on. On the maximal multiverse hypothesis, as every possible universe is actual, so from the fact that, roughly speaking, there's an infinite number of ways one might go wrong when one believes something about the future and only one way in which one might go right, there are an infinite number of people just like us up until this moment who are about to go wrong. On the maximal multiverse hypothesis then, the evidence we have collected to date through our experience does nothing to reduce the probability of us being about to discover that we're one of the ones who was about to go wrong when we suppose that emeralds will stay green. The chances on the

maximal multiverse hypothesis of the next Singapore sling being served up to us by a compliant universe are infinitely low. Yet they keep being served up to us, with every moment.

Unsurprisingly (in that it could hardly do worse), the God hypothesis does better at explaining the fine tuning of us to the universe; in fact, it does much better.

The reason God would have to create, from within that set of possible universes that are conducive to morally sentient significantly free creatures, a universe which is consistently inductively tractable is easy to see: these creatures' moral sensitivity and significant freedom would be in vain, devoid of the necessary conditions for responsibility, to the extent that the world around them proved unpredictable. Of course at the extreme, without any inductive tractability at all, creatures could not *be* morally sensitive—often knowing what they ought to do—or significantly free—able, in principle, to choose whether or not to do as they ought. So, pending a conclusive argument in favour of the trans-universality of the disvalue of lack of moral sensitivity and significant freedom (and for that I'd need to draw back in the relevant premise), we cannot draw out with confidence a reason God would not have created such a world. But in a world that was not entirely inductively intractable but just significantly less inductively tractable than ours (for example, irregularly, but on average every five minutes or so, the laws of nature as its inhabitants had been led to think of them might 'suspend' themselves for a moment or two in localized patches before re-establishing themselves), creatures could plausibly retain at least some moral sensitivity and significant freedom, but—in proportion to the unpredictability of their world—they would find that they would nevertheless not end up doing that at which they had aimed; their freedom would be—in proportion to their universe's inductive intractability—evacuated of its moral significance and to this extent, this world would be bad for them. So, given that God had—if needs be one can say, whimsically—decided to create a world with morally sensitive and significantly free people in it, He would then have good reason, indeed overwhelming reason, to create it with natural laws that were to a large extent inductively tractable to them, the more inductively tractable, the better His reason for creating it.

With that, it is time to sum up and conclude.

FINE-TUNING: THE UNIVERSE TO US, AND US TO THE UNIVERSE

My version of the fine tuning argument to the 'pre-established harmony', as it were, between us and our world has progressed as follows. Initially, it appeared that the best explanation of the fine tuning of *the universe to us*—a fact which *did* need explanation on the assumption of the trans-universality of the value of life of our sort—was the maximal multiverse hypothesis. That hypothesis raises the probability of this universe existing to

one and, it was argued, is simpler than the God hypothesis. By contrast, the God hypothesis raises the probability of this universe existing to less than one and, it was argued, is more complex. *However*, as we went on to see, regardless of the trans-universality of any value, the best explanation of the continuing fine tuning of *us to the universe* is the God hypothesis. On the maximal multiverse hypothesis, the probability of any universe in which there are morally sensitive and significantly free persons being a universe which those persons can more or less consistently understand through induction is infinitely small. On the God hypothesis, that probability is one. As it is infinitely small on the maximal multiverse hypothesis and one on the God hypothesis, so these hypotheses exclude one another: if there were a God, He would not have created any universes where there were morally sensitive and significantly free beings who found their universes significantly inductively intractable and there are an infinite number of these on the maximal multiverse hypothesis. The hypotheses excluding one another in this way means that we must abandon one of them. Taking all of these things into the balance then, it is obvious which one we should abandon. We should conclude that, despite its rational attractiveness in explaining the fine tuning of the universe to us in a more conclusive and arguably simpler manner than the God hypothesis, due to its abject failure to explain the continuing fine tuning of us to the universe, we should discard the maximal multiverse hypothesis and instead believe in the God hypothesis. The God hypothesis is the best explanation of the fine tuning of the universe to us and of a fact which is, if anything, even more in need of explanation—the continuing fine tuning of us to the universe.¹

CONCLUSION

As I said near the start, this is just one element of the larger cumulative case, which, if space permitted, I would seek to advance against atheism as defined in the *Oxford Handbook of Atheism*, i.e., the case for its being unreasonable to fail to believe that there's a God. And, as I said prior to saying that, many theists would think that even the abject failure of *all* elements of such a case would be no reason to think that their Theism was unreasonable, just reason to think that Atheism was, for some others, not unreasonable too. So, I shall conclude by repeating myself: if one is to critique theism and theistic arguments in general, not just critique what I have been calling natural theological arguments, one needs to critique their position (in addition to my arguments and the other arguments of natural theology). This, as I also observed earlier, is too infrequently done.

¹ I presented an elongated version of this argument as a lecture to the Royal Institute of Philosophy; it is reprinted in *Philosophy* and available from my webpage: <http://www.philosophy.ox.ac.uk/members/tim_mawson>. The notes and bibliography appended to that version naturally give more details of the people to whom I am indebted for their work.

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CHAPTER 3

CRITIQUES OF THEISTIC ARGUMENTS

A. C. GRAYLING

INTRODUCTION

STUDENTS of philosophy and theology encounter a familiar set of arguments for the existence of deity. They are: the teleological argument or argument from design; the cosmological argument or empirical argument from the contingency of the world; the ontological argument or argument by reason alone from the definition of deity; the moral argument or argument from the normativity of ethics; and a loose family of pragmatic considerations purporting to show that theistic belief is rational, desirable, or prudent.

In all these cases it is *argument* which is offered, and which therefore invites rational scrutiny. Argument is the derivation of a conclusion from premises which support that conclusion, either demonstratively and conclusively, as in formal deductive systems, or, as in varieties of induction, by rendering the conclusion plausible or persuasive to the point of making it irrational to refuse to accept it and to act upon it if relevant—or at very least, to make it rational to accept the conclusion. The ‘arguments for God’s existence’ are of both kinds; in what follows I survey them critically.

I put scare quotes around the phrase ‘arguments for God’s existence’ because use of the capitalized word ‘God’ makes it appear to be a proper name which, in virtue of being one, putatively names something. A major philosophical debate surrounds naming, given that some names name fictional entities, so one must be alert to any question-begging implications when discussing arguments for the existence of something to which reference already seems to assume existence but whose existence is moot. We should of course insist on the formula I began with, namely, ‘arguments for the existence of deity’, immediately followed by an analysis of what is supposed to be meant by ‘deity’ or ‘god’ and their cognates, the enormous and amorphous variety of meanings of which complicates the task of getting any traction on discussions of the putative existence of any such thing.

There is another complication. This is that most religiously committed people do not subscribe to their religion on the basis of arguments. The arguments listed above

are almost without exception *post hoc* rationalizations of beliefs already held. In the great majority of cases, people subscribe to one or another religion because faith in it was inculcated from early childhood, and thereafter continually and in numerous ways socially reinforced. In other cases the motive to religious commitment is emotional rather than reasoned; same-society missionary activity by religions typically targets loneliness, confusion, grief, failure, depression and anxiety as portals to conversion. Sceptics say that the subsequent fellowship in a religious community gives the psychological support that the convert ascribes to his new-found relationship with that religion's divinity. It is hard to find reliable empirical data on how long converts remain converted, but it would be interesting to know the outcome of subsequent reflection by converts on the adequacy of traditional theistic arguments in support of their faith.

Because non-rational motivations play a far greater role in originating and sustaining religious commitment than 'arguments for God's existence', I think atheist critique of these aspects is important too; but that is a separate discussion from consideration of the main arguments for the existence of a God, on which I focus here. It does however raise the question whether *faith* as such—understood as adoption of beliefs or acceptance of dogmas without evidence or even in the face of contrary evidence, and as such promoted by its proponents as a virtue—can be allowed to retain the positive status that religious apologists wish to have it accorded, given that it expressly controverts canons of intellectually responsible enquiry.

WHO OR WHAT IS 'GOD'?

Because it would be fruitless to attempt proof of the existence of something which is undefined, ineffable, or too mysterious for finite minds to understand or describe, one has to make a decision about what is meant by 'God' in talk of 'arguments for God's existence'. It is common for religious apologists to respond to critiques of these arguments by claiming that deity is ineffable and incomprehensible, which of course closes down the debate, for by definition there is nothing to be said about what nothing can be said about. The fact that religious apologists find, despite this, a great deal to be said about such a thing after all—that it exists, that it has such and such a nature ('is love', is omniscient, omnipotent, morally pure, and the like), and that it requires certain commitments and behaviours from us—does not appear to strike them as contradictory, though it is so. It is all the more so because most religious traditions have literatures purporting to convey a good deal about the concepts of deity in play, and it is these that 'arguments for the existence of God' turn upon. For example, the standard version of the ontological argument requires that deity must possess all 'perfections', meaning no limits to or defect in any property regarded as positive, for example wisdom, goodness and power (as opposed, for example, to evil, laziness, lustfulness). This is the traditional conception of deity in the Judaeo-Christian tradition, of which Islam and Mormonism are offshoots.

It is an unavoidable complication that these 'positive' attributes of deity look suspiciously like the ones we humans, given what we are like, approve of and wish we had. Obviously, we are limited in intelligence and knowledge, we are weak and prone to turpitudes of various kinds, our lives are short and beset with disease and trouble; traditional definitions of deity consist in negations of these, and are therefore in fact contrastively anthropomorphic. Those whom we might call 'ineffabilists' succeed in removing this consideration as a count against theism, which is what it is; but at the cost we have already noted.

So although all the traditional arguments for the existence of deity claim to belong to natural theology rather than revealed religion, we see from the foregoing that what the former owes the latter by way of a conception of deity is palpable and inescapable. Accordingly, it is the 'traditional God'—omnipotent, morally perfect, eternal, omniscient, in short infinite in all 'positive' dimensions as human beings conceive of these—which I shall take to be the entity whose existence the arguments attempt to prove. The rider 'traditionally conceived' before the word 'God' will therefore be understood throughout.

There is also the point that this traditionally conceived deity is always referred to as 'he' (believers sometimes write 'He'); this accident of history sets the common practice, which for convenience I follow.

The two most discussed arguments for the existence of deity are the teleological and ontological arguments. I devote the following two sections to each in turn.

THE TELEOLOGICAL ARGUMENT

The teleological argument concludes from the appearance of design in nature to the existence of God. It was thought particularly convincing in the eighteenth century, whose inhabitants, as inheritors of two centuries of productive scientific enquiry into the beauties and complexities of nature, yet still lacking enough astrophysics or biological knowledge to contemplate natural origins and developments of the universe and life, found the argument compelling. Perhaps the most familiar statement of the argument is the one given by William Paley in his *Natural Theology* (1802), where he talks of finding a watch on the ground while crossing a heath, and having to conclude from an inspection of its properties that it was created by an intelligent agent. But if we think a watch must be designed by a purposeful agency, how much more so the eye, which, he wrote, 'would be alone sufficient to support the conclusion which we draw from it, as to the necessity of an intelligent Creator' ([1802] 1838: 401; see also David P. Barash's 'Atheism and Darwinism').

The best statement ever given of the design argument, however, is Cleanthes' account in Hume's *Dialogues Concerning Natural Religion* (published posthumously in 1779):

Look round the world; contemplate the whole and every part of it: You will find it to be nothing but one great machine, subdivided into an infinite number

of lesser machines, which again admit of subdivisions to a degree beyond what human senses and faculties can trace and explain. All these various machines, and even their most minute parts, are adjusted to each other with an accuracy which ravishes into admiration all men who have ever contemplated them. The curious adapting of means to ends, throughout all nature, resembles exactly, though it much exceeds, the productions of human contrivance; of human design, thought, wisdom, and intelligence. Since, therefore, the effects resemble each other, we are led to infer, by all the rules of analogy, that the causes also resemble; and that the Author of Nature is somewhat similar to the mind of man, though possessed of much larger faculties, proportioned to the grandeur of the work which he has executed. By this argument *a posteriori*, and by this argument alone, do we prove at once the existence of a Deity, and his similarity to human mind and intelligence. ([1779] 2007: 19–20)

Hume's rejection of the design argument rests on three points: that the analogy between nature and human-built machines is weak; that there are numerous alternative explanations of how natural phenomena came to be as they are; and that at most and best, if it were established that natural phenomena could not have been other than deliberately designed, the most that this could imply is a designer.

This last was the position accepted by most deists of the eighteenth century, who, lacking alternative explanations for the emergence of a world like this one, rested content with the idea of a fabricating agency which has since ceased to be involved with the universe, or perhaps even ceased to exist. Their position turns on accepting two facets of the supposed analogy between human contrivances and the structure and function of natural phenomena: that function-serving human-made structures of course presuppose conscious purpose, and that everything has a cause; so that just as human intelligence figures in explanations of the final and efficient causes of its artefacts, so a similar intelligence must be invoked in explanations of the final and efficient causes of naturally occurring structures.

The weakness of the analogy at work is revealed by the second of Hume's counters, namely, that there are other and better hypotheses available to explain natural phenomena—physical cosmology and evolutionary biology—which render invocation of a designing agency both unnecessary and implausible. It is unnecessary because of Ockham's Razor, the principle of economy in explanation, stating that one must use the fewest assumptions and invoke the least number of entities necessary for an explanation. So if there are alternative explanations which are simpler and more consistent with observed facts, invocation of an external agency is unnecessary. And it is implausible because (a) it involves offering an explanation by invoking something itself unexplained, and that means that no explanation has been given, and (b) it is inconsistent with the many examples of bad design in nature (often cited are wisdom teeth, the human appendix, the juxtaposition of organs of excretion and reproduction, but there are many even better examples) and of repeated efforts at design (the nearly two dozen different evolutionary pathways to types of eyes, a fact unknown to Paley). Point (a) is a logical point, (b) is an empirical one.

Efforts to salvage the teleological argument have involved such moves as saying that the deity works indirectly by making natural laws the instrument by which his designs are realized: he creates the laws, and the laws create nature, thus realizing his purposes. This however also violates Ockham's Razor, and is another instance of empty explanation, best illuminated by Karl Popper's observation that a theory which is consistent with everything (which admits of no counter-instances) explains nothing (see Popper [1957] 2002: 142). To move the occurrence of purposive design back down the causal chain so that no example of naturally occurring adaptation is inconsistent with it is to make it consistent with everything in just this null-explanatory way.

A more contemporary form of design argument invokes 'cosmic fine-tuning' (see T. J. Mawson's 'The Case Against Atheism'). This argument begins from the observation that the universe's initial conditions, and the physical laws and parameters operative within it, are 'fine-tuned' for life to appear on this planet. Had they differed by the smallest fraction, life as we know it would not have emerged. If the strong force in the atomic nucleus had varied in either direction by more than 5 per cent, or if the electromagnetic force binding electrons to atomic nuclei were stronger or weaker, life would not be possible. If the relative masses of neutrons and protons were any different, life would not be possible. If the gravitational force were different even by a minute amount, main sequence stars like our sun could not exist and therefore life at least of our kind would be vastly less likely. If the 'big bang' had not been exactly as it was, either the universe would have collapsed upon itself immediately, or it would have expanded too rapidly for the evolution of stars like our sun, with the result once again that our kind of life would not have appeared. The concurrence of a number of just-right values in these cases prompts what some call 'the Goldilocks enigma', namely, the apparently puzzling fact that the universe is just right for life (see Davies 2007). And from this some conclude that it must therefore have been designed by a purposive agency whose aim was to bring it about that, after some nine billion years or so (the universe is about thirteen billion years old now, with the first prokaryotes appearing on our planet less than four billion years ago), forms of life would emerge that would eventuate in us.

We shall leave aside the cosmic-sized egoism that sees the great universal story as having our wars, dentition and fashion sense as its aim and goal, and merely point out the following. If my great-great-great-great-grandparents had not lived exactly where they did, and done most of the things they did—and just as they did them—I would not exist. But this is a retrospective observation, which I could only make in admiration and wonder at the (what I take to be fortunate) series of coincidences which resulted in me, because in fact I exist. If my forebears had been inconsiderate enough to do other things in other places instead, with the result that I did not exist, I would not thus be marvelling at how fine-tuned history was in bringing it about that I exist. I do not however think that my existence was the point and purpose of all these happy coincidences. Rather I think that it is only because I exist that I see that I would not have existed unless these coincidences occurred.

The ‘Goldilocks dilemma’ of my personal existence, and that of the universe’s parameters and laws, share everything in common.

A variant explanation of the illusion of purpose in the ‘fine-tuning’ version of the design argument is provided by Dr Pangloss in Voltaire’s *Candide* (1759, prompted by the 100,000 deaths in the Lisbon earthquake and tsunami of 1755 which made Voltaire doubt that this is the ‘best of all possible worlds’—itself a version of a ‘fine-tuning’ argument—or that it exists under the government of a benign agency). Dr Pangloss’s explanation of the existence of the human nose is that it is designed to support spectacles (Voltaire [1759] 1997: 2). This exposes the fallacy in the fine-tuning argument: the fact that X is a necessary condition for Y does not entail that, because Y is the case, X is in itself necessary. ‘Necessity’ in the logical sense of ‘having to be so’ is not the same thing as the necessity in a ‘necessary condition’ (things having to be so *relative* to something else’s being the way it is). In the case of X’s being a *necessary condition relative* to Y, but not *in itself necessary*, X could have been different, and if it were so, there would, or at least might, be no Y.

This is how it is with the universe. We are the Y of which the constants of nature are the X. We exist because the constants are as they are; had they been different, we would not exist. The fact that we exist as a result of what happens to be the universe’s character entails nothing about purpose or design. It is just, depending upon your point of view, a lucky or unlucky outcome of how things happen in fact to be. The universe’s parameters and laws are not fine-tuned *on purpose for us to exist*. Matters are the other way round: we exist because the laws happen to be as they are.

THE ONTOLOGICAL ARGUMENT

The various versions of the ontological argument in effect come down to saying that God exists by definition. It is argument by reason alone, an a priori deductive argument, turning on analysis of the concept of deity.

The classical statement of an ontological argument is that of St Anselm in his *Proslogion* (1078). He proceeds by contemplating the concept of ‘a being than which no greater can be thought’ ([1078] 2007: 81). If such a being did not exist, then there would be a greater being than it, namely, an existent one. But by hypothesis ‘the being than which no greater can be thought’ is the greatest being there is. Therefore, it must exist. And Anselm then identifies this being with God.

Leave aside for a moment the undefined notion of ‘greatness’ here, and note the following. It is the case, as you read these words, that someone is the tallest person in London. This is a matter of logic, not of human physiology. If there are two or more people in London who are exactly as tall as each other, then whichever of them rose from bed latest today is presently the tallest person in London, because gravity acts to shorten us progressively throughout the day. This latter is a matter of physics and physiology, but is independent of the logical fact that one of these Londoners (perhaps the laziest

of them) is the tallest. Finally, note that even if all Londoners were short, one of them would still, as a matter of logic, be the tallest.

Now consider the idea that someone is the 'greatest' person in London. Such a person might not be very great, he need only be less un-great than all other Londoners. One can now see why the Anselm argument does not get us from logic to God. If by 'God' Anselm means the least un-great individual anywhere, this is not an interesting result. And the same applies if one substitutes the phrase 'most perfect being' for 'greatest being', as in other versions of the ontological argument. The most perfect being in the universe might be very imperfect, and not at all a suitable candidate for existence as a deity. From the outset therefore there is the difficulty of attempting to get from the fact that something must have some property in the greatest, largest, most perfect degree relative to other similar things, without being any ground for thinking that such a thing is ipso facto a deity, let alone the traditionally conceived God.

One might note, as an aside, that there is an assumption in the ontological argument that 'perfection' admits of degrees, and is not an absolute but a relative notion. One might be excused for thinking that if something is perfect, then it cannot be more or less perfect than another perfect thing. One can say that something might approach to perfection more nearly than something else does, but then by hypothesis neither of the compared things is perfect anyway. Yet the ontological argument regards perfection as a matter of degree, and has to in order to make the argument work. Perhaps the argument's proponents think that perfection is a relative notion like imperfection, given that it is a familiar fact that some things are more imperfect than others (indeed, that things can become more and less so). But might it not be a false step from accepting this to thinking that the concept of 'most perfect' is relative likewise?

Whether or not one regards the terms as absolute or relative, there is a further problem: what does it really mean? We know what it is for ourselves and indeed everything there is to be imperfect, and our idea of perfection is achieved by negation, that is, by supposing that we understand the concept of perfection because we can say 'not imperfect'. The formula 'God is perfect' in traditional theistic doctrine is offered to mean 'pure, all good, omnipotent, omniscient, without appetites or needs' (though putatively capable of emotions of anger and love), and so on: but these too are terms and phrases which are arguably sayable without being thinkable. Consider: 'omnipotent' means 'all powerful' in the sense of 'can do anything', 'is unlimited in action'. We run immediately into difficulties best illustrated by apparently absurd questions, such as: Can an omnipotent being eat itself? The reply might come that such a being is not the kind that eats, perhaps because it is immaterial. Does the fact that it does not eat therefore mean it cannot eat? For if so it is not omnipotent. Then the answer might be: it can do anything consistent with its nature, which eating is not. But now we need to know its nature to know the respects in which it is, within the limits of its nature, unlimited in power. But that is to say that it is qualifiedly omnipotent—which sounds like a contradiction in terms). And so on into various sorts of difficulties, contradictions and even absurdities which show that we are here working with intrinsically unclear concepts.

These considerations beset the ontological argument even before we get to its mechanics. The best known version of the argument is found in the fifth of Descartes' *Meditations* (1641). There Descartes asserts that the concept of a non-existent 'supremely perfect being' is a contradiction, just as denying that the interior angles of a Euclidean triangle sum to 180 degrees is a contradiction. Accordingly, because we can conceive of (we have an idea of) a 'supremely perfect being', it follows that such a thing necessarily exists ([1641] 2008: 45–50).

The response to this from Immanuel Kant in the 'Dialectic' of his *Critique of Pure Reason* (1781) was to point out that 'existence' is not a property of anything (see Kant [1781] 1998: 565; see also Brian Davies' 'Aquinas and Atheism'). In Descartes' argument, existence is a perfection which the most perfect being cannot lack, and is thus a property among the other superlative properties ascribed to the deity. But any possessor of properties cannot have its own existence as one of those properties, said Kant; it must exist (so to speak 'already') in order to have any properties. You cannot say of a given table, 'It is brown, it has four legs, it is square, *and* it exists', for it might have properties different from being brown, four-legged and square, while still being a table—a white, three-legged, round table perhaps—but it cannot not exist and still be a table.

The problem is well illustrated by noting that if one permits Descartes' form of the argument, it can be used by parity to prove that a Devil is a necessarily non-existent being. 'There is a being which is the least perfect of all beings; such a being which does not exist is—since existence is a perfection—less perfect than one that does; therefore the least perfect being necessarily does not exist.' Here non-existence is a property of a being whose other properties are malevolence, evil, and so on: but one wonders how a non-existent thing can be malevolent, etc.—thus showing that existing is a logically different category from, because a logically prior category to, any properties anything might possess.

A version of the ontological argument is offered by Alvin Plantinga (1974), who does not claim to prove the existence of God, but to show that it is rational to think that God exists. His argument exploits a now-standard way of explaining the 'modal' concepts *possibility* and *necessity*. Something *x* is said to be possible if there is at least one way a world could be—a 'possible world'—such that *x* exists in that world. A world is a possible world if it is either our actual world (which in virtue of being actual is of course possible) or is a non-actual world the conception of which contains no internal contradictions. And then we say that *x* is necessary if it exists in every possible world—which is merely a different way of saying: a necessary *x* is an *x* that *must* exist no matter what else is the case.

Plantinga proceeds as follows: there is a possible world in which there is something that is the greatest thing there can ever be (a thing which has 'maximal greatness'). Therefore there is such a thing. And then the this thing is identified as God. Plantinga takes this, as noted, not to prove God's existence but to make belief in it rational. Another approach might be to say that there is a possible world in which there is a necessarily existing *x*; and therefore *x* exists. And of course as with the greatest thing, this necessarily existing thing is identified as God.

Neither strategy is persuasive. The second formulation turns on a principle in modal logic; ‘if it is possible that it is necessary that *p*, then, by a certain rule, one can infer that *p* is necessary.’ One can see what is being attempted: anything possible by definition exists in at least one possible world. If it is possible that there is a necessary *x*, then there is at least one world in which *x* exists. But if it is necessary, then it must exist in every world, including the actual world. Therefore if it is possible that there is a necessary *x*, there is actually a necessary *x*.

Leave aside the question what such a thing would be, and why, other than by the stipulation that God has to be a necessary being, it should follow that it is God; and ask: what ground is there for thinking anything is necessary? That is, why think it is possible that anything is necessary? The argument is in fact question-begging, for by saying that there is a world in which something is necessary, by the definition of ‘necessary’ what is thereby being asserted is that it has to exist in every possible world; yet with equal plausibility we can say ‘there is a possible world in which nothing exists necessarily’ (which is another way of saying, ‘there is a possible world in which everything is contingent’), and if that is possible—as surely it is—then by parity of reasoning it follows that nothing is necessary, because only if it is *not possible* for there to be a world in which nothing is necessary can there be any necessarily existing thing—for remember: such a thing would have to exist in *every* possible world.

The first version of Plantinga’s argument, premising the claim that ‘there is a possible world containing a maximally great entity’, is vulnerable to the challenge that one can equally premise that there is no possible world in which anything is maximally great, from which it would follow that necessarily there is no maximally great thing. On what grounds would one prefer Plantinga’s premise to this one, not least because of the problem, as discussed above, with the concept of a ‘maximally great’ something? At the least this shows that you have to begin by accepting that there can be a ‘maximally great thing’ for the argument to have any grip; and that of course is to argue in a circle.

THE COSMOLOGICAL ARGUMENT

The cosmological argument (or family of arguments) begins with observations about the world and concludes from them that there is a God. In this sense it is like the teleological argument in purporting to be empirically based, but it differs in that, instead of arguing from the appearance of design, it focuses upon the facts that the world came into existence, that it could have been different (it is ‘contingent’), and that everything is causally linked to antecedent conditions and circumstances.

The standard moves from these observations are these: because the world came into existence, it must have (or have had) a creator. Because it is contingent, it must be rooted in something necessary. Because everything is the causal outcome of other things, there must be a first uncaused cause in order to halt a regress of causes going back infinitely, and to get the chain of causality going.

One immediate response to these moves is to say that they are expressions of a psychological need to have explanations about why there is a world and how it began and continues. Arguments of a cosmological type are found in Plato (the *Laws*) and Aristotle (his *Physics* and *Metaphysics*), but a clear statement of the underlying intuition is given by Leibniz in his *Monadology* (1714), where he states that nothing can be without ‘a sufficient reason why it is thus and not otherwise’ ([1714] 1991: 72). In the case of the world of empirical observation, this ‘principle of sufficient reason’ (and its cognates) comes down to a causal claim. It says that every contingently existing thing has a cause of its existence, that the chain of causes cannot run back infinitely, and that therefore there has to be a first cause. And since this first cause is itself not contingent upon anything else as *its* cause, it must be necessary. Then the usual jump is made from saying that the necessarily existing first cause is God. There can be various formulations of this argument, but this is the key underlying form.

A number of responses are possible. One is to dispute the necessity of a non-contingent first cause. Why cannot the universe just be its own reason for existing? This is a view shared by Bertrand Russell and contemporary cosmologists. In his *Dialogues Concerning Natural Religion*, David Hume argues that if you explain each individual contingent thing in the universe, you have thereby explained the universe, and that it is a fallacy to suppose that you still have to explain the existence of the universe taken as a whole ([1779] 2007: 66). Hume also called into question the principle of causation that underlies the argument: why accept a priori that everything has a cause, given that we can conceive of effects independently of any putative cause? Defenders of the causal principle say that without it we cannot make the universe intelligible, but this might be because of our psychological (again) need to reduce everything to neat explanatory arrangements—the universe might work in ways that do not comply with our intellectual preferences.

Kant took a different line (*Critique of Pure Reason*, 1781). He argued that the cosmological argument is in fact a concealed version of the ontological argument, for it requires the conception of a necessary being as a ground for the contingent universe; but, he points out, this conception is shown by criticisms of the ontological argument to be empty ([1781] 1998: 569–78). Critics of Kant claim that he has mistaken the idea of a *logically necessary being* with the cosmological argument’s requirement for a *metaphysically necessary being* to serve as a stopping-point for the regress of causes or as a final ground on which contingent existence can rest. But Kant can reply that the distinction being attempted here is spurious, because in either case what is being proposed is a being that *has to exist*, whether our ground for asserting this is the definition of the being (ontological argument) or the contingency and causal dependency of the world upon such a being (cosmological argument). Any counter to the claim that the idea of a necessary being makes sense is therefore a counter to both arguments.

Sometimes defenders of the cosmological argument cast it as an ‘inference to the best explanation.’ In the light of our ignorance about the why, how, and origin of the world, invocation of the idea of God as its source and the reason for its existence is ‘the best

available explanation'. This however is a very feeble argument; it arbitrarily clutches at something to serve as an explanatory filler for the gaps in our knowledge, and has no better claim on our credence than if we instead invoked the existence of fairies or even mince pies as the explanation. Moreover, to summon something as undefined and implausible as a deity to fulfil this role is to invoke as an explanation for the universe something more mysterious and arbitrary than the universe itself, which gets us nowhere. One can see the null value of invoking a deity by suggesting that instead of using the word God in this context, one uses the name Fred: 'why is there a universe? Because Fred made it'—here one vividly sees the emptiness and arbitrariness of the claim.

PRAGMATIC GROUNDS

The foregoing arguments all aim to support the proposition 'that God exists'. A different tactic is to argue that it is prudent or rational to believe that there is a God. The most celebrated such argument is 'Pascal's wager', originally found in Blaise Pascal's *Pensées* (1670). Pascal said that because the existence of God can neither be proved nor disproved by rational argument, one has to take a different tack in deciding whether to believe. The best such tack is to consider what the advantages and disadvantages of such belief are. If there is a God, then the advantage of believing in its existence is vast; it is a benefit for all eternity. If there is not, one has not lost much by believing it anyway. So one should believe (Pascal [1670] 2003: 66–8). In contemporary theory this is stated in terms of 'expected utility'; Pascal's point is that no matter how small the probability of God's existence is, just so long as this probability is non-zero the utility of believing in it far outweighs the disutility of believing in; and hence it is rational to believe in it.

Some theistic critics argue that this pragmatic ground for belief is too cold and calculating to be the kind of belief that an existent God desires from his creatures. And this might weigh against the utility of believing in this way; if God exists and is offended by the calculating nature of the belief, the sought-for benefits will not be forthcoming. So it is self-defeating.

Voltaire was robust in his response: 'the interest I have in believing a thing is not a proof of the existence of that thing' ([1728] 2003: 123). This is of course right. But the two chief criticisms of the argument are that Pascal's starting-point does not do what he requires, and that it is not the case that God's existence cannot be disproved, for it can.

First, Pascal says that just so long as the probability of God's existence is not zero, then the utility of believing in it outweighs the utility of disbelief. Note that this is only so if you also believe that there is a posthumous existence, heaven, reward or punishment, indeed a whole lot of other things that Pascal simply assumes go along with belief in the existence of God. If the probability that there is a God is vanishingly small, what is the probability of the truth of all the paraphernalia of traditional legends? Very well: grant

that the calculation applies to them too. Now consider that by parity of reasoning the same amount of sense can be made of the claim that there is a non-zero probability that fairies exist, or the gods of Olympus, or that the moon is made of green cheese, and so for much besides. Admittedly the utility of believing some of these things will be low or negative, but one can see the utility of believing others: belief in fairies, for example, might yield a great deal of charm (and thus pleasure) and even explanatory value. In no such case could these considerations alone make it *rational* to believe these things, even if it were *useful* to do so.

This point applies to other forms of a prudential or pragmatic argument. Some claim that theistic belief is to be encouraged because it makes people behave better, or comforts them, and that it can discipline whole populations by making them believe that they are monitored everywhere and at all times, even when alone, by a watchful deity. The usefulness or prudential value of any of this is supposed to render belief rational. This is where the 'proof' point becomes pertinent.

A common mistake is made concerning the nature of proof. In formal systems of logic and mathematics, proof is demonstrative; in deductive logic, for example, all inferences are in fact instances of *petitio principii* because the conclusion is always contained in the premises, and deductions are merely (though often unobviously) rearrangements of the premises (consider: 'all men are mortal; Socrates is a man; therefore Socrates is mortal'). Whereas there can be psychological novelty in the outcome of a deduction, there is never logical novelty; this latter only happens in inductive inference, where the informational content of conclusions goes beyond the informational content of their premises. But inductions are not proofs in the sense of formal proof. Their success or otherwise turns on how probable the premises make the conclusions, or—differently viewed—how rational the premises make acceptance of the conclusions.

In non-demonstrative contexts 'proof' is to be understood in its proper meaning of 'test'. When steel and other materials are tested for tensile strength, they are 'proved'—loaded until they crack or break—and this is the sense in which we talk of the 'proof of the pudding' or 'the exception that proves (tests) the rule'. Claims to the existence of anything are subject to proof or test in this sense. Here is where Carl Sagan's 'dragon in the garage' example demonstrates its worth (*The Demon-Haunted World*, 1995). Someone claims that a dragon lives in his garage. His friend wishes to verify his assertion, and makes every effort to do so; but the dragon turns out to be invisible, intangible, silent, breathes no fire, leaves no traces... in short there is nothing that counts as evidence by which the claim can be tested (proved). At very best, the evidence is only ever available when the enquirer is not around, and the dragon is only perceptible to the owner of the garage. Obviously, it is not rational for the enquirer in the dragon case to believe that there is a dragon in the garage. He has proved (tested) that this is so. Indeed he has no grounds even for the assertion that there is a non-zero probability that there is a dragon in the garage.

This point can best and most succinctly be made by quoting from W. K. Clifford's 'The Ethics of Belief': 'It is wrong always, everywhere, and for anyone, to believe anything upon insufficient evidence' ([1879] 1999: 138). When the evidence is not merely

insufficient but absent or contrary, how much more wrong to do as Doubting Thomas was criticized for not doing, and as Søren Kierkegaard encouraged: to believe nevertheless!

This point weighs against those who claim that one could *choose* to believe because it was personally satisfying or comforting to do so, or because it would give one hope even if one recognized it as the slimmest of hopes. These are psychological motivations to belief which are no doubt very common among adult believers (children believe because they are evolutionarily primed to be credulous, at least for the first decade or so of life, and therefore to believe what the adults in their circle insist that they believe). But Clifford's point about the ethics of belief places upon us a demand for responsible use of our cognitive capacities, and nothing that Pascal or William James—In 1896's *The Will to Believe* (once criticized as giving 'an unrestricted license for wishful thinking'—see Hick 1990: 60)—or anyone else says in the way of extolling prudence, caution, hope, or the good effects of believing, can stand against that.

THE MORAL ARGUMENT

We need only the briefest discussion of the moral argument for the existence of God, which, stated at its simplest, is that there can be no morality without God (see also Erik Wielenberg's 'Atheism and Morality'). This is refuted by the existence of good atheists. George Bernard Shaw remarked that the moment when, as a teenager, he gave up theistic belief, he felt 'the dawning of moral passion'. Indeed it is arguably the case that non-theists count among themselves the most careful moral thinkers, because in the absence of a traditional or externally imposed moral code they feel a duty to examine their outlook and duties properly.

One need only look at the thinkers of classical antiquity—Aristotle, the Stoics, and others—to see that their examination of ethical principle and action was not premised on the belief that they were under divine command, or were responding to the requirements of a deity, or were seeking the reward of any such in an afterlife. Their example also illustrates the vacuity of the claim that the moral principles we feel within us could only have been instilled by an external—and divine—agency. Nor were they persuaded that supposed analogies between moral law and natural law suggest that both require to have been laid down by a conscious agency; nor again did they think that the only ground for the actual or even apparent objectivity of moral principles and qualities is that they are the product of divine command or will.

A later thinker, Kant (in his *Critique of Practical Reason*, 1788) demonstrated one way of establishing the objectivity of moral law; he argued that it is by reason that we identify the categorical (unconditional) imperatives that specify our moral duties, and that this would be so whether or not a God exists.

The underlying thought can be generalized. The fact that anyone requires us to do or be something is not by itself a reason why we should do or be it, other than prudentially

(as when we are threatened with punishment for not doing or being it); the ‘something’ itself has to be independently worthy of doing or being, or there has to be a reason other than someone’s merely wishing that we do or be it, to serve as a genuine reason for it.

The point at issue here is often described as the Euthyphro Problem, after a discussion in the dialogue by Plato of that name. It is this: is an act wrong because God says it is, or is it forbidden by God because it is wrong? If the latter, then there is a reason independently of God’s will and interests that makes that act wrong. But then there is morality without God and the moral argument for God’s existence falls. If the former, then anything God commands (murder, say, or rape) would be right just because he commands it; and then, as Leibniz puts it in his *Discourse on Metaphysics*, ‘In saying that things are not good by any rule of goodness, but merely by the will of God, it seems to me that one destroys, without realizing it, all the love of God and all his glory. For why praise him for what he has done if he would be equally praiseworthy in doing exactly the contrary?’ ([1686] 1991: 2).

What lies behind the thought that there is a need for a God to give and enforce moral principles is that such principles require the backing of authority, for otherwise the moral sceptic cannot be answered when he asks, ‘Why should I?’ with respect to any injunction, and there will be no ultimate sanction for failure to live morally. In short, morality seems—to thinkers of this persuasion—to be empty unless it can be enforced.

The example of the good atheist and the classical philosopher put paid to this view also. There are many sound reasons why we should seek to live responsibly, with generosity and sympathy towards others, with care and affection for them also, and with continence, sound judgment and honour in our own lives. There is no need for an external enforcer to back the demand that we should be people who take such thoughts seriously.

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CHAPTER 4

ARGUMENTS FOR ATHEISM

GRAHAM OPPY

INTRODUCTION

ATHEISM is the rejection of theism: *a-theism*. Atheists maintain some or all of the following claims: that theism is false; that theism is unbelievable; that theism is rationally unacceptable; that theism is morally unacceptable. Among arguments for atheism, there are arguments that are direct, indirect, and comparative.

Direct arguments for atheism aim to show that theism fails on its own terms: theism is meaningless, or incoherent, or internally inconsistent, or impossible, or inconsistent with known fact, or improbable given known fact, or less likely than not given known fact, or morally repugnant, and so forth.

Indirect arguments for atheism depend upon direct arguments for something else. Consider naturalism. Naturalism and theism are jointly inconsistent: they cannot both be true. Direct arguments for naturalism—arguments for the claim that naturalism is true, or rationally required, or morally required—are, *eo ipso*, arguments for atheism.

Comparative arguments for atheism are arguments for the theoretical superiority of something else to theism. Consider naturalism. An argument for the theoretical superiority of naturalism to theism is, *eo ipso*, an argument for atheism, even though such an argument need not aim to establish that naturalism is true, or rationally required, or morally required.

PRELIMINARIES

Theism is the claim that there are gods. Monotheism claims that there is just one god—God; polytheism claims that there are many gods. Gods are supernatural beings or forces that have and exercise power over the natural world and that are

not, in turn, under the power of higher-ranking or more powerful categories of beings or forces. Thus, monotheism claims that there is just one supernatural being or force—God—that has and exercises power over the natural world and that is not, in turn, under the power of higher-ranking or more powerful categories of beings or forces.

Naturalism is the claim that there are none but natural causes, beings and forces. Naturalism entails that all causally efficacious beings and forces are located within the natural world. As noted above, naturalism is inconsistent with theism: naturalism entails that there are no supernatural beings or forces that have and exercise power over the natural world, whereas theism entails that there are supernatural beings that have and exercise power over the natural world.

Supernaturalism—perhaps it might more neatly be called ‘anaturalism’—is the denial of naturalism. Just as naturalism is only one form of atheism, so, too, theism is just one kind of supernaturalism. There can be—and are—atheists who embrace the supernatural; there can be—and are—supernaturalists who do not embrace theism.

Monotheists disagree about the nature of God. Some monotheists suppose that God is personal; others do not. Some monotheists suppose that God is simple; others do not. Some monotheists suppose that God is impassible; others do not. Some monotheists suppose that God is triune; others do not. Some monotheists suppose that God is perfectly good; others do not. And so on.

Naturalists disagree about the nature of natural reality. Some naturalists suppose that the natural supervenes upon the microphysical; others do not. Some naturalists suppose that the natural is reducible to the physical; others do not. Some naturalists suppose that the mental is emergent relative to the biological; others do not. Some naturalists suppose that natural reality is exhausted by the spatiotemporal domain downstream from that ‘big bang’ whose remnants can be detected by our most powerful telescopes; others do not. And so on.

When particular proponents of theism and naturalism argue with one another, they will always disagree about far more than the basic claims that are constitutive of these positions. Moreover, and consequently, when particular proponents of theism and naturalism argue with one another, the details of their arguments may have little or no wider philosophical significance. While there are interesting and important observations to be made concerning the proper conduct and regulation of these kinds of disputes, we shall instead turn our attention to the prospects of finding worthier deservers of the label ‘argument for atheism’ in a more idealized setting.

Imagine, then, that Theist and Naturalist are parties to a philosophical debate. Theist is committed to the claim that there are gods; Naturalist is committed to the claim that there are none but natural causes. Beyond these minimal commitments, Theist and Naturalist are flexible: we can dress them up with further commitments, and see how they fare. But, whenever we do dress them up with further commitments, we should make sure that each is equipped with those further commitments to the same level of detail—and we should also make sure that we assess each view to the same theoretical standards and against the same benchmarks.

DIRECT ARGUMENTS FOR ATHEISM

One strategy that is open to Naturalist is to argue that theism fails on its own terms. In pursuing this strategy, Naturalist need not be trying to persuade Theist to adopt naturalism; the object may simply be to try to encourage Theist to give up theism.

(i) Theism is Meaningless

At various points in the history of philosophy, there have been philosophers who have tried to argue that theism is not a meaningful hypothesis. The paradigm example is A. J. Ayer. Ayer claims that the sentence ‘There exists a transcendent god’ has ‘no literal significance’ (1936: 158). In saying that this sentence—which we can take to be equivalent to the defining claim of theism, viz. that there is at least one god—has no literal significance, Ayer is saying two things: first, that this sentence is not an analytic truth—i.e., not a sentence that is true simply in virtue of the words from which it is composed—and, second, that there are no actual or possible observations that are relevant to the determination of its truth or falsehood (ibid.: 52).

Enthusiasm for Ayer’s position has evaporated almost entirely since the latter stages of the twentieth century. While many contributors to Mitchell (1958) and Diamond and Lizenbury (1975) essentially agreed with Ayer, it is hard to find any philosophers beyond Nielsen (1971; 1982; 1985) and Martin (1990) who endorse the claim that the sentence ‘There is at least one god’ has no literal significance.

There are various good reasons for this. First, Ayer’s argument depends upon a controversial verificationist theory of meaning. While there are still some verificationist holdouts (e.g., Wright 1989) there are many who suppose that verificationism has been decisively refuted. (Consider, for example, the argument of Lewis 1988.) Second, despite Ayer’s confident assertion, it is not entirely obvious that there are no actual or possible observations that are relevant to the determination of the truth or falsity of theism. Certainly, there are people—including trained philosophers—who claim to have had experiences that they themselves take to directly support theism. And many suppose that they can describe possible courses of experience that would provide those who underwent those courses of experiences with good reason to suppose that there is at least one god. (See, for example, Alston 1991.) Third, it is worth observing that, on Ayer’s own account, atheism and naturalism are no more literally meaningful than theism: if a sentence is meaningless, then so is the denial (negation) of that sentence, and so, too, is any sentence that entails the denial (negation) of the sentence in question. If the argument for the meaninglessness of theism succeeded, it might well also establish the meaninglessness of naturalism and atheism (and hence might well not ultimately lead to a victory for Naturalist).

(ii) Theism is Incoherent

Logical positivism is not the only path that has been claimed to lead to the conclusion that there is something linguistically amiss with assertions of theistic commitment. Some philosophers of a broadly Wittgensteinian persuasion have argued that claims, affirming the existence of supernatural beings and forces that have and exercise power over the natural world, are ‘ungrammatical’ or otherwise an affront to the canons of ordinary linguistic understanding. (Many of these philosophers claim also to be friends of religion; they insist that religion—properly so-called—has no commerce with supernatural beings and forces that have and exercise power over the natural world. Since our present concern is with atheism rather than with irreligion, we need not pause to scruple.) Consider Rundle: ‘I can get no grip on the idea of an agent doing something where the doing, the bringing about, is not an episode in [space and] time, something involving a[n embodied and] changing agent’ (2004: 77).

Arguments of this kind stand or fall with their broadly Wittgensteinian philosophical underpinnings. On the one hand, they invite Russellian retort: how could profession of Wittgensteinian intellectual shortcoming be a good argument for anything at all? (‘I am not responsible for your intellectual shortcomings, young man!’) On the other hand, there is a fairly widespread contemporary consensus that the broadly Wittgensteinian underpinnings cannot be satisfactorily defended: rather than suppose that most philosophy is language on holidays, contemporary philosophers are much more likely to suppose that Wittgensteinian ordinary language approaches are philosophy on holidays.

(iii) Theism is Logically Inconsistent

Many philosophers have argued that particular versions of theism are logically inconsistent. If we suppose that were God to exist, God would have a sufficiently wide range of properties—essential omniscience, essential omnipotence, essential perfect goodness, necessary existence, essential simplicity, essential impassibility, essential perfect libertarian freedom, essential consciousness, essential personality, essential foreknowledge, essential infinity, essential eternity, and so forth—then there is ample opportunity to argue for the logical inconsistency of God as thus conceived. On the one hand, we might argue that, considered alone, some of the properties in question are self-contradictory; on the other hand, we might argue that, considered together, some subsets of the properties in question are jointly contradictory. Examples abound. Some have argued that nothing can be essentially omnipotent (e.g., Sobel 2004). Some have argued that nothing can be essentially omniscient (e.g., Grim 1991). Some have argued that nothing can be essentially simple (e.g., Gale 1991). Some have argued that nothing can be essentially omnipotent and essentially perfectly good (e.g., Pike 1969). Some have argued that nothing can have essentially perfect libertarian freedom and yet be essentially perfectly

good (e.g., Rowe 2004). Some have argued that nothing can be essentially conscious and essentially impassible (e.g. Drange 1998a). And so forth.

There is a great deal of detailed discussion that can be given of these kinds of arguments. I shall venture just a couple of general comments here. First, it is obvious that these kinds of arguments do not target theism—i.e., they do not target the claim that there are gods. Second, many of these arguments depend upon particular analyses of the key concepts involved: particular analyses of omnipotence, omniscience, perfect goodness, simplicity, freedom, consciousness, and so forth. To the extent that these arguments do depend upon particular analyses of the key concepts involved, they are vulnerable to the response that they have simply adopted the wrong analyses of these concepts. Third, these kinds of arguments are sometimes spectacularly successful in particular local debates; and these kinds of arguments do sometimes focus on difficulties that theists have found particularly troubling. So, for example, Leibniz and Clarke disagreed about what is required to reconcile essential perfect goodness and essentially perfect libertarian freedom; the apparent conflict between essential perfect goodness and essentially perfect libertarian freedom was a genuine difficulty for them.

(iv) Theism is Impossible

Some philosophers have argued that theism is, if not logically inconsistent, at any rate, (metaphysically) impossible. If we ignore the various qualifications and hedges introduced in the text, it seems to me to be possible to read Fales (2010) as arguing for a view of this kind. Fales actually calls for a ‘re-examination of the metaphysical and epistemological conditions that must obtain if God is to have [certain] characteristics, in the light of the best current philosophical and physical understandings of causation, laws of nature, space, time and knowledge’ (2010: 157). But the reasons that he gives for calling for this re-examination can plausibly be marshalled to construct an argument for the claim that, given our best current philosophical and physical understanding of causation, laws of nature, space, time, and knowledge, it is simply impossible that there is an omnipotent and omniscient God. While such an argument would not target theism, it might even be possible to draw upon a subset of the considerations that he marshals in order to construct an argument for the claim that, given our best current philosophical and physical understandings of causation, laws of nature, space and time, it is simply impossible for there to be gods. (‘What a theist must reckon with, to put the matter a bit differently, is that [supernatural causation] upsets the account sheet on energy and momentum; it entails that these are not conserved’ [ibid.: 154].)

I think that the best position for Naturalist to adopt is one according to which theism is impossible. All possible worlds share an initial segment with the actual world. All possible worlds evolve according to the same laws as the actual world. It is impossible that the actual laws could oversee a transition from a purely natural state to a state in

which there are supernatural entities. There have never been any supernatural entities. So supernatural entities are impossible; and hence, in particular, gods are impossible.

I also think that the best position for Theist to adopt is one according to which naturalism is impossible. All possible worlds share an initial segment with the actual world. All possible worlds evolve according to the same laws as the actual world. It is impossible that the actual laws could oversee a transition from a state in which there are gods to a purely natural state. There have always been gods. So naturalism is impossible.

Given the symmetry of this situation, I think that the prospects of a successful argument for the *impossibility* of theism stand or fall with the prospects of a successful argument for the *falsity* of theism. (Theists deny that the natural world is a causally closed system; *a fortiori*, it is unsurprising that theism ‘upsets the account sheet on energy and momentum’, if that ‘account sheet’ is supposed to be exclusively naturalistic.)

(v) Theism is Inconsistent with Known Fact

Many philosophers have argued that particular versions of theism are logically inconsistent with known fact. If we suppose that, were God to exist, God would have a particular range of properties—essential omniscience, essential omnipotence, essential perfect goodness, necessary existence, essential simplicity, essential impassibility, essential perfect libertarian freedom, essential consciousness, essential personality, essential foreknowledge, essential infinity, essential eternity, and so forth—then there is ample room to argue that God’s existence is logically inconsistent with facts about the world that are acknowledged on (almost) all sides—that there is evil, that there is moral evil, that there is a lot of evil, that it is not obvious that God exists, that there are many people who fail to believe that God exists, and so forth. Some have argued that, if God existed, God would have made a world in which everyone always freely chooses the good (e.g., Mackie 1955). Some have argued that, if God existed, God would have made God’s existence (more) obvious to all (e.g., Schellenberg 1993). Some have argued that, if God existed, God would have ensured that all human beings came to believe in God before they died (e.g., Drange 1998b). And so forth.

These arguments do not target theism. Indeed, most of these arguments target only a particular version of monotheism: one on which it is supposed that God is, at least, omnipotent, omniscient, and perfectly good. This is not to deny that these arguments have local significance: there are, after all, many theists who claim to believe that God is omnipotent, omniscient, and perfectly good. Moreover, there are many who also claim that, if God were not omnipotent, omniscient and perfectly good, then God would not be worship-worthy, i.e. not an appropriate focus for religious veneration. However, the point remains that these arguments have far more significance for a particular brand of theists than they do for any atheists: even if arguments of this kind are successful, they certainly do not succeed in showing that there are no gods. And, of course, it is controversial whether these kinds of arguments do succeed (but, of course, a detailed examination of these arguments is beyond the scope of the present article).

(vi) Theism is Improbable Given Known Fact

Many philosophers have argued that particular versions of theism are improbable in the light of known facts. If we suppose that, were God to exist, God would have a particular range of properties—essential omniscience, essential omnipotence, essential perfect goodness, necessary existence, essential simplicity, essential impassibility, essential perfect libertarian freedom, essential consciousness, essential personality, essential foreknowledge, essential infinity, essential eternity, and so forth—then there is ample room to argue that God’s existence is improbable in the light of facts about the world that are acknowledged on (almost) all sides—that there are horrendous evils, that there are evils for which we are unable to identify outweighing goods, that the universe does not appear to have a ‘human scale’, and so forth. Some have argued that it is improbable that, if God existed, God would have permitted certain kinds of horrendous evils (e.g., Rowe 1979). Some have argued that it is improbable that, if God existed, God would have created a universe in which the domain of humanity is so insignificant (e.g., Everitt 2004). Some have argued that it is improbable that, if God existed, God would have produced such biologically suboptimal creatures as human beings (e.g., Dawkins 1986). Some have argued that it is improbable that, if God existed, God would have created a world in which there is the distribution of pain and pleasure in sentient creatures that we find in the actual world (e.g., Draper 1989). And so forth.

These arguments do not target theism. Indeed, most of these arguments target only a particular version of monotheism: one on which it is supposed that God is, at least, omnipotent, omniscient, and perfectly good. This is not to deny that these arguments have local significance: there are, after all, many theists who claim to believe that God is omnipotent, omniscient, and perfectly good. Moreover, there are many who also claim that, if God were not omnipotent, omniscient and perfectly good, then God would not be worship-worthy, i.e. not an appropriate focus for religious veneration. However, the point remains that these arguments have far more significance for a particular brand of theists than they do for any atheists: even if arguments of this kind are successful, they certainly do not succeed in showing that it is improbable that there are gods. And it is controversial whether any of these kinds of arguments succeed (either separately or jointly).

(vii) Theism is Morally Repugnant

While many people who have rejected theism have regretted their inability to believe in God or the gods, there are some people who have supposed that the theoretical unacceptability of theism dovetails nicely with its moral unacceptability. If we suppose that, were God to exist, God would have a particular range of properties—selected from among essential omniscience, essential omnipotence, essential perfect goodness,

necessary existence, essential simplicity, essential impassibility, essential perfect libertarian freedom, essential consciousness, essential personality, essential foreknowledge, essential infinity, essential eternity, and so forth—then there is at least some room to argue that God's existence is morally undesirable and perhaps even morally repugnant. For instance, one might argue as follows: The only kind of freedom that it is possible to have is compatibilist freedom. But it is impossible to have compatibilist freedom if there is a causally upstream agent who selects one's beliefs and desires. So it is impossible for you to be free if you are one of God's creatures. But freedom is a highly significant moral good. So God's non-existence is morally desirable: God's non-existence is necessary for our freedom and the goods that our freedom makes possible—e.g., moral responsibility. (See Kahane 2011 for other arguments along similar lines.)

As in the previous two cases, these arguments do not target theism. Thus, for example, the sample argument that I have given only targets versions of monotheism that suppose that there is a strong sense in which God creates *us*. Moreover, even in the context of debate with theists who do make the relevant assumptions, it is not clear how much weight these kinds of arguments could carry: after all, even if it were true that theism is morally repugnant, that, in itself, would certainly not be a good reason to suppose that it is false.

(viii) Finishing Touches

This survey of direct arguments for atheism has been very brief, and has certainly not mentioned—let alone considered—the wide range of direct arguments for atheism that are to be found in the literature. While I am not, myself, particularly enthusiastic about the prospects for successful direct arguments for atheism, I think that it is clear that there is a great deal more to be done in clarifying and analysing the arguments that can be put forward in the various categories that I have identified (and perhaps also in categories to which I have not attended), and also in thinking about the ways in which some of these arguments might be combined to form direct 'cumulative' arguments for atheism.

In closing, there is perhaps one more gambit that deserves some mention. Some people suppose that there is a standing presumption against existence claims. So, for example, such people might suppose that, prior to examination of the evidence, there is a standing presumption that there is no china teapot in orbit around Pluto. But, if that's right, then such people might further suppose that all that one needs in order to produce a good argument for atheism is to produce good objections to all of the arguments that can be offered for theism. If no argument for theism succeeds—as argued in, for example, Oppy (2006)—then the standing presumption against existence claims kicks in, and one has good reason to accept atheism. For myself, I do not think that there is a standing presumption against existence claims; I do not think that considerations about burden of proof have a significant role in the arbitration of our dispute between Naturalist and Theist. (For more about the proper conception of the dispute between Naturalist and Theist, see Oppy 2011.)

COMPARATIVE ARGUMENTS FOR ATHEISM

A different strategy that is open to Naturalist is to argue that naturalism is theoretically superior to theism. The idea here is to compare the theoretical merits of naturalism with the theoretical merits of theism when these views are assessed against the relevant available evidence.

In order to proceed, we need to have some conception of theoretical merit. While this matter remains controversial, there is fairly broad consensus that appropriate trade off of complexity of theory with fit with data, breadth of explanatory role, and compatibility with independently established theory are amongst the considerations that are to be weighed in any assessment of the merits of competing theories. While there are competing views about how to measure the complexity of a theory, I shall suppose that relevant factors include: numbers and kinds of primitive terms; numbers and kinds of primitive predicates; and numbers and kinds of other theoretical primitives (e.g., sentential operators).

We proceed to consider how theism and naturalism measure up against these theoretical desiderata given various key pieces of evidence.

(i) Ultimate Explanation

We take as our first piece of evidence the existence of a global (efficient) causal order. Given that there is a global causal order, we can frame various hypotheses about its shape: (1) infinite regress; (2) necessary initial state; (3) contingent initial state (involving some necessary existents); (4) contingent initial state (involving only contingent existents). We can then assess the theoretical credentials of naturalism and theism against these various hypotheses.

Naturalism says that there is only the natural causal order: the ordered global causal states of the natural world. Theism says that there is the natural causal order, and more besides: there is the supernatural causal order, and there is causal commerce between the natural and the supernatural. Taking only considerations of theoretical simplicity into account, it is clear that naturalism is ahead: it postulates fewer kinds of entities, fewer kinds of causes, and so forth. Moreover, when we turn to consider questions of ultimate explanation—*Why is there something rather than nothing? Why is there a causal order? Why is there a natural causal order?*—it is clear that theism gains no advantage over naturalism. For, whatever answer to these questions turns out to be correct—*Because there always has been!* [Infinite Regress]; *Because there had to be this particular initial causal state!* [Necessary Initial State]; *Because there had to be some initial causal state or other!* [Contingent Initial State Involving Some Necessary Existents]; *Just because!* [Contingent Initial State Involving Only Contingent Existents]—naturalism supports that answer at least as well as theism does. So, given

that we consider only questions about ultimate explanation, naturalism trumps theism.

Might there be explanations of the existence of the global (efficient) causal order that I haven't considered? I think it unlikely. Some suppose that the existence of the global (efficient) causal order might have an axiarchial explanation: there is a global (efficient) causal order because it is good that there be such a global (efficient) causal order (see, for example, Leslie 1979). However, I'm happy to rule this attempt out of court: it is impossible for the existence of the global (efficient) causal order to be explained in this way. And—at least at the time of writing—there are no other contending explanations for the existence of the global (efficient) causal order that have come into view.

(ii) Order

We take as our second piece of evidence the alleged fine-tuning for life of the domain in which we live. Although it is controversial whether the domain in which we live is fine-tuned for life, we shall, for the sake of argument, simply suppose that the domain in which we live is fine-tuned for life.

There are two hypotheses that we can frame about the point in the causal order at which the fine-tuning for life of the domain in which we live was fixed: either it has been fixed at all points in the causal order that the domain which we live is fine-tuned for life; or else there is some initial segment of the causal order in which it is not fixed that the domain in which we live is fine-tuned for life.

We can now assess the theoretical credentials of naturalism and theism against the sum of these hypotheses concerning the point in the causal order at which the fine-tuning for life of the domain in which we live was fixed and the previous hypotheses about the shape of the global causal order.

As before, it is clear that, taking only considerations of theoretical simplicity into account, naturalism is ahead. We have already seen that, when we turn to consider questions of ultimate explanation, theism gains no advantage over naturalism. But it is equally clear that adding questions about the point in the causal order at which the fine-tuning for life of the domain in which we live was fixed also creates no advantage for theism over naturalism. On the one hand, if it has been fixed at all points in the causal order that the domain in which we live is fine-tuned for life, then there is just the same range of explanatory options available to naturalism as there are available to theism: *Because the causal order has always been fine-tuned for life!* [Infinite Regress]; *Because there had to be this particular initial causal state and it had to be fine-tuned for life!* [Necessary Initial State]; *Because there had to be some particular initial causal state that had to be fine-tuned for life!* [Contingent Initial State Involving Essential Fine-Tuning]; *Just because!* [Contingent Initial State Involving Inessential Fine-Tuning]. On the other hand, if there is some initial segment of the causal order in which it is not fixed that the domain in which we live is fine-tuned for life then, again, there is just the same range of explanatory options for naturalism as there are for theism: for, in this case, it can only