*Help Thou my Belief:*

A Critical Analysis of the New Atheism

**MAJOR RESEARCH PROJECT**

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Doubt, Lady, is the chastity of the mind.

- Roger Zelazny (1)

By doubting we are led to enquiry, and from enquiry we perceive the truth.

- Peter Abelard (2)

Jesus said unto him, If thou canst believe, all things are possible to him that believeth. / And straightaway the father of the child cried out, and said with tears, Lord, I believe; help thou my unbelief. (3)

Blessed are they that have not seen, and yet believed. (4)

I choose to believe what I was programmed to believe! (5)

(1) Zelazny (2004) p.181

(2) Cited by Truman, J., History 1a6 lectures, McMaster University (winter term 1967)

(3) Christian Bible, New Testament, King James Version (KJV-NT) Mark 9:23-24

(4) KJV-NT John 20:29. While Christ's utterance was presumably intended as a rebuke to the apostle Thomas, by insisting on immediate sensory evidence the latter distinguishes himself as one of the first scientists on record. Unfortunately 'Doubting Thomas' remains an insult, at least in the Anglosphere.

(5) Groening, M., television script for *Futurama* [Transylvanian robot in Were-Car episode (2002)]

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***ABSTRACT.*** *Rejecting the concept of 'unbelief',**I undertake a critical examination of the New Atheism, an informal contemporary movement opposed to all religion, in the light of historical ontologies and epistemologies of belief. I discuss characteristics of the New Atheism, identify some of its apparent inconsistencies and errors, and suggest that scientism is a factor in the movement's stridency, proselytization, and self-confidence. I conclude that despite its shortfalls the New Atheism fulfils important functions,* e.g. *opposing religion-based violence, encouraging self-reflexivity, and promoting dialogue among and between believers, both theistic and atheistic.*

I / *Introduction*: Ontologies of belief

M

ust faith and reason battle? To my knowledge no one has categorically demonstrated such conflict to be inevitable. In what he called his holiest analogy, Socrates (so Plato) holds that the human psyche is propelled by two steeds of equivalent power, reason and belief. Yet the counterassumption that faith and reason must collide also stretches back to classical times.

The present paper examines this ancient yet still unresolved debate through three lenses of nontheistic belief - hesitant (doubt), entrenched (agnosticism), and absolute (atheism) - as they bear on three instantiations of reason: scientism, the scientific method, and technoscience (6).

Today's religions have strong adherents and strong opponents, each faction seemingly goading the other to greater heights of inflammatory rhetoric and, on occasion, to violence. Of zealotry that justifies itself by religion I need say little here; most are familiar with religio-ethnic cleansings in Rwanda and the Balkans as well as terrorist attacks in New York, Paris, and Ottawa. Such religious extremism has fuelled an opposition of comparable philosophical extremity. Leading this antitheistic response are the New Atheists, a loose group of polemicists informally headed by Richard Dawkins (1941-) and until his death, Christopher Hitchens (1949-2011).

The New Atheists are opposed to more than violent coercion undertaken in the name of religion. They are united by an unshakeable faith - I stress the ontological paradox - that theistic belief past and present is conceptually void and socially toxic; that no theism may attain to the Popperian rigor of falsifiable positivistic technoscience; and that no religion has ever adduced valid evidence for any deity's existence, let alone his or her putative properties.

However unpalatable the claims of the New Atheists may be to the thoughtful believer (be she technoscientific professional or layperson), they are but recent evolutions in a debate that antedates the Christian era. I hope to show that the newness of the New Atheism lies not in its beliefs but in a self-confidence that justifies itself by reference to the achievements, assumptions, and applications of modern science. That confidence, allied with clever image manipulation using modern communi-

(6) The Latourian term 'technoscience' nicely catches the identity of 'pure' or conceptual science, together with its material manifestations. *Â propos* of Latour *et al.*, I note that the New Atheists dismiss the work of STS scholars who have demonstratedthat facts are not timeless truths wrung from nature by a phalanx of hero-geniuses, but are rather assembled by volatile (and not always rational) technoscientific coalitions that achieve consensus via means other than democratic debate, *e.g.* authority.

cations media, has gained the New Atheists a celebrity that reinforces the movement's disdain of any modifications to its core belief system, be these ever so gently suggested (*see Appendix A)*.

Notwithstanding its obduracy, the New Atheism like most belief systems rests on an implicit set of axioms and addresses an explicit set of questions. What is religious faith, and whence its origin? What are the roles of faith and reason in a society as dominated by technoscience as ours? How might disagreement over such issues play out in a world that to the faithful seems irredeemably secular, and to atheists remains stubbornly subject to 'invisible friends'? What is the role of doubt in faith? And most central of all: need science and religion be enemies?

The world has long grappled with these questions via theology, philosophy, and theodicy; and in each of these disciplines, a key driver has always been doubt. While some believers embrace doubt not as a barrier but as a conduit to belief, many of their more fundamentalist co-religionists define perfect faith as an unwavering assertion of tenets and supporting texts. Questioning is held to details, so that one may for example speculate upon the timing, dates, or sub-agencies of Creation, but never its historicity. To believers in inerrancy, faith is unquestioning and doubt is damned (7).

This introduces a logical contradiction as well as a polemical trope. While a long-established synonym for atheist is 'unbeliever', the noun 'unbelief' on close examination lacks correlatives and proves to be a contradiction in terms. From fundamentalists, through the doubting faithful, to hard atheists (*see pp.23-26*), all see themselves as believers in something; no one *unbelieves* in anything. Whether shown in actions or merely asserted verbally, everyone manifests a core belief - even if it is only an unexamined prejudice that the world will persist till the end of one's current task, book, or breath. One can no more unbelieve than she or he can consciously unexist.

This point is more than a logical nicety; it is critical to my analysis of the New Atheism. 'Unbelief', a negative, suggests a hiding in the shadows, a shamefaced reluctance to articulate one's views, which has indeed been the case during most of Western civilization. The New Atheists have permanently eschewed such self-effacement. They display not doubt that the supernatural may be a fiction, but rather a rock-solid faith that it is. This ontological paradox helps define them.

While *unbelief* cannot therefore be a self-assessment, over the years it has proven useful in verbal attack. Both A and B may say 'I believe'; that utterance is a credo, an assertion of adherence

(7) In my churchgoing days a fellow parishioner once wrote to our pastor protesting 'the damnable heresy that there may be more than one view of things' (1973). I am indebted to my supervisor Dr Bernard Lightman for expressing the contrasting liberal view by paraphrasing Descartes: *I doubt, therefore I am*.

to a principle. But only A can say to B, or B to A: 'You are an unbeliever.' That statement is an accusation - 'I call you unbeliever because your belief differs from mine, and mine is true.' Thus 'unbeliever' and its synonyms ('apostate', 'heretic') may be hurled as insults by individual A (believing doctrine A') at individual B (believing doctrine B') whenever A considers A' and B' incompatible. 'Unbelief' applied in this way constitutes an insult, an assault.

Thus far my lemma; now my corollary. I construe an atheist not as an unbeliever ('infidel' or 'faithless one' in its Latin etymology) but rather a convinced *believer* - in the case of New Atheists, one confident that the cosmos lacks invisible intelligences, whether gods, angels, djinni, or the souls of the dead. Let us examine the roots of such belief.

***The Awakening Mind.*** The key to all considered beliefs, including that of the New Atheists, is consciousness - without which neither atheism nor rational belief may exist (although as we shall see, unthinking faith may flourish). In *The Origin of Consciousness in the Breakdown of the Bicameral Mind,* the psychologist Julian Jaynes suggested that human consciousness is of historical origin. About 1300 BCE (so Jaynes) an immense geotectonic event - perhaps the detonation of Thera, today reduced to an islet chain that outlines a vast exploded caldera - destabilized the Bronze Age civilizations of the Mediterranean, forcing the human mind (defined as the brain's self-organization) to reconfigure. Before this catastrophe *H. sapiens* was what Jaynes calls reactive: devising empirical technologies such as language, agriculture, and even cities, but wholly ignorant of reflexive thought. This was our species' cognitive Garden, free of doubt and second thoughts (8).

In Jaynesian theory, holistic judgments among the reactive-preconscious were made by the right-brain (then as now the seat of intuition) and sent to the left-brain (then as now the seat of language) via the corpus callosum, a cable of 200 000 000 neurons linking the cerebral halves. Such interhemispherical memoranda were interpreted by the left brain as informative hallucinations. Initially heard as the voices of authority figures - war leaders, patriarchs, kings - these visions were later construed as the voices of the gods. If Jaynes is correct, linear thought is a latecomer: long before technoscience, our preconscious brains evolved a workable way to deal with the world.

Jaynes's hypothesis may well explain why statements such as 'atheism requires consciousness'

(8) Jaynes (1976) *passim* esp. Chs.1 & 3. *Origin of Consciousness* "is either complete rubbish or a work of consummate genius, nothing in between! Probably the former, but I'm hedging my bets" [Dawkins (2006) p.350]. For the identification of humanity's preconscious state with Eden I am indebted to Bernard Lightman of York University (personal communication [email], 2014.)

are nontrivial. If consciousness is of recent origin then so must be the conscious examination of belief, from rational faith through agnosticism to hard atheism. To support his theory Jaynes documents the repeated astonishment of Western missionaries encountering societies, even literate ones, whose members were so convinced of their deities' reality that they regarded religion based on printed text and silent prayer as absurd. To the reactive-preconscious mind, both atheism and rational belief are as unfeasible as a Westerner's distrust of personal eyewitness. *My gods advise me hourly; you pray to your god night and day and hear no response. Which one of us is a fool?* (9)

II / *New Consciousness:* Classical and ChristianEras to 1800 CE

***Early Skepticism.***As a result of the establishment of consciousness c.1300-500 BCE in the Mediterranean *oikomene* [*οïχομενέ,* culture-centre], various schools investigated an epiphenomenon of consciousness called skepticism. Philosophers ('wisdom-lovers') arose in the Western centrum who were unwilling to accept any contention at face value, insisting instead that everything subject to imagination or sensory perception may also be subjected to conscious critical analysis.

The Greek-speaking philosopher Epicurus, active in Ionia and Athens in the third century BCE, has long influenced humanity's debates on belief. Though Epicurus's teachings are known only indirectly through commentators both friendly and hostile, he appears to have preached a universe whose deities dole out neither punishment nor reward but remain detached from humanity in every functional and perceptible way - even presupposing such beings exist. To drive home his point, Epicurus (presented more recently by David Hume) posits a series of questions and answers that all people, whether theist, agnostic, or atheist, must address:

**Q1) Would the gods prevent evil, but cannot?**

***A1) Then they are powerless.***

**Q2) Can the gods prevent evil, but will not?**

***A2) Then they are evil.***

**Q3) Can and will the gods prevent evil?**

***A3) Then evil is inexplicable.***

**Q4) Cannot and will not the gods prevent evil?**

***A4) Then they are not gods*.**

Literary works incorporating and examining skepticism appear soon after Epicurus's death; a surviving example is the Old Testament Book of Job. In this narrative an individual held by his

(9) Kuijsten (2006) pp.237f (Greer, S.)

society to be good (KJV 'upright', 'righteous') is intentionally afflicted by a deity who is, paradoxically, also good. The deity, goaded by an entity that the KJV-OT calls 'the adversary (*Sa'tan*) hurls the man into poverty, slaughters his family, and afflicts him with disease. Nonetheless the man refuses to curse his god, rejects his human acquaintances who counsel despair, and at last is heaven-rewarded with health and wealth surpassing what he had before. In the 1959 play *J.B.,* a modern retelling of the myth by the US poet Archibald MacLeish, J.B.'s so-calledcomforters are a psychologist, a Marxist, and a liberal historian. One says:

***'If God is God He is not good;***

***If God is good He is not God . . . '***(17)

Similarly the OT Book of Ecclesiastes, a sophisticated Hebraic text dating to roughly the same time as Job, offers an Epicurean take on human existence. Ecclesiastes ('the Preacher') stresses the futility of comprehending a godhead inconceivably remote, and advises humankind to console itself with the humbler joys of friends, food, and faithful monogamy. These everyday pleasures are presented as the summa of human happiness, since an afterlife is by no means certain (18) and God is beyond enquiry. In J.B.'s despairing words, "God does not *love*: He *is*."

Ecclesiastes and Epicurus agree that once an individual's behaviour meets a minimum standard, pleasure is good and pain is bad; although pleasure is inadmissible if obtained by inflicting needless pain. Explicit to the philosopher, and implicit but central to the Preacher, is the possibility of living a full life free of deity, since the realms of heaven and humanity are so separate that they hardly interact. Even though the cosmos be both infinite and ultimately incomprehensible, one may (says the Preacher) live in it with wisdom and understanding (19). To modern eyes this world-view seems indistinguishable from existentialism or even agnosticism.

(17) Macleish, *J.B.* III.ii. (1959). MacLeish, perhaps channeling Ecclesiastes, appends a humanistic mitigation to his despairing lines: *Take the even with the odd / I would not stay here if I could / Except for the little green leaves in the wood / And the wind on the water.*

(18) 'Go thy way, eat thy bread with joy, and drink thy wine with a merry heart . . . Live joyfully with the wife whom thou lovest, all thy days . . . [F]or there is no work, nor knowledge, nor wisdom, in the grave, whither thou goest' (KJV-OT: Ecclesiastes 9:7-10). Compare this with Huxley's widow, writing at his death: "And if an endless sleep He wills, so best" (Desmond 1997).

(19) When we parse any theological or philosophical treatise, especially those of the Mediterranean at the time of Epicurus or Ecclesiastes, we must bear in mind that translation has as many leaps of faith as religion. Language is ambiguous; words are slippery; *faux amis* abound. The term 'wisdom' [*Σοφιά*] requires especial prudence, as its meaning has been volatile over the last twenty-four centuries. To the Essene and Gnostic schools, the term connotes what to modern ears may seem outrageous arcana: *e.g.* 'to possess wisdom' included memorizing the Seven Orders of Angels in descending authority. The series (cherubim-seraphim-powers-thrones-dominions-archangels-angels) appears as late as the early modern era, in Milton's poetry; God is indeed in the details.

***Reining in Doubt.*** The triumphs of classical philosophy proved evanescent. The establishment of Christianity across Europe, in the central Roman Empire by imperial fiat and in its border regions by apostolic conversion, coincided with a severe curtailment not only of trade, transportation, and a relatively stable hegemony, but of liberal philosophy as well (20). While the European millennium ending c.1400 CE may not have wholly merited Voltaire's sneer as 'a thousand years without a bath', it was incontrovertibly a thousand years without rigorous philosophy - defined as the free pursuit of intellectual enquiry wherever it might lead.

European Christianity viewed philosophy as at best a handmaiden to faith, at worst a nest of heresies dispatched by Hell to afflict the faithful. The mediaeval Church's obdurate doctrinal consistency may be traced in part to Saul of Tarsus, who in his reincarnation as the Christian theologue St Paul set faith far above reason. Whereas Socrates's analogy gave logic and faith equal status in the human psyche, the Church chose a tandem yoke in which faith perpetually led logic. The Pauline Epistles, elevated to canon by the early Church Fathers, formed what a modern engineer would call a go/no-go template: any conclusion, no matter how logically rigorous, stands revealed as falsethe instant it conflicts with Christian (*i.e.* Pauline) doctrine. The Church presented this logical operation as a REDVCTIO AD ABSVRDVM; in reality it is poisoning the well (21).

Throughout the Middle Ages the Church's involvement with philosophy was twofold. First, large portions of some Late Hellenistic and Imperial Roman schools, particularly Neoplatonism and Stoicism, were imported almost verbatim into Christian doctrine, *e.g.* the Stoics' insistence that even the Almighty did not alter the past. Second, all other philosophies not so sanctioned were declared anathema, and their study forbidden to communicating Christians. As faith trumped reason, so authority suppressed individual conscience. All knowledge necessary for salvation was henceforth to be found in Holy Writ and its canonically approved contexts, mostly commentaries by the saints. One such apothegm, St Jerome's RADIX MALORVM EST CVPIDITAS ("ungoverned desire for ungodly things constitutes the source of evils") was extended to philosophical inquisitiveness.

***The Caliphate.*** Fortunately for Europe, a bordering non-Christian (though Abrahamic) culture embodied a high ideal of unfettered intellectual enquiry. As the historical existence of this culture

(20) Using 'liberal' in its original sense of ornamental to LIBER VIR, the free individual).

(21) A prime example of the doctrinaire inflexibility with which post-Christian philosophers took issue. If the Encyclopédistes seem bellicose toward revealed religion, they must not be judged too harshly: the Church threw down the gauntlet of debate 1500 years before Diderot ET ALIA saw print - a point the New Atheists like to emphasize.

remains an ongoing refutation of the New Atheists' belief that religion is necessarily incompatible with enlightened thought, I shall briefly table some of this culture's achievements.

An Islamic hegemony which extended into Iberia, and which was for its time astonishingly tolerant, confident, polyglot, multicultural, and scientifically curious, had begun by the High Middle Ages (c.1150-c.1400 CE) to transmit to the Christian West a body of learning, both translated Greek and Latin classics as well as Arabic treatises of great originality, that illuminated European culture. As they encountered forgotten writers such Galen and Aristotle, Church scholars had to qualify blind Paulism - a faith not merely ignoring evidential proof but exulting in its inadequacy - to show that Christian theism could like the Caliphate tolerate a vigorous rationality.

One result of this acculturation was the Scholastic school, whose writings (particularly Thomas Aquinas's SVMMA THEOLOGICA) presented faith as the apotheosis of reason and VICE VERSA. During the High Middle Ages Thomastic Scholasticism changed the ground of evidence-based belief from ARGVMENTVM AD AVCTORITATEM (a holy man said it: to confute it you must be holier than he) to ARGVMENTVM AD RATIONEM (a scholar said it: to confute it you must be more learned than he). Notwithstanding this nod to Caliphate rationality, Europe's approach remained prescriptive: while doubt became slightly less sinful, full-blown atheism remained anathema. As for agnosticism: "The hottest places in Hell," wrote Dante Alighieri, "are reserved for those who in time of crisis reserve their neutrality" (22).

Contrast such absolutism with the Caliphate. If one of that culture's glories was its preservation, translation, transmission, and gloss upon ancient literature, a glory of equal magnitude was surely its tolerance of doubt. Doubt has been correctly termed the chastity of the mind (1). It is the application of self-reflexive consciousness less to out-argue intellectual rivals than to assess the truth of any thought: to view all conclusions, even one's own, as provisional and contingent. Thus the Caliphate scholar al-Ghazali defended the purity of knowledge even when it is misused, while his colleague Biruni refuted the Aristotelian notion that planets, being empyrean, must travel in circles (23). The logician Ibn Khaldun held that philosophy and religion "treat . . . questions that are not perceivable by the senses," and concluded that the enquiries of natural science, whose primary data are sensorial, should not be subject to dogmatic constraints. Here Ibn Khaldun anticipated by

(22) *Divine Comedy* Canto III. J.F. Kennedy liked to quote the epigram.

(23) A mainstay of Catholic canon even after the conviction of Galileo for heliocentrism a half-millennium later. (*Et pur si muove:* 'But it [the Earth] does move!' Cited Beck 212A; see also Booke & Numbers [2011] p.124.)

some centuries the Huxley-Gould concept of non-overlapping magisteria (24).

The Caliphate's involvement in these matters was more than permissive: it actively encouraged such writers as 'Adud al-Din al-Iji (d.1355 CE), a relativist who like Ibn Khaldun considered scientific concepts to be abstractions divorced by their very nature from matters theistic. Biruni and other Caliphate scholars proposed heliocentricity decades before Kepler and Copernicus; viewed day-to-day divine intervention as logically unnecessary and hence unlikely, echoing William of Occam (24a); and put nothing off limits to philosophical debate. Any one of these contentions would have condemned its author to the auto-da-fé as late as Counter-Reformation Spain, but all were openly debated throughout the Islamic hegemony in the 10th-15th centuries CE. The conclusion is evident: a society that encouraged its scholars to enquire widely, doubt freely, and announce their findings self-assuredly, must (though resolutely theistic) be adjudged humanistically superior to its provincial Catholic neighbour. Allah the Merciful, the Compassionate, had granted humanity a portion of His all-seeing mind (25).

It is understandable, if regrettable, that while Europe welcomed the Caliphate's transmission of classical thought, it did not ingest the Caliphate's liberal ideas. Europe took the writings of Plato, Plutarch, Pliny *et al*. not to see where they led but to force them into an inflexibly theistic world-view, of whose content and import both sacred and profane authority permitted no question. Europe's doubt was rare and hesitant; on balance it harnessed its Caliphate-supplied learning to rejustifying what the Church had decreed *a priori* to be true. If the minor doubt of skepticism, the gnawing doubt of agnosticism, or the terminal doubt of atheism could exist under these conditions, it was only in the silence of the individual freethinker's mind.

***Renaissance and Reformation: Thinking the unthinkable.*** History displays few absolute discontinuities. Jaynes noted one, a cataclysm that sparked human awareness; but such events are rare. Even the Roman Empire did not fall so much as it underwent a transformation.

The evolution of European learning called the Renaissance was one such development. The Renaissance, which arose in the commercially prosperous city-states of Northern Italy in the 13th-14th centuries CE and spread steadily northward, has been construed as a clean break with an un-

(24) Brooke & Numbers (2011) *passim*.

(24a) 'Axioms must not be multiplied unnecessarily' - a logical adjuration known as Occam's Razor.

(25) As stated, I adduce these facts and conclusions in an attempt to disabuse the New Atheism of its core contention, *viz*. that the religious mind is always and everywhere inimical to rational and evidence-based thought, including the scientific method. The Caliphate is the exception that, in keeping with the strict laws of induction, disproves the rule.

washed past: Modern Good, Mediaeval Bad. Yet this 'awakening' was not abrupt; rather it was the continuance of a lively mediaeval precursor. It is best viewed not as Europe's reabsorption of literature from the Caliphate (which was already underway) but the reëxamination of that literature's import by European thinkers less sympathetic to the Church's intellectual constraints.

Even as the Renaissance preserved some outward forms of mediaeval tradition, it began to evolve within those forms extratheistic modes of thought. One paradigmic example suffices. *The Creation of Adam*, painted by Michelangelo for the Sistine Chapel in Rome, was technically brilliant, pleasing to the client, and humanistically subversive to the point of atheism. The neonate Adam gazes heavenward to a cloud containing God the Father, His angels, and the unborn soul of Adam's helpmeet Eve; but the entire supernal assembly fits within a longitudinal cross-section of the human brain and brainstem. Michelangelo, known to be an avid autopsist, here seems to say that not just God's Kingdom but God Himself lies within us; that heaven is a product of the human mind; that as the classical pagans asserted, Man and not God is the measure of all things (26).

While such heterodoxies may have been more prevalent than heretofore, those entertaining them still needed discretion: a Renaissance man free to speak his mind within his household could find himself in chains past his own front door. Nor is the term 'chains' metaphorical. As the Church felt its grip on its faithful weakening, it moved from encouraging belief to compelling it: the result was the Holy Inquisition, emanating from a Papacy that condemned heretics to death by fire rather than sword because Holy Mother Church could not shed blood.

Whether despite such compulsion or in reaction to it, Europe's rebirth of learning quickly spawned a parallel reëxamination of religious doctrine that transferred individual belief from hierarchical *diktat* to individual conscience, and thence to public utterance. If Protestants were correct and freewill were God-given, how might any thought be construed as ungodly *a priori*? Subsequent scholarship might show it to be so; but no such assessment must be presumed - only thought can validate thought. As Abelard said, no sin necessarily inheres in doubt. Doubt must rather spark a moral-intellectual quest whose goal is greater illumination.

On the heels of the Renaissance therefore came the Reformation, a theological shift that

(26) 'Man is the measure of all things': Attributed variously to Protagoras (c.485-410 BCE), Fragment 1 [Cited Beck 87A]; also to Sophocles (*see note 97*)

upheld the individual mind and conscience as the final arbiter of doctrine: ARGVMENTVM AD AVCTORITATEM became ARGVMENTVM INDIVIDVVM. The individual fulfilled his or her duty to God through prayer that linked God and soul directly, bypassing saints, priests, Popes, and other intermediating authorities. Western theism was atomised, its scruples no longer outsourced to Rome but inherent in the person. In the words of the Protestant heretic Martin Luther, "A man must do his own believing as he must do his own dying" (27).

The resultant deluge of free thought proved impossible for a centralized and hierarchical Church to contain: if the Renaissance had cracked Europe's epistemic monolith, the Reformation exploded it. The resultant heretical shards ranged from nationalized churches in Scandinavia, North Germany, and England (with vernacular liturgies and state control) to Swiss and Scottish Calvinism (predestination of the Elect) and geographically distributed beliefs such as Deism (God absent since Creation) and Unitarianism (rejection of the Trinity in favour of the Judaic One).

Despite these schisms' number and variety, all remained theistic; the full emancipation of Western speech to permit outright atheism took much longer. Even in 1850 few Europeans could publicly proclaim the extreme heterodoxy of atheism without risking physical sanctions such as ruinous fines or imprisonment.

***Natural history and open atheism.*** As the 17th century CE gave way to the 18th, a growing body of freethinkers headed by the Encyclopédistes in France were able to evade much of the obloquy imposed upon their earlier atheistic colleagues. They had improved their rhetorical position by linking their freethinking to a rising intellectual movement called natural philosophy.

While classical figures such as Titus Lucretius Carus had explored new epistemic approaches to natural enquiry (28), and while the English cleric Roger Bacon had speculated on systematic investigative methods, before c.1600 CE few Europeans considered that the quotidian world could exist without continual theistic intervention. Immediately after the Reformation, however, natural philosophers such as Descartes, Boyle, Hooke, and Newton entered the scene. These thinkers, later

(27) Before the Diet of Worms. *Hier ich stett; ich kann nicht anders. Gott helfe mir, Amen!*

(28) Virgil's famous epigram FELIX QUI POTVIT RERVM COGNOSCERE CAVSAS ("Happy the person who has been able to comprehend the causes of things") probably referenced Lucretius.

called scientists, combined a formalized approach to discovery with new theoretical construals of what their discoveries meant. The 17th-century natural philosophers added to close observation a conceptual framework that sought to reduce all influences acting on a given material entity to a single influence. Their framework was called experimentation, and the isolated influence a variable. Their new approach revealed unsuspected patterns in the behaviour of heavenly bodies (Newton); tensile and compressive springs (Hooke); evacuated spaces (Boyle); and the movement of blood (Harvey). The sum of these unprecedented discoveries, and of the equally groundbreaking mathematical methodologies that generated them, came to be called the scientific revolution (29).

Despite later atheists' appeals to science as validation of their beliefs (29a) most early-modern natural philosophers were Christians, at least outwardly. They presented their findings as proofs of a Great Designer, a term commensurate with the PRIMVM MOBILE of the Thomistic scholasticists. In doing so they considered their individual safety as well as their individual consciences, since circumspection was vital in contemporary régimes with strong theistic establishments. The personal risks were high even in Britain, whose sovereign, while nominally constrained by constitutional conventions, was also head of a national church established little more than a century before. Even the highly esteemed Newton was at risk, recent scholarship having shown him to be a covert Unitarian whose private beliefs flouted many of the Thirty-Nine Articles of the Church of England.

Newton's circumspect conformity worked to his social and political benefit. His natural philosophy went beyond semiotic representations of nature in 'mobile immutables' (Latour's term for systematically transcribed observational data) to invoking causatively, if in most cases only inferentially, a theistic Unmoved Mover. Newton viewed matter *per se* as inert, not only in its incapacity to form living species, but also in its inability to alter its position or composition without external influence. His laws of motion were not as Huxley *et al.* were to construe them, *i.e.* as summaries of natural process, but rather instantiations of a divine will that alone could alter things. Not only on the First Day did God say FIAT LVX: that command has been repeated at every later instant (30). It is with Newtonian rigor that "the heavens declare the glory of God" (30a).

(29) I must qualify this Whiggish / New Atheist view by citing recent STS reëvaluations of early-modern scientific methods, ontologies, and epistemics - *e.g.* Shapin and Schaffer's thought-provoking *Leviathan and the Air Pump.*

(29a) A form of scientism; *see* pp 20, 34f

(30) KJV-OT, Genesis 1: 1-5

(30a) KJV-OT, Psalm 19:1. Post-Newtonian atheists such as Diderot and d'Holbach nonetheless considered their beliefs supported by natural philosophy, and rejected Newton's assumption of theistic immanence to attribute to matter active, even creative, powers. This Encyclopédiste position is cognate with today's concept of emergent properties; see note 80.

III / *Post-Christian Era*: 1800 CE - Present

***T.H. Huxley and Agnosticism.*** Thomas Henry Huxley, 'Hal' to his intimates, was born into the lower middle classes but within six decades had risen to the heights. He died in 1895 at the apex of his profession (experimental and didactic biology), heaped with honours and fame, a Privy Councillor of the United Kingdom. Not only in the globe-spanning British Empire but throughout Europe and the Americas, he had become the public face of evidence-based science. Huxley was the prototypical ‘boffin’ (to use an admiring 1940s term), advising cabinets and capitalists alike on the rising power of scientific research and its developmental applications to bolster trade through the creation of new products and services. This disruptive transformation shifted the base of personal and professional advancement from inheritance (wealth, land, title) toward an intellectual-economic meritocracy based on technoscience.

Huxley's success in this new theatre was well deserved. In the philosophical ferment of the mid- to late- 19th century he and his confederates took their disciplines to new heights of knowledge - and, in the considered view of the Established Church, to new depths of apostasy as well. For Huxley, at heart an extra-Establishment Dissident, fulfilled the worst fears of orthodox Christians by espousing 'agnosticism', a condition he instantiated and a term he devised.

Huxley represented science and religion as divorcés. He anticipated S.J. Gould's 1999 proposal (and reinvented that of the Caliphate's Ibn Khaldun) for 'non-overlapping magisteria', by which faith generally concerns itself with morals and ethics, and accords to the magisterium of science all observed facts and theoretical EXPLANANDES. Scientists, said Huxley, see natural law not as a series of supernal decrees (FIAT LUX-SOL-LUNA-HOMO-ET CETERA) but as descriptors of nature; to Huxley, scientific law is but a distillate of observation. Huxley's neologism for his position was 'agnostic' (31), a brilliant coinage. Don't ask scientists for any theistic correlatives of what we do, Huxley said: those do not concern us. All we do is summarize what we find in nature:

Laws *cause* nothing . . . [t]hey are 'a mere record of experience', a sign of the constant conjunction of events, a symbol of universal order. The [scientific] professional was snatching the passionless cosmos away from the [theistic] reconciler who has not 'undergone the discipline' necessary to understand it (32).

(31) άγνωστος, from the classical Greek for 'that which is known' together with a negating prefix; coined 1869. See also note 33 & associated text (*par.1 next page*)

(32) Desmond (1997) p.174; text in inverted commas is Huxley's (*Collected Essays* 5:75-80, 104-16). Hal's credo on scientific law was in response to the 'Romantic Reconciler' the Duke of Argyll, an anachronistic Newtonian theist.

Still, the progression (believers might say 'descent') from agnosticism to atheism is so small a step that Huxley's statements against atheism at times seem disingenuous. As Lenin remarked, agnosticism is atheism with a fig leaf (33): an unending suspension of belief constitutes disbelief *tout court*. Even here, however, Huxley however dug himself an escape tunnel. 'Agnostic', he said, means more than 'not knowing'; it may also be parsed as 'not Gnostic' - the Gnostics being a sect associated with early Christianity who claimed to have deduced heaven's inmost secrets. In this way Huxley rejected the Church's claim to know the intimate details of God's character - His proclivities and eccentricities, likes and dislikes. Such theological 'knowledge' (said Hal) was nonsensical, and any pretensions to it were hubristic.

Yet the Church of England was right to see Huxleian agnosticism as a mortal challenge to orthodox belief. For if knowledge of natural law and its salutary effect on commerce were "everywhere the same to all observers" (34), what further need had humanity for an immaterial being with a fondness for sublunary intrusion? What need had science, at least in its day-to-day activity, for God? To theistic notables like Bishop William Wilberforce, Huxley had singlehandedly dismantled what had been a barrier between atheism and mainstream Western belief; he had, horror of horrors, made entrenched religious doubt seem intellectually respectable.

Hal's great ally in this debate was economics. Social science has long found an inverse correlation between material security and religious intensity: if foxholes exclude atheists, then curtailing foxholes should limit atheism. Intentionally or not, Huxley helped further this attitudinal shift. The technoscience-based commerce of Pax Britannia, the longest period of general peace since the Pax Romana 1400 years earlier, steadily lessened the social misery that had encouraged certain types of theistic belief (35). (Of course atheism has other causes beyond material comfort, including a despair deep enough to embolden the downtrodden and a suspicion that religion is a tale told by the rich to distract the poor. These tenets form the wellspring of the atheism proclaimed by revolutionaries such as Engels, Marx, and the post-Kerensky Communists.)

(33) Lightman (1987) p.17. Lightman adds: "The Marxists . . . saw in the agnostics inconsistent atheists." It is fascinating that The Established Church and the Bolsheviks, so disparate in everything else, saw eye-to-eye on this point; Huxley was opposed to both camps, perceiving a state-threatening socialism even in the Salvation Army(!)

(34) The phrase is Einstein's and seems to have been his principal theoretical axiom.

(35) It is sometimes overlooked that not all industrialization's effects were harmful. Even the 'dark Satanic mills' provided work that, while brutal and unsafe, was not unreasonably preferred by thousands of Britons to starvation, the 'workus' (workhouse), or vagrant farm labour. A similar process plays out today as globalism replaces barter with wages, even low ones. In fairness, then, New Atheists may be correct to link the world's growing wealth with declining religiosity. Over the centuries, how many believers have prayed only out of desperation?

Whatever its cause, Article One of the atheistic faith - I am aware of the verbal and conceptual irony, though few New Atheists likely share my awareness - is that the cosmos is self-sufficient and hums along by itself; Article Two is that not acting on Article One is unconscionable.

***Parallels with the Renaissance.*** Despite Britain's wealth and geopolitical influence, the political situation in which Huxley found himself seems oddly parallel with that of Renaissance observer-theoreticians such as Kepler. These earlier scholars, constrained by governments that met religious unorthodoxies with state-sanctioned violence, had to present their data and conclusions without running afoul of any ambient and archaic world-views. Initially at least, Huxley faced a similar challenge. If sediment accretes at 500 μm/year in a seabed where oceanographic coring shows accumulated sediment of 3.0 km, then Bishop Ussher's calculation that Creation occurred in 4004 BCE is wrong by three orders of magnitude (36). Huxley *et al.* had to table their scientific data without running afoul of Britain's still-active blasphemy laws.

While the two scientists' situations were comparable, Huxley's and Kepler's conceptual approaches differed in one main area. Kepler tendered his findings as 'thinking God's thoughts after him', and presented them as a reverent unfolding of the ways by which the Ineffable dictated the behaviour of His material creation; in this case, celestial objects. Huxley by contrast, perhaps emboldened by centuries of accumulated observational data and increasingly refined theory, had the confidence to reject Kepler's explicit and Church-mollifying appeals to divine will. His solution was agnosticism. The concept neatly end-ran all considerations of theistic intervention in science, whether AB ORIGINE (Creation) or POST ORIGINEM (general enforcement of natural law, with random interruptions called miracles) by arrogating them for the divinely minded to discuss. Such concerns, Hal said, were not for working scientists; if a scientist did address them it was not in the light of his or her profession, but as an ordinary British citizen (37).

(36) Ussher summed OT patriarchs' ages to site Creation in early October 4004, ending at dusk on the first Shabat.

(37) Lightman sums up Huxley's viewpoint in this way: "Science is the realm of facts, religion of feeling, and theology is in the realm of science. So there is no conflict between science and religion, only between theology and science" [Private communication (email), 2014 December]. As with Huxley's disavowal of the theological consequences of agnosticism, however, this statement raises questions. To attribute all conflict between God and science to mere semantics ignores the centrality of language as a *sine qua non* for academic discussion. God in His essence may be Wholly Other; that is of no concern to humans, to whom God (like everyone and everything else) is coextensive with what we speak and write about Him. Our discussion of anything - God, nature, history - may not directly influence the Kantian *Ding an Sich*: but it does impact, nay it determines, our scholarship. If we say that no verbal or mathematical discussion can approach absolute reality, we have denied the Academy with that word. Moreover, the magisteria cannot but overlap. Christianity has always adduced the Incarnation, Resurrection, Transfiguration, and Ascension as physical facts; while as STS continues to show us, science is undertaken by men and women suffused with apocryphal intuitions, hunches, and insights - that is, with feelings.

***Beyond Tooth and Claw.*** Huxley's strenuous opposition to the C of E's doctrinaire theists may have stemmed from his deeply rooted view of nature as essentially harsh, a view diametrically opposed to the Christian exegesis of a nurturing universe created by a loving God (38). Huxley had no truck with so easygoing a view. He found no solace in the arguments of his contemporary Prince Kropotkin, who observed that co-operation is an evolutionary strategy fully as entrenched as conflict. Huxley and Kropotkin died before modern observation and theory had validated the Russian's views; but even the limited examples that Kropotkin tabled suggested that nature is more than a battle royal, with everything attacking everything else at all places and times. Mutually beneficial interaction may be intra- or inter-specific, even inter-kingdom. Instantiations range from interdependency for mutual profit (flower reproduces, bee eats) to symbiosis (shark is cleansed, remora eats) to what Margulis calls biofusion (eukaryotic cell c. 3 500 000 000 BCE gains power supply, free-floating prokaryotic cell gains protection as an intracellular mitochondrion) (38a).

While Huxley did hope that civilization might through concerted institutional and personal intervention mitigate the worst effects of a strictly biological *lebenkampf*, he seems to have viewed nature (*e.g.* in *Evolution and Ethics*) as an endless struggle. Such pessimism seems unjustified. Most of our biosphere's ten million species have adjusted to the concept that armed response is not life's sole option, nor even its default (39); even parasites increase their viability by reducing their virulence - if they kill their hosts they die as well. Of even greater importance, individual molecular replicator sets (genes) within each genome have through natural selection developed ways to exchange internecine aggression for energy-saving co-operation. The result, a biosphere crammed with vigorous species, virtually defines enlightened self-interest. It does not seem to have occurred to Huxley, let alone the New Atheists decades later, that this fact alone - *i.e.* that the universe is not intrinsically inimical - might shine a favourable light on theism.

***End of Linear Logic.***  Paradoxically, mainstream technoscience on the eve of the 20th century was about to depart Huxleian agnosticism for an even more radical belief. This revolution in viewpoint, amounting to a new scientism, involved such disparate disciplines as non-Euclidean

(38) "All mankind suckles at the breast of Nature . . . Brothers, above the tent of stars / A loving Father cannot but dwell" (Schiller, *An die Freude*, early 19th cent.; trans. Louis Untermeyer, 1958). Repurposed by L.v.Beethoven as the lyrics for his 9th symphony ("Choral").

(38a) Presentation, Bethune College, winter term 2013, York University

(39) Consider the steady attenuation of syphilis c.1500-1900, which like diabetes or AIDS has today evolved from an immediate death sentence into a long-term manageable affliction.

geometry in mathematics, quantum theory in theoretical physics, and by the 1950s observational and applied physics as well. Even by 1900 Riemann had isolated Euclidean geometry as a special case of surface mathematics. Change the examined surface from plane to sphere, and geometrical axioms considered universal for more than two millennia were obviated: lines of longitude perfectly parallel at the Earth's equator converge inexorably at Earth's poles.

Another aspect of the 20th century revolution in world-view was a new reliance on probability. Henceforth the mental operations consensually accepted as conclusive were no longer linear (*e.g.* syllogistic), but statistical. In a sense, scientific law underwent a shift from a criminal code, which demands deductive proof beyond reasonable doubt, to a civil code, which is satisfied by preponderance of evidence. The great change initially arrived almost unnoticed; Max Planck's late 19th century announcement that atomic energy states are discontinuous was not at once perceived as revolutionary (40). Planck had experimentally determined that the subatomic particle called the electron (41), which had been predicted by theory and was afterward observed (or rather inferred) by Rutherford at McGill and at Cambridge, seemed constrained in the levels of energy it could absorb and emit. According to Planck, electromagnetic energy at the scale of molecules and atoms comprises packets of discrete size rather than a smoothly variable range. Trained like most of his contemporaries in classical languages, Planck called these packets 'quanta' (L. QVANTVM*,* pl. QVANTA*,* 'how much'). Graphically, the spectrum of Planckian electron energies forms not a smooth curve but a step function, the vertical vectors of which exclude interpolated energy values.

It is interesting that Einstein, the greatest physicist since Newton, not only rejected quantum theory but also invoked a kind of theism to justify his belief. Einstein's apparently theistic objection to the nonlinear logic of the quantum - "I shall never believe that God plays dice with the world" - met another physicist's counter, so far unanswered, that "God not only plays dice with the universe, but throws them where they cannot be seen" (42). For all their revolutionary consequences, Einstein's theories of relativity are essentially linear. The statistical nonlinearity of the quantum did

(40) Nor was ignorance of its implications limited to the general public, who took a half-century to confront its consequences in the incinerations of Hiroshima (U235 critical-mass bomb) and Nagasaki (implosive plutonium device). In 1900 even the close-knit clan of mathematical physicists had no idea of the disruptions that quantum theory was about to unleash; but as Planck himself was to observe, "science advances one death at a time" (*attributed*).

(41) Greek *ελέχτρον*, from the ability of amber (fossilized tree sap) to acquire and maintain a static electrical charge.

(42) [i] Einstein, per biographer P.Frank (1947; cited Beck 950B) [ii] Hans Bethe (*attributed*). As Dawkins correctly notes, "Science in general . . . does violence to common sense." [Dawkins (2006) p.366 (attributed to Lewis Wolpert)]

not invalidate them so much as it isolated them as special cases, just as Riemann did for Euclid and Einstein did for Newton. Science had shown that truths once thought absolute were in fact contingent; the world now appeared to be the plaything of chance, uncertainty, probability. As Heisenberg admitted after the 'golden years' of quantum research in Gottingen, the Newtonian linear determinism that worked so well in the everyday world did not apply at the level of atoms.

Even in Einstein's day scientific sense and common sense were diverging; Einstein himself defined common sense as that set of prejudices acquired by age eighteen (though he then seems to have contradicted himself by asserting that "The whole of science is nothing more than a refinement of everyday thinking") (43). Today's physicist has an absolute faith that subatomic entities can simultaneously be both particle and wave; move through vacuum rather than perturbing some ethereal transmission medium; exist in two places at once; vanish on one side of an impermeable barrier and instantly reappear on the other side without tunneling through; instantaneously communicate across light-years in defiance of Special Relativity; and spontaneously appear out of nothing in a high-energy field. The New Atheist Richard Dawkins may draw on his own discipline of evolutionary biology to argue against a theistic universe, but he and his fellows might make a more telling argument by citing the view of physicists that the world is a thing of ineluctable chaos, instability, and unpredictability (44). As Heisenberg demonstrated mathematically in his famous principle, uncertainty lies at the core of things (45).

(43) *Physics and Reality*, a book of science popularization (1936). Cited Beck (1968) p.950a

(44) Certainly not all quantum physicists were agnostics from the emergence of the discipline. As Lightman correctly observes, Sir Arthur Eddington was not merely a leading quantum theoretician but also a practicing member of the Society of Friends ('Quakers'), a combination that led his becoming a noted reconcilist popularizer. For many investigating the subatomic realm via the exact sciences, however, 'quantum weirdness' (Richard Feynman's term) has proven a stumbling block in attributing to nature any intrinsic causal linearity, let alone the linearity subset of theistic intent. If God exists, he seems to be a compulsive gambler (*see Note 42 and associated text*).

(45) Heisenberg's Uncertainty Principle asserts the impossibility of simultaneously ascertaining a subatomic particle's position and trajectory; the sampling process itself disrupts the properties of the particle being assessed. Such sampling is routine in the Newtonian world (which Feynman called the 'quantum smear') but is impossible in the nanocosm.

IV / *The New Atheists*

***Applying the Lessons.*** I have tabled the above material to set the New Atheism in historical context. Its opposition to religiosity, indeed to religion of any sort, is not new. Doubt has always accompanied belief; to cite the concept of Karl Jung, any belief spawns its own 'shadow' or countervailing belief, an equal but opposite psychological reaction. The stronger the shadow, the stronger its conscious denial. The fanatic shouts down not his opponents so much as himself.

Certainly history has gained the New Atheists their high profile. Religious strictures have (at least in the First World) agreed to subordinate themselves to tolerant secular values such as multiculturalism and freedom of speech. Absent the social and political sanctions that atheists wisely feared in past centuries, even in the West, the New Atheists have felt able to speak their minds without reservation, though now and then to the loss of their civility (*see Appendix A*). And it is the rising stridency of fundamentalists within all major religions, not just Islam, that has given the New Atheists the ideal opportunity to table their message and maximize their profile. Militant Islam (Islamism) nurtures groups from Wah'habist madrassas to the Shiite Islamic State that currently infests Iraq and Syria. Christian evangelists based in the United States combine proselytization of religious principles with the export of cultural biases, lobbying states such as Uganda to penalize homosexuality among consenting adults. Governments such as Pakistan have found it politically expedient to encourage Islamism among their populace, throttling what had a generation ago promised to be a liberal secular state, and enforcing antiblasphemy laws with prison terms and even the death penalty. Sau'di Arabia, according to Amnesty International one of the world's most consistent violators of human rights, recently sentenced one of its citizens to twenty years' imprisonment and a thousand lashes for criticizing his government in a weblog, which the authorities considered an attack on Islam. Hindu militants in India and Buddhist militants in Myanmar have burned mosques and attacked their fellow citizens for the ‘crime’ of being Muslim.

The New Atheism has made it part of its *raison d'être* to oppose these illiberal fundamentalist activities, and has in fact assembled a strong *prima facie* case that religion as a whole too readily resorts to violence. Yet the New Atheism seeks a change in the minds of theists that transcends a commitment to peaceful negotiation. It considers religion of any sort a delusion, freed from which people would live more harmoniously. To the New Atheism all religion is a pernicious lie, which sane persons must abjure and oppose from the mere love of truth: the rational need no God.

In a sense the New Atheists are the heirs of Epicurus - skeptics who demand that theists support their claims with hard evidential proof. However, the only evidence that the New Atheism admits is material, experimentally verifiable, and debatable: in other words, scientific. Further, the New Atheism restricts its definition of evidence to that which can be sensorily observed, quantified, and theoretically explained: in other words, scientistic (*see note 46*).

Given the astringency of the New Atheism's belief system, which in its stridency goes beyond the atheistic (eschewing religion) to the antitheistic (actively opposing religion), how can the New Atheism explain *e.g.* the mediaeval Caliphate? I suggest that it cannot. The Islamic hegemony that throve from North India to Iberia was enlightened not only comparatively, for its time; like Periclean Athens or Renaissance Florence, it remains a beacon of liberal thought. According to the New Atheism this achievement should have been impossible, given the Caliphate's institutionalized piety; but since the Caliphate's free thought was real, the New Atheists' contention that religion curtails tolerance seems invalid. True, the Caliphate's nobler ideals were not wholly emulated in Europe till the Islamic society had declined. But the Caliphate in its zenith still stands as the exception that disproves the New Atheists' blanket indictment of religious faith.

The New Atheists, particularly Richard Dawkins, align themselves with 16th century figures of the scientific revolution such as Newton and Boyle. Here, however, they neglect the whole truth by omitting their heroes' confessed Christianity, or else by explaining it away as a delusion of the zeitgeist: to use a sociological term, normopathy. Similarly Dawkins presents Huxley, a fellow biologist, as a near-atheist (or as close as Hal could get to explicit atheism given his social milieu) and disregards Huxley's outright dismissals of atheism as Victorian propriety. Much of the New Atheists' historiography appears to rest on this kind of factual cherrypicking (*see p.38*).

***ATHEISTIC SPECTRUM: General.*** I have spoken of atheism in broad terms as belief in a universe lacking invisible dimensionless intelligences; but there are subtleties within that concept that must be examined to ensure the New Atheists are fairly understood. To this end I will present atheism as a spectrum on which New Atheism occupies but one sub-strip. Any position on this spectrum is determined by three variables: *certainty* that theism is erroneous, *intolerance* of dissonant views, and belief in *proselytization*. Let us examine all three.

***Certainty.*** In ascending order of self-belief, the atheistic spectrum comprises agnostics, 'soft' atheists, and 'hard' atheists. All these share one trait: they believe in the unique power of reason - defined as the rigorous deductive and associative functions of the human mind, operating on sensory data - to create internal simulacra of the material world. Beyond this ability no theistic creation, intervention, or even existence is deemed necessary; nature, which includes the human mind, rules all. Formal (implicit or explicit) rules of evidence support these contentions (46).

*Agnostics* lie at one end of the atheistic spectrum, which I arbitrarily site on the left. While all agnostics profess uncertainty of deity's existence, individuals within this group differ both on the importance of theistic existence and on the possibility of its eventual (and evidential) confirmation. Agnostics thus split into sub-groups. *Far-left agnostics* do care about the existence or nonexistence of deity; in fact such agnostics, at the extreme leftward penumbra bordering weak believers, may obsess on this question. One finds instances of such fixation even in Holy Writ: from Genesis to Golgotha, it may be that all thoughtful believers constantly risk the dark night of the soul. Examples are not hard to come by, Christ himself being one (47).

To the spectral right, we find agnostics who consider speculative theology no fit subject for debate. While they do not consider religion to instantiate any revealed or natural truth they do admit it is a worldly force, irrational but powerful, and hence are willing to discuss religion's social and political consequences. Many of the X Club seem to have met these criteria, *e.g.* Tyndall and Hirst.

Huxley, who coined 'agnostic' to mean one who does not know (or else is 'not a Gnostic') (31), spent his professional life on the left of the atheistic spectrum. He held all discussions of religion to be irrelevant to science, with this exception: Any attempt by the theistically devout to hinder or deny the methods, axioms, or findings of science via nonscientific means must be met with opposition so forceful that it bordered on cruelty. Huxley considered this fight the good fight, and by all accounts 'Darwin's bulldog' made his opponents shake in their boots (48).

*Soft atheists*, found in the middle of the atheistic spectrum, are quietly convinced of deity's nonexistence by - again with a nodto civil law - insufficient preponderance of evidence. Yet this is not the core of their belief. Rather they have concluded like Epicurus that, probably functionally

(46) The epistemic underpinning of the New Atheists has been termed evidentialism. "As evidentialism is a thesis about epistemic justification, it is a thesis about what it takes for one to believe justifiably, or reasonably, in the sense thought to be necessary for knowledge. Particular versions of evidentialism can diverge in virtue of their providing different claims about what sorts of things count as [evidence](http://www.iep.utm.edu/evidence/), what it is for one to have evidence, and what it is for one’s evidence to support believing a proposition. Thus while . . . [evidentialism] is often referred to as a theory of epistemic justification . . . it is more accurately conceived [of] as a kind of epistemic theory." *Source:* Internet Encyclopaedia of Philosophy (*see* *Bibliography*). Interestingly, some of the more sophisticated religious groups have also adduced evidentialism to support their views, although they expand their admissible proof beyond the scientistic.

(47) Christ's cry on the cross [*Eli, Eli, lama sabachthani;* KJV-NT Matthew 27:46] is in fact a quotation from KJV-OT Psalm 22:1, a Hebraic plaint consensually thought to have been composed centuries earlier.

(48) So Desmond (1997) and others. Consider Huxley's demolition of the Duke or Argyll, whom Hal dismissed as insufficiently 'disciplined' *(i.e.* scientifically educated) to understand the agnostics' position on science, or even science generally. *(See Note 32 and associated quotation)*

and possibly literally, the universe lacks gods. If others want to attend church, mosque, or synagogue, give tithes, speak in tongues, or slice off body parts, that is their choice. (I must observe, however anecdotally, that Western adults appear increasingly likely to be soft atheists, at least functionally: *i.e.* exhibiting behaviour little or not at all affected by theistic concerns.)

*Hard atheists* lie to the right of the atheist spectrum. This sub-strip subsumes (in Huxley's day) Robert Grant of University College London, and (today) all New Atheists but Daniel Dennett, who stands with the more doctrinaire soft atheists. As a philosopher Dennett been trained to weigh every word of every statement, and so avoids the more extreme claims that characterize the rhetoric of Hitchens, Dawkins *et alia*.

***Intolerance*** varies directly with self-certainty, and increases as we move rightward on the spectrum. While agnostics and soft atheists are willing to live and let live, many New Atheists, especially popularizers such as Christopher Hitchens and Richard Dawkins, exhibit a certainty in their faith-in-godlessness that approaches the absolute. New Atheism has been called an irreligious religion; this is a persuasive characterization. The Church of Infidelity is intolerant and brooks no dissent. Its refusal to discuss alternatives to its canon may reasonably be deemed unscientific:

*[W]e are entitled to at least three provisional conclusions. The first is that religion and the churches are manufactured . . . The second is that ethics and morality are quite independent of faith, and cannot be derived from it . . . The third is that religion is - because it claims a special divine exemption for its practices and beliefs - not just amoral but immoral (49).*

**Proselytization.** As one moves spectrally rightward, increasing intolerance and self-certainty swell the compulsion to persuade benighted theists. Agnostics and soft atheists are content with a belief system that works for them; hard atheists seem outraged that what is obvious to them may ever be ignored or denied. Many New Atheists see disagreement, even the most affable and well-meant, as an unfathomable expression of human stupidity grounded in habit, sloth, group-think ignorance, and intellectual squalor. To give but one example, here is Hitchens's response to Luke Howarth's reasoned web post (*given in full in Appendix A*):

*What an inconceivably conceited article. It’s clear that you lack the disgust that any sensible human being would hold for religious faith. I offer you only my middle finger and my uttermost contempt, sir*.

As if 'sir' negated the churlishness of Hitchens's response! Even the term 'sensible' seems to mean 'agreeing with me.'

(49) Hitchens (2007) p.52 [*ginG*]

Dawkins, Hitchens *et al.* do not seek converts by ringing doorbells. Their proselytization is more subtle, and perfectly attuned to our age - author and topic websites, radio and television interviews and narrated specials, online blogs and websites, and above all the use of social media to diffuse the tenets of New Atheism and to anticipate and neutralize any rebuttal (50).

Here then is a summary of the main tenets of the New Atheists:

*(1) ALL WHO PROFESSES A FAITH ARE DELUDED, AND MUST ABJURE THEIR DELUSION;*

*(2) ALL WHO ARE RATIONAL MUST BE ATHEISTS;*

*(3) RELIGION CONSTRAINS THE HUMAN MIND AND DISTORTS BELIEVERS' ACTIONS;*

*(4) TEACHING CHILDREN ANY RELIGION CONSTITUTES CHILD ABUSE;*

*(5) RELIGION PREDISPOSES ITS ADHERENTS TO MINDLESS VIOLENCE;*

*(6) ANYONE DISAGREEING WITH ANY OF THESE TENETS IS UNWORTHY OF POLITE REPLY.*

***Christopher Hitchens.*** If my argument in Part I is in any way plausible, terms such as 'infidel' are generally applied not to oneself, but used only as insults. I say 'generally' because if ever anyone deliberately labeled himself an infidel, it was the late New Atheist Christopher Hitchens.

I approached Hitchens's writings with apprehension; to my surprise I found, especially in Hitchens's summative work *god is not Great* (2007), a brain well disciplined; a mind well-read, dauntingly prepared, professionally distinguished, and razor-sharp; an unfeigned outrage at organized religion's manifold hubris; and a talent for popular communication equal to Huxley's. Hitchens's prose is delightful for its content and its passion, but above all for its incisive debating technique. Here is a rhetorical combatant who shoots to kill:

*Why do people keep saying, 'God is in the details'? He isn't in ours, unless his yokel creationist fans wish to take credit for his clumsiness, failure, and incompetence . . . In this way they make a fumbling fool of their pretended god, and make him out to be a tinkerer, an approximator, and a blunderer, who took eons of time to a fashion a few serviceable figures and heaped up a junkyard of scrap and failure meanwhile. Have they no more respect for their deity than that?* (51)*.*

Despite the acerbity of this Philippic, I was struck by the praise heaped upon Hitchens by certain liberal clergy. No less than Raniero Cantalamessa, Official Preacher to the Papal Household, has written: "Many of the author's reproaches against believers of all religions - the book [*god is not Great*] treats Islam no better than Christianity, which shows considerable courage on the part of the author - are well-founded, and must be taken seriously "(52).

(50) I base these statements on an interview with Nathan Crain (YU STS MA 2013) who closely observed Dawkins's visit to the University of Oklahoma in 2011. Crain likens the visit to that of a rock star, complete with an entourage of handlers, road managers, and publicists, all of whom continually 'tweeted' before, during, and after the event.

(51) Hitchens (2007) p.85 (in Ch.5, 'Arguments from Design')

(52) Book review in *The Tablet* (Vatican City: Vatican Press, 2007).

It is arguable that an opinion from a believer so enlightened, so full of friendly goodwill, so willing to think it possible he may be mistaken, deserves high accolade; that Cantalamessa embodies the power of thoughtful faith. And indeed he takes the high ground of a rational mind open to debate, echoing Abelard (2) as well as Cromwell ("I beseech you, in the bowels of Christ, think it possible you may be mistaken") (53). To the learned believer Hitchens may be not the devil but merely the devil's advocate; the issues Hitchens raises are worthy of address and, where he proves accurate, of redress as well. Certainly there is nothing new in secular charges being brought against religion, or (to make the ontological distinction) against religion's fallible human adherents. Centuries earlier Pascal wrote: "Men never do evil so completely and cheerfully as when they do it from religious conviction" (54).

That said, the charges that Hitchens amasses against theism are daunting. They are intellectual (it is logically pernicious and self-delusional) and historical (it always generates atrocities). Millennia of crusades and massacres; denial of sympathy because a fellow Christian "was a Frank

[and] crossed herself with three fingers" (55); *fatwas*, stonings, and beheadings; and always Jerusalem, that never-peaceful citadel of holy peace - Hitchens lays it all out. Even Msr. Cantalamessa acknowledges Hitchens's arguments, both in content and in force of presentation.

And yet as overwhelming as Hitchens at first seems, the truth and nothing but the truth is not necessarily the whole truth. On closer analysis Hitchens is guilty of polemical bias. Facts are picked selectively, so that slaughters and witch-hunts undertaken in the name of faith are adduced, while the humane benefits of religion are ignored. This is disingenuous. Christianity for example has given us more than what a softer atheist than Hitchens calls a demon-haunted world (56). It was the Church that ended the obscenity of the LVDI in the 5th century CE, defying public and official will by citing adherence to a higher power. In Renaissance Florence, Savonarola railed against simony and fraud; in Victorian England, the Salvation Army served the urban poor body and soul (57). Although the Church first came to political terms with existing power structures to preserve itself (and later did so with too much success) (58) it did help the underclass of Europe on many

(53) Letter to the Church of Scotland, 1650. Cited Beck (1968) pp 255A-B

(54) Pascal, B., *Pensées* No.894. Cited Beck (1968) p.364B

(55) Kazantzakis, N., *Zorba the Greek*

(56) Sagan, C., book title (1996)

(57) Though Huxley remained chary of the Sally Ann, fearing it was a theocratic state-within-a-state that cherished hopes of tyranny. A Bolshevik shook every tambourine (*Source*: Desmond [1997] pp.201ff)

(58) The exhumed bodies of some mediaeval monks show joint breakdown consistent with morbid obesity; even the sanctified Scholasticist Thomas Aquinas was so fat he had a cutaway desk made to accommodate his belly. All this and Heaven too!

occasions. That help could be either material ("I was an hungered, and ye gave me meat") or linguistic-conceptual. For example, the phrase 'surplus population' (too many people for jobs) has under religious pressure yielded to its conceptual mirror image of 'unemployment' (too few jobs for people), a change properly called a great advance in charity (59). Much of the money, time, and political force behind the various manifestations of the great British socialist movement of the late 19th and early 20th centuries came from churchgoers. Religiously motivated help can be helpful even if occasionally impersonal; most of us would prefer cold charity to piping-hot Nothing.

In fairness, it is arguable that many religious alms over the years have been Band-Aid measures: alleviating a few of the more highly visible instantiations of poverty while avoiding poverty's root. "When I fed the poor they called me a saint," said a Catholic bishop in São Paulo. "When I asked why they were poor they called me a Communist.” Mother Teresa washed the verminous bodies of Calcutta's poor but might have helped them more by addressing their poverty by political means.

Overall, however, Hitchens's charges against religion seem to be directed against the deadly sins that religion itself has long condemned: *viz*. envy, lust, sloth, wrath, gluttony, greed, and pride. For all Hitchens's trumpeting of humanism - defined as the practicing of altruism with no divine source attributed - he seems to view humanity as a pretty scurvy lot. That his misanthropy settles on religion as *H. sapiens'*s preferential way to do evil without shame, guilt, or reflexivity may reveal his own pessimism as much as the shortfalls of religious belief.

Even in atheist-humanist terms this exegesis is puzzling. Every British schoolchild memorizes certain tags: *e.g.* Haeckel's 'ontology recapitulates phylogeny' or the deductive fallacy POST HOC ERGO PROPTER HOC (whatever comes before an effect must be its cause). Of course temporal succession, though an indispensible precondition, is causally insufficient: prior event A may be linked to later event B noncausatively, or else not at all: mere sequence is no proof of cause. Yet Hitchens violates this basic logical rule. Someone professing a religion commits a crime; for Hitchens that constitutes proof of religion's malfeasance - POST HOC ERGO PROPTER HOC. One could apply the same skewed logic to those with glasses, male-pattern baldness, or a club foot. One could - as millions of bigots still do - apply it to race, as if the family of man were colour-coded for intelligence, achievement, and self-control.

(59) By C.S. Lewis in *Mere Christianity*. Charles Dickens's iconic character Scrooge advises visitors seeking a donation for poor relief that paupers who would rather die than enter the workhouse "had better do it then, and decrease the surplus population" (*A Christmas Carol* Stave 1 [1837] p.17)

Nor is Hitchens's application of this fallacy to religion his furthest logical stretch. He also argues that history's great *atheistic* villains are villainous because their professed unbelief is a concealed form of religion. Stalin, Hitler, Mao Zedong, and Pol Pot killed millions of fellow citizens because they saw themselves as high priests of secular faiths - Communism, National Socialism, the Great Leap Forward - which automatically preauthorized every evil in the name of the secular deity, whether *Herrenvolk*, class, or history. To Hitchens, religion is responsible even for the sins of atheism. Thus far, then, the Gospel according to Hitchens:

*I / Crimes of those who profess a religious belief stem from that belief;*

*II / Crimes of those who profess no religious belief stem from a covert religious belief.*

If Hitchens can play fast and loose with the very definition of religion - regarding it first as subservience to imaginary intelligences, and a second later as conformity to a set of characteristics applicable to every institution - he stacks the game *a priori* against believers, be they the kindest, most helpful people on Earth. Atheism good, religion bad; *bad* being defined as anything religious and *good* as anything nonreligious. Further, both definitions are biconditional: all religion is evil, all evil involves religion. This is a logically unacceptable circularity.

Despite (or perhaps because of) his errors of reasoning, Hitchens does surprising service to thoughtful belief. As Cantalamessa implies, sound faith does not fear challenges; in fact it seeks them out, so that doubt may renew faith. One wonders how many souls Chris Hitchens has saved.

A one-word modifier in the subtitle of Christopher Hitchens's final book and philosophical *summa* - 'How Religion Poisons Everything' - would make it universally acceptable. Few dispute that religion *may* poison things. We see throughout history, and continuing unabated today, too many examples of humanity's willingness to "do evil . . . from religious conviction" (54). Even orthodox Christianity holds that while God is perfect, religion is by definition manifested in fallen man and so by nature remains imperfect. The holiest saints fall short.

Hitchens omits the linguistic qualifier and states that *all* religion poisons *everything*, full stop. It is a startlingly bold claim, which (unfortunately for his jeremiad) Hitchens cannot sustain. Cherry-pick situations though he may, people keep popping up in his narrative who are both believers and good - thoughtful, selfless, compassionate, nondoctrinaire, and kind. At such times Hitchens seems like Milton's Satan first beholding Eve in Eden, temporarily forgetting his malice and standing for an instant transfixed by perfect beauty, "stupidly good."

Notwithstanding all this, *god is not Great* nails Hitchens's theses to the Church's door. Consummate debater that he is, Hitchens allows every possible point to his theistic opponents AB INITIO. Yes, the material world is fascinating. Yes, it can be the stuff of poetry. Yes, an intense study of theistic text can be "good and necessary mental and literary training" (60). But "if Jesus could heal a blind person he happened to meet, then why [did he] not heal blindness?" (61) As for the Gadarene swine beloved of Gladstone: "That seem[s] . . . sinister: more like black magic" (62).

Throughout his book Hitchens accuses society of harnessing religion to enforce what are essentially nontheistic prescriptions. Sex is toxic and must be controlled; children should be taught their parents' faith and prevented from converting to other faiths; prevailing authority has the imprimatur of deity and must be obeyed IN LOCO DEI; covert freethinkers should outwardly conform, accepting hypocrisy for the sake of solidarity (and their own advancement). Again these are hardly original charges. But counter to such faith-based tenets Hitchens sets out an atheistic credo: Accepting religion purely for comfort in crisis is "contemptible" (63). All religion "misrepresents the origins of man and the cosmos" (64). Religious faith combines servility with sexual repression and is "ultimately grounded in wish-thinking." Paul's Damascene conversion was a "materialist artifact of the apostle's epilepsy" (65).

By contrast, Hitchens proclaims, "Our [New Atheistic] belief is not a *belief*. Our principles are not a *faith*. We do not rely solely upon science and reason, because these are necessary rather than sufficient factors, but we distrust anything that contradicts science or outrages reason . . . [W]hat we respect is free inquiry, open-mindedness, and the pursuit of ideas for their own sake" (66).

Further, Hitchens's credo runs, atheists "are not immune to the lure of wonder and mystery and awe: we have music and art and literature." While atheists "do not believe in heaven or hell" and are "reconciled to living only once . . . [they] believe with certainty that an ethical life can be lived without religion . . . We atheists do not require any priests, or any hierarchy above them, to police our doctrine. Sacrifices and ceremonies are abhorrent to us" (67).

(60) *ginG*  p.10

(61) *ginG*  p.12

(62) *ginG*  p.33

(63) *ginG*  p.76

(64) *ginG*  p.111

(65) *ginG*  p.46

(66) *ginG*  p.10 (*Italics Hitchens’s*)

(67) *ginG*  p.10

'Believe with certainty'; ''ceremonies are abhorrent': here as elsewhere Hitchens descends to

hyperbole, the occupational hazard of the rhetorician. Not all ceremonies are religious: the entrance of graduands at a commencement for example, its joyous colourful solemnity, needs no tar from Hitchens's black brush. 'Believing with certainty' exceeds even this flourish; one cannot semantically qualify an absolute term , though Hitchens may here unconsciously echo Cranmer's 'sure and certain hope of resurrection.' As for 'policing the doctrine,' not all great religions are theologically dictated from the top down. Judaism is famous for its breadth of scriptural interpretation: a Jewish friend once told me that any two Jews have six opinions, and an observant Hindu added that Hinduism is so variant that it is hardly an *organized* religion at all.

Throughout his book Hitchens makes much of "the effort it takes to affirm the incredible . . . how much [mental] contortion is required to receive every new insight of science and manipulate it so as to 'fit' with the revealed words of ancient man-made deities?" (68) But Hitchens then makes the very assumption he attacks. Certainly doctrinaire Christian evangelicals and Islamists might be troubled by hard multi-sourced evidence that the universe is two million times older than Bishop Ussher's estimate; but such doctrinaire theists lie in the fringe. I know of no thinking Christian, Muslim, or Jew who would reject such scientific evidence out of hand. There is a hint here of projection; Hitchens may have let slip that it is *he* who sweats to resist continual metaphysical temptation. But then the Adversary tailors every apple to the temptee.

Having covered theism's epistemic lapses, Hitchens then lays on its doorstop the totality of social horrors. Every schoolchild knows these: the Aztecs' live coronectomies, the Holy Inquisition, the witch trials in Europe and colonial America, the Crusades. What Hitchens fails to mention is that many of the faithful minister, and always have ministered, to the wretched of the Earth. At their peak c.300-350 CE, the Roman Games despoiled the fauna of the largest empire on Earth. EX AFRICA SEMPER ALIQUID NOVI wrote Pliny the Elder - 'always something new from Africa' (69) - and such a quantity of hippopotami, crocodiles, leopards, and chimpanzees were exported for slaughter before the Roman mob that the ecology of Rome's African provinces was permanently changed. Governors of these provinces had three nonnegotiable imperatives: Collect taxes, suppress rebellion, and ship exotic beasts to Rome. Then there were the human killings. Gladiators (those using GLADIVS, the sword) entered the great oval to salute the Emperor, naming themselves 'those

(68) *ginG*  p.101

(69) Natural History, Book VIII, sec.17; cited in Beck 133A. Pliny SENIOR quotes this as a Greek proverb.

who are about to die.' Physicians attending the combats took notes on human anatomy revealed by slash and puncture wounds (so *that's* where the spleen is!) It was the Christian community alone that acted as the conscience of this huge multicultural empire, first by labeling the Games an abomination and then by successfully engineering their end.

While Hitchens unlike Dawkins is not a scientist, he is like Dawkins unapologetically scientistic. "[W]e secular humanists and atheists and agnostics do not wish to deprive humanity of its wonders or consolations," he writes. "If you examine the beauty and symmetry of the double helix . . . you will be at once impressed that such a near-perfect phenomenon is at the core of your being" (70). Granted; but *whence* such perfection? What logical necessity forbids a theistic response to natural wonders? Is no one permitted to give awestruck thanks? Not in Hitchens's world. Religion, he says, is "a false friend, a placebo, a bottle of coloured water" (71).

A key part of Hitchens's credo is that "some things are indefinitely unknowable" (72). Not *may* be: *are*. Hitchens admits there exists - I do not think I misrepresent him here - a cosmos whose vast size and complexity permanently bars it to human understanding. It seems a handsome admission, yet one of whose philosophical and theistic import Hitchens himself purports to be unaware. Yet we are compelled to ask: Might not an infinite realm subsume The One?

Further, a theme in Hitchens's *summa* is his attack on theistic beliefs "without insisting on the polite reciprocal condition - *that they in turn leave me alone*" [Hitchens's Italics] (73). This is jaw-droppingly disingenuous. I assail your deepest beliefs with a series of vitriolic global bestsellers and am shocked when you respond? Preposterous. One cannot be soldier and noncombatant at once.

Throughout his *summa* Hitchens cleaves to a central theme: 'religion kills' (one of his chapter titles). He heaps up data to support his claim, though 'data' may not be the best term here: Hitchens tables reams of qualitative anecdotes but no statistics, violating his own evidential criteria (46).

Hitchens does demonstrate that, throughout history and evident today, *some* terrible things have been done by *some* people in the name of *some* religions. NOLO CONTENDERE; but this rump thesis is not what Hitchens claims from his subtitle onward, *viz.* that all religion poisonsall. Religion of its essence (so Hitchens) loves slaughter; pinches minds; rejects modern medicine; represses women; promulgates lies; brainwashes children; steals from other religions. Religion, *all* religion, institutionalizes irrationality; hates free thought; conditions believers to cherish co-religio-

(70) *ginG* p.8

(71) *ginG* p.19

(72)  *ginG*  p.52

(73) *ginG* p.13

nists but hate infidels; perpetuates superstition; rejects sound science; and represents its deities as perfect, despite the painfully obvious imperfection of the world they made. While many of these charges carry weight, there is a whiff of hubris here: Hitchens at times seems the mirror image of the foam-lipped preachers whom he despises. Both should think it possible they may be mistaken.

On occasion Hitchens interrupts his red-in-tooth-and-claw attacks on theism to mention approvingly his own believing friends. Surely his discussions with them are less ugly than the tone of *god is not* Great: he and they must - assuming the friendships persist - make a gentle(wo)men's agreement to disagree. One misses a commensurate kindness in Hitchens's books.

Hitchens asserts that there is nothing new in New Atheism; that over the centuries many rational people have, overtly or covertly, shared his views. While largely accepting this contention, I suggest that there is one truly new thing about New Atheism: its timing. A succession of terror acts against the United States and its allies - beginning with ship and embassy bombings and culminating with the immolation of the World Trade Center (74) - have fixed in the Western mind the view that Islam assaults Judaism and Christianity because of a belief in its own perfection, together with a suppressed fear of its own imperfection. Should this be the case, the New Atheists preach to the converted. Since 9/11 Hitchens and his fellow New Atheists could hardly have had an audience better conditioned to pay attention to their atheistic evangelism: the Mahdi is at the gate.

Hence one feels that Christians need be less distressed than Muslims by Hitchens's screed. As we have seen, it has been conceivable for some centuries to have thoughts inimical to orthodox Christianity, and to explicitly revile that faith, for the last century and a half. At least in the First World, Christians (while defending their faith) generally accept the secular-humanistic notion of free speech; in the Western democracies, blasphemy is no longer a crime. Not so in the Islamosphere. Most Western-based religions have learned to treat differing faiths with tolerance, so that (at least outwardly) it is not possible to fling words like 'idolatry' and 'apostasy' at other faiths. Msr. Cantalamessa may do so indirectly, by hinting that while Hitchens risks counterarguments from Catholics and Anglicans, in trashing Islam he risks his life. Regrettably, this may be so (52).

***Richard Dawkins.*** Unlike Hitchens, the leading (living) New Atheist attacks religion less through its effulgences than at source. Richard Dawkins, a professor first of zoölogy and now of

(74) Though perhaps these attacks, while brandishing the Qu'ran, might on deeper analysis prove essentially socioeconomic in motive - the Islamosphere having financed the perpetuation of its appallingly repressive caste system with a multi-trillion dollar sale of light crude to the West.

science popularization (emeritus) at Oxford University, is confident he can demonstrate deity's nonexistence, and sets about doing so in such best-selling books as *The Greatest Show on Earth* (2009) and *The God Delusion* (2006) (75). Dawkins, like Huxley a century before him (76), has a self-assigned task of demolishing commonly held theistic beliefs, particularly the contention that Holy Writ (the Bible, Qu'ran, Upanishads, Baghavad-Gita, Book of Mormon *&c.*) is 'inerrant' or undebatably true in every syllable. As noted, this New Atheist attack is logically superfluous, the theological faculties of most top-tier universities having quietly reached a similar conclusion decades ago. Yet regrettably it still seems necessary, as extremists of many faiths continue to demonstrate a visceral hatred of unfettered thought.

Among the New Atheists, Dawkins most strongly bases his arguments (which he considers less hypotheses than certainties) on science. Dawkins lauds the methods as well as the data of science, especially the double-blind experiments used to verify pharmaceutical effectiveness. Since Dawkins's straw-man God does not stand up to such statistically rigorous scrutiny so well as (say) an anticholesterolic statin, the Old One breaks the tape of rationality a distant second to science.

As noted above, this approach is called scientism:

*[T]hroughout the early years of the nineteenth century every major tradition of natural science. . . spawned efforts to extend scientific ideas, methods, practices, and attitudes to matters of human social and political concern. That is, they spawned scientisms* (77).

Scientisms prior to the New Atheism are readily found. Marx, Engels, Lenin, and Stalin proclaimed themselves not just socialists but *scientific* socialists. Western capitalists who begrudged the underclass bread, shelter, and work denied their ruthlessness; they said they were merely obeying the dictates of Social Darwinism, whose scientistic laws let only the fit survive.

Huxley himself spent an inordinate amount of time in his last decade attempting to explain the concept of natural law to the more obdurate Christian believers, *e.g*. Bishop Wilberforce and the Duke of Argyll, who like Newton construed natural law not as Huxley did (*i.e.* simply as a descrip-

(75) It is distressing that Dawkins never acknowledges any difference, obvious even to neophyte logicians, between the inability to *prove* God's existence, and a proof of God's *non*existence. For all his demonstrable virtues as a zoölogist, and despite his preëminence among living science popularizers, Dawkins as a logician (and an historian too) hardly merits an undergraduate A standard. This does not diminish his self-belief.

(76) Huxley, particularly after his death and in defiance of reality - he went to his grave unconvinced of key elements of Darwinism - was labeled 'Darwin's Bulldog'; Dawkins has lately been called 'Darwin's Rottweiler.' I consider this a slur on Rotties, who in my experience are easily intellectually engaged.

(77) Olson (2008) p.295. Hitchens is as fully scientistic as Dawkins, *e.g.* referencing"the ever-mounting evidence, concerning the origins of the cosmos and the origin of species, which consign it [religion] to marginality if not irrelevance" (*ginG* p.229. Of course both Hitchens and Dawkins beg the question by identifying 'evidence' completely with 'scientifically acceptable data'; see note 46).

tive summary of consistent natural behaviour) but as the continuous application of God's enlivening will to what otherwise would have been an inert and lifeless world (78).

Yet while triumphalist-positivist writers of Whig scientific history tend to adopt Huxley's personal take on Wilberforce as a fusty obscurantist, that dismissive appraisal belies the bishop's thoughtful, well-argued, and thoroughly defensible positions. Orthodox Christian theology distinguishes two subcomponents of divine will: active and permissive. For example, God's permissive will lets the Four Horsemen gallop abroad, so that the world - with God's NIHIL OBSTAT if not his full assent, and for His unfathomable purposes - has never been free of famine, pestilence, war, death, or cataclysms such as Thera (*q.v.*). God's active will, by contrast, reveals itself largely through natural law. Gravity, respiration, electromagnetism, planetary motion: to a believer, all manifest the same divine intent. An engaging exegesis of this doctrine comes from the engaging Catholic apologist G.K. Chesterton: 'Water flows downhill because it is bewitched' (79).

Dawkins like Huxley rejects the concept of natural law as interventionist theistic will, and adds to this Huxleian descriptivism the Popperian concept of falsifiability. Only after an overwhelming quantity of independent and corroborating observations do scientists consider the downhill march of water to be an indispensable component of natural law. Moreover, any such scientific (scientistic) acceptance remains strictly and perpetually provisional. Science is inductive as well as deductive, so that at any time its conclusions may be changed, up to and including the change called rejection. Besides, in Jane Bennett's vivid term, matter is not inert but 'vibrant' (80). How matter acts is up to matter alone: no deity is needed.

While *god is not Great* is Christopher Hitchens's final *summa*, we can say of Richard Dawkins's *The God Delusion* (2006) only that it is his *summa* so far; more is no doubt to come. Both men have written other books. Hitchens was a journalist with a focus on historical politics; Dawkins is an Oxford professor, initially of zoőlogy and more recently of science popularization. I am not qualified to judge Dawkins's scientific acumen; but as a popularizer since 1971, I consider myself fit to judge his science writing. The man is an interpretative genius, and my master. As evidenced in such works as *The Greatest Show on Earth* and *River out of Eden,* Dawkins's science

(78) For what still seems a strong counterargument to such theosophic opportunism *see* Epicurus's Second Postulate on p.8; *see also* pp.15f

(79) *Right and Wrong as a Clue to the Meaning of the Universe*, 1911. Chesterton's thesis is of course elliptical, since the *definition* of 'downhill' is the direction of water's flow. Water flows where water flows because water flows there.

(80) Bennett, J., eponymous book (2010)

writing is sublime - impassioned, accurate, deft in summary, memorable of phrase, brilliant in interpretation. His metaphors clarify rather than obfuscate; his cross-linkages among the scientific disciplines (at least the 'hard', 'exact', nonsocial ones) continually make the reader feel what Hannah Arendt calls 'the shock of recognition.'

Unsurprisingly, Dawkins's popular science books all carry an undercurrent of atheism. To Dawkins the heavens, *i.e*. the macrocosm, do not declare the glory of God; at least not a personal, caring, omnipotent deity who hears our thoughts and concerns himself with our affairs. No more does the nanocosm of molecular biology yield an acceptably theistic testimony. Atheism runs through Dawkins's most elegant popularizations as an ur-text, a kind of narrative skeleton.

In *The God Delusion*, however, Dawkins abandons all subtlety in proclaiming his faith-threatening faith. Great scientists and fellow-popularizers such as Einstein, Hawking, and Sagan, says Dawkins, use religious terms only to convey the emotional-intellectual wonder of beholding the natural world, or at least what the human mind can compass (*see Appendix B*).

Having sited such scientists - often claimed as believers by believers, due to their sporadic use of terms such as 'God' - squarely on the agnostic-atheistic spectrum (81), Dawkins then attempts to rebut the theists' principal doctrines. Polytheism, deism, theism, Trinitarianism, and the intercession of saints, the last two equivalent in Dawkins's (and Thomas Jefferson's) view to polytheism, are thoroughly trashed, as are St Thomas Aquinas's infinite-regression 'proofs' for God's existence. Dawkins savages the supposed inerrancy of scripture, both Christian and Islamic.

[I note however that he says no more than what close readers in the Academy's theological and philosophical schools had noticed in Holy Writ over a century ago: that revealed writings are everywhere a hodgepodge of plagiarism, wishful thinking, attributions to deity of human vices such as intolerance and slaughter, and events that range from barely possible to mythic, *i.e.* perhaps poetically meaningful but absurd in the natural world.]

Dawkins applauds the American Founding Fathers' historical wish to separate church and state, and decries the modern encroachment of evangelical Christian groups on U.S. domestic and foreign

(81) Dawkins (2006 pp.50f) extends my spectrum beyond agnostics and atheists into the set of believers; and where I am content with qualitative distinctions, Dawkins presumes to quantify theistic belief from (i) 100% certainty in God's existence ("I do not believe, I *know* there is a God") through (ii) 100% less Δ (strong believers), (iii) Slightly over 50% (unsure but on balance inclined to believe), (iv) Exactly 50% (true agnostic, convinced that God's existence has been neither proven nor disproven), (v) 50% less Δ (agnostic on the brink of atheism), (vi) Zero plus Δ (DE FACTO atheist), and (vii) Certain atheist with absolutely zero belief ("I do not believe, I *know* there is no God"). Dawkins sites himself at (vi) leaning toward (vii): "I am agnostic about [God as about] fairies at the bottom of the garden.”

policy. As he notes, this trend is hardly recent: it was reviled over three decades ago by Senator Barry Goldwater, who held that true conservatism must stop short of theocracy.

Like Hitchens, Dawkins spends much of his book tabling anecdotal arguments against theistic belief. All religion is rooted, he says, not just in textual theft but also in superstition and authoritarianism. Like children in the night, ignorant humanity longed to explain the inexplicable. It did not matter if such supernal agencies were cruel, vengeful, or hostile; in a world both immense (82) and frightening, their very presence conferred an existential comfort. He's mean, yes, but He's better than nothing, and prayer gives us His home phone number (83). Yet real human goodness springs not from divine command but from an innate altruism, beginning with mother-love and extending via enlightened self-interest to individuals of progressively greater genetic dissimilarity.

Continuing Dawkins’s arguments: religiosity does indeed correlate with lower crime rates: but negatively, not positively - "[T]hree of the most dangerous cities in the U.S. are in the pious state of Texas" (84). The Christian Bible (which subsumes the Mosaic Pentateuch) is full of Heaven-sanctioned murder, genocide, child abuse, defilation of the innocent (particularly women and children), and incest; it is ethically impossible to make it the foundation of a morally acceptable life. Further, the zeitgeisthas over the last two centuries so progressed that previously accepted thoughts and behaviours, from racial epithets to colonial warfare, now evoke horror rather than assent (85). And while atheists by definition abjure religion, their opposition is limited to words; Dawkins is "not going to bomb anybody, behead them . . . or fly planes into their skyscrapers, just because of a theological disagreement," a claim that cannot be made by radical theists. Nor does Islam alone oppose free thought. Some Western extremists (Dawkins calls them 'the American Taliban') are even working openly towards a Christian theocracy which would provide the death penalty for atheists, abortionists, and blasphemers.

(82) Though no one before c.1900 had any concept of just *how* immense. I cannot resist a *jeu d'esprit* here: Milton tallies Lucifer's fall from Heaven to Hell (in 17th century thought, the cosmic bookends) as nine days. At 1.0 standard gravities (9.8 m/s/s) the distance covered would be 2 962 842 624 km, assuming zero atmospheric friction; less than one percent of that if Lucifer/Satan were braked by air resistance and achieved terminal velocity of an invariant 100 m/s in his first few minutes of fall. Even the larger figure is only 40% of Earth's mean distance from its fellow planet Neptune. By contrast, the idea of quasar 3C273 lying twelve billion light-years from us (c.one hundred sextillion kilometres) is hardly comprehensible even today. A graphic analogue may help: on a scale map of the universe fifty kilometres in diameter, our entire solar system would fit inside the period at the end of this sentence. *Sources*: Milton, J., *Paradise Lost* Book I ll. 58-61; Van Nostrand (1976) p.1788; personal computations. I am indebted to my son Rowan (b.1991) for locating the appropriate formulae.

(83) Dawkins (2006) Ch.5

(84) *Source:* Harris, S., *Letter to a Christian Nation*. Quoted in Dawkins (2006) p.229 (Ch.6)

(85) Dawkins (2006) Ch.7

To Dawkins, fundamentalism is ineluctably at war with science. Science judges by allowable evidence, and is always ready to change its opinions based on such data; fundamentalism has found its inalterable truth and disallows all evidence to the contrary as a REDVCTIO AD ADSVRDVM (86). Religion abuses children by indoctrinating them with a set of beliefs they are pressured to accept nonreflexively, thus denying them the basic human right of free enquiry. The process leads to the obscenity of forced conversions, a charge that Hitchens echoes. However, atheists still value the study of religious texts for cultural, historical, and literary reasons (87). This trope removes Holy Writ from the summit of moral and ethical supremacy to the common realm of folklore.

In various places, perhaps unwittingly, Dawkins lets slip two telling instantiations of his scientistic atheism. The first is his treatment of Thomas Henry Huxley, part of whose belief system I have briefly discussed above. The second is his attitude toward science and technology studies post Thomas Kuhn's STS-spawning book *The Structure of Scientific Revolutions*.

Dawkins's approach to Huxley marks an original *with-respect*. Today the term is a signal of attack, the Academy's fire alarm: one *with-respects* a colleague whose publications and intelligence one is about to trash. Dawkins applies his Huxleian *with-respect* in its original mannered sense: *I disagree with you, but I hold your person inviolate.* This is respect indeed. Dawkins approaches Huxley with reverence; he handles Hal with kid gloves, as if embarrassed to disagree with the great man. Not here the take-no-prisoners approach to real or imagined opponents that Dawkins (like Hitchens) evinces everywhere else. Where Dawkins's scientistic atheism forces him to disagree with Hal, he does so cap in hand. Herein lies Huxley's agnosticism, according to Dawkins: "In matters of the intellect, follow your reason as far as it will take you, without regard to any other consideration . . . do not pretend that conclusions are certain which are not demonstrated."

To Dawkins, however, Huxley's willingness to put God's "existence and nonexistence on an even footing" is "bending over backwards to concede a point . . . [and] a demonstration of Huxley's scrupulous good manners." In other words - I admit this is my construal of Dawkins's take, though I would defend it as probable - Huxley (so Dawkins) *wanted* to come out as an atheist but was constrained by the theist-favouring conventions of his age (88). If my construal is anywhere near correct, Dawkins's approach constitutes psychological projection on a grand scale.

(86) Dawkins (2006) Ch.8

(87) Dawkins (2006) Ch.9

(88) Dawkins (2006) pp. 48ff.: quoting THH's reply to Dr Wace of King's College London

Dawkins's outright rejection of science and technology studies, 'the science of science' as I label it, is well known; as an STS graduate scholar I would call it egregious. Dawkins seems not to have advanced in understanding of modern technoscience beyond the comfort-food positivism of Karl Popper. Not for Dawkins the Latourian construal of 'fact' as group consensus, nor the admission that, in the assured democracy of Science, the wrong-headed pronouncements of a lab director generally trump the accurate conclusions of his junior lab assistant (6). Dawkins was a recent co-signatory of a letter protesting the granting of an honourary doctorate by a British university to a French STS scholar whom Dawkins *et al*. accused of membership in a group that included "Roland Barthes, Julia Kristeva and other icons of haute francophonyism."

Dawkins's portmanteau, fusing 'francophone' and 'phony', is a crass anti-Gallic sneer (89). Here not just hard-science snobbery but ethnocentricity and racism rear their ugly heads; Dawkins's intellectual high ground crumbles beneath his feet. He might do well to remember that not long ago his discipline of biology was seen as *infra dignitate* by physicists and other 'exact scientists.'

Beyond such issues, the basis of *The God Delusion* lies not in its anecdotal submissions but on pp.157-159, where Dawkins sets out his "central argument." In summary:

- The human intellect has long tried to explain the apparent existence of design in nature. By 'design' is meant 'statistical improbability', as in the marvelous organization of the human eye or the beauty of a butterfly's wing.

- To explain this apparent design, humans have erroneously assumed a Designer. This has led them to concoct explanations far more convoluted than the initial *explanans*.

- Darwin *et al.* discovered and elucidated natural selection, a mechanism by which simpler life forms lead to progressively more complex ones.

- A useful metaphor for natural selection is a building that rises using a 'crane' (a lifting structure based in the lower floors of the building itself) rather than a 'skyhook' (a heavenly levitator with no visible means of support).

- Design and Designer are both illusions, since living forms self-develop under the pressures of selective necessity that alone lead to pattern.

- One can imagine a similar 'crane' being posited for physics, as it has been for biology.

- Gods are not tenable because they are not needed to explain things: Occam's Razor rules.

(89) Dawkins (2006) p.347

In his seven articles, not thirty-nine, Dawkins gives us a comprehensive credo of the New Atheism - his riposte to St Athanasius. Yet close analysis of the Dawkinsian creed reveals many shortfalls and hidden assumptions. Merely prefacing the noun 'design' by the adjective 'apparent' is begging the question: assume no deity, and the disproof of deity immediately follows. Similarly: why must a Designer be 'imagined' rather than 'perceived' or 'accurately detected'? And why need complexity signal untruth? Many true things are wildly complex; Occam's Razor is very well, but it hardly negates the mind-boggling intricacy of (say) the Standard Model of high-energy physics. Sometimes one must multiply axioms. Again, natural selection is inarguably an elegant device; but where is the physical evidence or logical demonstration that it arose entirely through witless chance?

Dawkins (quoting Bertrand Russell) may be correct in saying that the burden of proof for religion's claims must fall on their believers; I would hold Dawkins to this same high standard. I do not think he measures up.

V / *Conclusion*

Doubt, whether construed as theistic weakness or invitation to intellectual adventure, has been humans’ close companion since the advent of consciousness; in a sense, to reject doubt is to reject thought. Yet this is exactly where the stridency of the New Atheism leads. Although the New Atheists have been called supreme doubters, doubt to them seems foreign: their position *vis-à-vis* religion is not doubt but a core certainty that all religion is poisonous, deceptive, and bound for history's trash heap. It is the New Atheists' *lack* of doubt, their conviction that the truth is theirs alone, that makes their attack on doctrine itself doctrinaire. If doubt is indeed the chastity of the mind, the New Atheists seem rather licentious (1).

The case against Dawkins *et al*. is historical as well as ontological. The New Atheism proclaims the intellectual sterility of theism ; the existence of the first Islamic Caliphate negates that claim. The New Atheism upholds the 16th-century scientific revolution as a rebuke of theism; the Christian piety of its greatest figures negates that claim as well. The New Atheism implies that key events in technoscience (Kropotkinian altruism, Heisenbergian nonlinearity) must be interpreted atheistically; that thesis is unproven. Finally, the New Atheism turns a blind eye to the many ways in which religion has afflicted the comfortable and comforted the afflicted. This is simply wrong.

In sum, the New Atheism seems new only in its self-confident stridency. It does not say 'this is what you may legitimately believe' nor even 'this is what we ourselves believe and you are welcome to your own beliefs' but 'we believe what is unalterably and eternally true, so that to disagree with us marks you as a fool.' The New Atheism attempts to justify such self-importance (as did their predecessors the Encyclopédistes) by scientistically citing the methods of technoscience; or more accurately only the natural sciences, as Dawkins *et al.* display a contempt of the social sciences that approaches their contempt for religion. On close analysis, then, the New Atheism proves to be intolerant, self-certain, and evangelical. Not surprisingly, there are theistic parallels.

Logical elements of the New Atheists' position are also flawed. The objectivity of the *soi-disant* exact sciences, for example, rests on a belief system whose statistical indeterminacy renders it pragmatically useful but epistemically unsound (90); nature is simply too odd for glib summary.

Beyond such considerations is the possibility that the scientisms so central to the New Atheism are too feeble to mediate among conflicting beliefs. To take one example: might the surest proof of God's existence be in its very obscurity, a *chiaroscuro* that makes faith - unlike materiality, which is subject to scientific test - a matter not of experiment, but of conscious choice? Has God made himself distant to force us to seek him out? It was said that the Devil's best strategy was to convince the world of his nonexistence (91); perhaps God's strategy is to make us toil to find him. If so, Einstein was correct: God may be subtle, but malicious He is not (92).

I can imagine the ridicule that the New Atheists would heap on this suggestion, deeming it an argument from silence like the infamous tribe of invisible Indians (93). Yet the New Atheists' repudiation of deity, on the basis that God’s existence cannot be proved by scientific enquiry, itself falls into this trap. Need the author of the world, the "Lord of the starfields" in a recent song (94), a being who in one mystic's vision "holds in his palm like a nut all that is" (95), subject himself to the rules he has devised for his creation, from the anthropic principle to the gravitational constant? Or is he Wholly Other, so far above his own creation that it can in no way diminish him?

(90) *Cf* the Feynman normalization procedures for quantum electrodynamics: they work, but to this day no one has any idea how or why.

(91) Motion picture script *The Usual Suspects* (Ķaser Szoze's closing remarks)

(92) *Rqffiniert ist der Herr Gott, aber Boshaft ist er nicht*. Inscription Fine Hall, Princeton University; cited Beck 951A

(93) Being invisible they cannot leave evidence; hence any absence of evidence proves the tribe has been here.

(94) Bruce Cockburn, *Lord of the Starfields* (song lyric 1967)

(95) Hildegard of Bingham, *meditations* c.1311 (fragment)

However one responds to these questions, it seems unlikely that human faith in some supernal force will ever dissipate. It may well exceed our power to submit life's woes and triumphs to the heavy chains of scientistic logic. Nor would this be a tragedy: it is humanity in all its dimensions, not its erratic golem technoscience, that remains the measure of all things.

In the interim, however much we may deplore the New Atheism's self-importance, dogmatism, and occasional ill-will, we must in good faith award it the Abelard Prize for fostering useful dialogue. Its certain doubt and doubtful certainty have moved us to an enquiry from which all thoughtful believers, theists and atheists alike, may hope to extract new and dazzling truth.

*Toronto, Ontario*

*2015 February 06*

VI / *Bibliography*

Attridge, H.W., ed: *The Religion and Science Debate.* New Haven CT: Yale University Press, 2009 (Terry Lectures)

Beck, E.M., ed., *Bartlett's Familiar Quotations, 14th Edition*. Toronto: Little, Brown and Company, 1968

Bennett, J., *Vibrant Matter: a political ecology of things*. Durham NC: Duke University Press, 2010

Brooke, J.H., & Numbers, R.L., eds.: *Science & Religion Around the World*. Oxford: Oxford University Press, 2011

Considine, D., ed., *Van Nostrand's Scientific Encyclopedia 5th Edition.* New York: Van Nostrand, 1976

Dawkins, R.:

*River out of Eden.* New York: Basic Books (Perseus), 1995

*The Extended Phenotype.* San Francisco: W.H. Freeman and Company, 1982

*The God Delusion.* Boston: Houghton Mifflin, 2006

*The Greatest Show on Earth.* New York: Free Press, 2009

*The Selfish Gene.* Oxford: Oxford University Press, 1989

Desmond, A.:

*Huxley Vol.I: The Devil's Disciple*. London: Michael Joseph, 1994

*Huxley Vol.II: Evolution's High Priest*. London: Michael Joseph, 1997

Dickens, C., *A Christmas Carol*. Markham ON: Puffin Books, 1988 (1843)

Gould, S.J., *Rocks of Ages: Science and religion in the fullness of life*. New York: Ballantine Books, 1999

Hitchens, C., *god is not Great [*lower-case *sic]: How Religion Poisons Everything.* New York: McClelland and Stewart (Emblem Books), 2007

Hume, David: *Dialogues Concerning Natural Religion.* Ann Arbor MI: Caravan Books, 2000

Huxley, T.: 'On the Study of Biology' (in *Science and Education*). www.archive.com (PDF)

'Prologomina' (in *Evolution and Ethics*). www.archive.com (PDF)

*Science and Christian Tradition* www.archive.com (PDF)

Jaynes, Julian, *The Origin of Consciousness in the Breakdown of the Bicameral Mind*. Boston: Houghton Mifflin, 1976

Kuijsten, M., (ed), Reflections on the Dawn of Consciousness. Henderson NV: Julian Jaynes Society, 2006

Lewis, Clive Staples, *Mere Christianity*.

Lightman, B.:

*Religion in the News*, Vol. 10, Nos. 1 & 2, pp 2-4 incl.

*The Origins of Agnosticism*. Baltimore: The Johns Hopkins University Press, 1987

MacLeish, A., *J.B*. Boston: Houghton Mifflin, 1958

Olson, R.G.: *Science and Scientism in Nineteenth-Century Europe.* Chicago: University of Illinois Press, 2008

Rhodes, R., *The Making of the Atomic Bomb*. New York: Simon and Schuster, 2012

Sagan, C., *The Demon-Haunted World: Science as a Candle in the Dark*. New York: Ballantine Books, 1996

Spencer, H.: *First Principles*. London: Williams & Norgate, 1887 (2nd Edition)

Strunk, W., & White, E.B., *The Elements of Style*. Montreal: Pearson, 2000 (1959-72-79)

Taleb, N.N., *The Black Swan: The Impact of the highly Improbable*. New York: Random House, 2007

Zelazny, R., *Lord of Light*. New York: HarperCollins (Eos), 2004

**OTHER RESOURCES CONSULTED:**

http://oxfordstudent.com/2013/08/22/richard-dawkins-and-the-sinking-ship-of-new-atheism/

*(Reprinted* IN TOTO *as Appendix A below, with Christopher Hitchens's response)*

https://archive.org/stream/a588253500huxluoft#page/n4/mode/1up

(Huxley's *American Addresses*)

http://www.iep.utm.edu/n-atheis/

http://www.iep.utm.edu/evidenti/

<http://www.iep.utm.edu/con-meta/#scientism>

*(Encyclopaedia of Philosophy [peer-reviewed])*

APPENDIX A:

**NEW ATHEIST REACTION TO CRITICAL ARGUMENT**

*I adduce this entry on the Oxford University Press discussion website as an example of measured, intelligent argument offered in goodwill yet rejected out of hand by New Atheist Christopher Hitchens.*

**Richard Dawkins and the sinking ship of New Atheism** By Luke Howarth

I

T was pleasing to read Owen Jones’s recent article in *The Independent*, denouncing, from an atheist’s perspective, Richard Dawkins’ hostility towards religion (albeit almost entirely confined to his various attacks on Islam). It is a rare early example of a public disassociation that must be undertaken by serious-thinking nonbelievers as quickly and emphatically as possible.

Pieces on this topic customarily begin with a personal disclaimer in some agonizing form, and I feel as though it would be rude to buck the trend. I cannot attest to the same secular security as Jones, to say nothing of Dawkins, but suffice to say that I live under the assumption that the commonly conceived, anthropomorphised deity of the popular monotheistic religions – a god that I might be tempted to petition with self-interested requests, or to whom I would turn in times of strife or despair – does not exist. Nor do I disagree that the diverse list of moral indiscretions (to phrase the thing politely) – continual subjugation of women, child rape, homophobia, genital mutilation, stigmatisation and condemnation of contraception, of alternative reproductive methods, and of pre-marital sex, to cite a small handful – facilitated and justified by numerous religions can possibly be regarded as anything but repugnant. Moreover, I consider Jones’ assertion that holding critical opinions about followers of certain religions is an act of discrimination comparable to racism (“it is beyond unrealistic to regard religious belief as a ‘choice’”) to be completely ridiculous; if we cannot judge people based on the set of beliefs they hold, we might as well give up judging anyone at all. With this point, Jones is, I fear, unwittingly dabbling in a debate of nature *vs* nurture that is complex and distracts from the issue at hand.

So far so good. Dawkins would welcome me with open arms. Regrettably, however, I could not return the embrace. Rather, I would seek to distance myself from a movement which, I have slowly and reluctantly become persuaded in recent years, is irredeemably sullied by a vice from which no serious cultural or social revolution has ever emerged; the desire to look clever (often confused with the desire to be right). This relatively young faction of non-belief, of which Dawkins is unanimously regarded the figurehead, is usually referred to as New Atheism (Christopher Hitchens, gloriously accurate about so much, was wrong to claim that “there is nothing new about the New Atheists”), and retains an impressive army of supporters and propagators, including A. C. Grayling, Michael Shermer, Sam Harris, Bill Maher, and even the dependably controversial, fidgeting figure of Ricky Gervais.

The fundamental problem with New Atheism in its present form is, ironically, a deficiency of pragmatism. Ironic because Dawkins’ favoured method of cognition – the governing principle of Dawkinsism, if you like – exercises an arbitrary prioritisation of pragmatism above all other considerations. The pragmatist has no time to think about metaphysics, or entertain the notion of a reality that he cannot perceive but must infer or imagine. Indeed, the diehard pragmatist mightn’t consider a world beyond sense experience to qualify as “reality” at all.

Herein lies the inconsistency. From a pragmatist’s point of view, the overwhelming problem with religion is the vast number of ignominies and injustices it continues to perpetrate in almost every country – and New Atheism has great potential to address and work against such abominations. Instead, however, Dawkins, Maher, Gervais and too many others would rather attempt to prove the intellectual tenability of their position in a debate wherein neither side is able to offer a conclusive argument. Addressing Howard University in Washington D.C., Dawkins admitted: “My interest is that I care passionately about the truth. I’m actually rather less interested in the role of religion in society and all that stuff… Is there, as a matter of *fact*, a Supreme Being who created the universe or not?” Whilst one might be tempted to smile at the philosophical naivety in his words, they are unhappily symptomatic of a wider tendency, to polarise in an extremely unhelpful way – to group forward-thinking Christians together with creationists, or bracket someone like me with Jones and Hitchens; the discriminating criterion is no more precise or nuanced than “belief in God”, and all theistic belief consequently becomes synonymous and equivalent. The National Secular Society’s Kate Smurthwaite encapsulated this attitude on ‘The Big Questions*‘* a couple of years ago, when she explained that “faith, by definition, is believing in things without evidence – and personally I don’t do that, because I’m not an idiot”. Perhaps she was aware of Dawkins’ declaration in Edinburgh, nearly twenty years earlier, that “faith is the great cop-out, the great excuse to evade the need to think”, or indeed, his judgement in ‘The Selfish Gene’: *“*…faith seems to me to qualify as a kind of mental illness”.

Constructing a tension between those who believe in a deity and those who do not is polarisation at its laziest, indulging the same predisposition for eradicating nuance (now ubiquitous) that sees divorced parents become “broken families” or New Feminists “misandrists”. It is stupid to believe that any debate concerning the existence a transcendental, supernatural entity could reach a satisfactory conclusion – reasonable, defensible theism is wise enough to refrain from appealing to evidence in the physical world, and cannot therefore be validated by scientific verification. The hackneyed notion that theism and science are as air and seawater in a sinking boat – the latter steadily pushing the former out of each diminishing alcove – is a fallacy, deriving once again from the same erroneous tension of which the New Atheists are so fond. This tension is favoured because it helps to formulate a caricaturised version of theism that may be easily challenged or ridiculed, but it is likely to offer little comfort to those non-believers who would rather not score intellectual points at the expense of pursuing essential cultural progress. When it comes to God, presence of belief matters far less than the manifestation of that belief, and it is this new conflict that needs to replace the old; a distinction between rational, moral theists (of which there are many) who recognise the enormity of the problems caused by religion, and those who perpetrate those problems.

In its current artless form, New Atheism needlessly estranges all believers, merging the reasonable with the idiotic, and thereby alienating many of those with whom it needs to work in order to change the function and influence of religion. Atheism, similarly, no longer interesting of its own accord, has implications and concerns – the viability of a meaningful life without a deity, for instance, or the source of secular morality – which invite further controversy and debate. In order to engage in these discussions, however, the unsophisticated approach of Dawkins and his fellow New Atheists must be abandoned immediately, and a more nuanced style of atheism adopted in its wake.

- Here however is Hitchens's reply:

***What an inconceivably conceited article. It’s clear that you lack the disgust that any sensible human being would hold for religious faith. I offer you only my middle finger and my uttermost contempt, sir.***

- No compromise here, and therefore no dialogue. Hitchens exhibits the adamantine self-certainty that is a defining characteristic of the worst theistic mainfestations he purports to abhor.

##

APPENDIX B: **EINSTEIN'S CONCEPT of GOD**

As this paper is primarily an examination of theistic beliefs' relationship with the natural sciences, one must ask: what or whom did Einstein mean by God? The correlative seems to have been a personification of nature*: i.e.* a comprehensive reality embracing energy and matter, two previously distinct entities that Einstein had equated in his famous E = MC2. Afflicted throughout his US exile (as Dawkins and Hitchens report ) with Christian evangelicals' adjurations to accept a caring spirit with whom he could cultivate an individual relationship, Einstein could not comply. His God was a symbol of the universe: above all, its astonishing ability to let human science comprehend it in some way. If Einstein's Old One did indeed have personal properties, they transcended what humanity could ever comprehend. *[Source*: Jammer, M., *Einstein and Religion*. Quoted Dawkins (2006) pp.15 & 209]

*- I do not believe in a personal God and I have never denied this but have expressed it clearly. If something is in me which can be called religious then it is the unbounded admiration for the structure of the world so far as our science can reveal it . . . The idea of a personal God is quite alien to me and seems even naïve.*

*- I have never imputed to Nature a purpose or a goal, or anything that could be understood as anthropomorphic. What I see in Nature is a magnificent structure that we can comprehend only very imperfectly, and that must fill a thinking person with a feeling of humility. This is a genuinely religious feeling that has nothing to do with mysticism.*

*- I am a deeply religious nonbeliever. This is a somewhat new kind of religion.*

*- Strange is our situation here on Earth. Each of us comes for a short visit, not knowing why, yet sometimes seeming to divine a purpose. From the standpoint of daily life, however, there is one thing we do know: that man is here for the sake of other men - above all for those upon whose smiles and well-being our own happiness depends* (p.209)

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