The doors of perception: science and religion in the 'Age of Revolution'

Samuel Weston Speedy

Abstract

This article seeks to explain the continued influence of religion beyond the nineteenth century rise of science and locates the roots of that influence in the limits of language exhibited predominantly in the literature of the 'Age of Revolution'. Thomas Paine and William Paley are investigated as examples of the limits of language effecting a belief in instantaneous design, and identifies the essentialist distinctions given by words, names, and labels as influencing their belief in fixed, unchanging, essentialist forms, which thereby influence their conclusion of design (independently of questions of whether the design hypothesis is accurate). Also investigated is William Blake, as an example of the limits of language effecting religious experience of self-transcendence, where it is found that for the experience of phenomena to invoke self-transcendent awe, that experience had to be beyond what the limits of language had evolved to adequately describe; this created a sense of transcending words, names, and labels, including those differentiating 'self' from 'other' or 'us' from 'them'. Charles Darwin is also explored, extending the time-frame of the 'Age of Revolution' to include the 'Darwinian Revolution', in order to illuminate the interaction of the limits of language within a post-Darwin world.

Keywords

Science, religion, 'Age of Revolution', Tomas Paine, William Paley

In the late nineteenth century, Robert Ingersoll (1879/1986) offered a summary of the nineteenth century change in the relationship between science and religion: ‘A few years ago, Science endeavoured to show that it was not inconsistent with the Bible. The tables have been turned, and now, Religion is endeavouring to prove that the Bible is not inconsistent with Science’ (p. 242). By the early twentieth century, Thomas Hardy (1910/2001, p. 327) wrote *God’s Funeral*, a poem that can be read from the perspective a mourner watching God slowly being lowered into the grave. The advance of science in the nineteenth century seemed, to some, to make religion obsolete. This paper examines why it is that religion maintains its influence for many right into the twenty-first century, and identifies the roots of that influence in what Eric Hobsbawm (1962/1996) calls the ‘Age of Revolution’, when old, political and economic institutions were being overthrown. In so doing it is not assumed that theology or religion are either true or false; nor is it assumed that there are not many answers to the question of why religion exists. From a literary perspective, this paper does seek to examine the role played by the limits of language on religion’s role in society, through the works of writers of the ‘Age of Revolution’ including Thomas Paine, William Paley, and William Blake. It also extends upon Hobsbawm’s time-frame for the ‘Age of Revolution’ to include the ‘Darwinian Revolution’, illuminating how the limits of language interacted with Darwinism in a post-Darwin world.

The dominant cosmology at the turn of the ‘Age of Revolution’ can be characterised by the ‘Great Chain of Being’ (Pope, 2012, pp. 4-13). This model varied slightly among writers, but it generally described a world-view of top-down design; namely, God, angels, humans, beasts, chaos, and nothingness. It can be argued that the limits of language are predisposed to formulating the Argument from Design that supports such a cosmology: the argument that natural phenomena must have been consciously designed in a manner analogous to human design. It has been suggested that the human mind evolved to understand events on the relatively small timescales pertaining to human lives, timescales of years and decades, but certainly not millions of years. These were timescales during which the only complex objects that could arise were indeed those formed by design, albeit human design; i.e., tools, mechanical apparatus, etc. (Dawkins, 1987, p. xix). In this case then, whether or not the Argument from Design is correct, the mind would find it difficult to understand the rise of complexity without imputing top-down intelligent design analogous to human design.

Much debate can be had regarding this view; debate beyond the scope of this paper. However, a similar point can be made with regard to language, insofar as language has also evolved, albeit differently, to describe natural phenomena on similar timescales, and exhibits certain limits that render it difficult to describe natural phenomena without design. It may not be a coincidence that Pope believed in both the fixity and immutability of language, and the fixity and immutability of entities in the 'Great Chain of Being'. The essentialist distinctions given by words, names, and labels, as applied to natural phenomena on the timescales that language evolved to describe, create an impression of fixed, unchanging, essentialist forms within those timescales; so that a 'tree' is *really* a tree, a 'plant' is *really* a plant, or a 'horse' is *really* a horse. Indeed, Carl Linnaeus, father of modern taxonomy, was himself an essentialist, and yet Peter F. Stevens (2002) reminds his readers that Linnaeus was: '… as much managing information as naming or classifying nature' (pp. 11-26). Classification was more about the usefulness of labels than strict correspondence to reality. But the essentialism implied by such labels is more supportive of belief in the 'Great Chain of Being' (thus going beyond even ideas of theistic or God-guided evolution), than in gradual development from prior forms, where labels become more arbitrary and indistinct. It is as though each link in the 'Great Chain of Being' came into existence all at once and fully formed, without earlier stages of development to blur the line between a horse being a horse and being something else; again, in accordance with the timescales that language evolved to describe. It is a description of natural phenomena in which the conclusion of design becomes the only explanation for the complexity and diversity of organic forms.

Applying a study of the limits of language on key texts concerning design has never been done before; however, such an analysis seems necessary in light of the important effects of these limits. Certainly, these limits of language were present in discourse of the 'Age of Revolution'. This limitation can be seen in Paine's *The Age of Reason* (1794), one of the most important deistic works to emerge in the literature of the period. In this 'Age of Revolution', Paine also wanted to salvage deism from those who took opposition to authoritarianism too far: 'Lest, in the general wreck of superstition, of false systems of government, and false theology, we lose sight of morality, of humanity, and of the theology that is true' (Paine, 2007, p. 290). According to Paine, the Book of Nature was the true word of God, and its revelation was the only first-hand revelation accessible to all people, of all times and places. Paine wrote that this

first-hand revelation declared the existence of a designer: 'Everything we behold carries in itself the internal evidence that it did not make itself. Every man is an evidence to himself that he did not make himself … neither could any tree, plant, or animal make itself' (ibid., p. 296). It is here that the limits of language in this discourse may be seen. The words, names, or labels of 'tree', 'plant', and 'animal' suggest an unchanging essentialism, whereby these things were always what they are now, creating a mystery articulated in the form of how each could 'make itself'; which presupposes that they must be *made* in the first place, as though they consist of parts put together by something else, a 'maker'. Paine's words, unable to describe natural phenomena (i.e., natural objects or organisms) beyond terms of it having been made and designed, exhibit limits to how language in this discourse could describe the world; limits supporting design analogous to human design. The empirical and essentialist discourse surrounding design in the 'Age of Revolution' could only strengthen belief in a literal God.

However, the language of design was not the sole province of Enlightenment deists. Christian theologian William Paley (1802/1963) was famous for comparing the complexity of organisms with the complexity of a watch:

> Every manifestation of design which existed in the watch, exists in the works of nature, with the difference on the side of nature being greater and more, and that in a degree which exceeds all computation. … the contrivances of nature surpass the contrivances of art in the complexity, subtlety, and curiosity of the mechanism … yet … are not less evidently mechanical, not less evidently contrivances, not less evidently accommodated to their end … than are the most perfect productions of human ingenuity. (Paley, 1802/1963, p. 12)

Just as the watch's complexity indicates design, an organism's complexity indicates design. However, it is again possible to note how language itself performs a role in the conclusion of design. To use anthropomorphic language in describing how the watch's cogs, springs, and wheels are 'working together' in 'perfect harmony' towards the 'specific purpose' of keeping time, assumes intentional design in order to demonstrate intentional design. While this is perfectly acceptable with regard to a watch – which actually is the product of design – it is the

fact that the bodies of living organisms are so readily described using the same language, being 'mechanical', 'contrivances', and 'accommodated to their end', that leads to the watch analogy appearing so convincing in the first place.

Yet paradoxically, while the limits of language create a tendency to describe the world in terms of design, they may also create some degree of hostility towards the Argument from Design. This hostility proceeded upon much the same lines as the those of modern theologians such as Karl Barth, with his idea that: '… rational arguments always run the risk of diminishing the mystery of God, seeking to bring it under the human mind's control', rendering those arguments: '… idolatrous attempts on the part of finite humans to grasp the infinite and incomprehensible God in rational terms' (Barth, as cited in Haught, 2000, p. 12). In particular, Samuel Taylor Coleridge's denouncement of natural theology in *Aids to Reflection* (1825) indicates that this attitude existed late into the Romantic movement:

> I more than fear … the prevailing taste for books of natural theology, physico-theology, demonstrations of God from nature, and the like. Evidences of Christianity! I am weary of the word. Make a man feel the want of it. (reproduced in Beer, 1993, pp. 405-406)

While words can serve as pointer to that which is beyond words, the true experience of value at the heart of religious experience *is* that which is beyond words, beyond the limits of rational or linguistic articulation; and if it is rendered into words, becoming too easily described, like the statement that 'rocks are hard', then it becomes to that extent dull and common.

While Pope (2012, pp. 15-17) urges readers to accept their 'middle state' in the 'Great Chain of Being', where they are unable to perceive the overall plan of the design, the point of transcendent experience in the 'Age of Revolution' was often tacitly posited as being to graduate from that 'middle state' and experience God's view; whereupon nature is indeed perceived as divine. This can be seen in the work of William Blake. In the style of many during the French Revolution, Blake called his poetry 'prophetic'; yet according to Robert W. Rix (2005), Blake: '... does away with judging a prophet on the success or failure of his predictions' (p. 23). Instead, Blake's function '… is to act as a public voice of conscience'.

Certainly, in *Songs of Innocence and of Experience* (1789-1805), Blake seeks to act as the 'voice of conscience' by overtly attempting to reform the Established Churches' view of children being *born* into a fallen state of sin (Blake, as cited in Bloom and Trilling, 1973, pp. 17-29.) Instead, children are born into a pre-linguistic state of 'innocence', knowing the world in its wholeness prior to its differentiation through words, names, and labels, and they are only corrupted with maturity through 'experience' of the authoritarian institutions of the ruling classes supporting the Industrial Revolution. For Blake, these classes *impose* limits of language, or '… mind-forg'd manacles …' (ibid., p. 27).

As Ralph A. Bellas (1996) notes, Blake saw the French Revolution as finally freeing humanity from their chains:

> Not only have visionaries broken nets before, but to Blake in 1790 it seemed that all of Western civilisation was breaking nets. The French Revolution was under way, and the revolutionary spark would spread from France to bring political change, of course, but also to restore humanity's fallen perception: 'Now is the dominion of Edom [France], and the return of Adam into Paradise.'

And so, in *The Marriage of Heaven and Hell* (1793) Blake writes: 'If the doors of perception were cleansed everything would appear to man as it is, infinite. For man has closed himself up, till he sees all things thro' narrow chinks of his cavern' (p. 40). The 'doors of perception' leading out of the 'cavern' can undoubtedly be seen as a reference to Plato's Allegory of the Cave – a thought experiment which finds prisoners chained facing a cave's wall since early childhood and perceiving nothing but shadow-figures cast by the light emitted through 'narrow chinks', which the prisoners can only take for reality (Cooper, 1997, pp. 971-1223). The Platonist hope is that the doors can be cleansed and the cave itself transcended entirely by the philosopher. Indeed, Blake asserts his own evangelical mission: 'The desire of raising other men into a perception of the infinite. This the North American tribes practise' (cited in Bloom & Trilling, 1973, p. 40). Asli Gocer (1999) has commented on how Plato's Allegory can be variously interpreted as referring to religious transcendence or to secular enlightenment, or as a comment on the theatre. Here, Plato's cave can be conceptualised as the limits of

language, forming what Carl Woodring (Literature Resource Centre, 1991) concisely terms the '… separation of self from other', the original form of alienation that gives rise to all others, including alienation from nature and the rest of humanity. And, indeed, if it is true that words are that which differentiate between objects in order to form concepts, assisting a belief in essentialism, then words would very well assist the sense of an essentialist, finite 'self' that is separate from the rest of the 'infinite' universe in the first place.

However, it can be argued that the limits of language are an intrinsic part of the sense of self-transcendent awe in the first place. It is precisely because the 'infinite' is beyond anything that language has evolved to describe that there is a sense of transcending language, and, therefore, the linguistic and essentialist 'separation of self from other'; just as Plato's prisoners might experience upon gathering the impression that there could be more to life than shadows (to say nothing of being chained in one place). This can be demonstrated in the most widely cited verse of Blake's 'Auguries of Innocence' (1803/2005, as cited in Rix, p. 69):

> To see a world in a grain of sand,
> And a heaven in a wild flower,
> Hold infinity in the palm of your hand,
> And eternity in an hour.

Here, it can certainly be noted that phenomena themselves need not necessarily be grand, complex, or difficult to understand in order to invoke the sense of self-transcendence beyond the limits of language. They can be something as simple as a 'grain of sand' or a 'wild flower'; but the artistic, poetic, or religious experience of those simple phenomena remains beyond description. Indeed, the images of a 'world in a grain of sand' and 'heaven in a wildflower' invoke a sense of mind-expansion precisely because things of great magnitude are being seen in the very smallest of things; 'infinity' and 'eternity' invoke extremes of size and time that are beyond the grasp of language.

The role of literature here is that it can be said to press at the limits of language, pointing the individual beyond to the sense of awe that cannot be described. Certainly, to speak of 'infinity' within a finite space or 'eternity' within a finite unit of time are paradoxes

that suggest language is failing. But Blake is attempting to describe something of which the point is that it cannot be described. An individual who has not already experienced the kind of 'moment' to which Blake is referring would undoubtedly find his poem nonsensical. In this view, there is no substitute for experience itself, prior to linguistic articulations about it. This is not the kind of unreflective experience that simply accepts mundane appearances, but is a poetically informed experience that enables the individual to sense the threshold of the limits of language.

However, if the sense of self-transcendent awe is assisted in the first place by the limits of language, then would it not be the case that whoever attempts to eradicate and transcend those limits, whether it is the philosopher, the scientist, or even the poet, will simultaneously and ironically *devalue* transcendent experience? This belief is adroitly expressed in John Keats' *Lamia* (1819):

> Do not all charms fly
> At the mere touch of cold philosophy?
> There was an awful rainbow once in heaven:
> We know her woof, her texture; she is given
> In the dull catalogue of common things. (Keats, as cited in Wu, 1998, p. 1078)

Here, the mind, too curious to let sleeping mysteries lie, will strip all beauty and value from the world, condemn all scientific inquiry, all attempts for explanations of cause (including, presumably, an attempt to explain the cause of the senses of divine design, self-transcendence, and antipathy to science). According to Keats, for science to describe phenomena and know them *within* the limits of language, is to strip them of the very mystery that gives them their capacity to induce a sense of self-transcendent awe, and make it 'common'. A Big Question is awe-inspiring, but a Big Answer is not.

So how does all this translate beyond that other important nineteenth century revolution, the 'Darwinian Revolution'? Where evolutionary theory has provided a scientific explanation of the complexity and diversity of life? As it turns out, with difficulty. An anonymous writer (1868) who was Charles Darwin's contemporary called evolution a 'strange inversion of reasoning' (as cited in Dennett, 1995, p. 65), but the violation of common sense

that evolution represents is best expressed by Darwin (1859/2006, p. 569) himself, who cites Paley's own example of the eye:

> To suppose that the eye, with all its inimitable contrivances for adjusting the focus to different distances, for admitting different amount of light, and of the correction of spherical and chromatic aberration, could have been formed by natural selection, seems, I freely confess, absurd in the highest possible degree.

This sentence is followed by a lucid explanation of exactly how the eye could indeed have evolved by natural selection, explaining that the initial sense of absurdity is – like that experienced in regard to the sphericity of the earth – unfounded (Darwin, 1958, p. 569). But that sense of absurdity deserves examination. If it is indeed the case that the environment that language evolved to describe was an environment of relatively small timescales, during which the only complex objects to arise were indeed those formed top-down by human design and contrivance, then a description of complexity arising bottom-up by natural selection over millions of years, and of humans sharing common ancestors with chimpanzees – much less with turnips – may indeed be difficult to fathom.

This difficulty is readily evident in the essentialism suggested by language, whereby each species is named, labelled and classified as if they are indeed fixed, immutable, essentialist forms. This makes it seem as though (to anthropocentrically take the hominid line as an example) *Australopithecus, Homo Habilis, Homo Erectus*, and *Homo Sapiens* are each absolutely distinct from each other rather than mere arbitrary labels imposed upon what is in fact a continuous, unbroken line. Had language evolved to describe time on a geological scale, then such categorisations might very well not need exist, and the fact that humans share ancestors with turnips might be as tedious and commonplace a concept as that of 'rocks are hard'. But because humans did not, it may be difficult to outgrow the language of design. The essentialism suggested by the limits of language implies that humans are something essentially different from their common ancestors with turnips, which makes the idea of an anti-essentialist transition phase appear absolutely absurd.

Darwin (1887/1958), himself relates how he had been a devout theist while writing *The Origin of Species*: 'I feel compelled to look to a First Cause having an intelligent mind in some degree analogous to that of man; and I deserve to be called a Theist' (p. 77). Darwin further writes that this belief later waned. But if evolutionary theory influenced Darwin's mind in any direction, it is arguably in the direction against forming firm conclusions either way, as he relates:

> But then arises the doubt – can the mind of man, which has, as I fully believe, been developed from a mind as low as that possessed by the lowest animal, be trusted when it draws such grand conclusions? May not these be the result of the connection between cause and effect which strikes us as a necessary one, but probably depends merely on inherited experience? … I cannot pretend to throw the least light on such abstruse problems. The mystery of the beginning of all things is insoluble by us. (Darwin, 1887/1958, pp. 77-78)

The 'inherited experience' of the mind entails that it can only explain effects in terms of causes prior to the effect itself, leading to talk of a 'First Cause' prior to time; indeed it is a 'connection that strikes us as a necessary one'. Yet it is unclear what the terms 'cause and effect' can even mean prior to the existence of time, calling into question the very coherency of phrases like 'the beginning of all things'. Worse, if words like 'universe' and 'nature' are defined as 'everything', then to say that any 'cause' existed outside the universe or nature would be simply to say that that cause does not exist.

Similar problems have certainly been noted before, as David Macey (2000) comments: 'Developments within philosophy itself, and especially the so-called Linguistic Turn, mean… that the traditional concerns of metaphysics are often viewed as problems that arise from the misuse of language' (p. 251). The fact that language readily enables grammatically and syntactically correct formulations of such phrases can certainly explain why beliefs based upon them can seem logical, and therefore survive. Yet Darwin appears to have been aware that language is limited in what it can describe: 'I feel most deeply that the whole subject is too profound for the human intellect. A dog might as well speculate on the mind of Newton' (as cited in Gould, 1999, p. 191). This foreshadows J. S. Haldane's (1927) 'suspicion' that:

'… the universe is not only queerer than we suppose, but queerer than we *can* suppose' (as cited in Tyson, 2007, p. 10). There may well be truths about the universe that are as far beyond what could ever occur to a human as theoretical physics is beyond what could ever occur to a dog. As much as people feel that both their mind and their language ought to be capable of grasping all things – a feeling that itself could arise from the limits of the mind and the limits of language – the analogy of the dog speculating on Newton reminds the reader that the dog, too, likely feels the same about its own mind, from its own limited point of view.

Yet it seems clear that Darwin's words are a call for humility, rather than a call to form firm conclusions for or against the existence of a literal God. Like the mind, the workings of language also likely depend 'merely on the inherited experience' from the particular environment in which it evolved, and therefore cannot possibly be expected to be able to describe the beginning of the universe; which would mean that the answer is left not to science, but to individual value-judgement. But the 'insoluble' mystery of the universe, too, can provide the sense of awe experienced at the threshold of the limits of language. If Martin Heidegger (1949) was correct to insist that the '... wonder *that* things *are*...' (as cited in Macey, 2000, p. 177) – the wonder that anything exists at all rather than nothing – ought to be the beginning point of all science and philosophy, then the limits of language that give rise to that wonder might not be a negative thing.

The limits of language in the 'Age of Revolution' had both their light side and their shadow side. They assisted the sense of awe, transcendence and value, without which life would be barren. However, they also assisted the tendency of viewing language as being capable of encompassing all things, and of reaching dogmatic certainty on irresolvable metaphysical questions. The debate about science and religion today, although irresolvable, might be improved by preserving the positive aspects of the limits of language, and guarding against the negative; which can be achieved by attempting to recognise their presence in all discourse. It is in this sense that individuals can endeavour, as far as possible, to open the 'doors of perception'.

References

Bellas, R. A. (1996). *Literature resource centre.* Retrieved from http://go.galegroup.com.ezproxy.waikato.ac.nz

Bloom, H. & Trilling, L. (Eds.). (1973). *Romantic poetry and prose*. New York, NY: Oxford University Press.

Beer, J. (Ed.). (1993). *The collected works of Samuel Taylor Coleridge, volume 9: Aids to reflection*. London, UK: Routledge and Kegan Paul.

Darwin, C. (1958). *The autobiography of Charles Darwin*. New York, NY: W. W. Norton and Company. (Original work published 1887).

Dawkins, R. (1987). *The blind watchmaker.* New York, NY: W. W. Norton & Company.

Dennett, D. (1995). *Darwin's dangerous idea: Evolution and the meanings of life.* New York, NY: Simon and Schuster.

Gocer, A. (1999). The puppet theatre in Plato's parable of the cave. *The Classical Journal, 95* (2), 119-129.

Gould, S. J. (1999). *Rocks of ages: Science and religion in the fullness of Life*. New York, NY: Random House.

Gibson, J. (Ed.). (2001). *Thomas Hardy: The complete poems*. New York, NY: Palgrave Macmillan. (Original works published 1898-1928).

Haught, J. F. (2000). Evolution and God's humility: How theology can embrace Darwin. *Commonweal, 127* (2), 12.

Hobsbawm, E. (1996). *The Age of Revolution: 1789-1848*. New York, NY: Vintage Books. (Original work published 1962).

Ingersoll, R. (1986). *Some mistakes of Moses*. New York, NY: Prometheus Books (Original work published 1879).

Macey, D. (2000). *Critical theory*. London, UK: Penguin Books.

Paine, T. (2007). *The age of reason.* Charleston, SC: Forgotten Books (Original work published 1794).

Cooper, J. M. (Ed.). (1997). *Plato: Complete works*. Indianapolis, IN: Hackett Publishing Company.

Paley, William. (1963). *Natural theology.* New York: Bobbs-Merrill (Original work published 1802).

Pope, A. (2012). *Essay on man and other poems.* Philadelphia, PA: Empire Books (Original work published 1734).

Rix, R. W. (2005). Blake's "Auguries of innocence", the "French revolution", and "London"'. *The Explicator, 64* (1), 23.

Stevens, P. F. (2002). Why do we name organisms? Some reminders from the past. *Taxon, 51* (1), 11-26.

Tyson, N. (2007). *Possible worlds, death by black hole and other cosmic quandaries.* New York, NY: W. W. Norton & Company.

Woodring, C. (1991). *Literature Resource Centre.* Retrieved from http://go.galegroup.com.ezproxy.waikato.ac.nz

Wu, D. (Ed.). (1998). *Romanticism: An anthology* (2nd ed.). Malden, MA: Blackwell Publishing.