

On Religious Naturalism

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ABSTRACT: Religious naturalists say all divine or sacred things are natural. A unifying framework is presented for religious naturalism. Nature has five religiously significant levels of organization. These are nature as a whole, the universe, solar system, earth, and body. Each level involves power, cyclicity, complexity, and evolution. These levels take their religious contents from the Zygon group, the World Pantheist Movement, the New Atheists, the New Stoics, and the Burners. Religious naturalists have also taken ideas from the Wicca, the Green Sisters, and the Evolutionary Christians. Rituals can be performed at each level. Linkages between all complex things and the cycles of nature entail a positive soteriology. No gods are involved in this religious naturalism.

1. Introduction

A *religious naturalist* says that (1) all religiously significant objects are natural and (2) that some natural objects are religiously significant.¹ Recent religious naturalism tends to be defined by writers affiliated with the journal *Zygon* (e.g. Crosby, Goodenough, Peters, Raymo, Stone, etc.). But these Zygoners are not the only religious naturalists. It seems fair to characterize some of the New Atheists as religious naturalists (e.g. Comte-Sponville, Dawkins, Dennett, Harris).² Groups like the World Pantheist Movement, the Spiritual Naturalist Society, the Humanistic Pagans, the New Stoics, the Kopimists, and the Burners (participants in the Burning Man festivals) can plausibly be classified as religious naturalists. Several other groups, even though they are not entirely naturalistic, incorporate many of the ideas and practices developed by stricter religious naturalists. These other groups include the Wicca, the Catholic Green Sisters, and the Evolutionary Christians (e.g. Berry, Dowd, Swimme).

While all these groups are currently small, they appear to be growing. At least in the United States, surveys indicate a movement away from traditional theism. As they move away from traditional theism, many Americans increasingly combine New Age and Eastern beliefs and practices with a nominal Christianity (Pew Forum, 2009). Many of those new beliefs and practices are represented in religious naturalism. And, as they leave traditional theism, many Americans also increasingly self-identify by marking “None” on surveys asking for their religious affiliation (Kosmin, et al., 2009; Pew Forum, 2012). Among the Nones, the Pew survey indicates that nearly sixty percent often feel “a deep connection with nature and the earth” (2012: 9-10). Some people, migrating from traditional theism, say they are “spiritual but not religious”. Ammerman (2013) has analyzed these “spiritualists” into four categories. People in her “Extra-Theistic” category locate spirituality “in various naturalistic forms of transcendence” (2013: 258). This

category is very close to religious naturalism. Among those who self-identify as atheists, Silver (2014) says that about twelve percent lie within a group he refers to as the “ritual atheists”. Many embrace practices close to those in religious naturalism. All these data suggest growing interest in religious naturalism.

Some surveys indicate that a large flight from theistic institutions has already happened (Pew Forum, 2010). American college students now appear to fall into three roughly equally large groups: the traditional theists, the spiritualists, and the secularists (Kosmin & Keysar, 2013). The traditional theists are mainly Christians. The spiritualists are open to Eastern, New Age, and neopagan beliefs and practices. The secularists include New Atheists, Nones, and the spiritual but not religious. If these three groups mark the corners of a triangle, then religious naturalism lies mainly on the line which runs between the secular and spiritual corners. The Kosmin and Keysar data suggests that young Americans may be increasingly interested in religious naturalism. Data from Europe, while less detailed, suggests similar trends.³ If these statistics are correct, and these trends continue, then religious naturalism may begin to significantly challenge traditional theism. Since the religious landscape is changing rapidly in the West, anyone who is interested in those changes should become familiar with religious naturalism.

Since there are many ways to define nature, and many ways to define religious significance, there are many versions of religious naturalism. Some of these are mentioned above. And yet much of the diversity is merely apparent. Underneath the apparent diversity, there exists a deeper shared framework. This shared framework, which is developed here, is a generic version of religious naturalism. It includes *most but not all* of the ideas and practices of *most but not all* of the religious naturalists mentioned above. The sole purpose of this chapter is to present this deeper shared framework, and to thereby provide a *systematic introduction* to the currently emerging forms of religious naturalism. Although this systematic introduction is sympathetic, that sympathy should not be mistaken for uncritical acceptance or endorsement. Religious naturalism needs to be critically scrutinized, and it is hoped that the introductory work done here will suggest strategies for future critical engagement. Nevertheless, the critical assessment of religious naturalism is a distinct project, which must be saved for later work.

Most (but not all) of the religious naturalists mentioned above discuss five natural contexts.⁴ The *concrete* context is associated with nature in the largest and deepest sense; the *physical* context is associated with our universe; the *chemical* context with our solar system; the *biological* context with our earth; the *personal* context with individual human animals. Within each context, most religious naturalists argue for the existence of some natural creative power; most of them talk about the eruption of that power from some initial object or event; most of them regard that eruption as a gift which establishes a gift economy; and most regard that power as divine or otherwise religiously significant. Within each context, most religious naturalists focus on the cyclical patterns (the wheels) in the evolution of natural creative power; most argue that the evolution of that power builds complexity; most argue that evolved complexity is intrinsically valuable; and most argue that things involving high degrees of evolved complexity are sacred. Finally, most religious naturalists build their practices around these ideas.

2. The Concrete Context

It has long been traditional for people to turn to religions for answers to ultimate questions. These include *metaphysical questions* like: Why are there some concrete things rather than none? Why is nature lawful? Why are the laws of nature the way they are? Specifically, why do those laws seem to be so congenial to the evolution of complexity, including intelligent life? Zygoners discuss these questions (e.g. Goodenough, 1998: 11, 167; Raymo, 2008: 27). Dawkins takes these questions seriously (2008: 184-186). And, to these questions, one might add another: “What is it that breathes fire into the equations and makes a universe for them to describe?” (Hawking, 1988: 174).

One way to answer these questions is to provide an account of *nature* that is metaphysically ultimate. Of necessity, any such account is speculative and controversial; yet it is also unavoidable – it is irrational to ground reality in mystery (contra Goodenough, 1998: 11-13, 167). One plausible way to provide a metaphysically ultimate account of nature is to run the *cosmological argument* starting with our entire universe: Our universe is obviously a complex contingent thing. But what is complexity? Modern theories of complexity are *informational*.⁵ They say that all complex things arise along “graded ramps of slowly increasing complexity” (Dawkins, 2008: 139).⁶ Hence our universe lies on some graded ramp of slowly increasing complexity. The cause of our universe lies in some simpler prior thing. Perhaps this simpler prior thing is some earlier universe. But the cause of that simpler prior thing lies in some even simpler prior prior thing. And this chain or strand of decreasingly complex things runs back until it bottoms out in some simplest original thing, the first cause of all physicality: “[t]he first cause that we seek must have been the simple basis for a self-bootstrapping crane” (Dawkins, 2008: 185).

The first cause is the ultimate uncaused simple object. It is the ground of all complex concreteness. It is necessary in the sense that it is the invariant root of every possible way of working out the content of concreteness. Since this original object is the ground of all complex concrete things, it can be called the *urgrund*. Will it be objected that the *urgrund* is supernatural? The objection is defeated like this: nature is causally closed; since nature is causally closed, the cause of any natural thing is itself a natural thing; but the *urgrund* is the ultimate cause of all natural things; hence the *urgrund* is a natural thing. The *urgrund* resembles various ultimate causes.⁷ On the basis of that resemblance, it seems appropriate to classify the *urgrund* as *divine*. But the *urgrund* is not any kind of god, and the religious naturalism developed here includes no gods.⁸ The *urgrund* is the naturally divine *alpha*, the ultimate source of all natural power or energy. It contains the power of self-surpassing, which is the capacity to produce greater versions of itself. Poetically speaking, this power is the fire of actuality which the *urgrund* breathes into its greater potentialities.

As the ultimate origin of all things, the *urgrund* is creative. Since the *urgrund* is simple, and all other things are complex, its creativity increases complexity. The simplest way to define that creativity looks like this: for every way the *urgrund* can make some more complex version of itself, it does make that version of itself.⁹ Every more complex version

of the urgrund is one of its offspring, and the urgrund gives its power of self-surpassing to its offspring. This power, which grows during its transference, is a self-amplifying *gift* which the urgrund bestows on its offspring.¹⁰ Every descendent of the urgrund therefore inherits its essence and energy. So, for every way every descendent of the urgrund can make a more complex version of itself, that descendent does make a more complex version of itself. The result is a series of generations of increasingly complex concrete things, in which each next generation is populated with every more complex version of every object in its previous generation. Thus the urgrund is the root of an endlessly ramified *tree* of ever more complex objects (objects which are the nodes of the tree, connected by its branches). Since this tree grows through the endless distribution of gifts, the economy of concreteness rooted in the urgrund is a *gift economy*. Eventually, the nodes of this tree become so complex that they contain spatio-temporal-causal structure, and can therefore be called *universes*. Less complex universes perpetually give birth to more complex universes – they give birth to universes ever more *finely tuned* for the evolution of internal complexity. Eventually, our universe appears.

The endlessly ramified tree of ever more complex objects (including its root, the urgrund) is the whole of nature. This account of nature agrees in many ways with the account offered by one of the Zygoners, namely, Donald Crosby. Crosby says that nature is an all-inclusive and metaphysically ultimate system of things (2002: 21). It is “self-originating, self-renewing, self-transforming” (2008: 55).¹¹ It is one great spatio-temporal-causal process which *infinitely* exceeds our universe (2008: 94). For Crosby, nature can be thought of both as *natura naturata* and *natura naturans* (2002: 34; 2008: 6-7).¹² *Natura naturans* is an “unceasing creative energy” (2002: 114). On the version of religious naturalism developed here, the urgrund is the ultimate source of this energy. This creative energy works in a *cyclical* way, bringing one universe after another into being, creating the next out of the ashes of the previous (2002: 35-44). For as long as it lasts, each universe is an instance of *natura naturata*. It is a cosmic epoch whose lawful form is merely temporary and contingent (2002: 154). But while each universe is contingent, “that which exists necessarily . . . is the creative power (*natura naturans*) underlying and producing all of the systems of nature that ever have been or ever will be” (2002: 154).

On the left hand, Crosby says that “the *whole* of nature is inviolably holy or sacred” (2008: 44). On the right hand, Crosby acknowledges that many religious naturalists regard as holy or sacred *only* those aspects of nature that are “creative and constructive, and that express or produce unequivocal goodness” (2008: 62). There are at least two objections to the left hand. The first is that the sacred has always been defined as a highly exclusive category, containing only highly intrinsically valuable or *precious* things.¹³ Thus the sacred is contrasted with the profane (Eliade, 1959). Likewise the idea of the holy does not include everything (Otto, 1958). The second is that if the sacred is not defined in an exclusively positive way, then religious naturalism cannot have any distinctively positive focus for its ritual activity. It would be wrong for religious naturalist to celebrate destructive processes as sacred (e.g. to celebrate violence, crime, war, famine, plague, and disaster). On the basis of these objections, which appear fatal, the advantage goes to the right hand: an aspect of nature is *sacred* if and only if (iff) it is creative or constructive.

Against this analysis of the sacred, it may be objected that every aspect of nature is creative in some sense. The only way to defeat this objection is to qualify the creativity: an aspect of nature is sacred iff it is *appropriately* creative or constructive. Of course, this qualification now demands its own analysis. For the religious naturalist, sacredness must be some type of intrinsic value. On the basis of the informational concepts used to develop the gift economy of concreteness, it seems appropriate to identify intrinsic value with complexity (see Dennett, 1995: 511-513). If this is right, then more complex things are more valuable; hence they are more sacred. Degrees of sacredness are degrees of complexity. The profane is the least yet still positive degree of sacredness. Since the urgrund is simplest thing, it is also the least sacred thing; as the root of all complexity, it is the only profane thing. The profanity of the urgrund does not negate its divinity.¹⁴ On the contrary, that profanity is entirely appropriate in an evolutionary theory of the sacred: just as life emerges from non-life, so the sacred emerges from the profane.

Since any religiously significant change either decreases or increases sacredness, there are two kinds of religiously significant changes: those that decrease sacredness are negative while those that increase it are positive. But any change involves some energy. Hence the energy involved in complexity-destruction is *negative energy* while the energy involved in any complexity-creation is *positive energy*. Positivity and negativity are merely religiously significant yet entirely naturalistic qualities of entirely natural energy. Since complexity and energy are both defined scientifically, positive and negative energies are also both defined scientifically. The religious naturalism developed here explicitly excludes all unnatural meanings of concepts like energy, complexity, positivity, and negativity.¹⁵

For many Zygoners, this natural positive energy is *divine*.¹⁶ Following those Zygoners, the religious naturalism developed here affirms that positive energy is *divine energy*. Of course, to refer to positive energy as divine is merely to give it a religiously significant meaning. For religious naturalists, to refer to something divine does *not* mean that it is supernatural; on the contrary, for them all divinity is natural. And this religious meaning is not merely subjective: since complexity is objectively definable, divinity is also objectively definable. The eruption of divine energy into any new form is *hierophantic*. The eruption of divine energy from the urgrund is the *original hierophany*.¹⁷

According to the evolutionary account of concreteness given here, the activity of divine energy has a *cyclical* form: the creative process repeats itself in all its products. On each cycle, the previous generation of created objects produces the next generation. The abstract shape of this cyclicity resembles the spinning of a *wheel*. The cyclical form of concrete creativity is the wheel of concreteness. Since this wheel generates all dependent concrete things, it is the deepest wheel of all – it is the self-rolling *wheel of nature*. All other natural cycles supervene on this wheel. It is worth noting here that cyclicity plays a central role in paganism. York writes that “Paganism . . . reflects or develops from the rhythms and cycles of the natural world. It does not seek to escape or obliterate the great round of nature but to work within it and to celebrate it” (2003: 167).

As the form of divine creativity, the wheel of nature is divine – it is the divine *logos*. As the wheel of nature rolls ever further uphill in the abstract landscape of complexity, as it

rolls up Mount Improbable, divine energy pours itself into ever more concentrated forms. The objects that realize these forms burn ever more hotly and brightly. With every turn, this wheel builds the next generation of nodes in the great *world-tree* of ever more complex objects. Poetically speaking, divine energy rises like a current of fire through the branches of this tree, concentrating itself ever more intensely in ever more complex nodes. As the total product of divine energy, the world-tree is divine.¹⁸ Of course, the world-tree is a familiar motif from many types of paganism (e.g. Druidism).

For religious naturalists, the religious distinction between positivity and negativity grounds both axiology and morality.¹⁹ More precisely, the sources of moral obligation are grounded in the nature of divine energy. Religious naturalists therefore tend to be ethical naturalists (Hogue, 2010: ch. 4). Since divine energy is active in every natural system, and since that energy is the power of self-surpassing, it provides every natural system with the goal of surpassing itself. Granted that obligations can be grounded in goals (Black, 1964), it follows that if you *can* help any natural system to surpass itself, then you *ought* to help it to surpass itself. To the extent that you can help your body, family, society, species, and the entire earthly ecosystem to surpass themselves, you ought to help them in their self-surpassing. Since a natural system surpasses itself by increasing its complexity (or by creating something more complex than itself), you ought to work as far as you can to increase complexity.²⁰ Since health tracks the maintenance of complexity, religious naturalists advocate the maximization of personal, social, and ecological health. They also advocate the maximization of social and ecological diversity.

On this analysis of the morality of religious naturalism, the *good* and the *right* correspond to complexity-creation while the *evil* and the *wrong* correspond to complexity-destruction. If this analysis is correct, then you ought to do what the wheel of nature does: you ought to continue the gift economy. When you do what the wheel does, you are engaged in *religious mimesis* – in the ritual imitation of the act of unreciprocated giving. So, when you work to maximize the health of your body, and the healths and diversities of your society and your ecosystem, you are engaged in religious mimesis. Hyde argues that science is a gift economy (1979: 77-83). If that is right, then scientific research is religious mimesis – it is sacred work, in service to the wheel. The view that reality is ultimately a gift economy in which energy concentrates itself into ever more complex forms has been taken up by the naturalistic religion of *Kopimism* (George, 2012).²¹ For Kopimists, information is sacred and copying and copymixing are sacred acts. And surely there are other ways to ritually imitate the self-accelerating wheel of nature.

On the account of concreteness offered here, the wheel of nature has actualized your form and thereby given you the gift of concrete existence. On the one hand, you are obligated to continue this gift economy. Given this gift, you are obligated to pay it forward. On the other hand, if you are given any gift, then you ought to be grateful for it, and you ought to express your gratitude by giving something back to the giver in return. You therefore have these obligations to the natural sources of your existence. Remarkably, many New Atheists experience this gratitude and its associated obligations (Young, 2005; Solomon, 2006; Aronson, 2010: ch. 2; Bishop, 2010; Walters, 2012: 169-171). Some Zygoners think that prayers of thanksgiving are an appropriate way to reciprocate the gift of existence

(Goodenough, 1998: 47; Crosby, 2002: 153). However, in any gift economy, paying it forward already entails paying it back (see Franklin, 1784; Emerson, 1841: 147). Through ritual mimesis, you discharge both your obligation to pay it forward and your obligation to pay it back. By continuing the gift economy, you express your gratitude to the wheel for your concrete existence; you thank the wheel of nature for your being.

3. The Physical Context

According to our best physics, our universe begins with an initial creative event, namely, the *big bang*. The big bang is an immense eruption of creative (and therefore divine) energy into the form of our universe – into our system of physical laws. It is the divine alpha of our universe, the endocosmic or physical *hierophany*. The hierophany is an immense squandering with no reciprocation – it is not possible to give anything back to the big bang. The physical economy whose first event is the big bang is a pure gift economy.

At the moment of the big bang, our universe does not contain any complex things. At that moment, *every* change produces some increase in complexity. Every change is creative: the initial emergence of radiant energy is creative; the initial condensation of that radiation into particles and atoms is likewise creative. Since these first steps towards complexity are creative, they are divine. However, after complex things have been created, they are there to be destroyed. After the first atoms emerge, energetic interactions divide into those that are creative and those that are destructive. Changes in the cores of stars that fuse simpler nuclei into more complex nuclei are creative, positive, and divine. But changes that break more complex atoms into simpler atoms are destructive and negative. Changes that bind atoms into more complex molecules are creative, positive, and divine. But changes that break complex molecules into their simpler parts are destructive and negative.

Over time, events become linked together into strands. A strand is positive iff its end is more complex than its beginning. Of course, the overall tendency of a strand may be positive even though it contains many internal booms and busts. So long as any internal negativities are surpassed by greater positivities, the strand as a whole remains positive. Over time, a small percentage of nuclear events link up into positive atomic strands; a small percentage of atomic strands become woven into positive molecular strands; and a small percentage of molecular strands become woven into even more positive molecular strands. Over time, through rare events, some of the energy released by the big bang self-organizes. The complexities of the most complex things become greater as time goes by. Of course, this does not imply that every thing in our universe becomes more complex. On the contrary, the levels of complexity form a growing *pyramid* in which all higher levels are always smaller. Since the self-organization of this energy takes place in our universe, it is *endocosmic evolution*. Endocosmic evolution begins with simple particles and builds more complex structures. It builds atoms; molecules; cells; bodies; societies.

Over time, divine energy concentrates itself into ever more complex forms. The nature of this divine self-concentration is clarified by Chaisson. He defines the complexity of a thing as the number of ergs of energy that pass through one gram of its matter in one

second (2001: 134). He shows that the history of our universe reveals an *exponentially increasing* curve of complexity (2001, 2006). Chaisson (2006) defines of eight epochs of ever greater complexity. These epochs are centered on the emergence of particles, galaxies, stars, planets, chemicals, organisms, cultures, and technologies. Chaisson argues that the evolution of complexity in our universe is ultimately driven by the expansion of space itself (2006: 45). If that is right, then the evolution of complexity in our universe is built into the natural laws of our universe – it is encoded in the form of our universe.

Kurzweil (2005) presents a similar series of epochs. The progress from each epoch to the next adds objects at ever higher levels of complexity. For Kurzweil, endocosmic evolution has a cyclical pattern. He says that “Evolution works through indirection: each stage or epoch uses the information-processing methods of the previous epoch to create the next” (2005:14). Thus endocosmic evolution is a positive feedback loop (2005: 40). This evolution of complexity is self-sustaining and self-accelerating. The cyclical pattern which generates ever increasing levels of physical complexity is the *wheel of physics*. The wheel of physics is a *logos* that supervenes on the deeper wheel of nature. Looking at the curves drawn by Chaisson and Kurzweil, it is a *wheel that rolls uphill*. It is a divine wheel driven by divine energy to ever higher heights in a landscape of sacredness.

More locally, the focus of religious naturalism zooms in on our galaxy. Our galaxy begins with its own divine alpha: the collapse of the star that made the black hole at its center. This alpha is the eruption of divine energy into the form of our galaxy; it is the *galactic hierophany*. Our galaxy exhibits many cyclical patterns – these patterns are the divine *wheels of the galaxy*. Our galaxy slowly orbits great centers of mass (celestial barycenters). And our galaxy rotates around its central black hole. As the result of that rotation, our solar system orbits that black hole. It takes about 225-250 million years to make one cycle – this is the *galactic year*. Your body traces a very small part of this cycle.

On the account of our universe offered here, the wheel of physics has given you the gift of physical existence. You are obligated to respond to that gift. Through ritual mimesis, you can discharge both your obligation to pay this gift forward and to pay it back. At the physical level, ritual mimesis includes the *Cosmic Walk* (Taylor, 2007: 249-252). The Cosmic Walk imitates the evolution of divine energy in our universe. It uses a large spiral, laid out on the ground, to illustrate endocosmic evolution. Its central point refers to the big bang. As the spiral uncoils, time flows into the future. Points on the spiral are marked with the divine events in the *Epic of Evolution* (Sagan, 1977: ch. 1; Swimme & Berry, 1992; Modis, 2002). The end of the spiral is the present. Large unlit candles are placed at the marked points on the spiral. Two people perform the Cosmic Walk: a reader and a walker. As the reader narrates the history of the universe, the walker moves along the spiral. As the walker passes a candle, a gong is struck, and the walker lights the candle. There are plenty of variations on this general script, and the entire ceremony may be watched by an audience, who may also one by one walk the spiral after the candles are lit.

4. The Chemical Context

Our solar system begins with its own alpha – the ignition of fusion in the sun. As the eruption of divine energy into a novel form, this solar alpha is hierophantic – it is a divine event. The emission of power from the sun reveals that the solar economy is a gift economy: the sun is squandering itself. As it squanders itself, the sun provides our earth with energy. But the earth is also a source of energy. It is filled with internal heat, generated by nuclear decay as well as by its original gravitational formation. This energy manifests itself through thermal vents at the bottoms of the oceans, which may have seeded life. This earth-energy is divine. Yet there is nothing mysterious about it – it is fully open to rational study and is accurately described by science. The generation of power in the center of the earth reveals that the earthly economy is also a gift economy.

The sun rotates on its axis, and imparts its rotation to the entire solar system. Our earth thus rotates in many ways: it spins daily on its axis (making the day-night cycle); and it precesses on its axis (making the seasonal cycle). Likewise, as the moon orbits the earth, it waxes and wanes. The orbit of the moon causes the periodic tides. And the entire earth-moon system orbits the sun. This orbit involves many subtle cyclical patterns (e.g. the Milankovitch cycles). These cycles of moon, earth, and sun are the *wheels of the solar system*. Each of these celestial wheels is a divine *logos* which supervenes on the deeper wheels of nature. And these wheels produce oscillating polarities that drive chemical reactions on all solar satellites (planets, moons, asteroids). These oscillating polarities support the evolution of complexity in the solar system. They are divine.

Your body participates in all these solar cycles. Although you do not feel it, as the earth rotates your body traces a circular path relative to the axis of the earth. As the earth orbits the sun, your body traces an even larger circular path relative to the axis of the sun. Since your life is powered by energetic gifts from the sun and earth and moon, you may feel gratitude towards those sources of energy. To express this gratitude, some pagans offer prayers to those celestial bodies. However, most naturalists are likely to think that offering prayers to unintelligent objects makes little sense. And some naturalists may therefore urge that it makes equally little sense to give thanks to unintelligent objects. After all, they cannot appreciate our gratitude. But the expression of gratitude may have for its aim, not the perpetuation of an imaginary symbolic economy, but the perpetuation of our positive involvement in the cycles of nature (Goodenough, 1998: 171). We are parts of nature, and, by giving thanks, we orient ourselves towards the continuation of natural creativity (Bishop, 2010: 532). We orient ourselves through ritual mimesis.

By participating in rituals focused on the seasonal cycles, you can give thanks to the wheels of the solar system of chemical existence. For many pagans (e.g. Wiccans and Druids), the seasonal cycle of earthly life is revered by means of *sabbat* celebrations on the eight solar holidays on the *Wheel of the Year* (Sabin, 2011; Silver Elder, 2011). The solar holidays on the Wheel of the Year are the solstices, the equinoxes, plus the four “cross-quarter” days that lie half-way between solstices and equinoxes. Other activities associated with the sabbat celebrations on the solar holidays include rituals like *silent suppers* to honor the dead (on Halloween). The eight solar holidays are also celebrated by many Green Sisters, who refer to them as “Earth Holy Days” (Taylor, 2007: 252-258). Pantheists celebrate at least the solstices and equinoxes. The purpose of these pantheistic

celebrations is to “strengthen our vision of human life as a part of the great natural cycles” (Harrison, 1999: 84). Pagans revere the moon through *esbat* celebrations. Religious naturalists can easily celebrate the solar and lunar holidays without affirming any superstitions.

Although the energy of the sun powers the evolution of complexity, that energy can also be destructive. Religious naturalists talk about the destructive side of nature (e.g. Goodenough, 1998; Peters, 2002; Crosby, 2008). Fortunately, destructive energies can be harnessed to serve creative ends. The power of fire to consume things is often thought to symbolize the power of goodness to overcome negativities. Hence practices that aim at ethical purification often involve fire. On this view, solar fire (involving thermonuclear fusion) is the power to burn away all negativities. And the power of ordinary chemical fire (involving only oxidization) can symbolize the cleansing power of solar fire.

Several fire purification ceremonies involve the symbolic destruction of personal negativities by burning. These include the *Vinotok* festival (Peterson, 2008: 99-100; Grout, 2010: 145-146) and the *Zozobra* festival (Gilmore, 2010: 24). Participants write down their personal negativities on pieces of paper, which are placed into the chest of a wooden man, known as the Grump or Old Man Gloom. At the climax of the ceremony, the Grump is burned, symbolically destroying the negativities of the participants. Burning the Grump resembles the Wiccan fire purification ritual described by Buckland (1986: 99-101). Green Sisters have also performed fire purification rituals, by placing inscriptions of personal negativities onto a raft which is burned on the Winter Solstice (Taylor, 2007: 255).

The *Burning Man* festival is an especially interesting fire festival. It is celebrated in the Black Rock Desert, in northwestern Nevada, around Labor Day. Much has been written about its ritual aspects (e.g. Doherty, 2004; Gilmore, 2010). Burning Man is explicitly based on a gift economy. An enormous amount of free creative (and thus religiously positive) energy goes into the construction of Black Rock City and the great wooden *Man*. Each year, the Man is lit on fire. During many years, the fire that will ignite the Man is derived from the light of the sun via with parabolic mirrors. And so the Man burns. The creative energy is squandered in radical self-expression.

The yearly *Temples* at Burning Man illustrate the association of fire with the destructive side of nature (Gilmore, 2010: 87-94). These Temples are elaborate constructions, involving considerable collective work. Since 2001, they have served as sacred places for the consolidation and release of the memories of the dead; they are sites for ritual grieving and catharsis. Mourners write inscriptions honoring their dead on parts of the Temple or on flammable items which they then place inside the Temple. The Temples are themselves flammable. At the climax of the Temple ritual, the Temple is burned. This is purification by fire. It is surely not implausible to interpret this ritual burning as a way of giving thanks to the solar wheels for the lives of those who have died.

5. The Biological Context

The earthly bio-process begins with the first self-replicators. The formations of the first self-replicators are the ultimate original events for earthly life, they are the divine alphas for biological being, the openings into which divine energy bursts into the form of earthly life. The eruption of divine energy into this form is the biological hierophany.

These self-replicators replicate, replicate again – and so it goes. Goodenough writes that “cell cycles have an inherent life of their own . . . once the first cycle was traversed, the engine has never stopped” (1998: 56). The reproductive cycle ensures the perpetuation of life: “The continuation of life reaches around and, grabs its own tail, and forms a sacred circle” (Goodenough, 1998: 171). This sacred circle is the *wheel of life*, and through its revolutions, it produces generation after generation of organisms. Dawkins (1996: 72, 326) describes biological evolution as an enormous distributed computation. And Dennett (1995) argues that biological evolution is algorithmic. The wheel of life is a divine *logos* which supervenes on all the deeper cyclical algorithms of nature.

Over time, organic life evolves. It has been argued that the history of life is the history of gradually increasing complexity: the complexity of the most complex organisms grows greater over time (Bedau, 1998). Evolution constructs an ascending complexity hierarchy. The wheel of life rolls uphill. And the revolutions of the wheel of life weave the strands in the earthly tree of life. This tree is the sum of all the careers of all earthly organisms. Every such career is a spatially and temporally extended fiber in the tree. Species are strands woven of these fibers. Every ascending fiber in the tree of life is divine. As a generally ascending structure, the tree itself is divine (see Dennett, 1995: 520).

Since the celestial cycles produce oscillations in energy flows across the entire earth, those cycles drive many biological cycles. As the seasons oscillate between their polarities, plant life waxes and wanes; and with those plants, animal life also waxes and wanes. The cycles of life (at least on the surface of the earth) closely follow the Wheel of the Year. Since so much life rolls with that Wheel, the Wheel of the Year is an appropriate symbol for all biological wheels. Many aspects of the pagan sabbats are focused on the cycles of plant and animal life. By celebrating the solar and lunar holidays on the Wheel of the Year, you can give thanks to the wheels of life for the gift of your biological existence.

On the account of biology offered here, the wheel of life has given you the gift of biological existence. You are obligated to respond to that gift. Through ritual mimesis, you can discharge both your obligation to pay this gift forward and to pay it back. The *earth body prayer* celebrates, through ritual mimesis, the interaction of the sun and earth in the daily solar cycle, as well as the chemical elements. It is practiced by the Green Sisters (Taylor, 2007: 231-236). It begins at sunrise, with the celebrant facing the rising sun. The basis of the ritual involves turning to face each of the four cardinal directions in a sunwise (deosil) direction: east, south, west, north, then finally back east to close the circle. At each cardinal direction, the celebrant performs a scripted sequence of bodily movements. Each cardinal direction symbolizes one of the four classical groups of elements (earth, air, fire, and water) and the four seasons (winter, spring, summer, and fall).

On the assumption that you are obligated to participate in complexity-creation, it follows that you are obligated to continue the biological gift economy. You ought to keep the wheels of life rolling (Goodenough, 1998: 171). She says that the only purpose of life is that “the continuation continue until the sun collapses or the final meteor collides. I confess a credo of continuation” (1998: 171). After arguing that intrinsic value is complexity, Dennett infers that you ought to work to ensure the evolution of as much earthly life as possible for as long as possible (1995: 511-513). All groups affiliated with religious naturalism endorse eco-positive action. Eco-positive action, which aims to continue the biological gift economy, is sacred work – it is service to the wheel.

Of course, one of the strands in the tree of life is the human species. And, obviously enough, the human species is regenerated through sex. By participating in rituals focused on sex, you can give thanks to the wheels of life for the gift of human existence. Done for its religious significance, sex is ritual mimesis. Pantheists affirm the religious value of sex (Harrison, 1999: 79-81). Wiccans also affirm the religious value of sex (Farrars, 1981: ch. XV; Cunningham, 2004: 13; Sabin, 2011: 32). Many Wiccan rituals involve considerable sexual symbolism (and, in the “Great Rite”, may involve actual sex). Many groups affiliated with religious naturalism have developed naturalistic ceremonies marking the stages of human life (such as birth, puberty, marriage, and death).

If it is true that you are obligated to participate in complexity-creation, then you ought to continue the gift economy that has brought humanity into being. You ought to keep the wheels of humanity rolling by ensuring the perpetuation of the human species (Goodenough, 1998: 171). This *does not* imply that you ought to have children (indeed, ecological concerns with over-population may entail that you should *not* have children). To say that you ought to keep the wheel of humanity rolling does entail that you ought to work to ensure the sustainability of humanity. You ought to work to preserve and enhance the positive aspects of human cultural diversity (Dennett, 1995: 512-517).

On the basis of their focus on natural cycles, many Wiccans endorse some type of reincarnation (Farrars, 1981: 113-116; Buckland, 1986: 26-27; Cunningham, 2004: ch. 9; Silver Elder, 2011: 56-57; Sabin, 2011: 31-32). Of course, these Wiccan theories, like most other traditional reincarnation theories, contradict our best science; consequently, religious naturalists reject them. And most traditional theories of resurrection or disembodied life also contradict our best science. Generalizing, many Zygoners declare that *all possible* soteriologies are false: our earthly lives are our only lives (Goodenough, 1998: ch. 11; Peters, 2002: ch. 15; Crosby, 2002: 129; 2008: 4-5, 58-59, 99-100). Of course, that is an invalid generalization, and those Zygoners who object to life after death offer no arguments against every possible soteriology.

Although science may close the doors on older soteriologies, it also opens doors to newer soteriologies. Stone writes that “since patterns of information can outlast their original physical substratum, just as music can outlive its composer, immortality is not definitively foreclosed in a naturalistic framework” (2008: 228).²² Our entire earthly ecosystem, from start to finish, is a single informational pattern. It is the form of earthly life, the form of a great computation. It is surely *consistent* with our best science to say that all the

information encoded in our entire earthly ecosystem can be naturally reinstated in some new natural structure, perhaps in some other universe. A program, once run, can be debugged and upgraded. Thus enhanced, it can be run again.

6. The Personal Context

Although you are surely already alive when you take your first breath, it seems plausible to say that your first breath is your first act as a *distinct* human body. For pagans, the body is sacred (Davy, 2007: 24). For pantheists, “The body is a sacred part of nature” (Harrison, 1999: 80). For Zygoners, like Goodenough, the body is also sacred (1998: 59). As she talks about her birth, she says that “I sanctify myself with my own grace” (1998: 60). If your body is sacred, and if your first breath is your first self-directed act, then indeed you sanctify yourself with your first breath. It is the divine alpha of your body. Your first breath is an eruption of divine energy into a new form; it is a *hierophany*.

Your body-process is animated by your divine energy, which is just the natural physical energy generated by the metabolic processes in your cells. The divine energy running through your body organizes itself into cyclical patterns. These patterns include the cycles of breathing, the cycle of the heartbeat, the wake-sleep cycle; the cyclical motions of the limbs in walking; the menstrual cycles of women; and so on. They also include the deeper metabolic cycles inside our cells (e.g. the Krebs cycle). Since all these *wheels of the body* are driven by divine energy, they are divine. Each visceral wheel is a divine *logos* which supervenes on all the deeper cyclical algorithms of nature. For Wiccans, the wheels of the body symbolize the deeper cycles of nature (Silver Elder, 2011: 8, 19, 43).

On the assumption that you ought to give thanks for the gifts you receive, you ought to give thanks to the wheels of the body for the gift of your personal existence. You can give thanks to those wheels by participating in rhythmic physiological activities. Drumming, chanting, and dancing are important for Wiccans and other pagans (Davy, 2007: 66; Sabin, 2011: 72). Since one essential way of giving thanks to the wheels of your body is to keep them rolling, this means that you ought to keep them rolling. You ought to perform all the self-regulatory actions that keep those wheels finely tuned and healthy.

An essential way to give thanks to any wheel is by rolling it forward, by rolling it higher uphill, by continuing the gift economy. You can do this by performing exercises (*askesis*) that minimize your expression of negative energy and maximize your expression of divine energy. All dualism is rejected: these exercises are entirely *both* physiological *and* spiritual. They are exercises for arousal regulation. Wiccans advocate the use of breathing exercises for arousal regulation (Farrars, 1981: 230-231; Cunningham, 2004: 86-87; Sabin, 2011: 55, 70-71). And some Wiccans also advocate the use of meditative or mindfulness exercises (Cunningham, 2004: 87; Sabin, 2011: 75-77). Harrison writes that breathing exercises and meditation are central practices for pantheists (1999: 91-94). Zygoners also advocate arousal regulation exercises (Goodenough, 1998: 101-102; Peters, 2002: ch. 13; Crosby, 2007: 496). Some New Atheists advocate arousal regulation exercises (Harris,

2005: ch. 7; Comte-Sponville, 2006; Walters, 2010: ch. 8). And the New Stoics advocate a wide variety of personal psychological exercises (Irvine, 2009: part 2).

On the basis of the cyclicity of nature, Nietzsche argued that our lives would be exactly repeated in future replications of our universe. For Nietzsche, this eternal return of the same is satisfactory. However, it is not satisfactory for Benjamin Franklin (1771: 1). After his death, Franklin hopes for the existence of a better version of his life (he refers to it as a “second edition”), in which some of the defects and misfortunes are corrected. On the basis of the evolutionary view of nature developed here, it is more likely that Franklin’s desires will be satisfied. After all, the wheels of nature do not merely repeat the same old patterns without modification. On the contrary, they generate simple patterns and then cause their more sacred potentials to be actualized; they build endlessly ramified trees in which every pattern is surpassed by more sacred versions of itself.

A pattern is *amplified* by a natural wheel iff it produces some more sacred version of that pattern. Thus a pattern is amplified by a wheel if that wheel causes some more complex version of that pattern to be instantiated on some future cycle. On the view of nature offered here, *every* pattern is amplified; its amplifications are further amplified; and so it goes.²³ Of course, since the wheels of nature roll uphill, this amplification is selective. Those parts of patterns that tend to negativity are not selected for further amplification, while those parts of patterns that tend to positivity are selected. Consequently, your actions have an influence on your future lives (see Leslie, 2001: 132-133): the more you contribute to the evolution of the sacred, the more of your life is worthy of its own further evolution; the less you contribute to that evolution, the less of your life is worthy of its own further evolution. This can be put into a slogan: the more you give to the wheels, the more you get from the wheels.

Theravedic Buddhism offered highly naturalistic ways of thinking about life after death (Rahula, 1974: 34). These accounts are consistent with the amplification of your life from universe to universe (Steinhart, 2008). Granted that nature is rational, Godel argues that the positive potentials of our lives will be realized in future versions thereof (1961: 429-431). He argues for amplification. If science depends on the rationality of nature, then his argument is a reasonable inference from the very possibility of science. Of course, the amplification of your life on some future cycle of the wheels of nature does not entail that you *survive* death. It merely entails that you have future counterparts who will actualize all your positive personal potentials. For every way your life can be improved, you have some future counterparts in some future cycles whose lives will be improved in that way.

7. Conclusion

A unifying framework for religious naturalism has been developed here, one to which many groups have contributed their ideas and practices. This framework suggests ways that religious naturalism may continue to evolve. It therefore seems appropriate to end with a speculative note concerning the future of religious naturalism. Surveys mentioned in the Introduction suggest that, at least in the United States, social trends have produced a

religious landscape with three distinctive yet overlapping identities. These identities, whose cores mark the corners of a triangle, have been referred to as the traditional theists, the spiritualists, and the secularists (Kosmin & Keysar, 2013).

Religious naturalism lies mainly on the line between the secular and the spiritual. Many new religious movements, discussed here, are already emerging on this line. They tend to take their beliefs from the secularists and their practices from the spiritualists. Perhaps some of them will mature into stable religions. Peters believes that religious naturalism “could lead to a new significant form of organized religion with a structured community, ritual practices, and ways of moral living” (2010: 435).

But a less organized future is also possible. It may be that religious naturalism will become a widespread folk spirituality with few institutions. On this hypothesis, its core beliefs and practices will be those most commonly found in the groups discussed in this article. Those who identify with this folk spirituality will dismiss all personal gods and goddesses; they will find spiritual satisfaction in the grandeur of nature; they will meditate; they will gather to celebrate the solar holidays. Of course, these remarks, while grounded in data, remain highly speculative. The future of religious naturalism is far from clear. Nevertheless, perhaps the most interesting thing about religious naturalism is that it shows that nontheistic religions are possible in the West.

Notes

¹According to Stone, *religious naturalism* affirms “that there are religious aspects of this world that can be appreciated within a naturalistic framework” (2003: 784). Drees says religious naturalism entails that “naturalism, properly understood, allows for religiously significant language, questions, answers, ways of life, etc.” (in Cavanaugh, 2000: 243). Conger writes that religious naturalism is “the view that the Object of religious devotion is identical with the universe or some portion of the universe, some process or direction or trend in it, as studied in the sciences” (1940: 205).

²Dawkins (2004) and (2008: ch. 1) mark him as a religious naturalist. Dennett (1995: 520) suggests religious naturalism: “This world is sacred”. Spiritual atheists are religious naturalists (Harris, 2005: ch. 7; Comte-Sponville, 2006).

³For supporting data on Europe, see Jackson et al. (2014), the European Values Study <<http://www.europeanvaluesstudy.eu>>, and Lambert (2006).

⁴Some Zygoners (e.g. Goodenough, 1998) and Evolutionary Christians (Swimme & Berry, 1992; Dowd, 2009) use the *Epic of Evolution* to describe the religiously significant aspects of nature. The *Epic of Evolution* traces the history of our universe from the big bang to the present. As it moves from past to present, the *Epic of Evolution* moves from larger to smaller contexts (universe, galaxy, solar system, earth, humanity). The *Epic of Evolution* is used here. However, here the *Epic* starts with the multiverse.

⁵The best informational measures of complexity involve *depth*. These include *computational depth* (Antunes et al., 2006) and *logical depth* (Bennett, 1988). Dawkins appears to measure complexity in terms of depth (1987: 6-9).

⁶Bennett (1988: sec. 3) and Antunes et al. (2006: sec. 5) prove *slow-growth theorems*, which mathematically confirm the Dawkinsian thesis that all complex things arise on “graded ramps of slowly increasing complexity”.

⁷There are some ways in which the urgrund is similar to the Platonic Form of the Good or to the Plotinian Unity. There are ways it resembles the ground of being (Tillich, 1951: 21, 235-239). And it resembles the Wiccan ultimate deity (Farrars, 1981: 12, 117; Buckland, 1986: 19; Cunningham, 1988: 9; Silver Elder, 2011: 9, 18). But the urgrund is not beyond being; it does not transcend nature; and it is not a god or deity of any kind.

⁸The urgrund is not personal in any sense. It is neither the God of Abraham nor the God of Christianity. Any attributions of personal qualities to the urgrund are idolatrous (Raymo, 2008: 19-20, 28, 103). The urgrund is not any kind of god at all (Dawkins, 2008: 184-185). Of course, some religious naturalists use the term “God” in non-standard ways (Stone, 2008: ch. 2; Peters, 2002). Yet Crosby argues that “God” is so “hopelessly anthropomorphic” that it must be rejected (2002: 9). For the sake of neutrality, the generic religious naturalism developed here does not include any gods. However, specific religious naturalisms are free to define naturalistic gods as they see fit.

⁹This account of nature resembles the *evolutionary cosmology* of Peirce. Peirce argues that the self-organization of an original chaos produces a branching tree of universes. See Peirce, 1965: 1.175, 1.409-1.416, 6.13, 6.33, 6.189-6.220, 6.490, 7.513-7.515, 8.317-8.318. For Peirce, evolution moves towards an omega point; however, the evolutionary cosmology developed here is open-ended. The Second Law of Thermodynamics is merely a local law, operative in our universe. It does not constrain this evolutionary cosmology.

¹⁰The concepts associated with *giving* are central to much religious naturalism (e.g. giving, gifts, gratitude and gratefulness, thanksgiving, gift economies). Givers need not be persons (Goodenough, 1998: 169; Harrison, 1999: 88; Crosby, 2002: 153). Bishop (2010: 533) motivates the thesis that givers are creative optimizers which cause their creations to gain value. The urgrund and all its descendents are such optimizers. But religious naturalists have much work to do on the logic of giving.

¹¹Crosby also says our universe is one member of a series of universes that is endless both into the future and past (2002: 39-44; 2003: 252-253, 2008: 55, 491). The troubles with two-way endlessness are both scientific (Mithani & Vilenkin, 2012) and philosophical (Leibniz, 1697; Geach, 1967: 64-65). Two-way endlessness is rejected.

¹²The concepts of *natura naturans* and *natura naturata* originate with Spinoza (*Ethics*, Book 1, Proposition 29, Scholium). For Spinoza, these concepts are associated with God; however, for religious naturalists, they are non-theistic.

¹³The pantheist Harrison says that to be sacred is to be “imbued with profound value” (1999: 63). Many New Atheists affirm that the sacred is highly valuable (Blackburn, 2004; Dawkins, 2004; Comte-Sponville, 2006: 18; Dennett, 2006, 23).

¹⁴For traditional theists (especially Anselmians), this the profanity of the urgrund contradicts its divinity; but religious naturalists are not traditional theists. They have their own ways of defining the divine, the sacred, and the holy.

¹⁵Some groups associated with religious naturalism, especially pagans, tend to use the term “energy” in occult or New Age ways (e.g. crystals store occult energies). All unscientific meanings of energy are entirely and emphatically rejected here.

¹⁶Stone lists many twentieth-century American religious naturalists who used the term “God” to refer to some sort of creative power (2008: ch. 2). Gordon Kaufman defines God as creativity (2007). Peters says God is “the universal creative process, continuously at work to give rise to new forms of existence” (2002: 4). Stuart Kauffman says that “God is our name for the creativity in nature” (2008: 284). Aquinas reports that the positive side of *natura naturans* is sometimes said to be God (*Summa Theologica*, I,II, Q. 85, Art. 6). To refer to this creative power as God means only that it is divine.

¹⁷Zygoners like Crosby refer to this ultimate energy as *natura naturans* (2002: 114, 154; 2008: 7, 51). Goodenough refers to this ultimate energy, especially as it appears in the aroused body, as “Immanence”. She says that during mystical experiences, we are “invaded by Immanence” (1998: 101) and that we become “a recipient of Immanence and grace” (1998: 164). Wiccans affirm that this ultimate energy is sacred. Cunningham writes that “All natural objects . . . are manifestations of sacred energy” (2004: 92).

¹⁸Hartshorne says God is “the self-surpassing surpasser of all” (1948: 20). Since the world-tree is the self-surpassing surpasser of all, the world-tree resembles Hartshorne’s God; thus it seems appropriate to say that the world-tree is divine.

¹⁹Some religious naturalists have discussed ethical issues (see Harrison, 1999: ch. 6; Peters, 2002; and Crosby, 2009). And there are many books on Wiccan ethics. However, religious naturalists have made few efforts to link their ethical discussions to well-known ethical theories (e.g. virtue ethics, deontology, utilitarianism). And their ethical ideas sometimes conflict with their metaphysical ideas. The conflict appears in Crosby (2009: ch. 5, pp. 85-6). It also appears in efforts to ground Wiccan ethics in Wiccan metaphysics. Religious naturalists need to do much more work in this area.

²⁰ Although you ought to increase complexity (and you ought not to decrease it), that imperative is extremely abstract. Hence it is likely to conflict with itself (by increasing complexity in one way, you decrease it in some other way). Religious naturalists need to develop a system of ethical rules to resolve such conflicts.

²¹For more on Kopimism, see the website of The First Church of Kopimism for the USA, at <http://www.kopimistsamfundet.org/>. Accessed 22 June 2012. Sadly, Kopimism has been tainted by its association with illegal file-sharing; but religious naturalists may develop Kopimist rituals without such improprieties.

²²The pattern associated with the life of any organism is the form of its body. Aristotle says that the form of the body is the *soul* (*De Anima*, 412a5-414a33). This concept of the soul is entirely naturalistic. Barrow and Tipler define the soul as a computer program (1986: 659). Tipler writes that “the human ‘soul’ is nothing but a specific program being run on a computing machine called the brain”(1995: 1-2).

²³Amplification is just an application of Dennett’s Principle of Accumulation of Design. His Principle says “since each new designed thing that appears must have a large design investment in its etiology somewhere, the cheapest hypothesis will always be that the design is largely copied from earlier designs, which are copied from earlier designs, and so forth” (1995: 72). Amplification occurs at every level of nature: the patterns of universes, galaxies, solar systems, ecosystems, and organisms are all amplified. Since the patterns of all things are amplified, it follows that the patterns of all organisms are amplified.

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