

Religion, an Emergent Fractal Structure Derived from the Life Force, Survival

Blair D. Macdonald

fractalnomics@gmail.com

First Posted: 2013-05-07

Update: 2026-08-30

DOI: 10.5281/zenodo.22170530

Abstract

This paper introduces a unique possible cause of religion and similar secular beliefs. It suggests they are an emergent manifestation derived from the universal 'life-force to survive'. It argues that, given the highly developed human brain, 'survival' must be catered for both during life and in the afterlife. At this time of evolution, only the human mind can imagine an afterlife. This void must be survived in, must be filled; humans are the first to fill this gap with belief, and later, with religion. Religions have evolved to meet the demand for this new space. This survival theory may also explain secular belief systems in which the pattern of survival repeats with dual, same-yet-different characteristics.

Introduction

The fractal, far from being merely an interesting image and a complex mathematical concept, is also an instrument of great insight into reality. The author has argued that fractal geometry offers direct insight into topics ranging from classical economics to evolution, and even to quantum mechanics and the expanding universe. Could it also help us explain and understand other, more humanistic issues, such as religion? In this paper, a fractal theory of religion is presented. Is religion a fractal emergent structure?

The Fractal

Firstly, what is a fractal, and what does it have to offer us to help explain religion, beyond being the often quoted 'the thumbprint of God'? A fractal is a recursive mathematical geometry formed by the repetition of a 'simple' rule. They share properties of: branching development, scale-free (you cannot tell their size) and dual symmetry of being 'the same' (geometry or shape) but (always uniquely) 'different' – at all scales. There are snowflakes, but no snowflake has ever been the same as another. It is an object, both tangible and intangible, that is emergent, made of bits that do not resemble the final shape. The classic examples are trees, clouds and waves. The focus of this theory is the simple rule that gives rise to the emergent structure. If this rule can be distilled, then a cause can be inferred. This is a key insight from the fractal.

What is religion, and what causes religion (or a religion)?

Religion is an object, a structure, a repeating pattern that takes many forms and has evolved over time. For the purpose and scope of this paper, it will be assumed that religion

is in the business of dealing with the afterlife. All religions are concerned with death and the afterlife, and they assume there is an afterlife.

Is religion's cause indirectly related to, and can be inferred from, this afterlife assumption? This is the question this paper attempts to address.

Insight from a fractal tree.

To gain insight from the fractal and look at a natural fractal, the tree, and ask what a tree is and how it grows, what is its cause? Such a question may seem totally irrelevant to religion, but there may be a deep, meaningful, and relevant connection. It does not need to necessarily be a tree, or trees, as the universal nature of fractals suggests that I could have easily chosen any other pattern, but trees, particularly, offer an obvious repeating 'fractal' pattern, and they have clear causality.

What is a tree? Using the above fractal definition (same but different at all scales): the 'same' component in this fractal definition is the tree's primarily emergent 'branching/standing structure of plants', and the 'different' is to account for all the different trees of the same species, and also the different species of trees that exist now, and that have ever existed.

It is to view all the different plant types, phylum: the conifers, the mosses, the lycopods, and so on, and, most recently, the flowering plants. They have all repeated the same basic (tree) structure and, in so doing, formed what we term, in my case, the English language, in a four-letter word – a tree.

What causes a tree (structure)?

To help answer and understand the question of what religion is, and what causes religion (or a religion), it is equally asked, what causes the tree?

So, we have structure, and it is the perfect fractal structure, but what causes this fractal tree structure? Why do they do what they do, what they have repeated throughout time? Where did they come from? The cause of their structure should not only be relevant to the tree type standing now, but also apply to all tree types or to any tree-type structures that have ever existed throughout time. The cause should be a universal cause for all plants and trees.

The standard explanation is sunlight: energy from the sun. Trees are plants that reach for the light and, in doing so, over time, form trees. There are numerous references to this, including the BBC's *The Life of Plants*. "Plants have evolved woody stems to support and raise their productive parts to where they are most productive." "They grow high above their other competitors, where they have, at least in the short term and the long term, when they evolve with this adaptation, an advantage over their competition."

Through this 'light' being the cause of the growth of a tree, and that of trees in general, we apply this rule and insight to all the plant types that have achieved this same outcome that we call a tree. This repetition is what is termed in biology an evolutionary convergence, of which examples abound in the 'natural world' and include winged flight. As plant phyla have reached for the sky, so have animals flown by wings. Many types of wings.

All plants have formed what we term trees; why? Light; they reach for the light. What is 'the light' -insight or cause that causes religion? The explanation should be symmetry

invariant; that is, not be constrained to only religions as we know them, but also secular religions, even religions amongst science.

Humans have evolved religious structures that have coalesced into just a few dominant types, much like plants. It can be argued that religions, like trees and wings, have evolved and share a common cause. If so, what is the cause? It cannot be a deity; that would be circular. The cause of religion(s) will need to be something, just as light causes plants to form trees, to be present, to be causal for all religions.

It will be something common to them all and will make them what they are. Without this, they won't be. More than this, my 'cause for religion' will also be able to be reduced to something universal: something common in everything. Being fractal, it will go beyond what we think of religion. It will, by the same mechanism, repeat: same but different. It will be timeless, shared by the living, and (importantly) by the non-living. And, it should exist so as to repeat attributes common to or similar to religion outside the context of what we typically think of as religion. It will converge. Just as plants have many types or species, religion will also show up in places we would never expect – in our case, the secular world, where there are no deities as such. This will be returned to later.

The Fractal Cause of Religion

Through the fractal, it is reasoned that the cause of religion is the life force that drives us to live: it is survival – it is about surviving. The life force to survive.

Fundamental, primal to our needs, instinctive, and intuitive are just some words to describe this, which is, without a doubt, the 'strongest' of all life forces shared among all living things. Everything, in some way or other, 'clings' to life, strives, and fights to survive – and often (almost always) at a high cost. Even non-living things – machines, brands, and even ideas – all seem to strive to survive, even if (in the context of humans) through us. Take away this instinct – this life force – and we have (maybe) no life.

What happens when this law (of nature), or this drive for survival (call it that), is 'run through' (so to speak) or amplified by a higher processing-power brain: the likes of the newly evolved higher thinking human brain? A brain that can, as far as we know, and (maybe) uniquely to humans, do what no other animal has ever done: it can imagine. And if we are not the only ones to do this, we are far ahead. It has the brainpower to actually imagine and think about survival, to think about what it is to be alive. But that is not as important to my argument as the thought that it can now imagine or think about what it is not to survive. It can think and imagine about death – it can now think and imagine about after death, the afterlife. Humans can, combining the two together (imagination and death), think about a void, an emptiness of an afterlife. The nature of survival is so hardwired, so strong a force, that this afterlife cannot be perceived as empty; it cannot be a void of just nothing. The dead must survive; in death, it is nearly unthinkable to think anything else. It may be, as a test of its validity as an idea, a very difficult question, even for the ardent unbeliever. We survive. And so, to accommodate this totally new space and survive in it, totally new ways have to be developed or evolved to do just that; we survive in it, and make it safe to survive in. And, to oversimplify, over time all cultures have developed 'institutions' to deal with this 'new' space, and the larger structures that have developed we call religion.

Other animals strive to survive, too, so why aren't these other animals religious? Through this 'survival' theory, technically, they could be, given they had the brainpower we humans have, so maybe they would practice a form of religion too. As an afterthought, maybe artificial intelligence, in time, will have to think about its own survival, and maybe its survival when it is turned off.

To back this up, it is known that there was a time, in our evolutionary past, when human's walked past the dead of their own, and that that changed at some time in our near past: where instead of walking past our dead, as other animals do (today), they stopped and buried their own dead, practised ceremony and thought about their dead as surviving – in new places, in the heavens, for eternity.

We are wired, evident by our evolutionary record, to survive and are prepared to pay for it; this theory may also explain the massive health system budgets we have today in our modern economy. Just as the Pyramids of Egypt and other religious sites — all to manage the afterlife and survival in it — it is a matter of survival at all costs.

Conclusion

Religion is an innate emergent, born out of the law of nature: survival. Just as bling and other display items are to sexuality – another fundamental life force associated with survival – religion is to survival. Religion is a manifestation of survival.

To finish off with, this life-force of survival is so strong, so much a part of us, so primal, that one doesn't need a religious institution to think such thoughts. In my experience, it takes a (mentally) strong-willed person to fight this fundamental instinct – to tell themselves that there is no afterlife and that we are just, as we have recently learnt, stardust. Even those who have separated themselves from religion – self-confessed seculars – often think that we go somewhere, not to heaven as such, but somewhere. It is a very powerful force.