

Ulrich Frey, Hrsg.

The Nature of God – Evolution and Religion



Tectum

Ulrich Frey

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Preface

The series „Interdisciplinary Perspectives in Philosophy“ – starting with this volume – tries to bring fresh scientific perspectives on topics in philosophy. The impetus to start this series is the conviction that philosophy can only profit by integrating interdisciplinary and empirical work from various fields of research. With this goal in mind, the series will assemble scholars from all fields including physics, psychology, biology and many more.

The series' first volume „The Nature of God – Evolution and Religion“ is densely packed with specialists of evolutionary religious studies. The topic itself has fascinated and attracted numerous scholars in the last few years. One reason may be that the implications of this kind of research are indeed far-reaching and profound. Right now, the field lends itself not so much to subtle discussions, but rather hot debates between theologians on the one side and evolutionary biologists and cognitive psychologists on the other.

It is indeed a daring move of naturalistic thinkers to try to explain the „unexplainable“, that is religion and religiosity. Theology has long resisted naturalistic explanations of religious phenomena – being its very own field –, but experts like in this volume have collected substantial and persuasive evidence that religiosity and religion may be explained in a naturalistic way.

I am grateful to the authors of this first volume to lift the series off to such an exciting start and am pleased that this volume unites such profound thinkers and contributions to this field.

I would like to thank Dr. Thomas Sukopp for inspiring this series and Dr. Sonja Simon for her invaluable support.

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Ulrich Frey

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Introduction – Connections between evolution and religion

Gerhard Vollmer

Evolutionary thinking is in. If we were not too cautious, we might even say that not only organisms and biology, but all things and all disciplines may or even should be seen in the light of evolution.

A theory solving some of its problems by making use of the theory of evolution we call an *evolutionary theory*. In saying so we don't mean that the theory itself develops (or evolves) and we don't specify yet according to which principles it advances. This would be an interesting chapter for history or philosophy of science. What we rather mean is that the respective theory includes principles of the theory of evolution in a constitutive way. With this explication we leave open whether such principles are in fact used as *biological* principles such that we have to do with an *application* of the theory of evolution, or whether these principles are used only in a generalized sense, via analogy, in a figurative way, just *metaphorically*.

Which principles of the theory of evolution would be eligible for such an application? Very often the theory of evolution is characterized by *mutation* and *selection*, more generally by *blind variation* and *selective retention*. These are indeed important concepts of organismic evolution, but the theory of evolution is not sufficiently sketched out by them. First, a theory is not well characterized by its concepts, but much better by its *principles*. Second, the theory of evolution embraces considerably more principles than mutation and selection. These two principles would be compatible, for instance, with the existence of one single pop-

ulation or species covering the whole biosphere, in fact representing it, the protagonists of which would reproduce with each other, thereby changing, developing, evolving as a whole. There would be no trace or mention of species splitting, much less of species diversity.

But our world is not that simple. For the description and explanation of the living world we need essentially more traits and principles. It is by no means evident which principles constitute an “evolutionary” theory. This also applies to an evolutionary view on religion –the subject of this book. What, then, is the connection between evolution and religion addressed here?

It is *not* the fact that religions evolve, that they have their history. Nor is it the idea that some religious doctrines could integrate evolutionary thinking. They could indeed do that. They could do it in two ways.

They could, first, try to make compatible their teachings on the origin and evolution of the world, of life, consciousness, and man, with the origins taught by physical, evolutionary and historical sciences. The theologian and anthropologist Pierre Teilhard de Chardin (1881-1955) tried hard, but was not successful, not even in his own church. The problems of his approach lie in the fact that he interpreted the evolution of cosmos, man and mind *teleologically*, that he used a strongly *generalized concept of evolution*, and that he even claimed to foresee a *future evolution* into a *noosphere* culminating in a last cosmic “Point Omega”. In the meantime some Christian churches are more tolerant against evolution. The Catholic Church leaves plants and animals and the human *body* to biology, hence to biological evolution; it is less eager to leave the human *mind* to evolution, much less the human *soul* or *spirit*. “The human body has its origin in living matter having existed before him. The soul however is created immediately by God.” (Pope John Paul, 1996) Therefore the human soul still must – against all evolutionary thinking – be implanted in a divine act and must above all be immortal.

Secondly, religious doctrines could apply evolutionary thinking not only to organisms, but to religions, that is, to themselves. To my knowledge, this is done by only one religion, namely by Baha’ism, an Islamic sect, founded 1863 by the Iranian Baha Ullah (1817-1892). It is monotheistic and worships an eternal God who reveals himself in his prophets, prophets of other religions included: in Zarathustra, Jesus, Moham-

med, Baha Ullah – and with the progressive development of mankind also *in the future* in further prophets. This religion sees itself as part of a historical development, having reached right now its summit with Bahaïsism, but to be succeeded by a further step. Here we find development not only in the past, but also – and this is really unusual – in the future!

These are, however, not the ways evolution and religion are connected in this book. For our considerations we must distinguish between the doctrine of God (or gods), called theology, and the science of religion. Theology is no science since it is talking about something of which the very existence is utterly controversial and will be debated forever. The book before you is not on theology, but on religion, hence part of the science of religion.

For the concept of religion we content ourselves with some central traits: Religion is belief in something outside and above man, above nature, something supernatural, metaphysical, transcendental, belief in something holy, divine, undisposable, absolute, belief in God or several gods and in other celestial or infernal beings such as angels, devils, ghosts, spirits, saints. Every religion encompasses three components: a doctrine, a practice, and a social form, which will not always have the same weight. Thus, religion serves for the *explanation* of the world, the assessment and *justification* of norms and values, the supply of *courage* and *consolation*, in short the *mastering of life*.

There is no doubt that religions developed in the course of human history; but this development primarily concerns *cultural* evolution. It is however defensible – and in fact defended by all authors in this book – that not only *religion* in its different forms originates in history, but that human *religiosity* itself has its origin in organismic evolution.

Are there indeed *genetic* predispositions to religiosity or even to special beliefs? In order to answer this question, several disciplines must work together: genetics, physiology, neuroscience, ethology, psychology, research on emotion and cognition, psychology, history, sociology. Only then may we hope to get insight into the biological roots and the possible evolutionary benefits of religiosity.

One of the difficulties lies in the fact that it is not easy to separate religiosity from spirituality, fantasy, autogenous training, self hypnosis or

other states and techniques of consciousness. It is even debated whether Buddhism is a religion or a philosophy! Therefore some religion scientists don't talk about *meditation*; they prefer the more neutral, but at the same time somewhat derisive expression *ritual sitting*.

According to the findings so far of cognitive psychology there is no special area devoted to religion in our head. However, religious thinking seems to originate easily from our normal cognitive abilities. Following this idea, religious belief seems to suggest itself whereas disbelief is the result of laborious conscious and argumentative work. This is compressed in the bon mot of the passionate sceptic Michael Shermer: "It is simply too strenuous to think critically all the time."

An important building block of such a conception lies in the question whether religiosity and religious belief offer *selective advantages*. Nowadays this is supposed by many people, especially by most of the present authors. There are two arguments in favour of such a position: First, a common belief, religious rites and compulsory commandments seem to strengthen solidarity and mutual trust inside a group. And second, nowadays religious people have as a rule more children, and this could well have always been so in the evolution of man.

Of course, this success says nothing about the *truth* of religious convictions, for even an erroneous conception may offer advantages. Thus the rain dances of several Red Indians are based on the conviction that – via their influence on the gods – they *cause* or *elicit* rain. We judge this belief as erroneous, but nevertheless view the dances as useful because they serve as social cement. In *cultural* evolution, especially in the area of human language, there are many such *useful errors*. Religiosity and religion could exemplify this.

True, whether something brings advantages or disadvantages is difficult to judge for historical conditions. For as a rule the alternative scenario cannot be realistically tried out. Therefore some historians strictly refuse to discuss the question „What would have happened, if ...?“ (How would history have run had Alexander not died so early?) Others find considerations on such "virtual history" very instructive.

It is supposed that the evolutionary origin of *religious practices* might lie in the fact that religion implies a demonstrative *handicap*. This is discussed in several contributions to this volume. Another question is

whether and how religiosity, belief and religious states and experiences – second sight, visions, divine appearances – manifest themselves in our *brain*. The term *neurotheology* for this line of thinking is, however, very misleading: Neurotheology is no theology at all, it is no doctrine about God; it is rather neuroscience research on states we know as belief or inclination to believe, as inspiration or revelation. This area would better be called *neurology of religion*.

As we see there are many connections between evolution and religion. But let us stress again that the main subject of this book is the *evolutionary origin of religion*. This is also seen in the following sketches of the different contributions.

Thomas Sukopp takes a closer look at the explanatory structure of scientific and non-scientific explanations of religious phenomena. He does so by explicating “religion” and outlining an naturalistic approach, which is implicitly or explicitly part of scientific research. He challenges the view that explanations of evolutionary psychology are strictly scientific explanations and clarifies some issues in this debate.

Benjamin Purzycki and Richard Sosis argue for the view that religious behavior has been evolving. It is still adaptive and not just a byproduct. In particular, religious rituals are an example of costly behavior indicating commitment to one’s group and thus enhancing solidarity. Furthermore, rituals help to solve free-rider problems.

Caspar Söling discusses the evolutionary advantages associated with components of religion like mysticism, ethics, myths and rituals. He concludes that religiousness is the screen in which these four domains can be integrated – each of which has its own history of selection.

Justin Barrett, David Leech and Aku Visala try to distinguish between the explanatory value of cognitive explanations of religious belief at both the population and individual level. Furthermore, they argue that bio-psychological explanations offer only a partial explanation of religious beliefs. Such explanations are the basis of these beliefs, but often enough not the most relevant.

Rebekah Richert and Erin Smith place religious concepts in evolutionary history by two aspects: they combine the fact that humans and especially children possess various cognitive pre-dispositions to interpret

the world in a certain way and the idea of cumulative cultural evolution, which they apply to religion.

Matt Rossano in „Harnessing the Placebo-Effect – Religion as a Cultural Adaptation“ argues that religion’s adaptive function enhances the psycho/physical health of its adherents. According to him this function exists at a cultural level. He argues that Shamanism uses placebo-effects to enhance health and group solidarity making „placebo healing a potent cultural force“. Religion is an umbrella bringing optimism, health, social support and belief in healing power together.

Hannes Rusch investigates the question of mankind’s resistance to the theory of evolution and philosophical naturalism. He discusses the “antinaturalistic reflex” being an emotionally loaded reaction. Causes for such negative reactions include theses like “man does not stand above or outside nature”, “moral norms are temporary” or “there are no last truths”.

Michael Blume looks into the fascinating fact that religions do seem to offer reproductive advantages to their adherents. Religious people all over the world have a higher fertility than more secular oriented persons. In a detailed case study he describes the Amish, a particular fertile religious group, to throw more light on the proximate mechanisms of religious behavior.

From evolution to religion?

About scientific and non-scientific explanations of religious phenomena

Thomas Sukopp

Abstract

I will examine some differences between scientific and non-scientific explanations of religious phenomena. My starting points will be a close explication of “religion” and an outline of a (meta)-philosophical stance called naturalism. The main goal is to ascertain the relevance of both evolutionary and “typical philosophical” questions in the broad realm of religion.

This volume deals with many challenging questions such as why there is so much resistance to evolutionary explanations (particularly of religion), or if and how science can explain a field like religion, which rejects its very method. Because both the fields of research and the attempts of philosophical reflection have become numerous in the meantime, I would like to propose a map of problems (section 1). “Naturalism” is probably one important paradigm for most of the contributions from my colleagues. I do not wish to spend too much time on explications but I first have to explain what I understand as the use of a naturalistic framework (section 2). Since “religion” is understood in many different ways, I will outline some characteristics of religious phenomena (section 3). The main part of this paper is in the following section, where I will try to answer the question in which way a more or less sci-

entific theory can in principle examine and explain our religions beliefs based on faith or divine revelation (section 4). For that purpose, I will compare different approaches categorized as “Evolutionary Psychology” (abbreviated as EP; see Cosmides & Tooby 1997, Pinker 2004, Wilson & Green 2007, Grassie 2007, Dulle 2009) and philosophical views. I will also raise a few methodological questions connected with naturalistic approaches.

1. A map of the problems

The editor of this volume recently listed research fields underlining the relevance of empirical research and the need for interdisciplinary collaboration (Frey 2010, pp. 77-88). I have attached in brackets the necessary disciplines for the particular question according to Frey. This list is incomplete and contains questions such as a) how similar are religions? (ethnology); b) do only human beings show facets of religious behavior? (primatology); c) do religious communities have any advantages compared to non-religious communities? (evolutionary biology); d) are children (by nature) religious? Do they share their parents’ religion? (developmental psychology); e) why do nearly all peoples believe in ghosts or similar entities? (psychology of cognition); f) how did religious groups evolve throughout history? (demography and history).

In this brief map these challenging questions depend on views about the relation between empirical research and – at least such is the claim – that many problems concerning religion are not accessible by empirical sciences (see e.g. Mutschler 2008, p. 47-61 and many other contribution in Müller & Sachser (eds.) 2008). Thus, one question is as follows: How many of these and other questions are transformations of genuine theological questions? Given the view that all scientific answers and arguments are good answers and all arguments are sound, how salient are the results? The following is an example: It may be found that interacting belief groups have fitness and survival advantages. Does this already show why it is good to be a Christian?

Is the question of why Catholics believe in transubstantiation part of empirical research? Which methodology is adequate for evaluating scientific and non-scientific research? Which methodological rules should

we accept and how could we promote progressive research programs? Finally, I would add a few more philosophical fields of research:

1. *Epistemological problems*: What is the relevance of justification for “bearers of religious knowledge”? How do we decide if it is true that an individual has a personal, subjective religious faith or credo even if there are no good reasons for this belief? In a more holistic framework (see section 3), are truth and other rational criteria negligible or at least less important compared to the other necessary criteria by which a religion should be measured?
2. *Ontological problems*: In which way does God exist? How could we give reasons for a realm of supernatural entities? Are we right to suppose that religious entities could be integrated into existing ontological frameworks/classes?
3. *Semantic problems*: How we can understand some of the main terms such as “God” or “eternal soul”? Are substantial definitions of religion (in some respect) superior to functional definitions?
4. *Moral/Ethical problems*: Does God give us advice on how we should act, namely according to Christian ethics? Do secular ethics lead to separation and egoism? Can norms be (directly) derived from the Bible? Do Christians behave in a morally faultless manner because they believe in God? (I concede that a lot of philosophers and even more sociobiologists think that these questions are artificial and thus the answers are clear. On the other hand exactly these questions are discussed controversially, see e.g. the manifold theology-science-debates in Ruse 2008.)
5. *Metaphysical problems*: If we prefer metaphysical systems that include many assumptions, then theistic metaphysics may be worthwhile. Is this true? Do Christian metaphysics promote a more optimistic world view?
6. *Aesthetic problems*: Do we feel/think/guess that religious phenomena make our world more beautiful? Could we explain the existence of objective evil as a fair compensation for beauty (and all the good in the world) by reasons of symmetry?
7. *Anthropological problems*: How important for our self-conception are religious phenomena? Is religion really an “anthropological constant” through time and cultures?

Because evolutionary explanations (see section 4.3) do share naturalistic assumptions I will briefly analyze them in the next section.

2. What is Naturalism?

Neither scientism nor traditional philosophy

Definitions and even explications of “Naturalism” tend to be sophisticated, yet fruitless, because they often seem to be empty and thus do not satisfy the need for clarity that both admirers and opponents of naturalistic positions deserve. One example is the formula, “Scientific naturalism is the view that only scientific knowledge is reliable and that science can, in principle, explain everything” (Alexander 1999, p.1). This characterization can be accepted at most for scientism.

I do not assert that all radical forms of Naturalism are deficient, e.g. self-contradicting or whatever we may argue against them (see Sukopp 2007, pp. 83-87). Scientism can be regarded as the worst case of “hara-kiri” (Sagal 1987, p. 321f.) for philosophy. Even if we do not share a preference for dramatic formulations, it is quite instructive to analyze the core of scientism and its unedifying consequences. Note these slogans of scientism: “Science itself teaches us” (Proposition A, Quine 1974, p. 2), “Wherever science will lead, I will follow” (proposition B, Sellars 1963), or “In the dimension of describing and explaining the world, science is the measure of all things, of what is that it is, and of what is not that it is not” (proposition C, Sellars 1963, p. 173). Finally, Manley Thompson states, “The closest thing to a common core of meaning is probably the view that the methods of natural science provide the only avenue to truth” (proposition D; Thompson 1964, p. 183).

All these statements share one typical – and misleading – view of science. According to them, science is the one and only method and measure for successful problem-solving, exclusively explains “the world”, clarifies its own standards etc. Why are all these assertions wishes rather than well-founded propositions? First, it is far from clear which methods count as “scientific methods” (proposition D). If we mean “trial and error” as a method in experimental situations, then we see that we need more than scientific methods (or scientific results and the best available scientific theory). Scientific disciplines like physics, genetics,

biochemistry, neurology etc. are successful because they are restricted to idealized, rather abstract systems of the real world, e.g. atoms, molecules, mass points, genes or the structure of the prefrontal cortex etc. Science itself does not exclusively answer questions like “How does Beethoven’s Ninth Symphony exist?” or “Is suicide condemnable?”

Second, science does not explain “the world” (proposition C) but rather certain selected structures of the world—depending on the level of particular abstraction. Systems of theoretical physics are less complex than biological systems, biological systems are more complex than chemical systems etc. Knowledge about societies requires far more than scientific knowledge. For example, we cannot abandon historical, ethnological or sociological knowledge.

Third, the statement that “science itself teaches us” (proposition A) is at least ambiguous. The standards for success, criteria for the methodology of science, and the ultimate goal of science are not the results of “pure” scientific research. Of course scientists may discuss these questions, and they actually do so, but we need to understand that the history of science, the theory of science and the sociology of science would be superfluous if the sciences themselves could answer these questions.

Fourth, we should not follow science *wherever* it leads us (proposition B) since science could be irrational or ethically objectionable. I would at most accept “Wherever *reason* leads us, I will follow” even though it is not rational always to act rationally.

Directly opposed to scientism we find the following traditional view of philosophy, which I will illustrate with seven theses according to Dirk Koppelberg (2000, p. 82ff.).

1. The methodological starting point of epistemology is the analysis of our ordinary everyday notions about knowledge and beliefs.
2. Epistemology makes use of terms and norms and formulates principles and aims that are not completely included in science.
3. Epistemology has genuine philosophical methods and evidence.
4. Epistemology has rules and norms that are logically independent from and prior to the sciences.

5. Epistemology is of no avail at all to scientific results and discoveries.
6. Epistemological results (e.g. knowledge, justified beliefs) are epistemically fundamental compared with scientific results.
7. Epistemology itself is logically independent and prior to science.

The more of these seven theses to which we subscribe, the more we are “traditional philosophers”. Especially theses three to seven can be regarded as the view that philosophy is independent in several respects from the methods and results of science (four to seven) and is occupied with analyzing *a priori* knowledge in a typically conceptual framework, i.e. with philosophical terms and methods.

In my own view, theses five to seven in particular are misleading (for an opponent of this view see Rager 2008). On the other hand, I do not think that giving up old epistemological projects such as justifying our beliefs is a profound strategy, even if the problems are hard to solve.

3. What is religion?

Even when we take a superficial look at “religion”, much depends on how we define it. What needs to be explained (the explanandum) is of course not “religion” itself as a general term. As Mutschler (2008, pp. 52) points out:

Sociobiologists indeed define religion in very different ways. The tetragon ‘ritual’, ‘myth’, ‘mysticism’, and ‘ethics’ define religion according to Söling. These terms are understood in ways broad enough to allow alternative readings. Broom, on the other hand, reduces religion to ethics. Volker Sommer gives a completely different definition. He considers religiosity a ‘behavior that derives from believing in the existence of beings endowed with supernatural power.’ Many forms of religiosity, however, dismiss the existence of such beings. (We might contradict the last statement but some varieties of Wicca-Religion or Buddhism actually dismiss the existence of supernatural *beings*; TS)

So again we find the situation that we may exclude relevant phenomena or definitions – metaphorically speaking, this implies sculpting in a