

# Has Science eliminated God?

Richard Dawkins on  
science and religion

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# Richard Dawkins



# Richard Dawkins (born 1941)

*The Selfish Gene* (1976)

*The Extended Phenotype* (1981)

*The Blind Watchmaker* (1986)

*River out of Eden* (1995)

*Climbing Mount Improbable* (1996)

*Unweaving the Rainbow* (1998)

*A Devil's Chaplain* (2003)

*The Ancestor's Tale* (2004)

*The God Delusion* (2006)

# Dawkins' five grounds of criticism of religion

1. The natural sciences make belief in God unnecessary or impossible. Although hinted at in *The Selfish Gene*, this idea is developed in detail in *The Blind Watchmaker*.

# Dawkins' five grounds of criticism of religion

2. Religion makes assertions which are grounded in faith, which represents a retreat from a rigorous, evidence-based concern for truth. For Dawkins, truth is grounded in explicit proof; any form of obscurantism or mysticism grounded in faith is to be opposed vigorously.

# Dawkins' five grounds of criticism of religion

3. Belief in God arises from a "meme", or a "virus of the mind", which infects otherwise healthy minds.

# Dawkins' five grounds of criticism of religion

4. Religion offers an impoverished vision of the world. "The universe presented by organized religion is a poky little medieval universe, and extremely limited". In contrast, science offers a bold and brilliant vision of the universe as grand, beautiful, and awe-inspiring.

# Dawkins' five grounds of criticism of religion

5. Religion leads to evil. This is a moral, rather than a scientific, objection to religion, which is deeply rooted within western culture and history.



Some historical background . . .

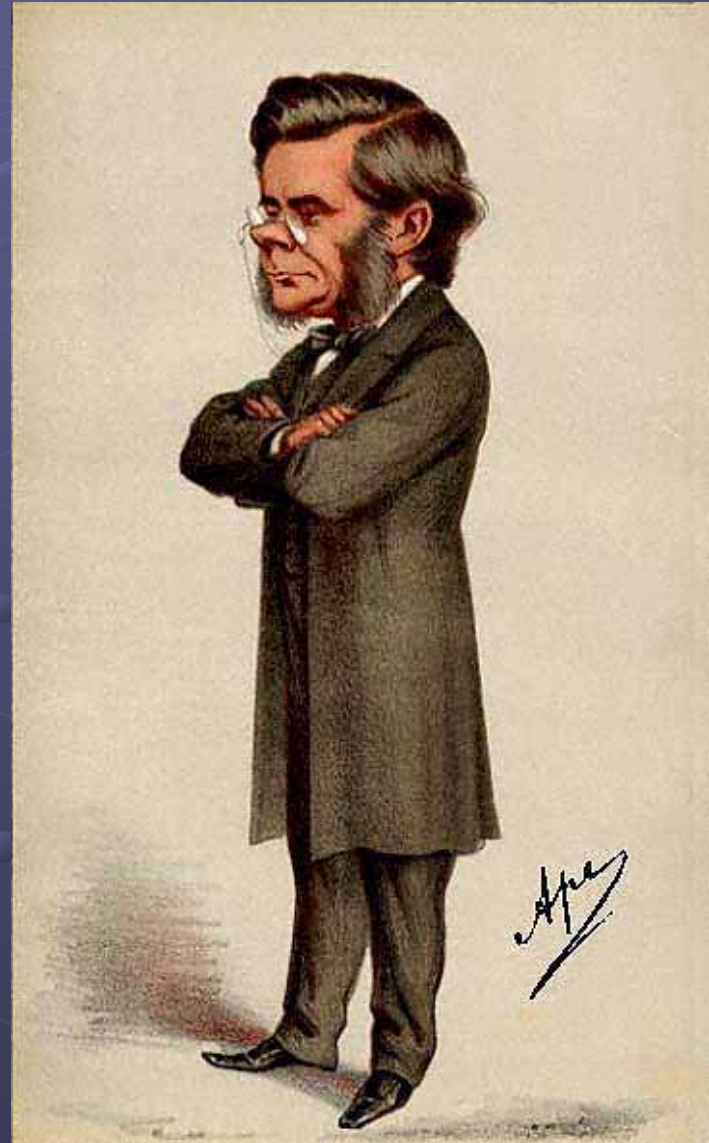


# The Perpetuation of Myths

Two myths lie behind Dawkins' approach:

1. Science and religion are engaged in a warfare from which only one can emerge as victorious
2. Historical myths - such as the legendary account of the debate between Wilberforce and Huxley at Oxford - cast a lingering shadow over contemporary discussions

# Wilberforce and Huxley



# Wilberforce and Huxley

Mrs Isabella Sidgewick's recollections of 1898

I was happy enough to be present on the memorable occasion at Oxford when Mr Huxley bearded Bishop Wilberforce. . . . The Bishop rose, and begged to know, was it through his grandfather or his grandmother that he claimed descent from a monkey?

John R. Lucas, "Wilberforce and  
Huxley: A Legendary Encounter."  
*Historical Journal* 22 (1979): 313-  
30.

# Responding to Dawkins

1. Are science and religion in conflict?
2. The relation of faith and evidence
3. Is religion a virus of the mind?
4. Does religion impoverish our appreciation of nature?
5. Why is religion such a bad thing?

# 1. Does science lead to atheism?

*Why* should science lead to atheism?

If anything, it leads to agnosticism, or an understanding of God's relationship with the world based on secondary causality - such as that developed by Thomas Aquinas in the thirteenth century.

# Does science lead to atheism?

The problem:

At the most general level, the scientific method is incapable of deciding whether there is a God or not.

So why does Dawkins insist that the sciences lead to *atheism*?

Do they necessarily lead to *any* specific belief system? Theism? Atheism?



# T.H. Huxley on Agnosticism

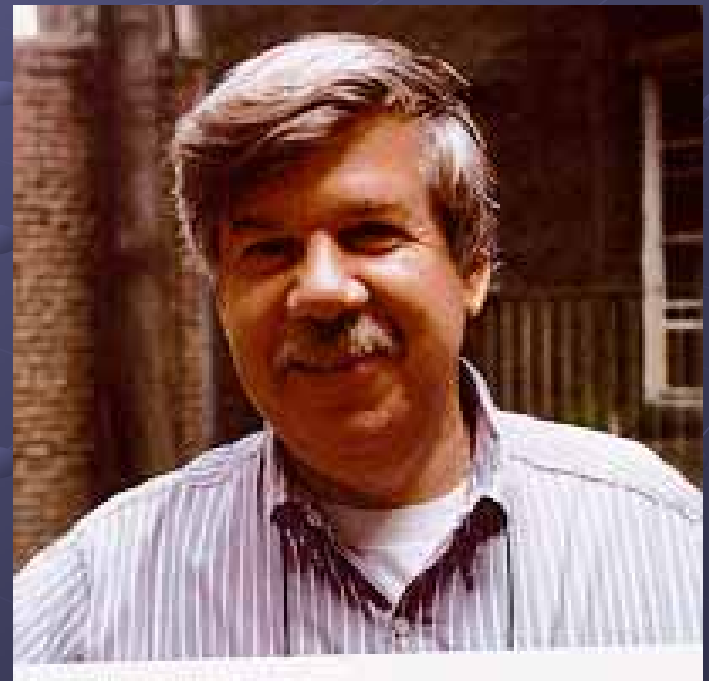
Some twenty years ago, or thereabouts, I invented the word "Agnostic" to denote people who, like myself, confess themselves to be hopelessly ignorant concerning a variety of matters, about which metaphysicians and theologians, both orthodox and heterodox, dogmatise with utmost confidence.

# T.H. Huxley on Agnosticism

Agnosticism is of the essence of science, whether ancient or modern. It simply means that a man shall not say he knows or believes that which he has no scientific grounds for professing to know or believe. . . . Consequently Agnosticism puts aside not only the greater part of popular theology, but also the greater part of anti-theology.

# Stephen Jay Gould

America's foremost evolutionary biologist  
Died 2002, aged 60, from lung cancer



# Stephen Jay Gould

To say it for all my colleagues and for the umpteenth millionth time: science simply cannot (by its legitimate methods) adjudicate the issue of God's possible superintendence of nature. We neither affirm nor deny it; we simply can't comment on it as scientists.

# Stephen Jay Gould

Either half my colleagues are enormously stupid, or else the science of Darwinism is fully compatible with conventional religious beliefs - and equally compatible with atheism.

# Dawkins' response?

"I simply do not believe that Gould could possibly have meant much of what he wrote in *Rocks of Ages*."

*The God Delusion, 57.*

## 2. Dawkins on Faith

Faith "means blind trust, in the absence of evidence, even in the teeth of evidence."

*The Selfish Gene, 198.*

# Dawkins on Faith

Faith is the great cop-out, the great excuse to evade the need to think and evaluate evidence. Faith is belief in spite of, even perhaps because of, the lack of evidence. . . . Faith is not allowed to justify itself by argument.



# W. H. Griffith-Thomas on Faith

[Faith] affects the whole of man's nature. It commences with the conviction of the mind based on adequate evidence; it continues in the confidence of the heart or emotions based on conviction, and it is crowned in the consent of the will, by means of which the conviction and confidence are expressed in conduct.

# Faith and Proof

Can God's existence be proved?

Or disproved?

Arguments about God's existence have  
been stalemated for generations

Atheism and theism are both faiths;  
neither can prove their case with total  
certainty.

If the natural sciences *necessitate* neither atheism nor religious faith, we seem to have two broad options about belief in God:

1. The question lies beyond resolution;
2. The question has to be resolved on other grounds

# Inference to best explanation

Gilbert Harman, "The Inference to the Best Explanation." *Philosophical Review* 74 (1965): 88-95.

More recent explorations include:

Peter Lipton, *Inference to the best explanation*. London: Routledge, 2004.

# "Inference to the best explanation"

Idea developed by Gilbert Harman

There are many potential explanations of the world

So which offers the best fit?

The simplest? The most elegant?

Not a knock-down argument - but an important attempt to evaluate how we make sense of complex situations

# The idea of "empirical fit"

What worldview makes most sense of what we observe in the world?

What "big picture" offers the best account of what we experience?

"Inference to the best explanation" is about working out which explanation is the most satisfying

# The idea of "empirical fit"

Richard Dawkins:

"The universe we observe has precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil and no good, nothing but blind pitiless indifference."

*River out of Eden, 133.*

# The idea of "empirical fit"

C. S. Lewis:

"I believe in Christianity as I believe that the Sun has risen - not only because I see it, but because by it, I see everything else."

C.S. Lewis, "Is theology poetry?", in *Essay Collection and Other Short Pieces*. London: HarperCollins, 2000, 10-21; 21.



# The limits of science

Dawkins argues that science proves things with certainty

Anything worth knowing can be proved by science

Everything else - especially belief in God!  
- is just delusion, wishful thinking, or madness

# Science and Knowledge: One Viewpoint

"Whatever knowledge is attainable, must be attained by scientific methods; and what science cannot discover, mankind cannot know."

Bertrand Russell

# Science and Knowledge: Another Viewpoint

"The existence of a limit to science is, however, made clear by its inability to answer childlike elementary questions having to do with first and last things - questions such as "How did everything begin?"; "What are we all here for?"; "What is the point of living?"

Peter Medawar, winner of the 1960 Nobel prize for medicine.

# A question . . .

If the sciences are inferential in their methodology, how can Dawkins present atheism as the certain outcome of the scientific project?

Richard Feynman: scientific knowledge is a body of statements of varying degree of certainty - some most unsure, some nearly sure, but none absolutely certain.

Timothy Shanahan, "Methodological and Contextual Factors in the Dawkins/Gould Dispute over Evolutionary Progress." *Studies in History and Philosophy of Science* 31 (2001): 127-51.

# 3. Is God a Virus of the Mind? Or a "meme"?

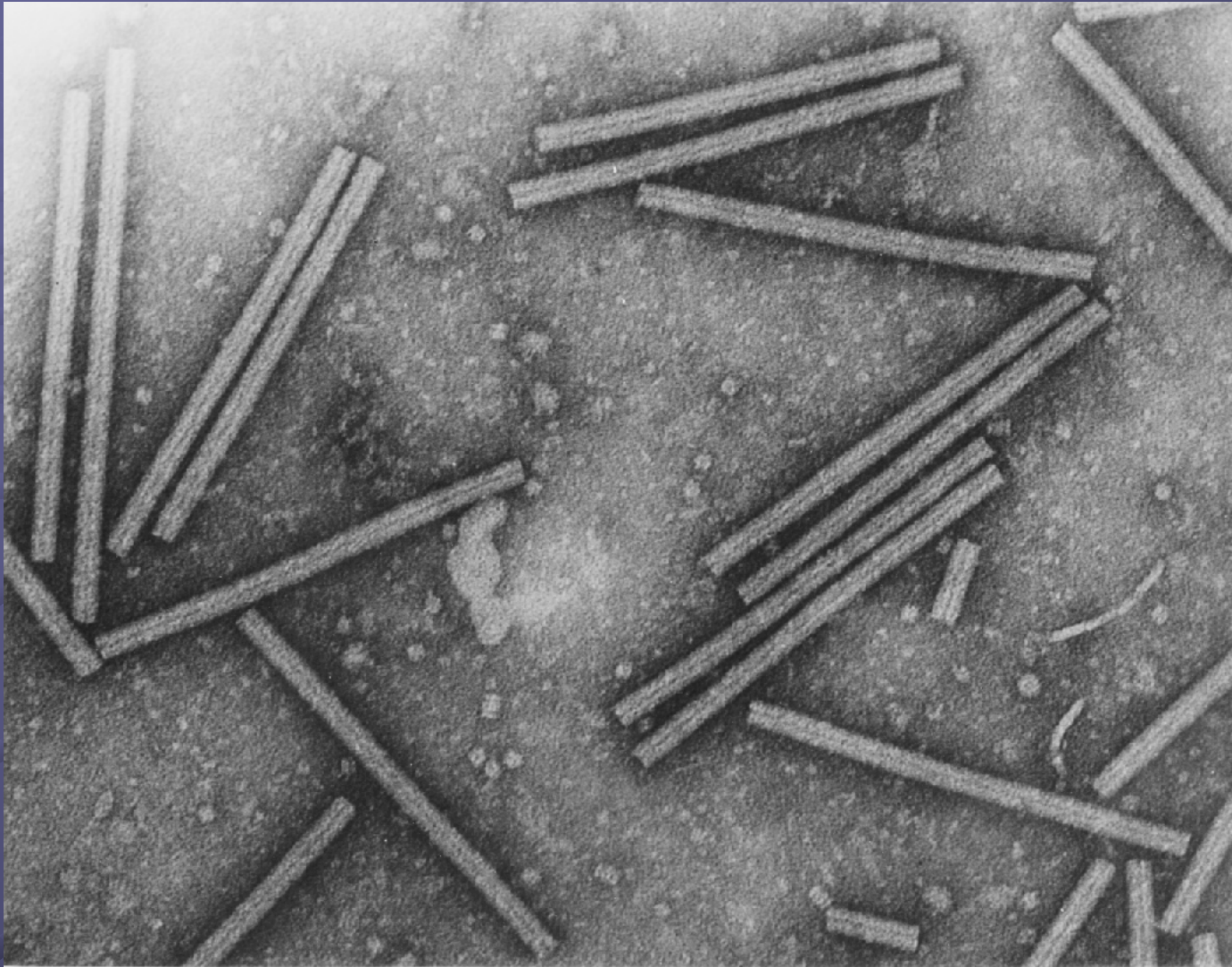


# God as a virus?

## Problem 1:

Real viruses can be seen - for example, using cryo-electron microscopy. Dawkins' cultural or religious viruses are simply hypotheses. There is no observational evidence for their existence.

# Tobacco Mosaic Virus





# God as a virus?

Problem 2:

On the basis of Dawkins' criteria, isn't *atheism* also a virus of the mind? He has no objective, scientific method for distinguishing between his own faith (atheism) and that of others (such as Christianity).

# Are *all* beliefs "viruses of the mind"?

Dawkins holds that belief in God is a  
"virus of the mind".

But there are many other beliefs that  
cannot be proven - including atheism

Dawkins ends up making the totally  
subjective, unscientific, argument that  
his own beliefs are not "viruses", but  
those he dislikes are.

# Dawkins on the Scope of Darwinism

“Darwinism is too big a theory to be confined to the narrow context of the gene”.

So how can Darwinism be extended beyond the domain of biology?

# The "meme"

In 1976, Dawkins invented the concept of the "meme" as an explanation for how ideas are transmitted

He argues there is a very effective, "God-meme" which makes people believe in God

Very influential idea!

# The "meme"

BUT

1. Where's the science? What's the experimental evidence for memes?
2. On the basis of Dawkins' flawed argument, isn't atheism also the result of a meme?

# Simon Conway-Morris on Memes

"Memes are trivial, to be banished by simple mental exercises. In any wider context, they are hopelessly, if not hilariously, simplistic. To conjure up memes not only reveals a strange imprecision of thought, but, as Anthony O'Hear has remarked, if memes really existed they would ultimately deny the reality of reflective thought."

## 4. Religion impoverishes our view of the universe

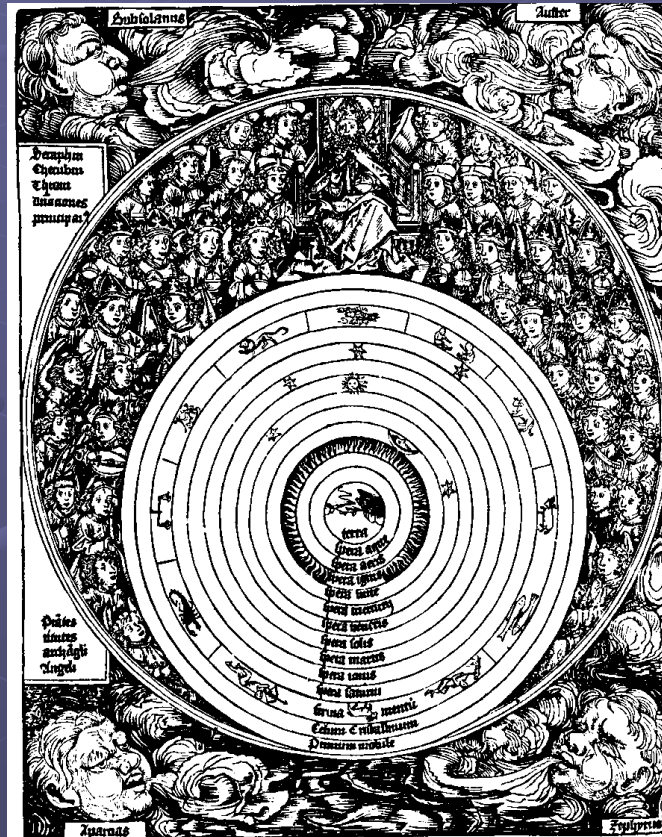
One of Dawkins' persistent complaints about religion is that it is aesthetically deficient. Its view of the universe is limited, impoverished and unworthy of the wonderful reality known by the sciences

# Religion offers a 'poky' view of the universe

The universe is genuinely mysterious, grand, beautiful, awe-inspiring. The kinds of views of the universe which religious people have traditionally embraced have been puny, pathetic, and measly in comparison to the way the universe actually is. The universe presented by organized religions is a poky little medieval universe, and extremely limited.



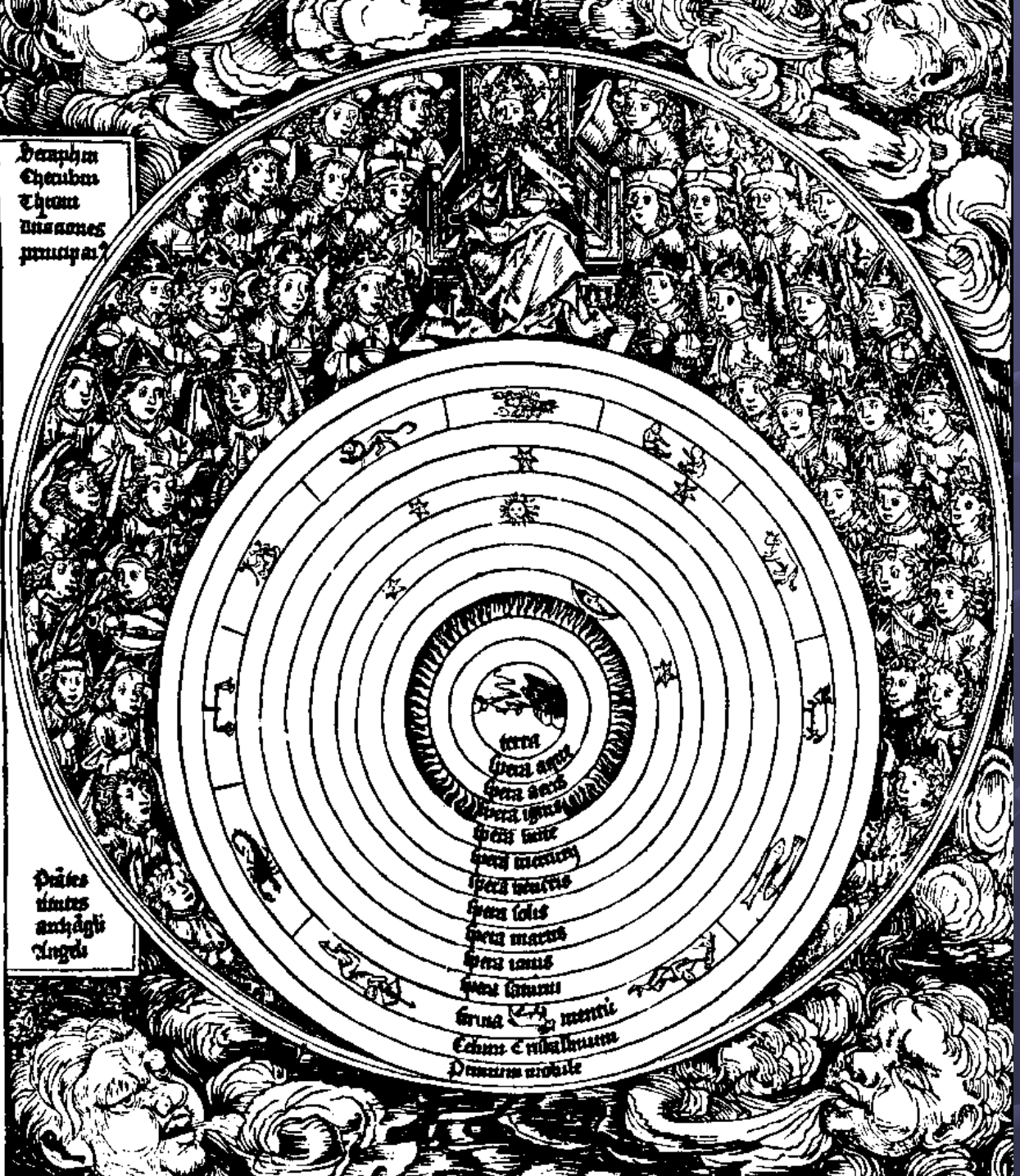
# The Nuremberg Chronicle (1493)



1. The "Ptolemaic" Universe: the spheres from earth to Prime Mover, with God at the top, surrounded by choiring angels, and with the four winds in their corners. From Hartmann Schedel, *Liber Chronicarum* ("Nuremberg Chronicle"), 1493.

Hexaphen  
Cherubim  
Throni  
Serasaphim  
Principia

Præter  
Serasaphim  
archangeli  
Angeli



Terra  
Luna  
Sol  
Mercurius  
Venerus  
Mars  
Iovis  
Saturnus  
Præter  
Serasaphim  
archangeli  
Angeli

# Responding to this criticism

A Christian approach to nature identifies three ways in which a sense of awe comes about in response to what we observe.

1. An immediate sense of wonder at the beauty of nature. This is evoked *immediately*. I can see no good reason for suggesting that believing in God diminishes this sense of wonder.

2. A sense of wonder at the mathematical or theoretical representation of reality which arises from this. But why does Christian faith have any problem with this?

# The case of James Clerk Maxwell

*A Treatise on Electricity and Magnetism*  
(1873 )



**Maxwell-Gleichungen  
(in differentieller Form)**

$$\nabla \cdot \vec{E} = \frac{\rho}{\epsilon_0}$$

$$\nabla \cdot \vec{B} = 0$$

$$\nabla \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$$

$$\nabla \times \vec{B} = \mu_0 \left( \vec{j} + \epsilon_0 \frac{\partial \vec{E}}{\partial t} \right)$$

3. For the Christian, there is an additional sense of wonder because the creation bears witness to its creator, "The heavens declare the glory of the Lord!" (Psalm 19:1). For Christians, to experience the beauty of creation is a sign or pointer to the glory of God, and is to be particularly cherished for this reason.

# 5. Religion is a bad thing

Dawkins rightly points out that religion has caused lots of problems - such as intolerance and violence

But so did atheism in the twentieth century - witness its attempts to forcibly eliminate religion

The real truth is that beliefs (religious or atheist) can make people do some very good and very bad things.



# Religion and Violence

Religion provides a transcendent motivation for violence

But what about transcendentalization of human values?

Example of Madame Roland (executed 1793)

"Liberty, what crimes are committed in your name!"

# Religion is a bad thing

Now "science has no methods for deciding what is ethical."

- *A Devil's Chaplain*, 34.

So how do we determine that religion is "bad" *empirically*?

W. R. Miller and C. E. Thoreson.

"Spirituality, Religion and Health: An Emerging Research Field." *American Psychologist* 58 (2003): 24-35.

# A key review of the field:

Harold G. Koenig and Harvey J. Cohen.  
*The Link between Religion and Health :  
Psychoneuroimmunology and the Faith  
Factor.* Oxford: Oxford University  
Press, 2001

Of 100 evidence-based studies:

79 reported at least one positive correlation between religious involvement and wellbeing;

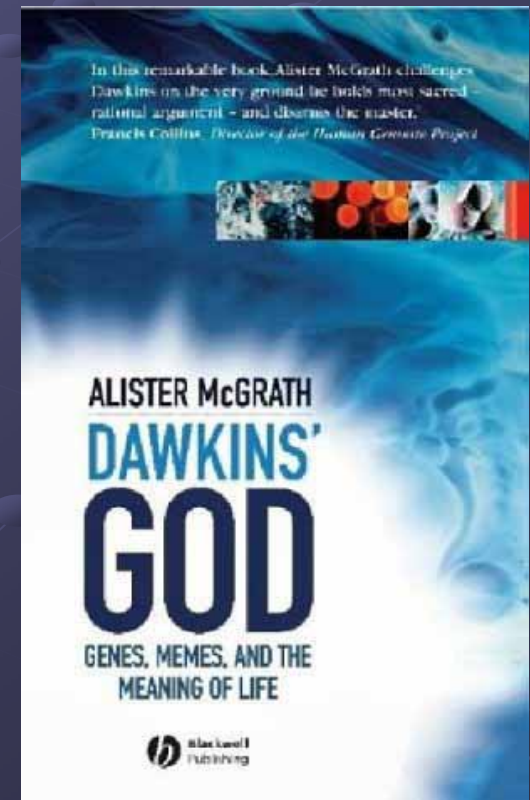
13 found no meaningful association between religion and wellbeing;

7 found mixed or complex associations between religion and wellbeing;

1 found a negative association between religion and wellbeing.

Alistair E. McGrath, "Spirituality and well-being: some recent discussions." *Brain: A Journal of Neurology* 129 (2006): 278-82.

For further reading, with full sourcing and details of secondary studies, see Alister E. McGrath, *Dawkins' God: Genes, Memes and the Meaning of Life*. Blackwell Publishing, 2004.



# A response to Dawkin's *God Delusion*

"The Dawkins Delusion?" has become a national bestseller .

