

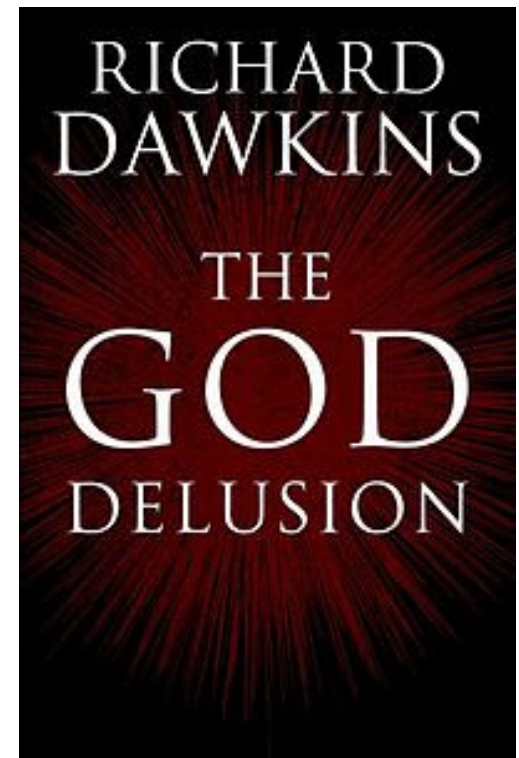
Are Science and Religion in Conflict?

God and Reason
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Introduction

- With the great advances of science, there is no more need for religion!?
- Science has become the only valid method to gain knowledge!?
- Richard Dawkins [Dawkins 2006]
“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.”



What is Science?

- Science is a systematic enterprise that builds and organizes knowledge in the form of **testable** explanations and predictions about the universe.
<http://en.wikipedia.org/wiki/Science>
[Chalmers 1999]
- Knowledge = law, theory, model.
- Knowledge is based on empirical evidence, gained from observation or experiment.
- Experimentation is especially important to help establish causal relationships (explanations).

What is Science?

- Reproducibility: Experiments or observations can be **repeated** by any competent person with the same results.



- Clarity: The results of any scientific investigation can be expressed in terms that are unambiguous.
[Hutchinson 2011]

What is Science?

- Logic
Facts A, B, \dots and rules $A \rightarrow B$ that are either true or false.
- Inference rules to derive (predict) new facts from given facts and knowledge.
Modus ponens: “ $(A \rightarrow B)$ and A ” implies B .
- But cannot logically prove new rules (knowledge) from a set of facts!
- There are many alternative rules from which the observed facts could be derived.
- How many facts do you need to observe before you can confidently infer a new rule?

What is Science?

- But a rule can be logically refuted by a single contradicting fact.
“A and NOT B” implies that “ $A \rightarrow B$ ” is false.
- Falsifiability
Predictions and the underlying knowledge can be refuted if contradicting evidence is presented.
- If a set of rules is falsified, not all the rules may be false, but which one?
- Distinguish “core rules” and “auxiliary rules”. Keep the “core rules”. Specialize rules to accommodate new evidence.
- Scientific theories are refuted only after a lot of contradicting evidence has been obtained.

What is Science?

- Science makes **assumptions** (presuppositions, axioms) that cannot be empirically justified or falsified.
- Economics
Humans are greedy.
- Physics
Natural laws have not changed in the course of time.

Science

- Theories are imaginative human creations and not a mere induction from data.
- The choice and/or generation of data is affected by the scientist's theoretical “glasses”.
- The process of science is not repeatable and clear, but depends heavily on the creativity and judgement of scientists.

Religion

- Religion is an organized collection of beliefs, cultural systems, and world views that relate humanity to the supernatural, and to spirituality.

<http://en.wikipedia.org/wiki/Religion>

- Religion is a cause, principle, or system of beliefs held to with ardor and faith.

<http://www.merriam-webster.com/dictionary/religion>

- Economics and physics are religions in the more general sense of the word.



Faith in God

- Many religions include faith in God.
- God reveals knowledge about himself as well as about our world.

E.g. God is good.

God answers prayer.

- Many religions have holy books containing knowledge about God, humans, and the world.
E.g., Bible or Quran.
- Knowledge about the spiritual world sometimes referred to as “spiritual laws.”

Is Religion Falsifiable?

- It has its assumptions that are not falsifiable.
E.g. God is good.
- Revealed knowledge allows us to make predictions.
- If prophecy does not come true, prophet will be held accountable.
- E.g., God will raise the Messiah from the dead.
- This was a unique event that had been announced by Biblical prophets for hundreds of years.
- The prediction was fulfilled and observed by many witnesses.
- Does not have repeatability, but this is the same for historical sciences.

Is Religion Falsifiable?

- What about “God answers prayers”?
- The Great Prayer Experiment
[Benson et al., 2006]
- There was no significant difference in the outcome of the different groups.
- But tested Non-Christian notion of prayer: God promises to answers prayers that are according to his will, and does not tell us the time.



Is Religion Falsifiable?

[Gunther Brown 2012]

- Scientific experiments cannot prove the existence or nonexistence of a supernatural force or whether such an entity answers prayer.
- Similarly, you cannot experimentally prove the love of your friends, parents, . . .
- However, it can be observed how prayer practices affect health:
 - Are healing claims medically documented?
 - Do healing experiences produce lasting effects?

Science and Christianity

- Economics: humans are greedy.
Christianity: humans are self-centered.
- Physics: natural laws have not changed in the course of time.
Christianity: God does not change.
God constantly sustains the world through his word.

Scientism

- Only (natural) science can obtain valid knowledge. Only natural causes are valid explanations of observed facts.
- Reductionism: in the hierarchy of knowledge, every level can be reduced to its next lower level, and it is not more than it.
- These assumptions cannot be proven empirically.
- [Bentley 2013]
“Physics explains everything, which we know because anything that physics cannot explain does not exist.”
- [Einstein]
“Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted.”

Christianity

- Christian religion in conflict with religion of Scientism.
- God also reveals important knowledge about himself and the world.
- God does miracles that cannot be explained by natural causes.
- But miracles are not random, they follow spiritual laws.
- Humans are more than their biology, they are created in God's image.
- Objective moral values are not just the result of evolution, but their source is God.

Conclusion

- Science is a set of methods. Science is a creative activity that requires creativity and judgement.
- Scientific disciplines are religions with faith into certain assumptions.
- There is no conflict between religion and science in general and scientific disciplines such as economics and physics in particular.
- However, there is a serious conflict between the Christian (and other) religion(s) and Scientism.
[Keller 2008, chapter 6]

Integrating Science and Christian Faith

- God has created the universe with its natural laws.
- Science is the discovery of these laws, and Christians are encouraged to do science as a way to serve God.
- Scientists should do their work with a humble attitude.

“The fear of the Lord is the beginning of knowledge.”
Proverbs 1:7
- Humans are more than their physics, chemistry, biology, psychology, sociology, . . .
- They are created to have relationship with God, which is based on faith.

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