

Abstract. Einstein's thoughts on science and religion from his book "Out of My Later Years". Chapter 8; "On Science and Religion". They are more relevant today than they were when he wrote them.

Notes on Einstein's book (a collection of writings from 1934 to 1950)

"Out of My Later Years"

From chapter 8 – page 25 **"On Science and Religion"**

"For science can only ascertain what is and not what should be, ..."

In examining the boundary between science and religion the skirmish is summarized by that seemingly simple statement. As is often the case when reading Einstein's lectures, we must carefully unpack the wisdom in this elegant thought.

More generally the proper boundaries of physical science and those of consciousness are disputed and attempts by both sides to usurp authority over the others territory has done great harm to both endeavors which are vital to our survival as a species and as a living planet.

I would offer the following definition of life, which in turn defines the boundaries of physical mechanics.

My favorite analogy is that of the sailboat and the dead leaf blowing across a pond. The sailboat, by virtue of its design with sail and keel and a hand on the tiller can navigate to any point on the shore, even upwind. The leaf can only blow to the far shore, obeying the restoring force of the wind.

In this analogy the wind is the arrow of time, the march of entropy driven as it is by the cyclic oscillation of the extent of space that is our universe. The wind follows the laws of oscillation, attempting to equalize and restore the symmetry of space, but driven beyond that point of equilibrium by the inertia of the restoring motion, just like a pendulum at the bottom of the swing.

So, mechanics defines and explains the cyclic oscillation (“What is...”) while consciousness directs energy to *specific purposes* of its own choosing; in Einstein’s wonderful simplification, “what should be”.

