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Debunking the Isolated System

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Abstract

Lord Kelvin stuck to the ideas of his Presbyterian heritage and the thermodynamic pessimism of 'heat death.' Kelvin's concept of the isolated system says to God: "KEEP OUT!" This exalts mathematics and means that God cannot put any

more energy into the universe. A Catholic sees that "With God all things are possible." The Catholic Church was founded by Christ to be on earth for Christ's return.

Keywords: Heat Death, Lord Kelvin, Second Coming, Carnot Cycle, Stephen Hawking, Isolated System, Burning Bush, Mathematics Thermodynamics

Aims and Scope

In thermodynamics, we see that the steam engine gave rise to the Carnot cycle with its efficiency W/Q .

$$W/Q = (T_H - T_C)/T_H$$

Where,

W = work extracted

Q = heat added

T_H = hot heat bath temperature

T_C = cold bath temperature

The heat flows from H to C.

Since T_C cannot be zero Kelvin, the efficiency is less than 100%. This is mathematically proven. Ultimately, scientists posit a 'heat death' where no work can be performed anywhere. Frautschi came up with a value of 10^{106} years as the end when all the black holes have evaporated, following Stephen Hawking's theory

Kelvin believed that only God could create or destroy energy. Mainly, it boils down to what God can or cannot do. Kelvin was a Presbyterian all his life.

The author of this paper is a Catholic convert looking forward to the life to come. I endeavor to explore whether the Catholic God is any different than Lord Kelvin's God. What seems to be the case is that Kelvin sees mathematics as ruling all, not data. The Catholic, such as Andre-Marie Ampere, sees the universe created and sustained by God.

Discussion 1

Essentially, Kelvin believes in the isolated system that can never become more orderly, because God created just so much energy in the beginning. In the Catholic Creed, Jesus comes to judge the living and the dead to wrap up history. Kelvin appears to reject the idea that God is involved with creation.

The Catholic believes in miracles and God a benevolent judge of mankind gathering all up in His dragnet. (Matthew 13:47) We need to think positive.

Discussion 2

There are two views of mathematics in science: 1) that math rules all or an effective theoretical treatment matters the most and 2) data is paramount, God-given and reproducible. My main point on Lord Kelvin is that he appears to favor the view that math rules. I believe Kelvin is hamstrung by his Presbyterian beliefs that actually limit God. The data is actually all- important.

In the Old Testament, there is Melchizedek (Hebrews 6:20-7:28), who has the power of an endless life and Catholic priests are ordained after the order of Melchizedek. Furthermore, there was the burning bush that Moses saw that shows that God can and will create energy. (Exodus 3:1-4:17) One of the most central Catholic teachings is everlasting life, which is in the Apostle's Creed. Eventually, Jesus Christ will return, triumphant over all evil, giving humanity eternal life. This is the Blessed Hope. In other words, 'heat death' is not the end for man, but life through Christ's blood. None of what I'm saying here precludes scientists thinking God's thoughts after Him. Mathematics is the language of science. In Jesus are all the treasures of wisdom and knowledge. (Colossians 2:2-3)

Discussion 3

What I would like to say here is a comment on the idea of the isolated system. It means there is no interaction from outside the boundaries. God is excluded. The thing about the burning bush is that Moses saw a miracle, like the miracles done by Jesus. Many scientists scoff at this.

However, there are Christian scientists. There must be something that will overcome the force of entropy at the end of time. Jesus has all authority in heaven and earth and will come to save us from death. God is not limited by anything. Mathematics helps man in becoming a co-creator with God to model the physical elements of matter.

Conclusions

What have presented here is the flaw in Lord Kelvin's philosophy. Being a non-Catholic limits Kelvin's picture of the Creator, especially in the idea of 'heat death.' Kelvin certainly does not see everything tending toward a benevolent end as Catholics do.

Note: This paper is meant to offer up ideas that contradict thermodynamics and the idea of the isolated system and will not have references, except for two. Scripture references are included in the body of the paper.

References

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