

## SCIENCE, REASON AND CONSCIENCE: A PHILOSOPHICAL JOURNEY FROM THE CHAIR TO THE CREATOR – 30

### "The Cell's Energy Dilemma: Continuous Intervention or Biological Mechanism?"

The dim light cast flickering shadows on the table as the Agnostic's question fell into the silence: **"But what about living beings?"** It was as if the conversation had suddenly shifted from the infinite rhythm of the stars to the very heartbeat of the Earth. The room grew still, deepening the moment. Outside, the evening breeze gently swayed the curtain, while a fresh wave of curiosity swept over everyone at the table. The mesmerizing flow of the cosmic order had now opened a door to the mysterious realm of cells and tissues. In that hushed anticipation, it felt as though the universe itself had paused for a fleeting moment, preparing to whisper its secrets. Then, the spark of wonder within us flared even brighter, calling us to explore the enigmatic world of life. And now, standing at the threshold of discovery, we are about to embark on a journey—one that will carry the delicate balance of the cosmos into our very veins, into the depths of our own cells.

**Believer:** What a great question! The energy requirement in living organisms is far more complex and demands continuous regulation. For instance, in our cells, a molecule called **ATP (adenosine triphosphate)** serves as the primary energy carrier. Every second, our cells produce and consume billions of ATP molecules. However, ATP is not a stable structure; once it releases energy, it converts into **ADP (adenosine diphosphate)** and must be regenerated back into ATP.<sup>1</sup>

**Deist:** Can't this transformation process be sustained through periodic support? In other words, wouldn't it be possible to renew this energy cycle at intervals rather than continuously?

**Believer:** If this process were only supported at intervals, there would be an imbalance between ATP production and consumption. Without a continuous supply of energy, cells would cease to function, muscles wouldn't move, nerve signals would stop, and life itself would come to an end. This energy cycle at the cellular level **REQUIRES an uninterrupted intervention at EVERY MOMENT.**<sup>2</sup>

**Atheist:** But processes like ATP production already function within a biological mechanism. Can't we see this as a system that was initially set up and then left to run on its own?

**Believer:** While that may seem plausible at first, the **law of entropy** comes into play here. The ATP energy cycle cannot sustain itself without an external energy source—it **must be continuously renewed**. The same principle applies to **protein synthesis**. Proteins are

constantly produced within our cells, and each production cycle requires a steady supply of energy.<sup>3</sup>

**Agnostic:** What exactly do you mean by protein synthesis?

**Believer:** Inside our cells, **ribosomes** produce **millions of proteins every second**. This process occurs with precise regulation at the **subatomic level**. Proper protein folding and flawless synthesis are essential for cellular functionality. If there is an energy imbalance in this process, protein synthesis stops, and cells lose their ability to function. According to the **law of entropy**, if the energy supply is not continuously replenished, ribosomes cannot maintain this production. If biological processes like ATP production and protein synthesis had simply been initiated and then left unattended:<sup>4</sup>

- **Energy would deplete rapidly,**
- **Cells would lose functionality,**
- **Life itself would come to an end.**

**Agnostic:** So, your argument is based on the **law of entropy**, correct?

**Believer:** Absolutely. The **law of entropy** states that systems naturally lose energy and tend toward disorder. If cellular processes operated solely on an initial supply of energy, that energy would quickly deplete, and these processes would come to a halt. However, our observations show that **energy production is continuously regulated every second**, ensuring the uninterrupted continuation of biological functions.

**Deist:** Does this mean that a creative force is actively present in biological processes as well?

**Believer:** Yes. From **ATP production** to **protein synthesis**, every biological process **depends on a continuously renewed energy source**. This cannot be explained merely by an initial setup—it necessitates **constant oversight and intervention at every moment**. It stands as one of the most tangible examples of a **Creator's ongoing involvement** in the functioning of life.

**Atheist:** So, you see the energy cycle in living organisms as a result of continuous intervention by a creator?

**Believer:** Scientific data does not support any other explanation. If processes like **ATP production** and **protein synthesis** were initiated once and left to operate on their own,

the system would collapse rapidly. However, life persists because of a **constantly renewed energy source**, which **scientifically validates the necessity of continuous intervention**.

**Deist:** But aren't these cycles **natural processes**? Don't they seem like mechanisms that started once and have been running ever since?

**Believer:** The **continuation** of these cycles cannot be explained solely by an **initially set-up mechanism**. According to the **law of entropy**, such processes naturally lose energy and **cannot sustain themselves indefinitely**. Without constant renewal, energy and order would **gradually diminish**, disrupting life cycles. Consider the following:

- **ATP production in our cells requires a continuous supply of oxygen**. If oxygen production were interrupted, **ATP synthesis would stop, leading to the end of life**.
- **The process of photosynthesis must remain uninterrupted**. If an energy disruption were to occur, **oxygen levels in the atmosphere would drop rapidly, making life unsustainable**.

Thus, these processes **are not self-sustaining**; they demand **ongoing input and regulation** to persist.

**Deist:** Then, isn't it possible that these cycles are **supported at intervals**? Couldn't the Creator be regulating these processes periodically rather than at every moment?

**Believer:** If these cycles were supported only at intervals, **there would be periods of imbalance in energy and matter**, making life unsustainable. For example:

- Even a **few minutes of disruption** in oxygen production would cause severe damage to living organisms.
- Similarly, any **interruption in metabolic energy supply** would lead to **the organism's death**.

This clearly indicates that **these cycles must be continuously regulated and monitored at every moment** for life to persist.

As the discussion deepened, everyone at the table fell into contemplation, carefully considering these explanations. The conversation was evolving into a broader inquiry-one that heightened their curiosity about the **intelligence behind the order of the universe**.

**Atheist:** Alright, but what about processes at the **subatomic level**-the **micro realm** beyond stars and biological systems? The **quantum world** operates not on strict order but on **probabilities**. Doesn't this suggest that continuous intervention is unnecessary?

**See you in the next chapter, God willing...**

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