## SCIENCE, REASON AND CONSCIENCE: A PHILOSOPHICAL JOURNEY FROM THE CHAIR TO THE CREATOR – 26

### "Questions Pour In, Flames Ignite: The Battle for Truth Begins!"

"If there is a reason to deny this power, state it. **But in the face of such evident order and continuity,** turning a blind eye to this truth would be a denial of our obligation to acknowledge reality, would it not?"

The final words of Believer reverberated through the walls of the room, leaving a profound silence in their wake. These words were not merely a challenge to the mind but also a direct call to the heart. Every thought in the room was stirred by the weight of those words. The Deist, immersed in deep contemplation, furrowed his brow slightly. While scrutinizing the logic of Believer, he was crafting a new response, carefully dissecting the possible weaknesses hidden within the statements.

The silence was like the calm before a storm. The tension that filled the room signaled that a door to profound thought was about to open. Everyone awaited the next word, aware of its potential to reshape the course of the debate.

At that very moment, Believer spoke again:

# "*Truth* is not solely grounded in scientific data. It reveals itself in the sincere inquiries of those with the courage to see clearly."

These words echoed once more before fading into silence. Yet, this silence was not a simple pause; it resonated deeply, carving lasting impressions in the hearts of the listeners. A faint smile at the corner of the Deist's lips hinted at a plan taking shape in his mind. He was preparing to expose the potential contradictions in Believer's arguments on a scientific foundation, determined to challenge the notion of "divine intervention" with rigorous reasoning.

The exchange unfolded like a mental chess game. Believer's composed and unwavering demeanor began to steer the direction of the debate. This was more than a clash of ideas; it was a battle where every thought was pushed to its utmost boundaries.

Now, the search for truth was entering its most arduous phase. Questions grew larger, and the interplay between "*faith*," "*science*," and "*reason*" was taking on a whole new dimension. Within everyone lingered a singular hope: Would the truth finally unveil itself?

#### "Truth" waits patiently. But what about you? Are you ready to face it?

**Deist:** According to what you're saying, the continued orderly functioning of the universe depends on the constant intervention of a creator?

# **Believer:** Yes, precisely. *Essentially, if the universe had been left to its own devices after an initial setup, it would have already reached its end due to the effects of the law of entropy.*<sup>1</sup>

Agnostic: Could you explain this more clearly and with scientific terminology, please?

Believer: At the moment of creation, the initial energy of the universe was in a state of low entropy-extremely organized and densely concentrated. These initial conditions are a clear indication of the meticulous plan of a deliberate will. Despite the operation of physical laws that naturally lead to disorder, the universe emerged in a state of remarkable order.

According to the Second Law of Thermodynamics, entropy increases over time, which causes energy to become more disorganized and, eventually, ineffective.<sup>2</sup> This process suggests that the universe's energy will ultimately reach a state known as "*heat death*."<sup>3</sup> However, **the fact that this order has not yet** "*immediately*" dissipated and that the increase in entropy is occurring at a "*slow pace" points* to the existence of a regulating force beyond physical laws.

Several factors help sustain the order and functioning of the universe, *slowing* down the increase in entropy. These factors can be scientifically explained as follows:

- 1. The Expansion of the Universe: The expansion of the universe reduces energy density, slowing the increase in entropy. The rate of expansion, defined by the Hubble constant, allows the universe to expand in a balanced manner.<sup>4</sup> The ongoing expansion orchestrated by the Creator ensures that the universe's equilibrium is maintained over extended periods.
- 2. Gravity and Structure Formation: The formation of galaxies, stars, and planets contributes to maintaining order in the universe. These structures, influenced by gravitational forces, preserve energy densities and prevent complete disorganization.<sup>5</sup>
- 3. Cosmic Microwave Background Radiation: The cosmic microwave background radiation, created after the Big Bang, represents the early energy of the universe. Throughout the expansion process, it facilitates the transformation of energy into less dense forms.<sup>6</sup>

Without these mechanisms-if the universe had been "*left on its own*" after its inception-entropy would have increased far more rapidly, and the universe would have descended into complete chaos in a very short time.<sup>7</sup> However, scientific observations reveal that this process is progressing quite slowly, and the universe still possesses organized structures and a dynamic energy system.

This delicate balance is the result of the continuous intervention of a Creator, transcending the physical laws of the universe.

Atheist: In your explanations, you combine scientific observations with faith-based interpretations. However, the concept of "divine intervention" involves an assumption that

cannot be tested through the scientific method. Doesn't this call into question the scientific validity and logical consistency of your statements? Including an untestable divine factor in a scientific explanation seems contradictory to the principles of science and logic, doesn't it?

**Believer:** My statements represent the perspective of a believer who is also a scientist. They do not conflict with science but instead integrate scientific facts with the idea of a creative will.

Science seeks to understand the workings of the universe by observing and measuring natural phenomena, while faith focuses more on the meaning and purpose behind existence. My explanations are grounded in scientific realities-such as the Second Law of Thermodynamics, entropy, and the expansion of the universe-and logically interpret these facts in a way that suggests the presence of a creative will.<sup>8</sup>

Throughout history, scientists like Isaac Newton and Max Planck have argued that science is a tool to comprehend the universe, serving as a means to uncover the order of a creative force. My perspective aligns with this tradition, combining scientific understanding with the idea of a purposeful design.<sup>9</sup>

Here are the scientific principles that underpin my statements:

- Entropy Increase: The Second Law of Thermodynamics, a universal law of physics, describes the increase of entropy, showing that energy becomes more disordered over time. This predicts a long-term decline in the universe's order.<sup>10</sup>
- **The Expansion of the Universe:** Edwin Hubble's observations confirmed that the universe is expanding, forming the basis for the Big Bang theory.<sup>11</sup>
- **Cosmic Microwave Background Radiation:** The residual energy from the Big Bang is observed as cosmic microwave background radiation. This phenomenon is tied to the decrease in energy density as the universe expands.<sup>12</sup>

This approach of drawing scientific and logical inferences from established scientific facts is consistent with the reasoning adopted by many scientists throughout history.<sup>13</sup>

- Logical Consistency: My argument proposes that the order in the universe and the increase in entropy are the results of a deliberate design. Rather than contradicting scientific facts, it aims to add a layer of meaning to them. Therefore, it does not involve an illogical premise.<sup>14</sup>
- Scientific Compatibility: My explanation accurately describes the functioning of physical laws. The idea of "divine intervention" is a perspective built upon scientific explanations and does not conflict with them.<sup>15</sup>

In this way, my interpretation seeks to bridge the insights of science with the broader implications of a purposeful design, offering a harmonious perspective that respects both disciplines.

- Deist: From our perspective, the Creator has designed "*natural mechanisms*" to counterbalance this decay. Take the human body, for example. Our cells are constantly regenerating, and our body repairs itself. Isn't this the result of mechanisms embedded by the Creator at the beginning?
- Believer: The human body indeed operates within a continuous cycle of renewal and repair, but we must not overlook that this process is inherently limited. As we age, the body's capacity for self-renewal diminishes, and eventually, death becomes inevitable. This biological reality demonstrates that wear and deterioration are intrinsic to these systems. Therefore, the initial design of the human body alone is not sufficient to maintain balance throughout life; ongoing regulatory intervention is required.

The energy necessary for sustaining human life is generated through metabolic processes and continuously consumed. However, **these processes are not confined to the sufficiency of the "initial" design.** Cellular regeneration, the body's capacity to repair itself, and the continuity of life cannot be solely sustained by the energy endowed at creation. Without continuous regulation, these energy resources would deplete rapidly, and life would end much sooner. The fact that human life persists for a certain period and ultimately concludes with aging demonstrates both the limitations of metabolic processes and the necessity of a regulating intervention for the sustainability of life.

A similar principle applies to the universe. The law of entropy dictates that all systems tend toward disorder and will eventually reach a state known as "heat death." This state represents the depletion of energy sources within the universe, rendering all systems inoperative.

**No matter how perfectly designed the universe was at the outset**, it cannot sustain itself indefinitely without being affected by these processes. To preserve the order of the universe and counterbalance the inevitable effects of entropy, the continuous intervention of a creative force is necessary.

- **Deist:** Perhaps there are natural mechanisms behind these processes that we have yet to fully comprehend...
- **Believer:** The law of entropy clearly demonstrates that no system can maintain its order without intervention. Yet, despite accepting this reality, you persist with expressions of uncertainty- "*maybe*," "*what if*," "*let's wait and see*." Such phrases do nothing more than divert attention from the core of the issue.

These decisive words deepened the silence in the room once again. The Deist stared at Believer, as if weighing their words, and took a deep breath. Yet, he remained silent. Believer picked up a pen from the table and began to twirl it between his fingers. This small gesture seemed to reflect his inner resolve and readiness to continue the discussion.

Believer: "If you seek the truth, keep questioning," he said slowly, lifting his gaze from the table to meet the eyes of those in the room. "But truth," he thought, "is hidden within the search itself; and the search leads the sincere to the truth."

His words-"*and the search leads the sincere to the truth*"-hung in the air like an echo. While they seemed to whisper a profound insight, they resonated in the Deist's mind as a challenge. A faint tension surfaced on the Deist's face. These words seemed to open a door in a way he hadn't noticed before; yet, behind this door, he sensed a threat to his own belief system.

Narrowing his eyes slightly, the Deist resolved to bring his thoughts to their final stage. He remained silent, but the subtle shift in his expression spoke volumes to everyone present. He was preparing his next move, knowing it needed to be presented with precision and impact. A faint smile appeared on his lips-a smile that only someone with unwavering confidence could wear.

Deciding that the silence had lasted long enough, the Deist shifted into a more relaxed position in his chair. **Deep down, he knew** <u>his plan</u> was progressing step by step. At this stage, however, he chose not to reveal his intentions. He moved with unhurried composure, exuding calm confidence.

Finally, he made his decision. In the next round, he would confront Believer's arguments directly, dismantling them one by one. He intended to show that the pursuit of truth requires not just faith but also the probing light of reason and science-putting it all to a true test.

Deist: It's my turn now...

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

<sup>3</sup> Carroll, S. M. (2010). From Eternity to Here: The Quest for the Ultimate Theory of Time. Dutton.

<sup>&</sup>lt;sup>1</sup> Hascoding. (2023, April 5). The Second Law of Thermodynamics: Entropy and the Heat Death of the Universe. Hascoding. Retrieved from https://hascoding.com/makale/fizik/termodinamin-ikinci-yasasi-entropi-ve-evrenin-isi-olumu-6514

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<sup>&</sup>lt;sup>2</sup> Penrose, R. (2016). *Fashion, Faith, and Fantasy in the New Physics of the Universe*. Princeton University Press.

<sup>&</sup>lt;sup>4</sup> Peebles, P. J. E., & Ratra, B. (2003). The cosmological constant and dark energy. *Reviews of Modern Physics*, *75*(2), 559–606. https://doi.org/10.1103/RevModPhys.75.559

<sup>&</sup>lt;sup>5</sup> Hawking, S. W., & Ellis, G. F. R. (1973). *The Large Scale Structure of Space-Time*. Cambridge University Press.

<sup>&</sup>lt;sup>6</sup> Smoot, G. F., & Scott, D. (2007). Cosmic Microwave Background. *Annual Review of Astronomy and Astrophysics*, *45*, 19–45. https://doi.org/10.1146/annurev.astro.45.051806.110505

 <sup>&</sup>lt;sup>7</sup> Penrose, R. (2004). The road to reality: A complete guide to the laws of the universe. Jonathan Cape.
<sup>8</sup> Behe, M. J. (1996). Darwin's Black Box: The Biochemical Challenge to Evolution. Free Press.

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<sup>10</sup> Penrose, R. (2016). *Fashion, Faith, and Fantasy in the New Physics of the Universe*. Princeton University Press.

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<sup>12</sup> Smoot, G. F., & Scott, D. (2007). Cosmic Microwave Background. *Annual Review of Astronomy and Astrophysics*, *45*, 19–45. https://doi.org/10.1146/annurev.astro.45.051806.110505

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