SCIENCE, REASON AND CONSCIENCE: A PHILOSOPHICAL JOURNEY FROM THE CHAIR TO THE CREATOR - 5

Summary of Previous Sections:

Three people with different beliefs (Believer, Agnostic, and Atheist) gather in a room and witness the formation of a chair. The atheist details the formation of the chair with scientific explanations, while the Believer argues that this perfect order is only possible by a master craftsman. The Agnostic remains neutral, stating that more evidence is needed. The Believer, who believes in a Creator, opposes the Atheist's scientific explanations and defends the existence of the Creator with simple examples. The Atheist, on the other hand, states that these examples are not enough to explain the complexity in nature and demands **scientific evidence**.

FIFTH CHAPTER: FOLLOWING THE TRAIL OF CREATION: THE MEETING OF SCIENCE AND FAITH

The Atheist paused for a moment in the face of the Believer's confident and determined demeanor. His sense of curiosity was pushing him to embark on this journey. Perhaps, as the Believer said, it was possible to build a bridge between science and faith.

The Believer had noticed the hesitation on the Atheist's face. Smiling, he said:

Believer: Don't worry, I won't try to force you to believe in anything on this journey. I just want to show you some truths. The rest will be your own decision.

Atheist (Who Does Not Believe in the Existence of a Creator): Okay. I am ready to embark on this journey with you. But you will need solid evidence to convince me.

The Believer nodded with a slight smile on his face.

Believer: Don't worry. Everything you will see on this journey will bring you one step closer to the truth. You said, "Trying to explain natural events with such simple and man-made events is neither correct nor scientific." There are scientific reasons for me to give such simple examples. First, using concretization and analogy[1] methods is an effective learning strategy for people to better understand abstract and complex concepts. These methods are supported by scientific research.[2] I am leaving the resources about this, as well as the Western and English sources you want, in the footnote. You can look at them.

Atheist: How so? Could you explain a little more? Believer: Of course. In science, examples called "artificial systems" or "man-made systems" refer to systems directly designed, built, or modified by human intervention. Such examples can also be thought of as a simulation[3] of an event. Simulations can help us understand natural events in a delicate order. Using simple examples from real life has a scientific basis and is based on a few main principles. I am sharing the scientific sources of these studies with you in the footnote again. You can refer to these sources.[4]

Atheist: Well, can you tell me with scientific data how these simple examples really help us understand complex natural events?

Believer: Of course. Simulations allow the modeling of complex processes and events that cannot be understood by direct observation. In scientific studies, simulations are widely used to understand and predict the behavior of complex systems. Simple real-life examples and analogies are also a type of simulation. For example, according to cognitive load theory,[5] simple and familiar examples make information processing less laborious and facilitate learning.

Using examples such as a pen drawing on a notebook or a doorknob being pushed down to open a door is quite common in science and has several important reasons. I will explain these reasons to you one by one and support them with English sources from Western scientists that you value so much:

1. **Concretization and Analogy:** Using concretization and analogy to make abstract and complex concepts more understandable is a scientific approach. Gentner and Markman's work[6] has shown how analogies help in understanding complex concepts. You can find the relevant sources in the footnote. This method allows new information to be associated with existing information and facilitates learning.
2. **Reducing Cognitive Load:** According to cognitive load theory, simple and familiar examples make information processing less laborious. John Sweller's studies on this subject[7] show that complex information can be understood more easily with simple examples. Therefore, explaining regular and sensitive natural events using a simple example makes learning more effective. Again, you can find the relevant sources in the footnote.
3. **Contextual Learning:** According to contextual learning theory,[8] information is better understood and remembered within a specific context. Real-life examples make information more meaningful and allow it to be associated with daily life. This also makes the learning process more effective.
4. **Neuroscientific[9] Support:** It has been proven by many neuroscientific studies that the human brain learns and remembers better with stories and sample events. Jerome Bruner's studies[10] have shown that people learn and remember information better in story format. This also proves that simple examples and analogies are effective learning tools.

Atheist: How does this happen?

Believer: Look, explaining that a simple pen cannot write by itself helps us understand that the delicate events in the universe cannot happen spontaneously. Simple examples from real life are also effective according to the contextual learning theory. Contextual learning argues that information is better understood and remembered within a specific context. Real-life examples allow people to connect information to their own lives and experiences, thus making learning more meaningful.

Atheist: But these are all learning theories. Is there any scientific evidence?

Believer: Of course. It has been proven by many neuroscientific studies that the human brain learns and remembers better with stories and sample events.[11] You can find examples of English sources from several Western scientists in the footnote. Jerome Bruner's studies have shown that people learn and remember information better in story format. Also, emotionally connected information is more permanent. Therefore, real-life examples and stories facilitate the understanding and remembering of complex concepts.

For example, imagine the doorknob slowly lowering and the door opening while you are watching TV in a room at two o'clock at night. This simple and familiar event creates an analogy for understanding seemingly complex events in nature. The brain tries to grasp more complex structures and processes through simple and familiar examples. Therefore, explaining that a simple pen cannot write by itself is an effective method that helps us understand that the delicate events in the universe cannot happen spontaneously.

The Believer's scientific explanations were deepening the discussion in the room. Both sides were defending their arguments, but they could not find common ground. The Agnostic was silently watching this heated debate, listening carefully to the arguments of both sides.

While the Believer defended the importance of explaining complex concepts with simple examples, the atheist claimed that these examples were not enough to explain the delicate order in the universe. The discussion went back and forth between scientific evidence and philosophical approaches.

Believer: After all these explanations, I want to ask you this:

You are still criticizing me for giving examples with man-made materials. However, **what is the difference between man-made materials and materials in the universe?** If I ask you the difference between tools such as a hammer and a ruler and atoms, you would agree that these materials do not have power and might, consciousness and will, providence, and dominion. Likewise, we know that atoms and molecules do not have these properties either.

Do these processes, which you call the laws of nature, have the ability, power and might, consciousness and will to do things? **Laws are just abstract concepts that describe how nature works in certain orders.** A law cannot do anything on its own; it just explains what's going on. In this case, if you cannot deny that the chair was made by a master, how can you deny the conscious power behind the delicate order in the universe?

How do these materials do these things? Let's forget about the chair, how did a being as perfect and delicately ordered as a human being come into existence? Is it enough to explain it only with atoms, molecules, cells, and systems that you call "complex"? Since we accept that these elements do not have the power and might, consciousness and will, providence, and dominion, how logical is it to expect such enormous works of art and perfectly ordered beings to emerge from them?

Just as we cannot answer anything if we deny the master of the chair, what shall we say if we do not accept a maker for the existence and functioning of every being in the universe? ***There are neither atoms, nor molecules, nor cells, nor systems that you call "complex," not even the laws of nature,*** **because none of them have the power and might, consciousness and will, providence, and dominion to do these things.**

We will either accept a maker, that is, a creator, or we will accept that every atom, molecule, cell, the systems you call "complex," and the laws of nature can act like a god. So this is accepting as many gods as there are atoms instead of accepting one god. How can this be logical and scientific?

Isn't it more consistent to think that there is a conscious organizer behind this order and complexity in the universe, within the framework of science and logic? This is not just a matter of faith, but also an approach compatible with reason and scientific thought.

Agnostic, at this point, decided to break his silence. He slowly got up from his chair and approached the other two.

Agnostic (Neither Believing Nor Disbelieving in a Creator): Friends, I want to bring a different perspective to this discussion.

The Believer and the Atheist were eagerly awaiting the Agnostic's words. The Agnostic took a deep breath and began to speak:

Agnostic: Believer, the examples you have given may be useful in explaining how events occur, but they leave some important questions unanswered. In particular, the difficulty of making definitive judgments about things we do not know or understand should be considered:

The example of the elementary school child and the opening of the door highlight the limits of our understanding. **When we cannot explain certain phenomena,[12] I do not conclude that these phenomena must be caused by an invisible and supernatural being. I advocate and believe that more information and research is needed. We may not understand a particular event now, but that does not mean we will not understand it in the future.**

Events such as a child's notebook being scribbled on or a door opening can be explained by natural causes. **Science works to explain the mechanisms behind such events.** For example, the fact that random lines were drawn by a pencil may be a process that we cannot make sense of with current scientific knowledge, **but this does not mean that we will not understand this process in the future.**

Your arguments advocate that there must be a creative power behind a certain order and complexity. However, I think that there is no definitive evidence for such a creator and that such claims are difficult to verify. Order and complexity can also be explained by mechanisms such as natural processes and evolution.

The arguments in Bediüzzaman Said Nursi's work "The Air (Hüve Nuktesi)" are used to support the belief in a creator. However, **I think that such metaphysical arguments are not verifiable. Staying within the limits of science and human knowledge, I believe in the need for more research and observation rather than making definitive judgments about the unknown.**

One of the basic principles of science is skepticism. The scientific approach requires constant questioning and research in order to test whether a claim is true or not. **Recognizing the difficulties of reaching definitive knowledge, I avoid making definitive judgments about the unknown. Rather than arguing that there is a creative power behind a certain order and complexity, I prefer to investigate how this order can be explained by natural processes.**

I think it is a more reasonable approach to accept that the order and complexity in the universe can be explained by natural processes and **scientific research**. It is more accurate to try to solve things we do not know or understand with more information and research, rather than making definitive judgments.

This unexpected outburst from the Agnostic had completely changed the atmosphere in the room. The Believer and the Atheist were listening carefully to the Agnostic's words, reconsidering their own thoughts. The discussion about the existence of the chair was no longer just a matter of faith, but also included deeper philosophical questions such as the limits of knowledge, skepticism, and the source of order in the universe.

After finishing his words, the Agnostic looked at the other two. There was both curiosity and a kind of challenge in his eyes.

Agnostic: "*What do you think about this?*" he asked.

As the silence in the room deepened, everyone was left alone with their own thoughts. The secret of the chair had now become part of a bigger puzzle, beyond just a piece of furniture.

What was the answer to this puzzle? How would the Believer and the Atheist answer the Agnostic's question? And what new thoughts and discoveries would these answers lead them to?

In the sixth chapter, we will seek the answers to these questions together.

TO BE CONTINUED (GOD WILLING)

SCIENCE, REASON AND CONSCIENCE: A PHILOSOPHICAL JOURNEY FROM THE CHAIR TO THE CREATOR - 6

I HAVE PARTICULARLY PREFERRED TO USE ENGLISH AND WESTERN AUTHORS' WORKS AS SOURCES BELOW. The reason for this preference is the unfortunately biased attachment of many people to **WESTERN AND ENGLISH SOURCES**. However, in Eastern sources and especially in our own works, there are works admired by Western sources. The works of Bediüzzaman Said Nursi's Risale-i Nur Collection, Imam Ghazali, Muhyiddin Ibn Arabi, Ibn Rushd, Ibn Sina, Ibn Khaldun, and many other valuable names prove this.

[1] **Analogy** is a powerful cognitive tool that helps generate new information, simplify complex subjects, or find creative solutions by identifying similarities between two different fields, concepts, or objects. Analogy methods include various approaches developed to reveal and use these similarities.
Analogy's Contribution to Scientific Knowledge:

- **Discovery of New Information**: Analogies can lead to new scientific discoveries by bringing together information from different fields. For example, the discovery of the structure of DNA was made possible by the analogy of a spiral staircase.
- **Simplification of Complex Subjects**: Analogies make complex scientific concepts more understandable and memorable. For example, the structure of a cell can be explained by comparing it to a factory.

- **Finding New Solutions**: Analogies help to generate new solutions by bringing together solution methods from different fields. For example, an engineer can develop new technologies by being inspired by designs in nature.
- **Facilitating Scientific Communication**: Analogies allow scientific information to be conveyed to the public in a more understandable way. For example, a scientist can explain a black hole by comparing it to the flow of water down a drain.

Analogy methods have a wide range of applications in many fields, from scientific research to education, from art to engineering. These methods both contribute to scientific knowledge and improve individuals' thinking and problem-solving skills.

[2] **Concretization and Analogy Methods:**

- Gentner, D., & Markman, A.B. (1997). Structure mapping in analogy and similarity. American Psychologist, 52(1), 45-56. https://doi.org/10.1037/0003-066X.52.1.45
- Gentner, D., & Smith, L.A. (2012). Analogical learning and reasoning. In K.J. Holyoak & R.G. Morrison (Eds.), The Oxford Handbook of Thinking and Reasoning (pp. 668-681). Oxford University Press.

Cognitive Load Theory:

- Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. Cognitive Science, 12(2), 257-285. https://doi.org/10.1207/s15516709cog1202_4
- Sweller, J., Ayres, P., & Kalyuga, S. (2011). Cognitive load theory. Springer.

Contextual Learning:

- Brown, J.S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. Educational Researcher, 18(1), 32-42. https://doi.org/10.3102/0013189X018001032
- Lave, J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. Cambridge University Press.

Stories and Sample Events:

- Bruner, J.S. (1991). The narrative construction of reality. Critical Inquiry, 18(1), 1-21. https://doi.org/10.1086/448619
- Schank, R.C., & Abelson, R.P. (1995). Knowledge and memory: The real story. In R.S. Wyer, Jr. (Ed.), Advances in Social Cognition (Vol. VIII, pp. 1-85). Lawrence Erlbaum Associates.

These resources support the scientific foundations and effectiveness of methods such as embodiment, analogy, cognitive load theory, contextual learning, and storytelling. These methods are accepted as effective strategies to ensure that complex concepts are better understood and learned.

[3] **Simulation**: It is a word of French origin and has passed into Turkish. Simulation is the act of animating or symbolizing an event or situation in a way that is equivalent to reality. It is a word with technical and non-technical meanings. For example, technical equipment used in industry or high-cost and risky devices such as airplanes can be learned to be used safely by people thanks to simulations created in a computer environment. This eliminates the stress effect of real experiences on people and provides a more efficient learning process. Simulations are a technique used in many fields today. From education to industry, from the health sector to transportation, simulations provide people with experience by imitating real-world processes.

[4] **Artificial Systems and Man-Made Systems:**

- Simon, H. A. (1996). The sciences of the artificial (3rd ed.). MIT Press.
- Wiener, N. (1965). Cybernetics or Control and Communication in the Animal and the Machine (2nd ed.). MIT Press.

Simulations and Complex Systems:

- Winsberg, E. (2010). Science in the Age of Computer Simulation. University of Chicago Press.
- Sokolowski, J. A., & Banks, C. M. (2009). Principles of Modeling and Simulation: A Multidisciplinary Approach. John Wiley & Sons.

Simple Examples from Real Life:

- Gentner, D., & Markman, A. B. (1997). Structure mapping in analogy and similarity. American Psychologist, 52(1), 45-56. https://doi.org/10.1037/0003-066X.52.1.45
- Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. Cognitive Science, 12(2), 257-285. https://doi.org/10.1207/s15516709cog1202_4

These sources explain the role and importance of artificial systems and simulations in science. They also show how the use of simple real-life examples is supported by scientific foundations such as cognitive load theory and analogy building.

[5] **Cognitive load theory** is a theory that explains how people's mental capacity is used during the learning process and the limits of this capacity. According to this theory, our working memory has a limited capacity,

and overloading this capacity during learning can make learning difficult. Cognitive load theory is an important theory that helps us understand the complexity of the learning process and create more effective learning environments. By taking this theory into account, we can maximize students' learning potential.

[6] Gentner and Markman's work includes important research showing how analogies help in understanding complex concepts. Here is information and sources about these studies:

1. **Gentner, D., & Markman, A. B. (1997). Structure Mapping in Analogy and Similarity. American Psychologist, 52(1), 45-56.**
    - In this article, Gentner and Markman discuss how analogical thinking and similarity structure are effective in understanding and learning concepts. It discusses how analogies help to establish structural similarities between two different domains and thus enable abstract concepts to be embodied.
2. **Gentner, D., & Markman, A. B. (2000). Structure Mapping in Analogy and Similarity. In Cognitive Science (pp. 363-381).**
    - This book chapter explains Gentner and Markman's analog and similarity matching theories in more detail. Here, the role of analogies in learning processes and how they provide knowledge transfer is analyzed in depth.
3. **Markman, A. B., & Gentner, D. (1993). Structural alignment during similarity comparisons. Cognitive Psychology, 25(4), 431-467.**
    - In this article, Markman and Gentner examine the importance of structural alignment during similarity comparisons and its impact on learning processes. How analogical thinking and structural alignment facilitate learning and comprehension processes is discussed in detail.

These sources represent Gentner and Markman's important work investigating the effects of analogies and similarities on conceptual understanding. Each resource details how analogies facilitate learning and enable understanding of abstract concepts.

[7] John Sweller's work on cognitive load theory shows that complex information can be understood more easily with simple examples. Here is information and sources about these studies:

1. **Sweller, J. (1988). Cognitive Load During Problem Solving: Effects on Learning. Cognitive Science, 12(2), 257-285.**
    - In this article, Sweller discusses cognitive load theory in detail and examines the effects of cognitive load on learning during problem-solving. It seeks answers to the question of how using simple and familiar examples reduces cognitive load and facilitates learning.
2. **Sweller, J., Van Merriënboer, J. J. G., & Paas, F. (1998). Cognitive Architecture and Instructional Design. Educational Psychology Review, 10(3), 251-296.**
    - In this study, Sweller and his colleagues examine the relationship between cognitive architecture and instructional design. It discusses how simple and familiar examples make learning complex information more effective and how cognitive load can be reduced.
3. **Sweller, J. (1994). Cognitive Load Theory, Learning Difficulty, and Instructional Design. Learning and Instruction, 4(4), 295-312.**
    - In this article, Sweller discusses cognitive load theory and the effects of this theory on learning difficulties and instructional design. Making complex information more understandable with simple examples helps to reduce cognitive load.

These sources represent John Sweller's important work on cognitive load theory and the findings of these studies on how complex information can be more easily understood with simple examples.

[8] Contextual learning theory is a learning approach that advocates that learning takes place within a social and cultural context. According to this theory, it is important to use information to solve real-world problems and make meaningful connections, rather than just memorizing it.

Examples of Contextual Learning:

- **Internships**: Internships, where students have the opportunity to apply theoretical knowledge in a real work environment, are an important example of contextual learning.
- **Project-Based Learning**: Project-based learning, where students work collaboratively to solve real-world problems, is an effective method that supports contextual learning.
- **Simulations**: Simulations, where students can experience real-world situations, are a valuable tool for contextual learning.
- **Community Service Projects**: Community service projects, where students try to find solutions to social problems, offer contextual learning opportunities.

Contextual learning is an effective approach that helps students learn information in a more meaningful and permanent way. This approach contributes to students' development of 21st-century skills and preparation for the future.

[9] **Neuroscience** is a branch of science that studies the nervous system and brain functions. Research in this field covers nerve cells, neural circuits, cognitive functions, emotional responses, and many more.

[10] Jerome Bruner has important work showing that learning and remembering in story format is effective. Here is information and sources about these studies:

1. **Bruner, J. S. (1966). Toward a Theory of Instruction. Cambridge, MA: Harvard University Press.**
    - In this book, Bruner discusses the basic principles of education and teaching and examines the structural foundations of learning. He discusses the effects of storytelling and sample events on learning and explains how stories are more effective in the learning process.
2. **Bruner, J. S. (1990). Acts of Meaning. Cambridge, MA: Harvard University Press.**
    - In this book, Bruner examines how people make sense of the world and process information. He discusses how storytelling plays an important role in the human mind's better understanding and remembering of complex information.
3. **Bruner, J. S. (1986). Actual Minds, Possible Worlds. Cambridge, MA: Harvard University Press.**
    - In this study, Bruner investigates how the human mind organizes and remembers information through storytelling. It shows how storytelling is a powerful tool in learning and memory processes.

These sources represent Jerome Bruner's important work examining the effects of storytelling on learning and memory. Each resource details how information presented in story format facilitates the learning process and makes information more permanent.

[11] **Learning with Stories and Sample Events:**

- Bruner, J. (1991). The narrative construction of reality. Critical Inquiry, 18(1), 1-21. https://doi.org/10.1086/448619
- Schank, R. C., & Abelson, R. P. (1995). Knowledge and memory: The real story. In R. S. Wyer, Jr. (Ed.), Advances in Social Cognition (Vol. VIII, pp. 1-85). Lawrence Erlbaum Associates.

Emotional Connection and Permanent Learning:

- Immordino-Yang, M. H., & Damasio, A. (2007). We feel, therefore we learn: The relevance of affective and social neuroscience to education. Mind, Brain, and Education, 1(1), 3-10. https://doi.org/10.1111/j.1751-228X.2007.00004.x
- Immordino-Yang, M. H., & Faeth, M. (2010). The role of emotion and skilled intuition in learning and decision making. In D. A. Sousa (Ed.), Mind, brain, and education: Neuroscience implications for the classroom (pp. 69-83). Solution Tree Press.

These sources support the effects of stories and sample events on learning and remembering, and the role of emotional connection on information permanence.

[12] The word **phenomenon**, which comes from the Ancient Greek word "phainomenon," means "thing that appears." Although it is used in different meanings in different fields today, its basic meaning is "observable event or phenomenon." In philosophy, phenomenon refers to everything we perceive and experience with our senses. In science, a phenomenon is any event, process, or phenomenon that is detected through observation or experiment. For example, natural events such as gravity, light, electricity, and magnetism are all phenomena. Scientists try to understand how the universe works by studying phenomena.