

Natural Science and Philosophy in Schopenhauer

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Abstract: This paper challenges Marco Segala's claim that Schopenhauer views natural science as "empty of philosophical content." Drawing on Schopenhauer's *The World as Will and Representation*, the study argues that natural science contains philosophical elements, particularly through its alignment with materialism. Segala posits that natural science, confined to empirical methods and sensory observation, cannot address metaphysical questions, while philosophy engages with "the thing in itself" (e.g., will). However, Schopenhauer identifies natural science as inherently linked to materialism, a philosophical perspective focusing on material phenomena and causality. For instance, scientific inquiry into physical objects and their interactions mirrors materialism's quest for fundamental matter, demonstrating how science embodies philosophical reasoning. The paper further contends that Segala overlooks Schopenhauer's emphasis on judgment—a cognitive faculty transforming sensory data into abstract knowledge—as central to both science and philosophy. Examples like Planck and Einstein's conceptualization of photons illustrate science's reliance on philosophical reflection. While Segala distinguishes science from metaphysics, Schopenhauer's notion of "cleverness" highlights shared abstract reasoning between the two. Scientific findings, such as Libet's experiments on free will, even contribute to metaphysical discourse by illuminating concepts like will. In conclusion, Schopenhauer's framework does not strictly separate natural science from philosophy. Instead, science incorporates philosophical content through materialist foundations and shared cognitive processes, challenging Segala's dichotomy.

Keywords: Schopenhauer, Natural Science, Philosophy, Materialism, Metaphysics.

1. Introduction

One of Schopenhauer's main concerns in his book *The World as Will and Representation* is the relationship between natural science and philosophy. In a recent study [1] on Schopenhauer's view of the relationship between natural science and philosophy, Marco Segala argues that, according to Schopenhauer, natural science lacks philosophical content. This paper challenges Segala's claim by demonstrating that Schopenhauer believes natural science contains philosophical content specifically aligned with materialism.

The discussion proceeds as follows. Chapter 1 quotes and explains Segala's claim about Schopenhauer, situating this claim within Schopenhauer's comparison between natural science and philosophy. Chapter 2 presents an objection to Segala, drawing on passages where Schopenhauer explains how natural science could be considered materialism. Chapter 3 considers a possible critical response from Segala to the objection, focusing on whether natural science investigates metaphysical entities or the "thing in itself." Chapter 4 addresses this response by arguing that natural science can generate metaphysical knowledge about will, representing the state of the "thing in itself" in Segala's framework.

2. Segala's Claim

The claim from Segala that I focus on concerns the idea that natural science is "empty of philosophical content", as he sees Schopenhauer make a clear distinction between scientific and philosophical knowledge. Segala does not provide a precise definition of "empty of philosophical content". Segala's use of "empty of philosophical content" suggests that he sees natural science as separate and lacking philosophical understandings. "Empty" may refer to the idea that scientific knowledge appears "mysterious" from a philosophical perspective. Therefore, the scientific methodology is a central topic in Book 1 of *The World as Will and Representation*

(abbreviated as *WWRI*), which is one of Schopenhauer's main discussions of natural science and its relationship to philosophy.

There is potential for misunderstanding the terms, "philosophy" and "science", in this context. Segala's use of "empty of philosophical content" in the phrase "science seen as empty of philosophical content" refers to philosophy in general, not specifically to Schopenhauer's philosophy. This is because Segala discusses how Schopenhauer defined the relationship between natural science and philosophy broadly.

Additionally, "science" in this context refers specifically to natural science, not social science. This is evident from Segala's discussion of how Schopenhauer defined the relationship between natural science and philosophy (*WWRI*, 51).

In *WWRI*, Schopenhauer examines the methodology of natural science and philosophy by appealing to representation. He states that his own philosophy starts from *representation* (*WWRI*, 47). For Schopenhauer, "representation" (German: *Vorstellung*), is similar to Kant's use (*WWRI*, 24). Representation refers to anything the mind experiences, including any form of knowledge and all external perceptions. He defines "representation" as comprising "two essential, necessary and inseparable halves...the first is the object, and the other half is the *subject*" (*WWRI*, 26). Schopenhauer argues that natural science focuses on objects, beginning its inquiries with "particular *object[s]*" such as "chemical properties" and "animals" (*WWRI*, 52). This stands in contrast to philosophy, which, he suggests, may approach inquiry from either the subject or the object (*WWRI*, 47). Schopenhauer further contends that philosophical approaches that focus exclusively on objects lead to materialism, which is a perspective that emphasizes only material phenomena (*WWRI*, 50). Thus, he illustrates that both scientific and philosophical inquiry can be constrained when limited to the study of matters alone.

While both philosophy and natural science can focus on

objects, Segala argues that natural science lacks philosophical understanding due to its methodology. Natural science relies on empirical methods such as scientific experiments, “limiting its investigations to experiences”. Philosophy, in contrast, engages in metaphysical inquiry and relies on reflection rather than observation. For Segala, “experience” here means knowledge gained through sensory observation, which limits natural science to studying only the physical world. This creates a “border between philosophy and science” that scientists cannot cross. According to Segala, natural science’s reliance on experimentation and empirical observation limits its ability to understand the metaphysical aspects of its discoveries. In other words, natural science does not address non-empirical questions, whereas philosophy does. For Segala, this difference in methodology shows that natural science cannot provide profound philosophical insights.

It’s important to clarify the term object, as readers may otherwise misinterpret it as a simple physical item rather than as a philosophical concept referring to anything that is perceived or observed. Schopenhauer distinguishes the *object*, “whose form is space and time” and exists in multiplicity (WWR1, 26), from the *subject*, which is “the seat of all cognition” but remains unknowable to us (WWR1, 25). He argues that our cognitive limitations prevent us from accessing objects as they truly are, suggesting that the subject exists beyond cognition and gives rise to objects. For Schopenhauer, *objects* exist only through their connection to the subject, making them inseparable as representations that we perceive in a spatiotemporal context. Therefore, we can take Schopenhauer’s term *objects* to mean appearances we perceive in a spatiotemporal context, like bodies or stones, while the *subject* is a prerequisite for these appearances-existing beyond the limits of our cognition and independent of space and time.

In summary, Segala claims that natural science is a form of knowledge lacking philosophical understanding. For example, when scientists and philosophers both study the brain, scientists examine the brain’s physical processes through experiments, measuring neural activity and chemical reactions, while philosophers explore questions about the nature of consciousness itself, such as whether it could exist independently of the physical brain.

3. Objection

Segala may be correct that some scientific investigations require philosophers’ input to generate philosophical understandings, aligning with Schopenhauer’s view of the relationship between natural science and philosophy. However, I argue that Segala’s claim about natural science being separate and unable to generate philosophical content due to its methods is mistaken.

The reason I believe Segala is wrong is that Schopenhauer presents natural science and philosophy as interconnected, especially in his critique of materialism in *The World as Will and Representation* (WWR1). He argues that “considered as philosophy, natural science would be materialism” (WWR1, 51). Materialism, according to Schopenhauer, is a philosophical perspective regarding “everything in material” (WWR1, 50), seeking to identify the most fundamental form of matter. It overlooks the existence of the subject, which may be unknowable to humans (WWR1, 50).

Some may misinterpret Schopenhauer’s criticism, thinking that materialism, due to its focus on the material world, does

not count as philosophy. However, Schopenhauer views materialism as a philosophical approach. He states that for different philosophies that focus on *objects*, materialism is “most consistent” (WWR1, 49). This explains Schopenhauer’s position. Although natural science and materialism are limited in generating philosophical insights due to their focus on matter. However, natural science shares similarities with materialism, which Schopenhauer regards as a philosophical approach.

Schopenhauer’s statement might be misinterpreted as reducing natural science to either materialist philosophy or philosophy in a broader sense. However, he is merely highlighting a similarity: Schopenhauer emphasizes that natural science and materialism both start from the study of “particular *object* as problem” and focus on causality between *objects* (WWR1, 52). In addition, the goal of natural science is closely aligned with materialism, where “the basic aim and ideal of all natural science is fully realized materialism” (WWR1, 51). Scientific research on the material world may serve as a form of materialist philosophical analysis. His statement that natural science is not separate as it contained materialist philosophy.

For example, when scientists study the body, they treat it as a physical object. They focus on processes like cell growth and how organs function based on cellular activity. This approach aligns with materialism because it seeks the basic building blocks of life through observable causes. This example suggests that natural science is not separate. It includes philosophical understanding by adopting a materialist view that we could explain the relationship between matters through causality.

Furthermore, science encompasses more than just experiments and empirical observations. Schopenhauer argues that judgment, which is the ability to transform sensory information into abstract concepts, is essential for all types of scientific inquiry. This is supported by his statement that “judgements are indeed to science what the sun is to the world” (WWR1, 90). Schopenhauer writes that “the task of judgment [is] the faculty of translating intuitive cognition (direct sensory knowledge) into abstract consciousness (conceptual thinking), acting as a mediator between understanding and reason” (WWR1, 90). This indicates that scientific work, beyond empirical observation and data collection, also involves reflective synthesis, transforming empirical experiences into structured, abstract knowledge.

For example, in quantum mechanics, Max Planck and Albert Einstein’s reflections on the nature of light led to the concept of photons, illustrating that light can act as both a wave and a particle [2]. This required challenging existing ideas and carefully analyzing data that contradicted classical theories. Science can involve philosophical reflection.

Segala’s claim that science and philosophy are distinct overlooks Schopenhauer’s view that science, seen through a philosophical lens, can align with materialism. Both science and philosophy engage in reflection to pursue knowledge. Segala does not acknowledge that scientists, like philosophers, use judgment to form abstract knowledge. Thus, contrary to Segala’s position, Schopenhauer suggests that science involves philosophical content and cannot be entirely separated from philosophy.

4. Potential Critical Response to the Objection

Segala might counter my objection by clarifying that I have misinterpreted his claim. Rather than asserting that science lacks all philosophical content, he argues that scientific investigation and theories cannot directly confirm metaphysical concepts.

This interpretation aligns with Segala's view that "science speaks a language different from that of metaphysics and requires translation". He argues that "it is inconceivable that scientific evidence and theories would confirm a metaphysical conception regarding the thing in itself". This distinction is crucial, as Schopenhauer clarifies that *objects* including empirical experiences are not "things in themselves" (WWR1, 53). Segala argues that science's focus on empirical experiences and matter does not encompass "the thing in itself." He contends that Schopenhauer considers metaphysical entities such as *will* as "the thing in itself". If natural science follows Segala's idea with only limited investigation about experience, then natural science cannot access metaphysical conception regarding "the thing in itself".

Segala's focus here is on the relationship between scientific findings and metaphysical concepts, rather than on the broader philosophical relevance of natural science. In this context, his term "empty of philosophical content" likely refers specifically to the absence of direct metaphysical insights in scientific discoveries, not to a lack of overall philosophical significance. This interpretation suggests that my initial assessment may have been too broad, conflating natural science's relationship to philosophy in general with its specific connection to metaphysical knowledge [3].

For example, Segala references Schopenhauer's argument in WWR I that terms like "force" and "natural law" are ultimately labels for phenomena we do not fully understand [4]. Schopenhauer argues that "all matters as representation of the *object*" (WWR1, 50). Science may identify forces such as gravity, yet philosophy looks beyond these labels in search of a deeper understanding. "Force," as Schopenhauer argues, is merely *representation*; it is not "a thing in itself", but a concept we use to describe natural laws (WWR1, 43). This example underscores the philosophical gap science alone cannot bridge, supporting Segala's view that natural science, while meaningful, does not address metaphysical inquiry.

Segala might respond to my objection by clarifying that when he describes science as "empty of philosophical content," he refers specifically to science's limits in producing metaphysical insights directly. According to Segala, science's empirical methods are confined to studying empirical experiences, whereas metaphysical inquiry explores principles beyond this scope. Thus, science may engage with philosophical ideas, but its focus remains distinct from metaphysics, which seeks different types of understanding. This distinction would allow Segala to argue that, while science has philosophical understandings, it does not reach the metaphysical depth needed to go beyond empirical knowledge.

5. Addressing the Critical Response

One possible misunderstanding of my argument is that I am suggesting natural science and philosophy are identical in purpose and method. However, my claim is not that science fulfills all philosophical roles but that it possesses philosophical content and overlaps with philosophy in its

pursuit of abstract understanding [4].

While Segala distinguishes between science and metaphysics, Schopenhauer's views suggest a more nuanced relationship. Schopenhauer's concept of "cleverness" implies that science, like philosophy, employs abstract reasoning to develop meaningful insights. Schopenhauer states that "*cleverness*" is "responsible for all scientific discoveries". He states, "Strictly speaking, *cleverness* refers only to the use of the understanding in the service of the will. But the distinction between the two concepts cannot be sharply drawn" (WWR1, 43). This suggests that science and philosophy share common ground in their ability to create enduring, abstract knowledge.

Moreover, scientific studies can provide insights into metaphysical concepts. According to Segala, Schopenhauer considers the "will" as the "thing in itself," a fundamental concept in metaphysics. For instance, Benjamin Libet's experiments on brain function reveal neural activity related to decision-making occurring before conscious awareness, challenging the traditional understanding of free will. This demonstrates that science can contribute to our understanding of abstract concepts and metaphysical ideas, contrary to Segala's view [5].

In conclusion, Segala may underestimate the philosophical depth of scientific inquiry. Scientists, like philosophers, use abstract reasoning to produce knowledge about fundamental aspects of reality, including the *will*. Therefore, natural science is not devoid of philosophical content but rather contributes to our understanding of abstract concepts and metaphysical ideas.

6. Conclusion

This paper has argued against Segala's claim that natural science lacks philosophical or metaphysical content. The argument is based on Schopenhauer's position in *The World as Will and Representation*, where he suggests that natural science uses and includes materialist philosophy. Moreover, natural science and philosophy share methods such as judgment and reflection, enabling scientific investigation to produce knowledge with metaphysical implications. Thus, Schopenhauer's view does not support the strict separation between natural science and philosophy that Segala proposes. Science is not a separate entity; it encompasses philosophical concepts as well.

References

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