

**RESEARCH PAPER****A Critical Examination of Scientism and its Implications****Dr. Muhammad Rasheed Arshad**

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ABSTRACT

The idea of scientism and the problems that surround it are examined critically in this study. Scientism, the belief that the scientific method and its findings are the only reliable path to knowledge, has received a lot of attention in contemporary debate. Even if science unquestionably offers insightful knowledge about the natural world, accepting scientism at face value has detrimental implications on epistemology, ethics, and society as a whole. To analyse and assess scientism, a qualitative research design was used. Relevant documents, academic works, and philosophical literature were examined to provide context-rich understanding. The results of the investigation showed that scientism undermines marginalises alternate forms of knowledge, demolish traditional ethics and humanistic values. These results demonstrate the drawbacks and negative effects of scientism. It is crucial to adopt a more inclusive and balanced approach to epistemology, ethics and ontology embracing insights from philosophy, religion, and the humanities alongside scientific contributions.

Keywords: Scientism, Epistemology, Ethics, Humanistic Values**Introduction**

In contemporary scholarly discussions, scientism is a controversial issue. Scientism, which is a viewpoint that regards only science, the scientific method, and the knowledge derived from it as valuable and central, is now a target of philosophical criticism. According to scientism, scientific knowledge is the sole source and method for understanding the mysteries of the universe, and it is through this knowledge that the universe and all its creatures and their affairs can be better understood and shaped. It posits that the only way to access reality is through science, and it considers all other forms of inquiry and knowledge as either secondary or non-existent.

Although the importance of scientific achievements is undisputed, science has revolutionized our understanding of humanity, both internally (the self) and externally (the universe). Moreover, the world has transformed significantly due to new technological inventions. However, uncritically praising science without subjecting it to a critical phase at the epistemological level has harmful effects and warrants close scrutiny. Considering the scientific method as the sole source of knowledge essentially confines other sources of knowledge and areas of human curiosity within a small box. The detrimental effects of scientism are not limited to the laboratory; they extend to epistemology, ethics, education systems, and social values.

Literature Review

According to philosopher of science Tom Sorrell scientism is a belief that implies that science, particularly natural science, is the most important and fruitful aid in the human learning process (Sorrell, 1991). Therefore, it should be regarded as more credible and authoritative compared to non-scientific fields. In other words, when organizing different sources of knowledge on a preferential basis, the knowledge obtained through the scientific method should be placed at the top. In the context of scientism, science is the sole criterion

for truth, validity, and reasonableness. This tendency is divided into two groups based on intensity: weak scientism and strong scientism. Weak Scientism is form of scientism that acknowledges, to some extent, other means of accessing truth. It accepts that there are alternative sources of knowledge, albeit often considering them secondary to scientific knowledge. On the other hand, Strong Scientism completely refuses to accept any other means of obtaining knowledge apart from science. It views scientific knowledge as the only legitimate and credible form of knowledge. Even weak scientism tends to support the idea of bringing other fields of knowledge under the umbrella of science in some possible way, thus maintaining the dominance of scientific methodology in all areas of inquiry.

In his book *Scientism and Secularism: Learning to Respond to a Dangerous Ideology*, Moreland challenges scientism and the effects it has had on society. He contends that science is not the only means to truth and knowledge, and provides suggestions for reconciling faith and science. Moreland also challenges the fact/value split in our culture and the book has been well received by academic philosophers and theologians on this count (Moreland, 2018).

Rupert Sheldrake also challenges the dogmas of scientific materialism in *The Science Delusion* showing that while what constitutes science is narrow, and the practice of science in many quarters has become constrained by assumptions that have hardened into dogmas. (Sheldrake, 2012).

Fredrick A. Olafson in his book *Naturalism and the Human Condition: Against Scientism* argues that scientism is intellectually defective because it fails to acknowledge the depth and diversity of the human experience. Olafson contends that naturalism, which is the belief that all phenomena can be explained by forces inherent in the natural world, is insufficient to explain the situation of humanity (Olafson, 2001).

Material and Methods

A qualitative research design was used throughout the writing process to investigate and evaluate the idea of scientism and the problems that surround it. Comprehensive examination of scholarly works, philosophical texts, and pertinent documents yielded additional insights and a contextualised knowledge of scientism and its consequences. The study endeavoured to reveal the underlying meanings, interpretations, and consequences of scientism as expressed in the literature, employing an interpretive methodology.

Results and Discussion

A theoretical framework for understanding the phenomenon of scientism and its complex repercussions is presented in this section. It seeks to clarify the essential ideas and tenets of scientism by philosophical investigation and critical analysis.

Scientism is the belief and promotion of the idea that true knowledge of reality is only possible through the natural sciences. It prioritizes scientific knowledge as the most authentic and views all other forms of human knowledge through its lens. This notion has become widespread among the general public. As a result, people tend to uncritically trust 'science' and anything labelled 'scientific.' Popular magazines often publish new scientific research results with instructions for their application to human life and society. Readers often accept these instructions as definitive and accurate knowledge without any critical review, integrating them into their thinking.

In many schools and colleges, scientific ideas are pervasive. The curricula are often designed in such a way that scientific theories are instilled into the minds of students almost like a belief system. If a student expresses reservations about a scientific theory due to their religious or philosophical inclinations, they are usually dismissed with the explanation that

while their previous beliefs are respected, the institution's responsibility is to impart the current, widely accepted theories impartially. This gradually creates a classroom environment where science is seen as the central source of all credible knowledge. Religious or philosophical discussions are relegated to subjective and personal pursuits and are often ignored. Moreover, scientific terminology is often supplemented with attractive and compelling words that leave a lasting impression on students' minds, gradually turning them into proponents of scientism. This approach reinforces the notion that only science provides valid and reliable knowledge, while other forms of inquiry are considered secondary or irrelevant. This indoctrination can lead to a narrow worldview, limiting students' ability to appreciate and engage with diverse perspectives and ways of knowing.

The concept of scientism, which promotes the idea that scientific knowledge is superior to all other forms of knowledge, is a dominant notion of the contemporary era. Originating from the West, this concept has spread worldwide. When individuals enter modern institutions that operate according to Western systems of life, they inevitably come under the influence of scientism, which is deeply ingrained in these institutions.

Most of the concepts promoted under scientism are now widely accepted, and no one considers them dangerous. These concepts are directly or indirectly harmful to the foundations of our culture and religion. The primary objective of scientism is to invalidate religion and its teachings and exclude them from daily life. Scientistic ideas have embedded themselves deeply in the subconscious of the public, influencing their perceptions, observations, vision, hearing, and behaviours. These ideas have created a framework where anything that does not fit within it is considered questionable in terms of validity.

Their dissemination occurs through platforms accessible to nearly everyone, allowing this ideology to reach even the hidden corners of society. Now, authentic knowledge is often associated with indicators that prove the involvement of the scientific method in the source of knowledge. For example, to successfully market a product, scientific evidence of its effectiveness is presented to solidify consumer confidence. In this consumerist era, when science provides every convenience, people tend to distance themselves from religion. All matters and relationships in human life are now determined by the principles of consequentialism and utilitarianism, with better results achievable in the light of scientistic ideas.

One of the objectives of scientism is the immediate gratification of modern human desires. Simultaneously, a significant change has occurred in the field of ethics, resulting in a modern moral crisis. The concepts of humanity introduced by modern sciences and the associated ethical theories have disrupted social cohesion. The traditional ethical triangle included the source of moral standards and meaning (authority), the context of performing moral actions, and accountability to divine commands. The distinguishing feature of this triangle was the centrality of the transcendent God, with all three components inherently connected. Due to the divine authority at the top, the lower two components could not conflict or contradict each other.

The scientific concept of the universe has, from its inception and especially since the Industrial Revolution, gained widespread popularity among the public in numerous ways. Observing Western intellectual history, it becomes evident that science has successfully asserted its influence. The inevitable outcome of successful scientific knowledge and motivations has been the establishment of a successful and impactful scientific concept of the universe.

However, since the second decade of the twentieth century, when science, through the medium of technology, reached the pinnacle of its influence, it has also encountered numerous problems. Proponents of scientism believe these are minor issues that can be resolved with better research. However, we believe that these are stains on the fabric of

science. More concerning is that the proponents of scientism hold the view that science either already understands the mysteries of the universe or is successfully striving to do so. They maintain the belief that, in principle, only science has the capability to uncover the secrets of the universe. This unwavering confidence in science's ability to explain everything reflects a limited perspective that overlooks the potential contributions of other forms of knowledge and understanding.

Contemporary science firmly believes that the ultimate and eternal reality is material. This belief forms the foundation of modern science. According to this perspective, human consciousness is merely an additional byproduct of the functions of the material body; reality is matter, and matter lacks consciousness. The evolution occurring in the universe is purposeless, and the existence of God is, God forbid, nothing more than a concept in the human mind. The philosophy and methods of the nineteenth century propel this certainty-based scenario of contemporary scientific consciousness. Firm faith in materialism reduces all phenomena to simple physical processes and ignores the spiritual and metaphysical aspects of existence, so missing the potential depth and complexity of human experience, consciousness, and the world.

When examining the claims of scientism at the epistemological level, several flaws become apparent. In the discussion of epistemology, issues related to the reductionism associated with scientism and the outright denial of subjective experiences stand out.

When examining the prevalent scientific methodologies within scientism, a central inclination towards reductionism becomes apparent. Reductionism aims to simplify complex phenomena by initially presenting them in their simplest form and subsequently interpreting them in light of the principles of their constituent parts and the laws of physics. In reductionism, the prevailing assumption is that any complex system can be easily understood by breaking it down into its constituent parts, and in this process, other features that may also influence the nature of the system are often overlooked or deemed irrelevant. While reductionism plays a significant role in scientific endeavours from the perspectives of utilitarianism and consequentialism, its application to other disciplines often distorts the understanding of reality.

Many complex human phenomena, such as consciousness, transcend the reach of reductionist scientific theories. Reductionism often simplifies reality by focusing solely on the empirical aspects of knowledge, thereby neglecting the holistic understanding of the universe. Moreover, reductionism tends to oversimplify the complexity of human existence, reducing it to mechanical processes and disregarding its intricacies.

This reductionist perspective gives rise to a unique religion of science with certain beliefs as follows:

- Everything has a mechanical basis. All living beings are bound by the system of mechanism, to the extent that humans are also, in Richard Dawkins' terminology, "lumbering robots."
- The eternal and infinite reality of the universe, i.e., matter, is non-sentient, devoid of life and subjectivity. To the extent that human consciousness is also an illusion generated by the activities of the human brain.
- The total quantity of matter and energy remains constant. (This principle does not apply before the Big Bang event, as it marks the moment when matter and energy suddenly appeared in the universe).
- The laws of nature are fixed and determined. They have remained the same from eternity and will continue to do so indefinitely.

- Nature is purposeless, and there is no predetermined destination or direction for evolution.
- All biological heritage is genetic and consists of material structures.
- Mind is Brain Activity: The mind is a product of brain activity.
- Memory is a material imprint stored in the brain, which disappears upon death.
- Manifestation: What appears incomprehensible in the cosmic manifestation is merely an illusion.
- Medicine produced based on mechanical principles is effective.

Coming together, these beliefs reinforce the philosophy of materialism, whose central claim is that every aspect of existence, including the mind, is materially real. This material conception of reality, which gives rise to the issue of worldly attachment, is another problem which required separate consideration.

Roughly for the past two centuries, materialists have been claiming that science, through the mediums of physics and chemistry, will provide explanations for everything. Science will demonstrate that every living thing is merely a complex machine, consciousness is nothing but the physical activities of the brain, and nature is embarking on a purposeless, aimless journey. However, despite all its achievements and endeavours, science is now facing criticism of a kind not seen since the 20th century. In the 1960s, Francis Crick and Sydney Brenner attempted to resolve two vital biological issues—development and consciousness—on the basis of materialist principles. Despite years of effort, they remained unsuccessful in explaining life and consciousness purely on materialistic and chemical grounds. Even in contemporary research aimed at understanding the mind and human consciousness, unanimity among thinkers is not found. Some individuals in this field regard the experience of consciousness as a complex issue and advocate that the elucidation of human consciousness is impossible under mechanical principles. Materialism's measure in biology and psychology is now experiencing a decline.

With increasing confidence in physics since the past century, the question arose: Can physics guide humanity? In this context, some materialists prefer to label themselves as physicalists and assert that their hopes are linked to modern physics, not the materialist theories of the nineteenth century. However, the fact is that the credibility of physicalism is in doubt, for four reasons:

- Some physicists adopt the position that without considering the human mind as an observer, no definite statement can be made about quantum mechanics. Furthermore, the human mind cannot be reduced to a physical entity (d'Espagnat, 1976).
- The beliefs of materialism and physicalism are supported in modern times by theories such as String Theory and M-Theories. Stephen Hawking makes an interesting observation in his book *The Grand Design* regarding the ambiguity around the meaning of the letter "M" in some settings, suggesting that it may stand for "master," "miracle," or "mystery." Hawking presents the idea of "model-dependent realism," which postulates that different theories may need to be applied according on the situation. As long as these theories produce consistent predictions when their domains overlap and can be applied concurrently, then each theory may provide its interpretation of reality within this framework (Hawking & Mlodinow, 2010). However, both these theories are not testable under the principles and regulations of science. Physicist Lee Smolin discusses the unstable foundations of materialism and physicalism (Smolin, 2006).
- From the beginning of the twentieth century onwards, it has become clear that the well-known forms of matter and energy constitute only about 4 percent of the universe. The rest is challenging to detect, known as "dark matter" and "dark energy." Ninety-six percent of physical reality is, in fact, dark (Sheldrake, 2013).

- The cosmological anthropic principle claims that if the laws and constants of nature were different at the time of the Big Bang, life as we know it would never have existed, and thus, we would not be here to contemplate it. Did a divine mind intervene at the beginning and set the laws and constants right? To prevent the appearance of a Creator God in a new guise, most proponents of cosmology prefer to believe that our universe is just one of a vast, and perhaps infinite, number of parallel universes, each with different laws and constants, as suggested by M-theory. We exist only in the universe where the conditions are suitable for us (Carr 2007).

When we examine naturalistic ethics, it appears in stark contrast to traditional ethics. There is no notion of anything supernatural beyond existence, no established criteria for good and evil, and no determination of the spiritual significance of human actions. Instead, we see a promotion of consequentialist views and techniques that can merely provide the means for survival in the competitive world of human beings (Grief, 2023). As far as the context of the consequences of actions is concerned, it seems cut off from historical currents because its focus is not on overseeing post-natural reality. If there is any criterion for contemporary ethics, it is merely that an action will be considered ethical as long as it does not cause harm or suffering to others in any way, and within those limits, a person can exercise their freedom in action. The inevitable result of such freedom of thought is often seen in moral decay. According to modern ethical theories, actions that are extremely repulsive also become permissible (Gordon, n.d.)

Since physicalists outright deny the existence of any supernatural being as the source and foundation of moral principles, they believe that the source and meaning of moral principles lie elsewhere (Mendola, 2014). Different thinkers from this group have identified various sources. For example, according to Karl Marx, the dialectical system at work in history determines the standards of good and evil (Kain, 1991). Existentialists, particularly Jean-Paul Sartre, believe that individuals can determine moral standards through their own free and autonomous decisions (Botha & Freeman, 2023). Thinkers like B.F. Skinner and Francis Crick argue that specific trained individuals can establish moral standards (Rocha & Brunkow, 2023). Contemporary physicalists have left the responsibility to individuals to decide for themselves what is right and wrong.

Epistemological shifts have gradually influenced ethics since the medieval era. Thomas Aquinas mentioned two metaphysical realms: natural nature (nature) and grace. According to him, natural nature can be known through the application of our five senses and reason (Kalkavage, 2022). However, there is a reality beyond this natural nature that can only be known through divine revelation, which falls under the realm of grace. Thus, divine laws apply to grace, while natural laws apply to natural nature. Aquinas' establishment of this duality introduced a new concept into later Western thought. Grace, under divine laws, is known through revelation, while natural nature, under natural laws, is known through senses and reason. In everyday moral actions, Aquinas gave fundamental importance to human reason. The need for the guidance of revelation arises in carrying out spiritual activities beyond daily routines.

Newton's physics, by promoting a mechanical view of the universe, also influenced ethics. Regardless of Newton's personal beliefs, the results derived from his physics rendered the existence of God, divine power, and the accountability of human actions meaningless in the external objectivity (Griffin, 2008). Later, in Kant's philosophy, there is a concept of autonomous reason. When Kant defines enlightenment based on this concept of reason, he encourages the notion of human beings as free and autonomous entities. According to him, human reason is the most superior guide for ethics (Kant, 1784/1992).

Although our stance is clear that the determination of the morality of actions belongs solely to the Supreme God. Only God can bestow the meaning of goodness upon any action.

In Plato's ethical conception, hidden under the veil of naturalism, the standard of the morality and goodness of actions is not determined by the essence of God but rather exists beyond God. God merely enforces the commands of these actions. In this sense, the essence of God appears to be irrelevant. On one hand, Plato opposed the relativism and subjectivism stemming from the Sophist school of thought, which gave the individual the authority to determine standards; on the other hand, Plato handed over the same authority to humans in ethical decisions. He also separated ethics and the essence of God. In Plato's conception of ethics, the Good can be comprehended by an autonomous human being through the use of reason, without the need for divine revelation or guidance (Irwin, 2020). From this perspective, although Plato affirmed the existence of God, he sowed the seeds of ethical concepts that have grown into the towering tree of physicalist ethics.

In secular thought, the concepts of "progress" and "moral progress" are filled with contradictions. Modern biological science views humans merely as animals driven by instinctive desires, yet simultaneously considers them as civilized beings guided by reason. Despite these contradictions, the widespread popularity of the concept of progress suggests that the faith associated with progress is irrational. According to the theory of evolution, the concept of humanity and the ensuing concepts of life show that humans, driven by their animal instincts for survival and compelled by their genetic makeup, are nothing more than helpless animals in the competitive race for existence. According to this theory, there is no such thing as human nature. All moral values and qualities of human life are merely strategies of adaptation and conformity that have emerged over time through natural selection. This notion, that human qualities are determined and fixed by the genetic system, leads to a specific kind of determinism. These theories intensify the issue of free will and choice. When everything is determined by genetic structure, all activities of moral development and exhortation become meaningless since it is impossible to change genetic information (Plotkin, 2011).

In Skinner's school of thought, Behaviourism, humans are presented as helpless beings at the mercy of the fluctuations of their external environment (Skinner, 1953). Furthermore, human behavior can be changed in any desired way by any external technical force. Skinner's physicalist concept of ethics is also linked to this approach. Secular thought prioritizes scientific knowledge. According to scientific knowledge, human characteristics and traits are genetically determined. On the other hand, the same secular thought vigorously promotes human freedom. This exposes the inherent contradictions within secularism. If we consider the aspect of determinism, even rationalist sciences are controlled by irrational forces. When modern psychology, influenced by modern scientific methods, was used to understand the mindset of criminals, human actions were attributed to the external environment and uncontrollable unconscious forces. Moreover, crime, sin, and evil began to be viewed in psychological terms. Carl Rogers raised his voice to provide proper treatment to criminals instead of punishment (Rogers, 1963). This facilitated criminals because when the commission of crimes was attributed to unconscious forces and factors beyond the individual's control rather than conscious acts, it encouraged offenders. Researchers argue that this led to an increase in crime. Similarly, modern psychology introduced terminologies that masked harmful societal behaviours. All these factors resulted in social, societal, and moral decay.

If there is one common theory that unites the various proponents of secular thought, it is Darwin's theory of evolution. This theory simultaneously rejects religious beliefs (particularly the theory of creation) and aligns with the concept of striving for human progress and a better future. Darwin's ideas of biological evolution later gave rise to Herbert Spencer's social evolution. When Spencer applied these ideas to society, it provided a justification for one race's dominance and subjugation over another in the struggle for survival. Although it would be difficult to hold Darwin solely responsible, his ideas paved the way for the British and Americans to oppress other races, and later facilitated Hitler's

justification for the mass extermination of individuals from other races in the name of racial superiority (Weikert, 2006).

Similarly, neo-Darwinian evolutionary thoughts consider selfless and altruistic actions of humans as products of selfishness and self-interest. This implies that sacrifices made for the sake of humanity are rendered meaningless (Krebs, 2011). The concept of ethics derived from this philosophy presents anger, greed, envy, and other similar moral vices as normal traits of human nature. If human actions are determined by the structure of their genes, then the distinction between moral and immoral characters becomes irrelevant. There would be no standard or measure for ethics. These concepts lead to a general trend suggesting that the entire system of ethics is nothing but an illusion, inevitably resulting in moral decay.

Even the proponents of the worldview established by the theory of evolution hesitate to fully embrace it because it renders discussions on selfhood, ethics, and meaning completely meaningless. The theory of evolution has significantly lowered the value and dignity of humans, reducing them to the status of mere animals.

Conclusion

In summary, science unquestionably makes a great contribution to our understanding of the natural world, but the scientism ideology, which holds that scientific knowledge is the only path to truth, has serious drawbacks. Scientism's reductionist method ignores the complexities of subjective experiences and human awareness by reducing complicated occurrences to simple physical interactions. This kind of thinking can result in a limited worldview that disregards knowledge from other sources, such as philosophical, theological, and cultural contexts. Scientism's ethical ramifications are also concerning. Relativistic morality results from the detachment of moral concepts from their conventional, frequently transcendent basis by anchoring ethics in materialistic and consequentialist terms. This change has led to the development of an ethical framework that emphasises individual freedom but frequently ignores greater moral obligations and the communal dimensions of human existence. Moreover, the scientific perspective has a profound effect on how human nature is understood, reducing people to simple biological beings motivated by genetic determinism. This viewpoint downplays the complexity and inherent dignity of human existence in addition to undermining the idea of free agency.

Recommendations

Scientism ignores the deep dimensions of the human experience, such as creativity, spirituality, and ethical reasoning, by comparing humans to animals that are only motivated by survival impulses. It is therefore essential to adopt a more inclusive and balanced approach to knowledge, one that embraces the insights from philosophy, religion, and the humanities as well as the contributions of science. A more thorough grasp of reality can be nurtured by this method, which also encourages intellectual humility and acknowledges the complexity of human research. We can only truly comprehend the depth of human knowledge and approach the difficult problems of our day with compassion and wisdom if we adopt this wider viewpoint.

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