



## **The Interdisciplinary Nexus of Science and Philosophy in *Frankenstein*: Exploring Ethical, Galvanist, and Existential Themes in Mary Shelley's Masterpiece**

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Literature, often described as a mirror to society, offers a rich medium for exploring the human condition, historical phenomena, and cultural shifts. Traditional literary studies have typically focused on formal aspects such as narrative structure, language, and themes. However, the expansion of interdisciplinary studies has enabled literary scholars to delve deeper into texts by applying insights from other disciplines. By integrating perspectives from diverse fields such as history, philosophy, cultural studies, and psychology, interdisciplinary approaches allow for a more comprehensive understanding of literature.

This paper aims to investigate the significance of interdisciplinary studies in literature by exploring theoretical frameworks and analyzing texts like Mary Shelley's *Frankenstein* and Margaret Atwood's *The Handmaid's Tale*. The former, situated in the Romantic era, is analyzed through scientific, philosophical, and psychoanalytic lenses, while the latter offers contemporary insight into feminist studies, politics, and media. Mary Shelley's *Frankenstein* offers a rich example for demonstrating how an interdisciplinary approach can deepen understanding of a literary text. Published in 1818, *Frankenstein* is often classified as a Gothic novel, but its thematic complexity makes it suitable for various interpretive lenses.

At the time of its publication, *Frankenstein* responded to advancements in natural sciences, particularly galvanism—the use of electricity to stimulate muscle movement.

The novel's exploration of the boundaries between life and death poses philosophical questions about human agency, the limits of scientific exploration, and ethical considerations. Victor Frankenstein's attempt to "play God" resonates with philosophical debates on human responsibility and the moral implications of technological advancements, which are still relevant in contemporary discussions of bioethics and artificial intelligence. Mary Shelley's *Frankenstein* is a rich exploration of the philosophical and scientific concerns of its time. Written during the early 19th century, an era of significant scientific advancement and intellectual curiosity, the novel engages with contemporary debates about the boundaries of human knowledge, the role of science, and ethical considerations surrounding experimentation. It poses enduring philosophical questions about human nature, the quest for power, and the consequences of playing God. Victor Frankenstein's character embodies the archetypal "mad scientist" driven by an insatiable thirst for knowledge. His quest to unravel the secrets of life and death leads him to surpass the natural limits of human capability, echoing the Promethean myth, where man defies divine authority to bring fire (knowledge) to humanity, only to suffer for his hubris. Early in the novel, Victor articulates his ambition:

*"It was the secrets of heaven and earth that I desired to learn; and whether it was the outward substance of things, or the inner spirit of nature and the mysterious soul of man that occupied me, still my inquiries were directed to the metaphysical, or in its highest sense, the physical secrets of the world"*  
(*Frankenstein*, Chapter 2).

This quote illustrates how Victor's pursuit of knowledge is not merely scientific but also metaphysical. He seeks to uncover the essence of life itself, challenging philosophical boundaries. His desire to control nature mirrors the Enlightenment ideals of scientific progress but also critiques the dangers of unchecked intellectual ambition.

At the heart of Victor's experiment lies galvanism, the scientific theory developed by Luigi Galvani, which posited that electricity could stimulate muscle

movement in dead organisms. Shelley's novel was written during a time when such experiments, including the use of electricity to animate dead bodies, were subjects of public fascination.

In Chapter 4, Victor recalls the moment he discovered the potential of this new science:

*"I became acquainted with the science of anatomy: but this was not sufficient; I must also observe the natural decay and corruption of the human body. In my education my father had taken the greatest precautions that my mind should be impressed with no supernatural horrors. I do not ever remember to have trembled at a tale of superstition or to have feared the apparition of a spirit. Darkness had no effect upon my fancy, and a churchyard was to me merely the receptacle of bodies deprived of life, which, from being the seat of beauty and strength, had become food for the worm. Now I was led to examine the cause and progress of this decay and forced to spend days and nights in vaults and charnel-houses"* (Frankenstein, Chapter 4).

Victor's scientific endeavours are couched in the language of materialism and empiricism, reflecting the rationalist mindset of the Enlightenment. His focus on anatomy and his study of "decay and corruption" also point to contemporary scientific interests in life processes and organic matter, which were beginning to be explored in deeper ways. Yet, Shelley's depiction of Victor's obsession with corpses and the macabre consequences of his experiment suggests a critique of the dehumanizing effects of a purely materialist approach to life. Victor's creation of the creature also raises profound ethical questions. Philosophically, his act can be seen as an overreach, violating the natural order by attempting to wield powers that belong to a higher authority—whether it be God or nature itself. This reflects concerns rooted in the Romantic reaction against the Enlightenment's excessive rationalism and industrialization. Victor's hubris and the ethical dilemma of his scientific experimentation are evident when he reflects on the creation of life:

*"Life and death appeared to me ideal bounds, which I should first break through, and pour a torrent of light into our dark world" (Frankenstein, Chapter 4).*

Victor's desire to "break through" the natural bounds between life and death reflects his Promethean ambition to transcend human limitations. This alludes to the philosophical critique of overreaching human ambition, found in classical tragedies like *Oedipus Rex* and even the story of Icarus. By attempting to "play God," Victor defies the limits of human knowledge and agency, leading to catastrophic consequences. Shelley's novel engages with Enlightenment ideas about human progress and mastery over nature but, through Victor's downfall, it also reveals the Romantic scepticism toward such ambitions. Romantics like Shelley's contemporaries, William Wordsworth, and Samuel Taylor Coleridge, emphasized the importance of respecting the natural world and warned against the destructive potential of unbridled human curiosity.

One of the most compelling philosophical dimensions of *Frankenstein* is the question of what it means to be human. The creature, rejected by society and his creator, grapples with his identity and the purpose of his existence. His intellectual and emotional development parallels philosophical discourses on human nature, particularly in relation to Jean-Jacques Rousseau's concept of the "noble savage." The creature reflects:

*"I was benevolent and good; misery made me a fiend. Make me happy, and I shall again be virtuous" (Frankenstein, Chapter 10).*

This assertion speaks to the Rousseauian idea that humans are born good, but are corrupted by society. The creature, initially innocent and seeking companionship, becomes vengeful and violent only after being repeatedly rejected and dehumanized by others. This philosophical debate about human nature—whether evil is intrinsic or cultivated by environmental conditions—plays a central role in the novel's moral structure.



This analysis also focuses on key philosophical themes in *Frankenstein*, including the limits of knowledge and scientific ethics, the nature of human identity and the "self," and the concept of free will versus determinism, using textual evidence and philosophical references to support each interpretation. *Frankenstein* raises profound ethical questions about the responsibilities of creation. Once Victor succeeds in bringing the creature to life, he is horrified by his creation and abandons it, failing in his duty as a creator to care for and nurture the being he has brought into existence. This moral failure can be interpreted through a philosophical lens as a critique of scientific irresponsibility and the neglect of ethical considerations in the pursuit of progress. The creature himself questions the morality of his creator's actions, reflecting on his abandonment:

*"I ought to be thy Adam, but I am rather the fallen angel, whom thou drivest from joy for no misdeed" (Frankenstein, Chapter 10).*

Here, the creature invokes a biblical analogy, comparing himself to Adam from *Paradise Lost*, but lamenting that he has been treated more like Satan, cast out and rejected. Victor's failure to take responsibility for his creation leads to profound suffering, not only for the creature but also for those around him. This raises philosophical questions about the ethics of creation, especially when humans take on godlike powers.

Philosophers like Jean-Paul Sartre, who emphasized the responsibility that comes with human freedom, would argue that Victor's failure lies not just in the act of creation but in his refusal to acknowledge the consequences of that act. Sartre's existentialist philosophy suggests that with great power comes responsibility, and to shirk that responsibility is to act in bad faith. Victor's failure to care for his creation demonstrates a form of ethical negligence, which ultimately results in tragedy.

Finally, *Frankenstein* explores themes of existential isolation, another central philosophical concern. Both Victor and the creature experience profound isolation—

Victor due to his obsessive quest for knowledge, and the creature due to his rejection by society. Their isolation can be read through the lens of existential philosophy, particularly the works of Søren Kierkegaard and Albert Camus, who examined the alienation of individuals in a seemingly indifferent or hostile universe. Victor's isolation is self-imposed, as he deliberately cuts himself off from family and society in pursuit of his scientific goals. His loneliness is a direct result of his ambition: "I shunned my fellow creatures as if I had been guilty of a crime" (*Frankenstein*, Chapter 4). This quote reveals the existential consequences of Victor's actions. Like Camus' *absurd hero* in *The Myth of Sisyphus*, who struggles to find meaning in a world devoid of inherent purpose, Victor confronts the alienating consequences of his quest for knowledge, but he fails to find any redemptive meaning in his achievements. The creature's isolation, in contrast, is not self-imposed but the result of societal rejection. His loneliness drives him to question his place in the world and search for meaning, echoing existential concerns about the human condition and the search for belonging in an indifferent universe. The creature's existential journey culminates in a decision that resonates with Albert Camus' concept of the *absurd* in *The Myth of Sisyphus*. In this work, Camus contends that life is fundamentally meaningless, but that humans must persist in creating their own meaning, even in the face of absurdity. The question Camus poses—whether life is worth living in the face of absurdity—mirrors the creature's existential crisis. At the end of the novel, after Victor's death, the creature expresses a profound desire to end his own suffering:

*"I shall ascend my funeral pile triumphantly and exult in the agony of the torturing flames"* (*Frankenstein*, Chapter 24).

The creature's final decision to end his life might initially appear to be an act of despair, but it can also be interpreted as a Camusian rejection of the absurdity of his existence. Having been denied any sense of purpose or meaning by both his creator and society, the creature chooses to end his life as a way of asserting control over his own destiny. This act can be seen as his final assertion of agency in a world that has consistently denied him autonomy. Camus famously argued that while suicide is one





response to the absurd, a more authentic response is to live with the tension between the desire for meaning and the lack of inherent purpose in the universe. The creature's choice of suicide can thus be read not only as an act of despair but also as a philosophical statement about his inability to reconcile his existential freedom with the constraints imposed upon him by the world.

To Conclude it can be surmised that Mary Shelley's *Frankenstein* is a deeply philosophical novel that engages with complex ideas about the limits of knowledge, ethical responsibility, the nature of identity, and existential isolation. Through the tragic narratives of Victor Frankenstein and his creature, Shelley critiques the hubris of scientific ambition, explores the consequences of creation, and delves into the nature of human existence and responsibility. Drawing on Enlightenment, Romantic, and existentialist philosophies, *Frankenstein* remains a timeless exploration of the ethical and philosophical dilemmas that continue to shape modern discourse on science, ethics, and the human condition.

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