

A Comparative Study of the Novels “Wadi al-Farashaa” and “Shazdeh Ehtejab” through the lens of Butterfly Effect based on Edward Lorenz's Chaos Theory

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Introduction

Chaos theory is a modern scientific theory -a product of the new era- that examines complex systems. It is directly linked to mathematical studies and posits the existence of order within disorder. Following the expansion of research into chaos theory, its scope of application widened, extending into the realm of the humanities. Literature was one of the fields influenced by this theory; literary and critical studies inspired by it concluded that literary works are not devoid of chaos and disorder. Among these forms, the novel - owing to its dynamic and non-static system- stands out as the prime example for the application of chaos theory. Postmodern novels distinguished by narrative structures that are distinct, innovative, and complex compared to those of classical and modern novels stand out as the most prominent literary texts that reflect a kind of order within disorder in their internal worlds.

Methodology

The research methodology employed here is an analytical-comparative approach based on the "butterfly effect" concept within chaos theory. By drawing upon aspects of Lorenz's theory that necessitate an examination of the philosophy of mathematics, geometry, and physics, this study views the novels from a distinct perspective and analyzes and interprets manifestations of this theory within them. We should not expect a novel to possess a rigidly structured or engineered design akin to mathematical calculations or physical phenomena. The interplay between character actions and surrounding events alongside the work's inherent turbulence and the order found within disorder has paved the way for this line of inquiry.

Results and Discussion

In "Wadi al-Farashaat", Aziz Awad's decision to marry Tamara disregarding the disparity in their social classes can be interpreted as a

metaphorical manifestation of the "butterfly effect" from chaos theory. Tamara's mother's insistence on the negative consequences of this marriage fully corroborates the butterfly effect and the domino-like structure of the situation. In the novel "Shazdeh Ehtejab", the seemingly trivial or fleeting behaviors of family members and the psychological pressures exerted on the protagonist during childhood gradually shape his solitary, psychotic personality in adulthood. The novel does not allow the entire burden of the incident and the tragic circumstances to rest solely on the shoulders of "Aziz Awad". These connecting threads reveal a clear pattern of the abuse of social status and power, illustrating a paradigm of chaos in both narratives. The title of the novel "Wadi al-Farashaat" serves as a literary representation of sensitivity to initial conditions and the "butterfly effect". Within the novel's narrative structure, each unaccompanied child who dies and is buried secretly on the city's outskirts acts as a minute, imperceptible shift in the story's narrative and emotional system a shift symbolically manifested by a butterfly taking flight from the child's grave. Regarding this characteristic of postmodern works, it must be said that characters in postmodern stories are like travelers who, without visas and illegally, cross borders they are not permitted to traverse. This aspect can be aligned with the surrealist structure found in the novel "Shazdeh Ehtejab", specifically where characters come to life within picture frames. These passages from the aforementioned novels contain themes that operate independently of the logic derived from observation, analysis, or mundane reality; furthermore, the events unfold as hallucinations and anxiety-inducing fantasies.

Conclusion

Research findings indicate that in both novels "Wadi al-Farashaat" and "Shazdeh Ehtejab" the characters' seemingly insignificant actions and minor behaviors lead to far-reaching, chain-reaction, and uncontrollable consequences, in line with the "butterfly effect" principle. A shared trait between the characters Aziz Awad and Tamara and the Shazdeh Ehtejab is the disregard for the possibility of change. In both stories, there exists a factor capable of altering the character's life path an opportunity the character fails to seize manifested as acts of violence that disregard human life, particularly that of the young, and trigger a chain of tragic events. The difference, however, is that in "Shazdeh Ehtejab", the protagonist plays the primary role in inflicting such violence, whereas in "Wadi al-Farashaat", the beloved deceased children are the victims of such violence. The flight of butterflies from the graves of deceased children and the coming-to-life of figures in photographs are the surreal elements in both stories that disrupt their linear structure and logic a process significantly aided by the stream-of-consciousness technique.

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