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A Calculus of Fire: Strange Loops and Autopoietic Consciousness in Selected Twentieth-Century Fiction from James Joyce to Philip K. Dick--A Cognitive Poetic Approach

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A CALCULUS OF FIRE:
STRANGE LOOPS AND AUTOPOIETIC CONSCIOUSNESS IN SELECTED
TWENTIETH-CENTURY FICTION FROM JAMES JOYCE TO
PHILIP K. DICK—A COGNITIVE POETIC APPROACH

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Philosophy

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Twentieth-Century Fiction from James Joyce to Philip K. Dick—A Cognitive
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Douglas Hofstadter's *Gödel, Escher, Bach: An Eternal Golden Braid* remains one of the most influential interdisciplinary works of the twentieth century. This dissertation explores the applications of his "strange loop" concept to literary theory and criticism. A strange loop describes any self-referential system that proceeds through various levels or frames, and then inexplicably returns to its point of embarkation. This pattern delineates the recursive processes underlying Hofstadter's self-representational theory of consciousness. After outlining the connections between strange loops, autopoiesis, and complex systems theory, I argue that similar patterns exist in twentieth-century cognitive fictions. The first three chapters focus on self-organization and embodied consciousness. Chapter One discusses strange loops and autopoietic consciousness in James Joyce's *Ulysses* and *Finnegans Wake*. Chapter Two explores strange loops in Franz Kafka's *The Castle*. Chapter Three discusses strange loops and Eleatic paradoxes in Samuel Beckett's *Three Novels*. The middle three chapters focus on the relationship between strange loops and the metafictional paradox. Chapter Four discusses strange loops and set theory in Jorge Luis Borges's short fictions. Chapter Five explores strange loops and chaos theory in several works by Italo Calvino. Chapter Six discusses the authorship triangle in Flann O'Brien's