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The Interdisciplinary Mind

Modes of Evolution in Richard Powers' Novels

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## English Summary

This work focuses on four novels of the American author Richard Powers—*Galatea 2.2*, *Plowing the Dark*, *The Echo Maker*, and *Generosity: An Enhancement*—which reveal complex thematic and structural elements, highlighting interconnectedness between various disciplines. The novels deal with genomic network and genome editing, cognitive mapping and brain malleability, artificial intelligence, virtual reality and art history, as well as clashes between groups of the same identity and iconoclasm. The narrative techniques enmesh aspects from the interdisciplines at hand, creating an interdisciplinary structure. My discussion, therefore, explores modes of artificial evolution, revealing how interdisciplinarity constitutes a necessary structure, in an era of staggering advancements in technology and science, for the evolution of writing.

Richard Powers uses factual technologies from nascent fields and anchors the narrative within a well-informed discourse, based on scientific research and theories. Therefore, his novels are commonly argued to fall under a different genre than that of science fiction. I argue that, apart from the scientific theories, Powers' narratives deal with a large interdisciplinary network, sketching shifting movements and trends in evolutionary traceability. Furthermore, they rethink Western traditions by encompassing cross-cultural elements, extending to Middle Eastern contexts for instance. In this respect, I embark on an interdisciplinary method. The questions that arise are: What is the role of literature within other interdisciplinary discourses? What is necessary for literature (and the novel) to remain up to date and to avoid becoming obsolete?

I use a mixed method of theories from different disciplines and a cross-cultural background. I bring new elements by combining different theories together, specifically those of: Peter Kramer, Jennifer Doudna, Joseph Capgras, Vilayanur Ramachandran, Edward Tolman,

Jean Baudrillard, Alan Turing, Ray Kurzweil, Walter Benjamin, Michael Taussig, Slavoj Žižek, Jaś Elsner, Bruno Latour, Carolina Cruz-Neira, and Bissera Pentcheva. I also conducted a series of interviews with Richard Powers at Urbana-Champaign, Illinois, and this book includes an abridged version of these interviews. I also interviewed experts of artificial intelligence in Singapore. My work positions literary studies at the heart of emerging concerns, the future of our societies, and the future of the novel.

I reveal how interdisciplinarity is necessary for the evolution of the art, while I identify modes of artificial evolution in Powers' fiction. In part I, I address three types of artificial evolution: human genetic engineering, brain malleability, and artificial intelligence. Powers' novels experiment with artificial evolution in the light of the work of Ray Kurzweil and Jennifer Doudna. In the second part, I tackle the pitfalls of regression despite progress. Civilizational evolution and regression are at stake here, and I study clashes of groups with the same identity, as well as terrorism and wars. Finally, in part III, I examine artistic evolution through "*iconoclasm*" (using Bruno Latour's concept). I demonstrate how the narratives interweave (CAVE automatic virtual reality system-, architecture-, scripture-) like structures. By exploring these aspects, the novels' interdisciplinary structures become prominent.

I demonstrate that the interdisciplinary novel, as crafted by Richard Powers, is liquescent, immersive, and interactive. It is multi-layered and multiplanar. Its narrative structures are imprinted with superimposed cross-cultural and interdisciplinary strata. These establish not only interconnections but also *exponential* trends.

My in-depth analysis of Richard Powers' narratives contributes to the field of American Studies. In addition, as I identify elements of the interdisciplinary novel, I offer a model valid for similar works. Exploring the evolution of the novel through interdisciplinarity contributes to the interconnectedness of knowledge and to the future of the art and the humanities. As our societies shift to an excess of self-isolation and intensive virtual communication—due to COVID-19—the question is renewed as to whether our cultural products would reflect more interdisciplinarity or minimalism.