



# How the Leopard Changed Its Spots : The Evolution of Complexity

[Brian Goodwin](#)

Do genes explain life? Can advances in evolutionary and molecular biology account for what we look like, how we behave, and why we die? In this powerful intervention into current biological thinking, Brian Goodwin argues that such genetic reductionism has important limits. Drawing on the sciences of complexity, the author shows how an understanding of the self-organizing patterns of networks is necessary for making sense of nature. Genes are important, but only as part of a process constrained by environment, physical laws, and the universal tendencies of complex adaptive systems. In a new preface for this edition, Goodwin reflects on the advances in both genetics and the sciences of complexity since the book's original publication.