

Functions in Biological and Artificial Worlds

Comparative Philosophical Perspectives

edited by Ulrich Krohs and Peter Kroes

The notion of function is an integral part of thinking in both biology and technology. Biological organisms and technical artifacts are both ascribed functionality; yet the concept of function is notoriously obscure (with problematic issues regarding the normative and the descriptive nature of functions, for example) and demands philosophical clarification. So too the relationship between biological organisms and technical artifacts: although entities of one kind are often described in terms of the other—as in the machine analogy for biological organisms or the evolutionary account of technological development—the parallels between the two break down at certain points. This volume takes on both issues and examines the relationship between organisms and artifacts from the perspective of functionality.

Believing that the concept of function is the root of an accurate understanding of biological organisms, technical artifacts, and the relation between the two, the contributors take an integrative approach, offering philosophical analyses that embrace both biological and technical fields of function ascription. They aim at a better understanding not only of the concept of function but also of the similarities and differences between organisms and artifacts as they relate to functionality. Their ontological, epistemological, and phenomenological comparisons will clarify problems that are central to the philosophies of both biology and technology.

Ulrich Krohs teaches philosophy at the University of Hamburg and is a member at the Konrad Lorenz Institute for Evolution and Cognition Research in Altenberg, Austria. Peter Kroes is Professor of the Philosophy of Technology, Delft University of Technology, the Netherlands.

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"This is a gem of a book. Focusing on the concepts of function in biology and technology, these rich articles open up many questions for further pursuit. The importance of *Functions in Biological and Artificial Worlds* extends beyond philosophy of biology and philosophy of technology into issues of general philosophical interest—for example, emergence, real kinds, function, and normativity. *Functions in Biological and Artificial Worlds* bristles with insights and provocative ideas. Highly recommended."

—Lynne Rudder Baker, University of Massachusetts Amherst

"The roles of design and normativity continue to be a hotly debated topic in that part of the philosophy of biology concerned with function. This volume differs from most in being the outcome of a workshop in which early versions were discussed by the other authors. The result has the welcome feel of philosophical discussion rather than of the major players once again defining their territory."

—Robert Cummins, Professor and Chair, Department of Philosophy, University of Illinois at Urbana-Champaign

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Cover art: Leonardo da Vinci's drawing of a wing of a flying machine

