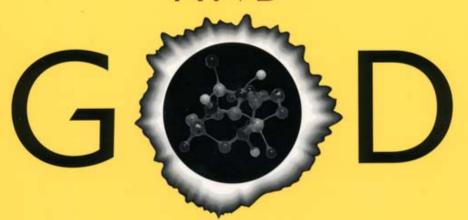
GENES, GENESIS

AND



VALUES AND
THEIR ORIGINS
IN NATURAL
AND HUMAN HISTORY

Holmes Rolston, III

GENES, GENESIS AND GOD

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"This is a remarkably clear and thorough exploration of the role of genes in evolutionary history and human life. Rolston brings an impressive knowledge of biology, philosophy and theology to his discussion of the implications and the limitations of recent evolutionary theories for our understanding of culture – and more specifically, of science, ethics, and religion."

-lan Barbour Author of Religion in an Age of Science

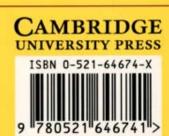
Can the phenomena of religion and ethics be reduced to the phenomena of biology? Holmes Rolston says no, and in this sweeping account of the subject written with considerable verve and clarity he challenges the sociobiological orthodoxy that would naturalize science, ethics, and religion. The book argues that genetic processes are not blind, selfish, and contingent, and that nature is not value-free.

The author examines the emergence of complex biodiversity through evolutionary history. Especially remarkable in this narrative is the genesis of human beings with their capacities for science, ethics, and religion. A major conceptual task of the book is to relate cultural genesis to natural genesis. There is also a general account of how values are created and transmitted in both natural and human cultural history.

The book is thoroughly up to date on current biological thought and is written by one of the most well-respected figures in the philosophy of biology and religion. It is likely to provoke considerable controversy amongst a wide range of readers in such fields as philosophy, religious studies and biology, as well as being suitable for courses on science and religion.

Holmes Rolston III is University Distinguished Professor of Philosophy at Colorado State University. He is the author of many books. *Genes, Genesis and God* constituted the Gifford Lectures, University of Edinburgh, November 1997.

Cover design by Paul Moran



Chapter 1: Genetic Values: Diversity and Complexity in Natural History

- 1. Natural history: Diversity and complexity
- 2. Contingent natural history?
- 3. Searching genes
- 4. Smart genes
- 5. Genetic algorithms
- 6. Intrinsic and inclusive genetic values
- 7. Distributed and shared genetic values
- 8. Storied natural history

Chapter 2. Genetic Identity: Conserved and Integrated Values

- 1. Genetic identity
 - (1) Material identity
 - (2) Somatic identity
 - (3) Kinship identity
 - (4) Species identity
 - (5) Genetic type identity
 - (6) Genetic symbiotic identity
 - (7) Genetic identity in ecosystems
 - (8) Genetic cybernetic identity
- 2. Genes in organisms
 - (1) Integrated organisms versus selfish genes
 - (2) Self-actualizing versus selfish organisms
- 3. Organisms in communities
 - (1) Organisms in families: Genes and their kin
 - (2) Organisms in species populations: Genes and their kind
 - (3) Organisms in ecosystems: Genes in their places
- 4. Sexuality, selfishness, and community
- 5. Interspecifically and intraspecifically shared genes

Chapter 3. Culture: Genes and the Genesis of Human Culture

- 1. Nature and culture
- 2. Gene-mind coevolution
- 3. Genetic determinants in culture
 - (1) Epigenetic rules and culturgens

- (2) A dual inheritance system
- (3) An adapted mind
- 4. The evolution of ideas
- 5. The human genius (Geist)
- 6. Historical versus universal explanations in nature and culture

Chapter 4. Science: Naturalized, Socialized, Evaluated

- 1. Science: Generating and selecting theories
- 2. Science naturalized?
 - (1) Darwinized science?
 - (2) Genetic heredity and neural heredity
 - (3) Randomness and intentionality
 - (4) Biological diversity and unified science
- 3. Science socialized
 - (1) Paradigm and theory in scientific communities
 - (2) The social construction of science
- 4. The selective advantage of science
 - (1) Science and survival
 - (2) Science and fertility
 - (3) Science and selfishness
- 5. Progress in scientific and in natural history
- 6. Transcendent science
- 7. An unfolding story

Chapter 5. Ethics: Naturalized, Socialized, Evaluated

- 1. Moral value: love, justice, and respect
 - (1) The ethical challenge
 - (2) The domain and focus of ethics
 - (3) Interhuman ethics
 - (4) Environmental ethics
 - (5) Ideal and real: moral failure
- 2. Naturalized ethics? Emergent, socialized morality
 - (1) From is to ought: emergent morality
 - (2) Animal cooperation: Inclusive fitness and reciprocal altruism
 - (3) Human reciprocal altruism (4) Indirect, social altruism
 - (5) A naturalized, socialized ethics

(6) Universal altruism

- 3. Naturalized ethics? Illusory, Darwinized morality
 - (1) Self-deceived altruism
 - (2) Induced and inflated altruism
 - (3) Epiphenomenal altruism
 - (4) From is to ought: a dilemma
 - (5) Altruism and selfishness defined and confused
 - (6) Analogy and category mistakes
- 4. Evaluating ethics: Values defended and shared
 - (1) Moral, valuable and evaluating persons
 - (2) Amoral, valuable nature
 - (3) Global and universal morality

Chapter 6. Religion: Naturalized, Socialized, Evaluated

- 1. The divine epic of life
 - (1) The prolific Earth
 - (2) Nature and spirit (Geist)
 - (3) Nature and sin
 - (4) Suffering and creation
- 2. Religion and fertility
- 3. Religion and altruism
 - (1) Religion generating altruism
 - (2) Religion generating pseudoaltruism?
 - (3) Religion generating unsuccessful altruism?
 - (4) Religion generating complementary altruism
 - (5) Religion converting others
- 4. Functional and true religion
 - (1) Survival value with and without truth
 - (2) Testing religions socially
 - (3) Testing religions cognitively
- 5. Genesis and God
 - (1) Actual and possible natural history
 - (2) The genesis of information
 - (3) The genesis of value
 - (4) Detecting the transcendent