

Cambridge University Press
978-1-108-00418-3 - First Principles
Herbert Spencer
Frontmatter
[More information](#)

CAMBRIDGE LIBRARY COLLECTION

Books of enduring scholarly value

Religion

For centuries, scripture and theology were the focus of prodigious amounts of scholarship and publishing, dominated in the English-speaking world by the work of Protestant Christians. Enlightenment philosophy and science, anthropology, ethnology and the colonial experience all brought new perspectives, lively debates and heated controversies to the study of religion and its role in the world, many of which continue to this day. This series explores the editing and interpretation of religious texts, the history of religious ideas and institutions, and not least the encounter between religion and science.

First Principles

In 1862, the British philosopher Herbert Spencer (1820-1903) published this preamble to a planned series of publications on biology, psychology, sociology and morality. In it, he states that religion and science can be reconciled by their shared belief in an Absolute, and that ultimate principles can discerned in all manifestations of the Absolute, particularly the general laws of nature being discovered by science. Spencer divides his text into two parts. Part I, 'The Unknowable', discusses early philosophical ideas that human knowledge is limited and cannot meaningfully conceive of God; faith must be the bridge between human experience and ultimate truth. Spencer refutes this as he examines religion and science in detail. In Part II, 'Laws of the Knowable', Spencer argues that religion and science can be reconciled in the underlying unity from which the visible complexity of the universe has evolved.

Cambridge University Press
978-1-108-00418-3 - First Principles
Herbert Spencer
Frontmatter
[More information](#)

Cambridge University Press has long been a pioneer in the reissuing of out-of-print titles from its own backlist, producing digital reprints of books that are still sought after by scholars and students but could not be reprinted economically using traditional technology. The Cambridge Library Collection extends this activity to a wider range of books which are still of importance to researchers and professionals, either for the source material they contain, or as landmarks in the history of their academic discipline.

Drawing from the world-renowned collections in the Cambridge University Library, and guided by the advice of experts in each subject area, Cambridge University Press is using state-of-the-art scanning machines in its own Printing House to capture the content of each book selected for inclusion. The files are processed to give a consistently clear, crisp image, and the books finished to the high quality standard for which the Press is recognised around the world. The latest print-on-demand technology ensures that the books will remain available indefinitely, and that orders for single or multiple copies can quickly be supplied.

The Cambridge Library Collection will bring back to life books of enduring scholarly value (including out-of-copyright works originally issued by other publishers) across a wide range of disciplines in the humanities and social sciences and in science and technology.

Cambridge University Press
978-1-108-00418-3 - First Principles
Herbert Spencer
Frontmatter
[More information](#)

First Principles

HERBERT SPENCER



CAMBRIDGE
UNIVERSITY PRESS

Cambridge University Press
978-1-108-00418-3 - First Principles
Herbert Spencer
Frontmatter
[More information](#)

CAMBRIDGE UNIVERSITY PRESS

Cambridge New York Melbourne Madrid Cape Town Singapore São Paulo Delhi

Published in the United States of America by Cambridge University Press, New York

www.cambridge.org

Information on this title: www.cambridge.org/9781108004183

© in this compilation Cambridge University Press 2009

This edition first published 1862

This digitally printed version 2009

ISBN 978-1-108-00418-3

This book reproduces the text of the original edition. The content and language reflect the beliefs, practices and terminology of their time, and have not been updated.

Cambridge University Press wishes to make clear that the reissue of out-of-copyright books not originally published by Cambridge does not imply any knowledge or advocacy of the reissue project on the part of the original publisher.

Cambridge University Press
978-1-108-00418-3 - First Principles
Herbert Spencer
Frontmatter
[More information](#)

FIRST PRINCIPLES.

F I R S T

P R I N C I P L E S.

BY

HERBERT SPENCER,

AUTHOR OF "SOCIAL STATICS," "THE PRINCIPLES OF PSYCHOLOGY,"
"ESSAYS: SCIENTIFIC, POLITICAL, AND SPECULATIVE,"
"EDUCATION," ETC.

LONDON:

WILLIAMS AND NORGATE, 14, HENRIETTA STREET,
COVENT GARDEN.

1862.

The Right of Translation is reserved.

PREFACE.

THIS volume is the first of a series described in a prospectus originally distributed in March, 1860. Of that prospectus, the annexed is a reprint.

A SYSTEM OF PHILOSOPHY.

MR. HERBERT SPENCER proposes to issue in periodical parts a connected series of works which he has for several years been preparing. Some conception of the general aim and scope of this series may be gathered from the following Programme.

FIRST PRINCIPLES.

PART I. THE UNKNOWABLE.—Carrying a step further the doctrine put into shape by Hamilton and Mansel; pointing out the various directions in which Science leads to the same conclusions; and showing that in this united belief in an Absolute that transcends not only human knowledge but human conception, lies the only possible reconciliation of Science and Religion.

PART II. LAWS OF THE KNOWABLE.—A statement of the ultimate principles discernible throughout all manifestations of the Absolute—those highest generalizations now being disclosed by Science which are severally true not of one class of phenomena but of *all* classes of phenomena; and which are thus the keys to all classes of phenomena.*

* One of these generalizations is that currently known as “the Conservation of Force;” a second may be gathered from a published essay on “Progress: its Law and Cause;” a third is indicated in a paper on “Transcendental Physiology;” and there are several others.

[*In logical order should here come the application of these First Principles to Inorganic Nature. But this great division it is proposed to pass over: partly because, even without it, the scheme is too extensive; and partly because the interpretation of Organic Nature after the proposed method, is of more immediate importance. The second work of the series will therefore be—*]

THE PRINCIPLES OF BIOLOGY.

VOL. I.

PART I. THE DATA OF BIOLOGY.—Including those general truths of Physics and Chemistry with which rational Biology must set out.

II. THE INDUCTIONS OF BIOLOGY.—A statement of the leading generalizations which Naturalists, Physiologists, and Comparative Anatomists, have established.

III. THE EVOLUTION OF LIFE.—Concerning the speculation commonly known as “The Development Hypothesis”—its *à priori* and *à posteriori* evidences.

VOL. II.

IV. MORPHOLOGICAL DEVELOPMENT.—Pointing out the relations that are everywhere traceable between organic forms and the average of the various forces to which they are subject; and seeking in the cumulative effects of such forces a theory of the forms.

V. PHYSIOLOGICAL DEVELOPMENT.—The progressive differentiation of functions similarly traced; and similarly interpreted as consequent upon the exposure of different parts of organisms to different sets of conditions.

VI. THE LAWS OF MULTIPLICATION.—Generalizations respecting the rates of reproduction of the various classes of plants and animals; followed by an attempt to show the dependence of these variations upon certain necessary causes.*

* The ideas to be developed in the second volume of the *Principles of Biology* the writer has already briefly expressed in sundry Review-Articles. Part IV. will work out a doctrine suggested in a paper on “The Laws of Organic Form,” published in the *Medico-Chirurgical Review* for January, 1859. The germ of Part V. is contained in the essay on “Transcendental Physiology:” See *Essays*, pp. 280-90. And in Part VI. will be unfolded certain views crudely expressed in a “Theory of Population,” published in the *Westminster Review* for April, 1852.

THE PRINCIPLES OF PSYCHOLOGY.

VOL. I.

PART I. THE DATA OF PSYCHOLOGY.—Treating of the general connexions of Mind and Life, and their relations to other modes of the Unknowable.

II. THE INDUCTIONS OF PSYCHOLOGY.—A digest of such generalizations respecting mental phenomena as have already been empirically established.

III. GENERAL SYNTHESIS.—A republication, with additional chapters, of the same part in the already-published *Principles of Psychology*.

IV. SPECIAL SYNTHESIS.—A republication, with extensive revisions and additions, of the same part, &c. &c.

V. PHYSICAL SYNTHESIS.—An attempt to show the manner in which the succession of states of consciousness conforms to a certain fundamental law of nervous action that follows from the First Principles laid down at the outset.

VOL. II.

VI. SPECIAL ANALYSIS.—As at present published, but further elaborated by some additional chapters.

VII. GENERAL ANALYSIS.—As at present published, with several explanations and additions.

VIII. COROLLARIES.—Consisting in part of a number of derivative principles which form a necessary introduction to Sociology.*

THE PRINCIPLES OF SOCIOLOGY

VOL. I.

PART I. THE DATA OF SOCIOLOGY.—A statement of the several sets of factors entering into social phenomena—human ideas and feelings considered in their necessary order of evolution; surrounding natural conditions; and those ever complicating conditions to which Society itself gives origin.

II. THE INDUCTIONS OF SOCIOLOGY.—General facts, structural and functional, as gathered from a survey of Societies and their changes: in

* Respecting the several additions to be made to the *Principles of Psychology*, it seems needful only to say that Part V. is the unwritten division named in the preface to that work—a division of which the germ is contained in a note on page 544, and of which the scope has since been more definitely stated in a paper in the *Medico-Chirurgical Review* for Jan. 1859.

other words, the empirical generalizations that are arrived at by comparing different societies, and successive phases of the same society.

III. POLITICAL ORGANIZATION.—The evolution of governments, general and local, as determined by natural causes; their several types and metamorphoses; their increasing complexity and specialization; and the progressive limitation of their functions.

VOL. II.

IV. ECCLESIASTICAL ORGANIZATION.—Tracing the differentiation of religious government from secular; its successive complications and the multiplication of sects; the growth and continued modification of religious ideas, as caused by advancing knowledge and changing moral character; and the gradual reconciliation of these ideas with the truths of abstract science.

V. CEREMONIAL ORGANIZATION.—The natural history of that third kind of government which, having a common root with the others, and slowly becoming separate from and supplementary to them, serves to regulate the minor actions of life.

VI. INDUSTRIAL ORGANIZATION.—The development of productive and distributive agencies, considered, like the foregoing, in its necessary causes: comprehending not only the progressive division of labour, and the increasing complexity of each industrial agency, but also the successive forms of industrial government as passing through like phases with political government.

VOL. III.

VII. LINGUAL PROGRESS.—The evolution of Languages regarded as a psychological process determined by social conditions.

VIII. INTELLECTUAL PROGRESS.—Treated from the same point of view: including the growth of classifications; the evolution of science out of common knowledge; the advance from qualitative to quantitative prevision, from the indefinite to the definite, and from the concrete to the abstract.

IX. ÆSTHETIC PROGRESS.—The Fine Arts similarly dealt with: tracing their gradual differentiation from primitive institutions and from each other; their increasing varieties of development; and their advance in reality of expression and superiority of aim.

X. MORAL PROGRESS.—Exhibiting the genesis of the slow emotional modifications which human nature undergoes in its adaptation to the social state.

XI. THE CONSENSUS—Treating of the necessary interdependence of structures and of functions in each type of society, and in the successive phases of social development.*

THE PRINCIPLES OF MORALITY.

VOL. I.

PART I. THE DATA OF MORALITY.—Generalizations furnished by Biology, Psychology and Sociology, which underlie a true theory of right living: in other words, the elements of that equilibrium between constitution and conditions of existence, which is at once the moral ideal and the limit towards which we are progressing.

II. THE INDUCTIONS OF MORALITY.—Those empirically-established rules of human action which are registered as essential laws by all civilized nations: that is to say—the generalizations of expediency.

III. PERSONAL MORALS.—The principles of private conduct—physical, intellectual, moral and religious—that follow from the conditions to complete individual life: or, what is the same thing—those modes of private action which must result from the eventual equilibration of internal desires and external needs.

VOL. II.

IV. JUSTICE.—The mutual limitations of men's actions necessitated by their co-existence as units of a society—limitations, the perfect observance of which constitutes that state of equilibrium forming the goal of political progress.

V. NEGATIVE BENEFICENCE.—Those secondary limitations, similarly necessitated, which, though less important and not cognizable by law, are yet requisite to prevent mutual destruction of happiness in various indirect ways: in other words—those minor self-restraints dictated by what may be called passive sympathy.

* Of this treatise on Sociology a few small fragments may be found in already-published essays. Some of the ideas to be developed in Part II. are indicated in an article on "The Social Organism," contained in the last number of the *Westminster Review*; those which Part V. will work out, may be gathered from the first half of a paper written some years since on "Manners and Fashion;" of Part VIII. the germs are contained in an article on the "Genesis of Science;" two papers on "The Origin and Function of Music" and "The Philosophy of Style," contain some ideas to be embodied in Part IX.; and from a criticism of Mr. Bain's work on "The Emotions and the Will," in the last number of the *Medico-Chirurgical Review*, the central idea to be developed in Part X. may be inferred.

VI. POSITIVE BENEFICENCE.—Comprehending all modes of conduct, dictated by active sympathy, which imply pleasure in giving pleasure—modes of conduct that social adaptation has induced and must render ever more general; and which, in becoming universal, must fill to the full the possible measure of human happiness.*

In anticipation of the obvious criticism that the scheme here sketched out is too extensive, it may be remarked that an exhaustive treatment of each topic is not intended; but simply the establishment of *principles*, with such illustrations as are needed to make their bearings fully understood. It may also be pointed out that, besides minor fragments, one large division (*The Principles of Psychology*) is already, in great part, executed. And a further reply is, that impossible though it may prove to execute the whole, yet nothing can be said against an attempt to set forth the First Principles and to carry their applications as far as circumstances permit.

The price per Number to be half-a-crown; that is to say, the four Numbers yearly issued to be severally delivered, post free, to all annual subscribers of Ten Shillings.

* Part IV. of the *Principles of Morality* will be co-extensive (though not identical) with the first half of the writer's *Social Statics*.

This Programme I have thought well to reprint for two reasons:—the one being that readers may, from time to time, be able to ascertain what topics are next to be dealt with; the other being that an outline of the scheme may remain, in case it should never be completed.

The successive instalments of which this volume consists, were issued to the subscribers at the following dates:—Part I. (pp. 1—80) in October, 1860; Part II. (pp. 81—176) in January, 1861; Part III. (pp. 177—256) in April, 1861; Part IV. (pp. 257—334) in October, 1861; Part V. (pp. 335—416) in March, 1862; and Part VI. (pp. 417—504) in June, 1862.

London, June 5th, 1862.

CONTENTS.

PART I.—THE UNKNOWABLE.

CHAP.	PAGE
I.—RELIGION AND SCIENCE	3
II.—ULTIMATE RELIGIOUS IDEAS	25
III.—ULTIMATE SCIENTIFIC IDEAS	47
IV.—THE RELATIVITY OF ALL KNOWLEDGE	68
V.—THE RECONCILIATION	98

PART II.—LAWS OF THE KNOWABLE.

I.—LAWS IN GENERAL	127
II.—THE LAW OF EVOLUTION	146
III.—THE LAW OF EVOLUTION (CONTINUED)	175
IV.—THE CAUSES OF EVOLUTION	219
V.—SPACE, TIME, MATTER, MOTION, AND FORCE	224
VI.—THE INDESTRUCTIBILITY OF MATTER	238
VII.—THE CONTINUITY OF MOTION	246
VIII.—THE PERSISTENCE OF FORCE	251
IX.—THE CORRELATION AND EQUIVALENCE OF FORCES	259

Cambridge University Press
 978-1-108-00418-3 - First Principles
 Herbert Spencer
 Frontmatter
[More information](#)

xii

CONTENTS.

CHAP.		PAGE
X.—THE DIRECTION OF MOTION		286
XI.—THE RHYTHM OF MOTION		313
XII.—THE CONDITIONS ESSENTIAL TO EVOLUTION ..		335
XIII.—THE INSTABILITY OF THE HOMOGENEOUS ..		358
XIV.—THE MULTIPLICATION OF EFFECTS		388
XV.—DIFFERENTIATION AND INTEGRATION		416
XVI.—EQUILIBRATION		440
XVII.—SUMMARY AND CONCLUSION		487