

The Portable
ENLIGHTENMENT
READER

Edited and with an Introduction by

ISAAC KRAMNICK



PENGUIN BOOKS

To the Memory of Judith N. Shklar (1928–1992)

Teacher, scholar, friend: A philosophe for our age

PENGUIN BOOKS

Published by the Penguin Group

Penguin Group (USA) Inc., 375 Hudson Street, New York, New York 10014, U.S.A.

Penguin Group (Canada), 90 Eglinton Avenue East, Suite 700, Toronto,

Ontario, Canada M4P 2Y3 (a division of Pearson Penguin Canada Inc.)

Penguin Books Ltd, 80 Strand, London WC2R 0RL, England

Penguin Ireland, 25 St Stephen's Green, Dublin 2, Ireland

(a division of Penguin Books Ltd)

Penguin Group (Australia), 250 Camberwell Road, Camberwell,

Victoria 3124, Australia (a division of Pearson Australia Group Pty Ltd)

Penguin Books India Pvt Ltd, 11 Community Centre, Panchsheel Park,

New Delhi – 110 017, India

Penguin Group (NZ), 67 Apollo Drive, Rosedale, Auckland 0632, New Zealand

(a division of Pearson New Zealand Ltd)

Penguin Books (South Africa) (Pty) Ltd, 24 Sturdee Avenue,

Rosebank, Johannesburg 2196, South Africa

Penguin Books Ltd, Registered Offices: 80 Strand, London WC2R 0RL, England

First published in Penguin Books 1995

40 39 38 37 36 35

Copyright © Penguin Books USA Inc., 1995

All rights reserved

Grateful acknowledgment is made for permission to reprint the following copyrighted works:

"The Human Mind Emerged from Barbarism" by Jean Le Rond d'Alembert, translated by Stephen J. Gendzier. By permission of Stephen J. Gendzier.

"The Beautiful and Sublime" from *Observations on the Feeling of the Beautiful and Sublime* by Immanuel Kant, translated and edited by John Goldthwait. Copyright © 1960 The Regents of the University of California. By permission of the University of California Press.

"The New Science" from *The New Science of Giambattista Vico: Unabridged Translation of the Third Edition (1744) with the addition of "Practice of the New Science,"* translated by Thomas Goddard Bergin and Max Harold Fisch. Copyright © 1984 by Cornell University. Used by permission of the publisher, Cornell University Press.

"The Rights of Woman" by Olympe de Gouges from *Women in Revolutionary Paris* edited by Darline G. Levy, et al. © 1979 by the Board of Trustees of the University of Illinois. Used with permission of the author and of the University of Illinois Press.

LIBRARY OF CONGRESS CATALOGING IN PUBLICATION DATA

Kramnick, Isaac.

The portable Enlightenment reader/Isaac Kramnick.

p. cm.

Includes bibliographical references.

ISBN 978-0-14-024566-0

1. Enlightenment. 2. Philosophy, Modern—18th century.

I. Title.

B802.K73 1995

940.2'53—dc20 95-16720

Printed in the United States of America Set in Bembo

Except in the United States of America, this book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, resold, hired out, or otherwise circulated without the publisher's prior consent in any form of binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

The scanning, uploading and distribution of this book via the Internet or via any other means without the permission of the publisher is illegal and punishable by law. Please purchase only authorized electronic editions, and do not participate in or encourage electronic piracy of copyrighted materials. Your support of the author's rights is appreciated.

CONTENTS

Introduction	ix
Notes to Introduction	xxv
Suggestions for Further Reading	xxvii
PART ONE: THE ENLIGHTENMENT SPIRIT: AN OVERVIEW	
What Is Enlightenment?—Kant	1
The Human Mind Emerged from Barbarism—d'Alembert	7
"Encyclopédie"—Diderot	17
Definition of a <i>Philosophe</i> —Dumarsais	21
<i>Le mariage de Figaro</i> —Beaumarchais	23
<i>The Magic Flute</i> —Mozart	25
The Future Progress of the Human Mind—Condorcet	26
PART TWO: REASON AND NATURE	
The New Science—Bacon	39
Mathematical Principles of Natural Philosophy—Newton	43
The New Physics—Cotes	48
On Bacon and Newton—Voltaire	51
The Rat—Buffon	60
The Utility of Science—Condorcet	64
The Organization of Scientific Research—Priestley	69
Letter to Joseph Priestley—Franklin	73
PART THREE: REASON AND GOD	
On Superstition and Tolerance—Bayle	75
A Letter Concerning Toleration—Locke	81
On Enthusiasm—Shaftesbury	90
The Argument for a Deity—Newton	96
A Discourse of Free-Thinking—Collins	101
"If there is a God . . ."—Montesquieu	106
Of Miracles and the Origin of Religion—Hume	109
Reflections on Religion—Voltaire	115
Profession of Faith of a Savoyard Vicar—Rousseau	134

and features, as well as our tendencies to certain physical affections, hand on to us also that part of the physical organization which determines the intellect, the power of the brain, the ardor of the soul or the moral sensibility? Is it not probable that education, in perfecting these qualities, will at the same time influence, modify and perfect the organization itself? Analogy, investigation of the human faculties and the study of certain facts, all seem to give substance to such conjectures, which would further push back the boundaries of our hopes.

These are the questions with which we shall conclude this final stage. How consoling for the philosopher, who laments the errors, the crimes, the injustices which still pollute the earth, and of which he is often the victim, is this view of the human race, emancipated from its shackles, released from the empire of fate and from that of the enemies of its progress, advancing with a firm and sure step along the path of truth, virtue and happiness! It is the contemplation of this prospect that rewards him for all his efforts to assist the progress of reason and the defense of liberty. He dares to regard these strivings as part of the eternal chain of human destiny; and in this persuasion he is filled with the true delight of virtue and the pleasure of having done some lasting good, which fate can never destroy by a sinister stroke of revenge, by calling back the reign of slavery and prejudice. Such contemplation is for him an asylum, in which the memory of his persecutors cannot pursue him; there he lives in thought with man restored to his natural rights and dignity, forgets man tormented and corrupted by greed, fear, or envy; there he lives with his peers in an Elysium created by reason and graced by the purest pleasures known to the love of mankind.

PART II

REASON AND NATURE

THE NEW SCIENCE

FRANCIS BACON

In this selection from his 1620 book, Novum Organum, Francis Bacon (1561–1626), English philosopher of science, essayist, and statesman, spells out the scientific methodology that would so influence the Enlightenment.

Man, being the servant and interpreter of Nature, can do and understand so much and so much only as he has observed in fact or in thought of the course of nature: beyond this he neither knows anything nor can do anything.

Neither the naked hand nor the understanding left to itself can effect much. It is by instruments and helps that the work is done, which are as much wanted for the understanding as for the hand. And as the instruments of the hand either give motion or guide it, so the instruments of the mind supply either suggestions for the understanding or cautions.

Human knowledge and human power meet in one, for where the cause is not known the effect cannot be produced. Nature to be commanded must be obeyed; and that which in contemplation is as the cause is in operation as the rule.

The subtlety of nature is greater many times over than the subtlety of the senses and understanding; so that all those specious meditations, speculations, and glosses in which men indulge are quite from the purpose, only there is no one by to observe it.

The logic now in use serves rather to fix and give stability to the

errors which have their foundation in commonly received notions than to help the search after truth. So it does more harm than good.

The syllogism is not applied to the first principles of sciences, and is applied in vain to intermediate axioms; being no match for the subtlety of nature. It commands assent therefore to the proposition, but does not take hold of the thing.

The syllogism consists of propositions, propositions consist of words, words are symbols of notions. Therefore if the notions themselves (which is the root of the matter) are confused and overhastily abstracted from the facts, there can be no firmness in the superstructure. Our only hope therefore lies in a true induction.

There is no soundness in our notions whether logical or physical. Substance, Quality, Action, Passion, Essence itself, are not sound notions: much less are Heavy, Light, Dense, Rare, Moist, Dry, Generation, Corruption, Attraction, Repulsion, Element, Matter, Form, and the like; but all are fantastical and ill defined.

The conclusions of human reason as ordinarily applied in matter of nature, I call for the sake of distinction *Anticipations of Nature* (as a thing rash or premature). That reason which is elicited from facts by a just and methodical process, I call *Interpretation of Nature*.

Anticipations are a ground sufficiently firm for consent; for even if men went mad all after the same fashion, they might agree one with another well enough.

For the winning of assent, indeed, anticipations are far more powerful than interpretations; because being collected from a few instances, and those for the most part of familiar occurrence, they straightway touch the understanding and fill the imagination; whereas interpretations on the other hand, being gathered here and there from very various and widely dispersed facts, cannot suddenly strike the understanding; and therefore they must needs, in respect of the opinions of the time, seem harsh and out of tune; much as the mysteries of faith do.

In sciences founded on opinions and dogmas, the use of anticipations and logic is good; for in them the object is to command assent to the proposition, not to master the thing.

Though all the wits of all the ages should meet together and combine and transmit their labors, yet will no great progress ever be made in science by means of anticipations; because radical errors in the first concoction of the mind are not to be cured by the excellence of functions and remedies subsequent.

It is idle to expect any great advancement in science from the superinducing and engrafting of new things upon old. We must begin anew from the very foundations, unless we would revolve forever in a circle with mean and contemptible progress.

The honor of the ancient authors, and indeed of all, remains untouched; since the comparison I challenge is not of wits or faculties, but of ways and methods, and the part I take upon myself is not that of a judge, but of a guide.

This must be plainly avowed: no judgment can be rightly formed either of my method or of the discoveries to which it leads, by means of anticipations (that is to say, of the reasoning which is now in use); since I cannot be called on to abide by the sentence of a tribunal which is itself on its trial.

The doctrine of those who have denied that certainty could be attained at all, has some agreement with my way of proceeding at the first setting out; but they end in being infinitely separated and opposed. For the holders of that doctrine assert simply that nothing can be known; I also assert that not much can be known in nature by the way which is now in use. But then they go on to destroy the authority of the senses and understanding; whereas I proceed to devise and supply helps for the same.

The idols and false notions which are now in possession of the human understanding, and have taken deep root therein, not only so beset men's minds that truth can hardly find entrance, but even after entrance obtained, they will again in the very instauration of the sciences meet and trouble us, unless men being forewarned of the danger fortify themselves as far as may be against their assaults.

There are four classes of Idols which beset men's minds. To these for distinction's sake I have assigned names—calling the first class *Idols of the Tribe*; the second, *Idols of the Cave*; the third, *Idols of the Market Place*; the fourth, *Idols of the Theater*.

The formation of ideas and axioms by true induction is no doubt the proper remedy to be applied for the keeping off and clearing away of idols. To point them out, however, is of great use; for the doctrine of Idols is to the Interpretation of Nature what the doctrine of the refutation of Sophisms is to common Logic.

The Idols of the Tribe have their foundation in human nature itself, and in the tribe or race of men. For it is a false assertion that the sense of man is the measure of things. On the contrary, all perceptions as well

of the sense as of the mind are according to the measure of the individual and not according to the measure of the universe. And the human understanding is like a false mirror, which, receiving rays irregularly, distorts and discolors the nature of things by mingling its own nature with it.

The Idols of the Cave are the idols of the individual man. For everyone (besides the errors common to human nature in general) has a cave or den of his own, which refracts and discolors the light of nature; owing either to his own proper and peculiar nature; or to his education and conversation with others; or to the reading of books, and the authority of those whom he esteems and admires, or to the differences of impressions, accordingly as they take place in a mind preoccupied and predisposed or in a mind indifferent and settled; or the like. So that the spirit of man (according as it is meted out to different individuals) is in fact a thing variable and full of perturbation, and governed as it were by chance. Whence it was well observed by Heraclitus that men look for sciences in their own lesser worlds, and not in the greater or common world.

There are also Idols formed by the intercourse and association of men with each other, which I call Idols of the Market Place, on account of the commerce and consort of men there. For it is by discourse that men associate; and words are imposed according to the apprehension of the vulgar. And therefore the ill and unfit choice of words wonderfully obstructs the understanding. Nor do the definitions or explanations wherewith in some things learned men are wont to guard and defend themselves, by any means set the matter right. But words plainly force and overrule the understanding, and throw all into confusion, and lead men away into numberless empty controversies and idle fancies.

Lastly, there are Idols which have immigrated into men's minds from the various dogmas of philosophies, and also from wrong laws of demonstration. These I call Idols of the Theater; because in my judgment all the received systems are but so many stage plays, representing worlds of their own creation after an unreal and scenic fashion. Nor is it only of the systems now in vogue, or only of the ancient sects and philosophies, that I speak; for many more plays of the same kind may yet be composed and in like artificial manner set forth; seeing that errors the most widely different have nevertheless causes for the most part alike. Neither again do I mean this only of entire systems, but also of many principles and axioms in science, which by tradition, credulity, and negligence have come to be received.

MATHEMATICAL PRINCIPLES OF NATURAL PHILOSOPHY

ISAAC NEWTON

Sir Isaac Newton (1642–1727), professor of mathematics at Cambridge University, personified science and its rationalist ideals for the eighteenth century. The following is an excerpt from his monumental Principia, written in Latin in 1687.

DEFINITIONS

Definition I

The quantity of matter is the measure of the same, arising from its density and bulk conjointly.

Thus air of a double density, in a double space, is quadruple in quantity; in a triple space, sextuple in quantity. The same thing is to be understood of snow, and fine dust or powders, that are condensed by compression or liquefaction, and of all bodies that are by any causes whatever differently condensed. I have no regard in this place to a medium, if any such there is, that freely pervades the interstices between the parts of bodies. It is this quantity that I mean hereafter everywhere under the name of body or mass. And the same is known by the weight of each body, for it is proportional to the weight, as I have found by experiments on pendulums, very accurately made, which shall be shown hereafter.

Definition II

The quantity of motion is the measure of all the same, arising from the velocity and quantity of matter conjointly.

The motion of the whole is the sum of the motion of all the parts; and therefore in a body double in quantity, with equal velocity, the motion is double; with twice the velocity, it is quadruple. . . .