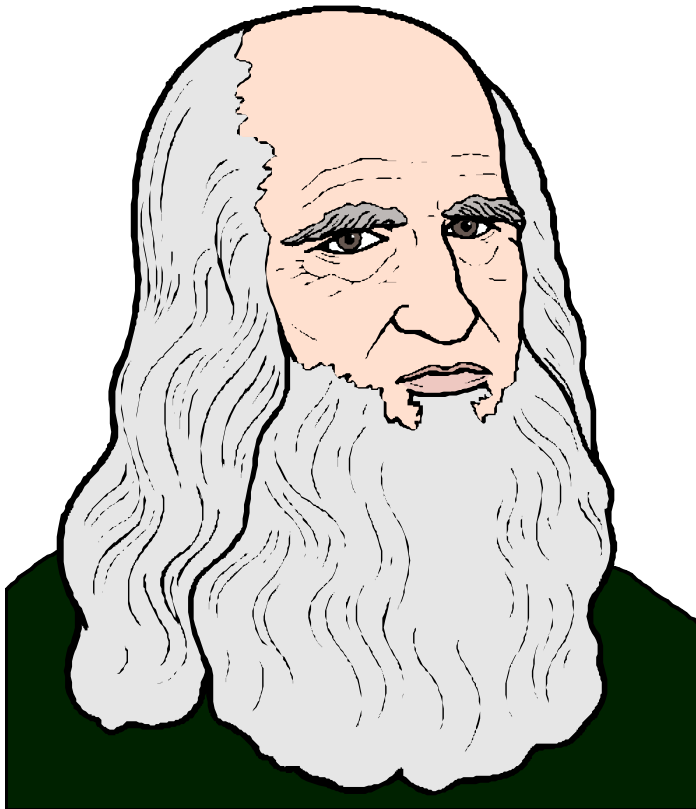


# Study Questions for W. Joseph Wyatt's *The Millennium Man*

Stephen F. Ledoux

W. Joseph Wyatt

Elicia F. Bias



US\$10 / ISBN 1-882508-11-4

Copyright © 1999 by Stephen F. Ledoux and W. Joseph Wyatt and Elicia F. Bias

# Study Questions for W. Joseph Wyatt's *The Millennium Man*

**Stephen F. Ledoux**

**W. Joseph Wyatt**

**Elicia F. Bias**

**First Edition** (softcover) published in 1999 by  
ABCs of Canton, NY, USA,  
for US\$10 retail per copy.

ISBN 1-882508-11-4

Printed in the United States of America.



*Improved printing number:* >6 6 5 4 3 2 1

*Nearest year of printing:* >2025 25 20 15 10 05 2001

## **Copyright Notice/Warning:**

Copyright © 1999 by Stephen F. Ledoux and W. Joseph Wyatt and Elicia F. Bias. All rights reserved. This book and its contents are protected by the federal copyright laws of the United States of America. Reproduction or copying of these materials, by any means whatsoever, in whole or in part, without the express, hard-copy, written permission of the copyright holders is prohibited and may subject the violator(s) to civil sanctions, criminal penalties, or both. Send requests for permission, stating (a) portions to be copied and (b) purpose of copying those portions, to the publisher who will forward the requests to the authors who are the copyright holders.✿

# Contents

**To the Student and Teacher ... v**

About the Novel ... v

About the Study Questions ... v

About the Novel / Study Questions Combination ... vi

About Using the Study Questions ... vi

About the Appendices ... viii

About the Other Extras ... viii

About Ordering *The Millennium Man* ... viii

**Prologue through Chapter Seven ... 1**

Prologue ... 1

Chapter One ... 2

Chapter Two ... 4

Chapter Three ... 5

Chapter Four ... 7

Chapter Five ... 9

Chapter Six ... 11

Chapter Seven ... 14

**Chapter Eight through Chapter Fourteen ... 17**

Chapter Eight ... 17

Chapter Nine ... 20

Chapter Ten ... 25

Chapter Eleven ... 26

Chapter Twelve ... 28

Chapter Thirteen ... 29

Chapter Fourteen ... 31

**Chapter Fifteen through Chapter Twenty–Two ... 33**

Chapter Fifteen ... 33

Chapter Sixteen ... 36

Chapter Seventeen ... 37

Chapter Eighteen ... 39

Chapter Nineteen ... 42

Chapter Twenty ... 45

Chapter Twenty–One ... 47

Chapter Twenty–Two ... 48

**Appendix I: Carl Sagan is Right Again: A Review of *The Millennium Man* ... 49**

**Appendix II: Partially Annotated References for Further Reading ... 53**

**Proof of Ownership ... 55**

**ABCs Advertisement ... 57 ♣**

***Ordering this study question book:***

The best way to obtain a copy of this book is to order it directly from the publisher. The list price is US\$10. For *all* orders, a pre–paid mail order is preferred, and is expected for individuals; ABCs will then cover *all* other charges such as shipping for orders in the USA. Send your check (to pre–pay your order) to:

*ABCs*  
9 Farmer Street  
Canton NY 13617  
USA

# To the Student and Teacher

## About the Novel

*The Millennium Man* is a novel. While it is basically a work of fiction, it makes use of many facts from a range of arts and sciences. It was designed to be enjoyable. It was also designed to develop critical thinking skills and to improve attitudes toward learning and the educational process.

The author wrote this novel for many reasons and for readers of many ages. One of the reasons was to help readers become more aware of certain aspects of art history, especially some interconnections between art and science. Another reason was to help readers become more aware of the multitude of beneficial scientific and technological advances, from a wide range of scientific and engineering disciplines, in the twentieth century. And yet another reason was to help readers become more aware of the many similar advances from a particular twentieth century scientific and engineering discipline, a natural science of behavior, that is called *behavior analysis* by some and *behaviorology* by others. This natural-science perspective on behavior is a significant alternative to the social-science perspective presented by traditional psychology, and thus it is important to know about it.

The novel contains a prologue and twenty-two short chapters. Each chapter is about nine pages long. The study questions in this book have been prepared to help student readers absorb the material. ☺

## About the Study Questions

These study questions were designed to increase the reader's benefit from the novel by prompting and guiding the reader's learning. The study questions focus the reader's attention on many of the particular points that surround different topics which arise in the course of each chapter. And they bring to the reader's attention various general themes and trends that run through particular chapters and through the whole novel itself.

The study questions are of several kinds. Some are simply factual. Others require abstract and associative thinking. Still others necessitate critical thinking. The answers to the vast majority of the study questions are easily found directly in the text. While readers are encouraged to answer the questions "in their own words," only a few questions require answers in that mode. Virtually all study questions are presented sequentially; they do not skip around in the material that they cover. (Making sure that some part of the book gets read was never the primary purpose for including any particular study question.)

In this study guide, the questions are divided into three roughly equal parts of about seven chapters each (covering, on average, some sixty-four pages of *The Millennium Man*). This division is only partly along arbitrary lines, with length being

of little importance. What was important was that the end of each part introduces the content of the next part. This entices the reader to move right along. Teachers can assign each part to be covered over some specified period (e.g., one-week or two-weeks) or they can assign some other number of chapters to be covered over some specified period while ignoring the division into three parts.↻

## About the Novel / Study Questions Combination

The novel and study questions work together to achieve beneficial pedagogical aims. The novel was designed to accompany separate or integrated studies in areas such as science, history, art, literature, government, geography, or social science. The study questions are designed to support this integration by covering topics in those areas as they arise in the novel. Thus this novel and these study questions are designed to be usable in interdisciplinary courses or separate courses in several different types of disciplines: natural sciences (e.g., behaviorology / behavior analysis, biology, engineering, physics), social sciences (e.g., anthropology, history, politics, psychology), and humanities (e.g., art history, English, fine arts, philosophy).

Teachers may manage this book of study questions in many different ways. Here are some of these ways: The entire collection may be assigned to students with instructions that they answer every question. This is the norm, especially at higher educational levels. Another option involves several questions from each chapter being assigned by writing them on the board, while the teacher retains the remaining questions for later use as prompts for classroom discussions. Yet another option is to assign students to work in small groups, each of which answers a subset of the questions for each chapter. Many combinations are also possible.

Of course, not all teachers and not all courses need to use all the study questions. A teacher might excuse some study questions that are specific to another discipline (e.g., a history teacher might excuse literary style questions). All the questions taken together, though, help educate students in the full range of disciplines, from science to literature to art to philosophy and back again. However, *all* the study questions together may be too many for use at some educational levels, or in a single-discipline course. Perhaps in such cases the teacher might excuse some of the study questions that are not relevant to those particular students or the discipline that informs the teacher's course. There may even be some questions that a teacher simply does not want to deal with, and students may also be excused from those questions.↻

## About Using the Study Questions

Certain considerations about using the study questions are pertinent. The phrasing sometimes used in one or another study question may seem odd or unusual. This is usually because the phrasing mimics the phrasing used at or near the location of the answer in the novel; this makes it easier for the student to recognize the

answer while reading the material. Also, the answers to a few questions are *not* in the novel; these answers are in the student's general knowledge or perhaps their dictionaries, or an encyclopedia, etc.

Most teachers assigning study questions like these maintain typical procedures regarding their use. Here are some elements of these procedures: (a) Write out the answers to the study questions—in your own words if possible—by combining the questions and answers into full statements. This enables students to study *just* their notes, when reviewing for tests or other assessments of their knowledge. They need not refer to either the novel or the study questions during their review. (b) Students should be tested only over the study questions that they were required to cover. Hence, they should be able to study fully for any tests over the novel by studying the answers to the assigned study questions. (c) A realistic assignment is for students to complete one chapter a day (novel, study questions, and answers). The question to the student is: *Can you do only* one chapter a day? (d) Typically, students complete one seven-chapter part of the study questions each week for three weeks. Each part, or all three, is then followed by a test over the material. (e) Students write out their study question answers right in their *Millennium Man* study question book. (Some teachers require that the study question book, with answers in it, be brought to class for discussion and checking.)

Several tests assessing the study questions in this book are available for teachers. They are short-answer tests. Most items are of the fill-in-the-blank and true/false types. Teachers who adopt the novel and this study question book for their classes can obtain a copy of these tests for reproduction or other use by writing, on their school's letterhead, to Dr. Stephen F. Ledoux, Arts and Sciences, SUNY-CTC, Cornell Drive, Canton NY 13617 USA. These tests can be used "as is," when all the study questions are assigned. Or, they can be used as part of, or the basis of, the teacher's own tests either when all of these study questions are assigned, or when only some subset of them is assigned.

Other pedagogical possibilities are available. As a supplemental, or extra credit, assignment to the study questions, teachers might suggest to students that, after finishing the novel, they imagine themselves in the shoes of Holly and David, the younger characters in the story. Ask them to describe the things they would hope to be able to show Leonardo, the main character, at his next awakening. This could be done in terms of the special emphasis of the particular course the students are taking. Or it could be done in terms of the natural science of behavior and its applications to the solutions of significant social problems (e.g., the crisis in education, or the ending of verbal and emotional abuse of children). Then, ask the students to describe the things they might do in their own lifetimes to help make into realities the things they would hope to show Leonardo. These possibilities could involve preparations for discussions, or written answers.

Those possibilities could even be a part of a larger assignment, such as a book report. However, teachers who relied solely on a book report found, through an assessment separate from the book reports turned in, that their students benefited little from whatever interactions with the novel they had under this assignment. Their data was reported at the 1999 convention of the Association for Behavior Analysis in Chicago. Two of the authors of these study questions were involved in that study. That poor outcome was part of our motivation to follow an already proven strategy by developing and using these study questions.☺

## About the Appendices

At the end of this book, following the study questions, are two appendices. One is a previously published book review of *The Millennium Man*. The other is a bibliography of additional, related titles. Each will be described in turn.

Appendix I reprints a previously published review of *The Millennium Man* written by one of the authors of these study questions. As an overview of the novel with commentary on its various components, the review provides several pieces of information that teachers usually find quite useful when they have adopted the novel for their classes.

Appendix II provides a partially annotated bibliography of titles for further reading. These titles elaborate on some of the major themes of *The Millennium Man*. A full range of interest levels is represented, from general overviews and surveys of the various topics, to detailed academic treatments of the topics. The titles are listed under four categories: (a) *Parenting Knowledge and Skills*, (b) *Education*, (c) *General Science and Knowledge*, and (d) *Natural Science of Behavior*. There is something for everyone among the books in these categories.☺☺

## About the Other Extras

In addition to the two appendices following the study questions, this book has two further “extras” for teachers and students. One is a “proof of ownership” form, and the other is a publisher’s advertisement.

To help assure all students’ ability to work on the study questions in a timely manner (by having their own copies rather than having to face the need or temptation to borrow or share), a “Proof of Ownership” sheet follows Appendix II. Having each student fill out and turn in this form documents that each student owns her or his own copy of the study question book. The form can be filled out by the student, removed from the book, and given to the teacher as per course requirements. Basically, the form assures the teacher that each student has a clean copy of the study questions book to use and put his or her written answers into.

An advertisement from the publisher follows the proof of ownership form. Some of the books referenced in one or another study question, or listed in the bibliography, are also published by ABCs who publishes this study question book. The publisher’s advertisement provides more information on some of those titles, and tells how to obtain them.☺☺

## About Ordering *The Millennium Man*

Order *The Millennium Man* itself from Third Millennium Press (PO Box 844, Hurricane WV 25526 USA) for \$10 plus \$2 postage and handling. (Order 20 or more copies and Third Millennium Press pays the postage.) The novel is 196 pages, softbound. Your PO is accepted. Allow 30 days for deliveries of more than 20 books.♣