Looking for the Ancient Greeks

Looking for the Ancient Greeks:

Damasio, Aristotle and Human Flourishing

By

Martha C. Beck

Cambridge
Scholars
Publishing

Looking for the Ancient Greeks:
Damasio, Aristotle and Human Flourishing

By Martha C. Beck

This book first published 2018

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

ISBN (10): 1-5275-1185-5
ISBN (13): 978-1-5275-1185-9

To all academics and professionals who would like to reform our educational system so that it is integrated with the new “Systems” paradigm for understanding the universe, the natural world, and the union of mind and body as understood by neuroscience. Educated professionals in all fields are responsible for giving students the skills and insights they need to flourish in the global community they will live in as adults. Our collective goal is an education for the love of wisdom, the integration of our inner lives, our cultures and the natural world. This book presents one way to contribute to what I hope will be a long and meaningful conversation, leading to a continual reformation of education with the goal of promoting all types of flourishing.

TABLE OF CONTENTS

Acknowledgements ix

Chapter One 1
Introduction: Neuroscience, Philosophy and Human Flourishing

Chapter Two 11
Damasio's Position: Neuroscience and Its Implication for Human "Salvation"

Chapter Three 29
Linking Damasio to Other Scientific Disciplines: The Paradigm Shift from Reductionism and Dualism to a Holistic Understanding of the Nature of the Universe, Life on Earth, and Human Life

Chapter Four 43
Carl Jung, Archetypal Psychology, Neuroscience and Damasio

Chapter Five 69
Damasio, Aristotle and a Model of the Best Neural Map in a Mature Adult

Chapter Six 94
Higher Education, the Human Condition and Human Flourishing

Chapter Seven 114
Greek Cultural Texts

Chapter Eight 144
Damasio's View in Light of What the Greeks Tried to Pass Down

Chapter Nine 153
Damasio: How Inadequate Ideas of the Human Condition lead to Inadequate Ideas of the Effects of the Drugs Produced by Neuroscience

Chapter Ten 173
Damasio and Human Psychology: The Structure of the Human Psyche and the Goal of Individual and Collective Homeostasis as the Goal of Human Life

Chapter Eleven 187
Neuroscience on Nature, Suffering and Death

Chapter Twelve 199
Neuroscience, Greek Culture and the Natural Quest for Meaning and Purpose

Chapter Thirteen 209
Neuroscience and Humanities Education

Bibliography 213

ACKNOWLEDGEMENTS

First, my thanks to B. K. Lindsey and Judy Blackwell. For the last 15 or so years, I have leaned on them to do all of the time-consuming, "dirty work" necessary to make the transition from ideas in my head to a book that someone can pick up, read, and understand. Judy has been one of my most careful readers. She is the bridge between the conversations I have inside my head and the conversations I would like to ignite in the minds of my readers and then between my readers and their conversation partners. B. K. picks up where Judy leaves off and does all of the technical details. She reads the publishers specifications, so that the manuscript will be polished and accepted. Without these two, who have become my close friends, an even smaller percent of the many ideas in the back of my mind would ever get on paper and out into the world. I only hope we can keep this up for another 15 years or more.

Second, my thanks to Dr. Damasio for writing this book. I know he has written many, many articles and more books. I apologize for focusing on only one. There is "meaning in the madness," however, and it is related to what Damasio is telling us about the structure of the human psyche. Damasio describes why research in neuroscience has led to the rejection of the two models of the human psyche that have controlled Western culture since the Enlightenment: material reductionism, the psyche as a blank slate; and dualism, the view that reason can be detached from our biological inheritance. Instead, Damasio says that, "body, brain and mind are manifestations of a single organism . . . they are in effect inseparable under normal operating conditions" (195). Given this unity, as adults, the most important activity we should be engaged in is a continual examination and reexamination of our ideas, our minds. We are always using our beliefs about "the serious questions" in life to form new neural maps and to reform the ones we developed in the past. Damasio tells us his own position on these serious questions. Although I do not always agree with him, I appreciate what Damasio has written about homeostasis, human spirituality, feelings, the Golden Rule, the meaning of life, suffering and death, the value of religious traditions, and the value of the philosophical path to God, Spinoza's "intellectual love of God." I consider myself a fellow traveler on that path.

Damasio explains the empirical research that supports his view that we have the power of choice. We can create lives for ourselves. In order to do this well, we have to examine and continually reexamine our ideas. A scientist who explains how this view has been empirically proven is the greatest blessing to a philosopher whose life is dedicated to the examination of our ideas on the assumption that our ideas control what choices we make and what lives we live. His "pilgrimage" to the various places where Spinoza lived and his research on Spinoza's life gives one example of the same type of journey we all ought to be on. We should seek out our own role models, or read the stories of the people history has called wise, in order to reform our own inner neural maps and live on the basis of those maps.

This book is constructed as "a meeting of the minds." As a lover of Ancient Greek culture, I, too, have thought about all of these questions. I have spent ten summers and one sabbatical going on my own pilgrimage to Greece. I have done research to find out about the people and events that took place there. I have developed a deep respect for how I think the Ancient Greek intellectuals and other professionals gradually created their cultural tradition. I think their goal was maximize what Aristotle called "*eudaimonia*," which literally means a "healthy spirit" in as many people as possible to the highest level possible at any given time and place. I prefer translating "*eudaimonia*" as "flourishing" because Aristotle, like Damasio, was looking at human nature as emerging from biology. We refer to other species as "flourishing" when all of their natural capacities have been activated and exercised to the highest level possible for that species. Human beings are much more complex than any other species (Damasio also agrees). They require a much more complex process of maturation and they spend their adult lives becoming more aware of their capacities and using them to a higher and higher degree in situations where it is appropriate. Damasio and I have worked on the same questions because we agree on the basic premise: that getting our ideas straightened out is the most important activity for adults. Having the right ideas, a "sound" mind, is necessary for flourishing, even if it is not sufficient. There are many reasons that we cannot or are not able to live out the way of life we think is best. Without the right ideas, however, we will inevitably fail.

This book is not like other scholarship for exactly the reasons Damasio explains. The discovery of the complete mind-body unity and the need to consciously examine the mind in order to develop integrity and homeostasis is not the paradigm underlying current scholarship. The most respected academic work is still based on either dualism or reductionism

left over from the Enlightenment. This book is holistic, examining humanity's most important ideas in ways that have immediate applications to the way we structure our lives and the legacy we leave behind.

Although I have not written a dialogue, as Plato did, this book is written as an interchange between two minds. It is intended to educate readers' overall worldviews so that they can transform the words, which are only black marks on paper, into new neural maps in their brains. The arguments in this book could have profound consequences for the development of the minds and lives of my readers.

I am also grateful to the retired Cambridge professors who first founded Cambridge Scholars Press. I assume they were looking for scholarship that represented the tradition of "arts and letters," the written work of people who were aware of the power of their minds and whose written works were an expression of the activity of their minds. I think CSP accepted this manuscript because its underlying vision is trying to achieve their overall vision.

I am grateful to Lyon College for hiring me over two decades ago and giving me the chance to ponder the great legacy the Ancient Greeks have passed down to us. Teaching at Lyon forces me to think holistically. I am the only philosophy professor at Lyon, so I am constantly recognizing connections and differences between everything I teach and the way I live. I am asked to teach philosophy to undergraduates in a way that enables them to use what they read and apply it to their own lives. They are not being prepared for graduate school and acceptance into the profession of philosophy as it exists today. Plato and Socrates were trying to educate future leaders in every sector of society. Socrates used "everyday language" to talk about the questions on everyone's minds. Lyon has always wanted me to do the same.

My goal is to link what I have to say about the Greeks with as many other intellectual schools of thought and the new emerging paradigm so that collectively professionals and intellectuals can formulate and pass on to the next generation the best possible legacy of wisdom. Life will be difficult enough for young people today. Their parents and elders need to give them as much insight as possible. I hope this book will contribute to our greatest task: the education of our minds to create the best ideas which then are used to create or reform all aspects of culture and to direct the course of human and natural history.

CHAPTER ONE

INTRODUCTION: NEUROSCIENCE, PHILOSOPHY AND HUMAN FLOURISHING

I had never planned to write a book on neuroscience and ancient Greek philosophy and culture. It was not on my "bucket list." Insofar as I thought about neuroscience at all, which I obviously did not, I am sure I carried around a false stereotype about the field and assumed it reduced human psychology to the structure and chemistry of the brain. One summer, after classes ended and before heading to Greece, I was in a used bookstore, looking for a book to read on the airplane. In the philosophy section, I noticed a book called, "*Looking for Spinoza: Joy, Sorrow and the Feeling Brain."* Although I have not been able to teach or pursue Spinoza's work since graduate school, one of my Ph.D. preliminary examinations was on Spinoza. I loved the way his *Ethics* teaches its readers how to examine all of their thoughts, emotions, and actions and to deliberately rewire their brains so that "the order and connection of ideas [in their heads] follows the order and connection of things [in the natural world]." This is the model of wisdom I agree with and have tried to follow in my own personal life.

As I was growing up during the 1960s, I became acutely aware of the way Western culture, particularly the United States, persisted in the exploitation of natural resources for the sake of higher and higher levels of affluence for American citizens and profits for those who benefit from creating consumer goods. I have grieved as I watch our economic system become more and more dependent on the exploitation of natural resources and on fossil fuels. I have also struggled throughout my academic career because the popular trends in the Academy at that time either did not consider or explicitly rejected the kind of worldview and education I thought Westerners needed most.

As an undergraduate, my philosophy professor introduced me to Greek philosophy. There I found Plato's literary image of a man, Socrates, whose goal in life was to order his mind so that it would be a microcosm in the

macrocosm, a mirror of the universe. Socrates controlled all of his actions so they were caused by his mind (*nous*). By doing so, he thought he was imitating the universe, which he thought was based on a kind of ordering power, which he called Mind (*Nous*). I also studied Aristotle's definitions of the natural virtues and vices, his description of social and political life, and his description of a force that must exist in order to make it possible for our universe to exist and to exist the way it does. Aristotle's theoretical description of the best way of life is a life filled with activities caused by the power of one's mind both in practical daily life and in theoretical reflection on the underlying structure of reality. The kind of life Socrates is shown to be living in Plato's dialogues is one example of Aristotle's model of the life governed by mind. I also read Spinoza, whose view is similar. Eventually, however, I dedicated myself to studying Greek philosophy because I thought it was more comprehensive.

Studying Greek philosophy and living in Athens every summer enabled me to understand how all aspects of Greek culture fit together. They were all structured to try and educate the human soul in a way that would lead ultimately to the activation of the highest power, mind. Wise people are supposed to exercise the power of their minds by being as completely engaged in as many types of human activities as they can, all for the sake of promoting their own flourishing and that of everyone else. Spinoza's view, on the other hand, was that of a single man whose life focused on reading, writing, and conversing with like-minded friends.

I preferred the Greeks, in part, because I was married at age twenty and had my first child a year later. I had two more children, both while I was in graduate school. From age 21, I was continually engaged in many types of activities throughout my career as an undergraduate, graduate student, and professor. I experienced the kinds of difficult and tragic situations described in the works of the Greek artists, so I was inspired to study all aspects of Greek culture. The Greek poets wanted citizens to ultimately connect the order of ideas in their heads with the order of things in the universe. They had the same goal as Spinoza did, but they presented stories of many, many ways the soul needs to be molded and refined. Greek artistic texts also explore all the mistakes human beings can and usually do make while trying to become wise.

This is why the title of Damasio's book was interesting to me. I wanted to read a book about why Spinoza's worldview is still relevant. Then I read that Dr. Damasio is a prominent neuroscientist. The book's jacket contained all sorts of positive reviews by professionals in many fields who teach at the best universities in the U.S. and elsewhere. Some were Nobel Prize winners. I was eager to read the book.

As I began, I was delighted to find out that Dr. Damasio's main point is that contemporary discoveries in the neurosciences have confirmed empirically that the two prominent positions during the Modern Era, the view of empiricists like John Locke, who reduced the psyche to a "blank slate" at birth, and the dualistic view of rationalists like Descartes and Kant, have now been rejected by the discoveries in the neurosciences. As a student of the Greeks, I have thought this all along. My dissertation was on Plato's *Phaedo*, which is all about his view of the soul/psyche. My interpretation of that dialogue is that Plato rejects both reductionism and dualism. He does so by using the same pedagogical technique as the other Greek poets use. First, he introduces alternative views as sympathetically as possible. Then he indirectly shows why they are inadequate.

I was ecstatic to find out that Damasio is arguing that we have the ability and the responsibility to examine our ideas because our ideas control who we are as adults. We have the power to use ideas to form and reform our neural maps. Damasio integrates mind and body and explains why our minds are more powerful than the merely physical aspects of our brains. Damasio then uses his knowledge about the brain-mind connection to make recommendations about the nature of the best human life, his view of human flourishing. He describes a universal model of how we should live so that the order and connection of what we feel, think and do follow the direction every culture should move toward to enable human beings to flourish. His model includes recommendations about the best way to organize societies socially and politically. Finally, he discusses the best way to think about God and the ultimate meaning and purpose of human life in the light of what we now know about human biology. Damasio connects the physiology of the brain with the emergence of self-conscious thought and all the aspects of human nature, history, and culture that humans create through the power of thought.

The second chapter of this book will describe Damasio's view. Damasio understands that the new discoveries in his field have radical implications for every field of study. The new view of our understanding of the relation of body to mind and the dominance of mind over body leads Damasio to say, "Science can be combined with the best of a humanist tradition to permit a new approach to human affairs and lead to human flourishing."[1] Damasio calls for a reexamination of all academic disciplines, particularly the humanities and the arts, in their ways of educating the psyche. He claims that the study of the brain's neural mapping leads to the

[1] Antonio Damasio, *Looking for Spinoza: Joy, Sorrow, and the Feeling Brain* (Orlando, Florida: Harcourt's, Inc., 2003), 283.

need to focus on the education of the mind, which consists of a continual examination of ideas and theories. Our ideas about our ideas are supposed to lead us to reform our emotions and actions. Using Damasio's terms, we need to continually reform our neural maps. Such a reformation caused by ideas is both possible and necessary in order to live a flourishing life and in order to enable others to flourish. This is what I have always thought and this idea has driven my study of Greek philosophy and culture.

As is often true, although I agree with many of Damasio's basic foundations, I disagree profoundly with his view of what follows from those foundations. What follows is my own response to Damasio's invitation to combine science with the humanist tradition in "new" ways. I have summarized "the Greek view" in a way that a professional in my field might take issue with, but I have chosen to focus on the ways that the legacy of the Greek tradition can still educate people. I have also linked the Greeks and Damasio to a number of other prominent schools of thought today in many different fields. The arguments in this book will be linked to similar positions that professionals in many other fields of study are making about the way recent discoveries lead to a new paradigm of the nature of reality as a whole.

The third chapter links Damasio's claims with those made in other branches of the sciences. I focus on two authors who represent important branches of what is called the emerging "holistic" paradigm. Paul Davies is a theoretical physicist, trained in quantum physics. He describes how the quantum world functions "holistically." He also quotes from and speaks for a growing number of professionals in the fields of study related to the cognitive sciences. The holistic perspective in these fields is called "functionalism." Ervin Lazlo, in his book, *The Systems View of the World*, speaks for intellectuals in every academic discipline who identify themselves as "systems" thinkers. In both of these movements, new positions are constantly emerging.

The fourth chapter briefly describes the branch of psychology called archetypal psychology, which first emerged as a serious branch of psychology with the work of Carl Jung. Jung argues that the world's mythological traditions were created to educate the human soul. He criticizes the Enlightenment rejection of myths as anti-scientific fictions and explains why we still need to be learning the psychological lessons that myths are trying to teach. Jung's and Damasio's positions together form a more complete understanding of the mind-body system that the neurosciences have now proven to be the best way to understand human nature. Supplementing Damasio with Jung leads to a more complete and

accurate account of human emotions, feelings, thoughts, behaviors, and culture than Damasio's view is able to explain on its own.

The next section of the book presents a brief overview of some of what we know about ancient Greek culture. It shows how the Greeks were, in fact, trying to educate the human soul in the way Jungians and Damasio think is so important today. The fifth chapter describes Aristotle's model of the "flourishing" human life, or what gets translated as human "happiness." Aristotle's model describes the best life as based on the complete integration of body and mind, the same model as Damasio claims neuroscientists use. Aristotle's view of human character, of personal, social, and political virtues and vices as described in his *Nicomachean Ethics* and *Politics*, is a complex, nuanced, and systematic account of human nature and human flourishing. Aristotle's account includes the relation between the biological foundations of human life and the bio-psychological-cultural systems human beings construct for themselves to live in. Although Aristotle's concept of human character and character development was rejected during the Enlightenment, Damasio's account of human nature reaffirms the reality and importance of character. I will show that Aristotle's view is more consistent with Damasio's description of what the neurosciences are telling us about human nature than is Damasio's own view.

The sixth chapter describes the connection between Aristotle's view of human nature and his discussion of tragedy in particular and of art in general in the *Poetics*. Aristotle's criteria for tragedy, or good art, are inseparable from his view of psychology. The work of Walter Kaufmann in his book *Tragedy and Philosophy* is used to support the view of the human condition underlying the texts of Greek culture. Aristotle describes tragic plots as including reversal and recognition from ignorance to wisdom. The plots unfold in a way that intends to motivate audience members to change their lives and rewire their ways of feeling, thinking and living. Damasio claims that adults should continually examine their neural maps. Some of those "maps" were formed when they were young. Others developed with age. When those maps are found to be either inaccurate or else maladaptive to their current situations in life, adults must deliberately restructure their neural synapses. All the texts of Greek *paideia*—epic poetry, tragedy, and Plato's dialogues—have that same goal. The characteristics of tragedy Aristotle describes in the *Poetics* explain how that goal can best be achieved.

Recitations of Homer and the poets and performances of tragedy were supposed to stimulate our senses with their visual effects, their music, and the lyricism of the poetry. The stories were intended to be imprinted in our

imaginations and then "stored" in our memories as archetypes. Our identification with the characters and our horror at realizing that we, too, could make the same mistakes are intended to lead us to flush out (*catharsis*) or, in modern terms, to break apart the similar connection we have in our own "neural maps" and to reform our inner lives. Since the stories represent patterns, when people find themselves in the same types of critical situations, they should remember the story, recognize the pattern, and avoid making the mistakes the characters in those texts make. On Damasio's view of neurobiology, the techniques, context, and goal of tragic performances would be a much more effective kind of moral education than what Damasio, using Spinozia as his paradigm, provides. The information coming from the neurosciences about how to reform the body-mind neural systems in the brain should lead us back to an appreciation for the Greek system of education (*paideia*) as reflected in their mythology, their epic poetry, and other sacred texts and in their cultural practices.

The seventh chapter gives very brief descriptions of a few of the archetypal stories of the ancient Greeks, including the Olympian deities, Homer's *Iliad,* and Sophocles' *Philoctetes*. It also describes the patterns in Plato's dialogues. It shows how the texts use the characteristics of art, as described in Aristotle's *Poetics*. Then it describes the cultural contexts which enabled Greek citizens to learn the stories and live out the lessons. It explains how ancient Greek culture aimed at educating a body of citizens for what Aristotle called *phronesis,* or practical wisdom. It shows the kinds of *catharsis* each text is designed to trigger in the souls of its audience and the lessons it is designed to teach. It connects Greek mythology with archetypal psychology and a Jungian analysis of the nature and educational method of all mythology.

The Greeks thought it was their duty and responsibility to continually build on their tradition. The Greeks knew that every generation would face a more complex society, mostly caused by the powers of Apollonian reasoning being used to make new discoveries about the natural world and to apply those discoveries to new technologies that impacted all aspects of human life. The Greeks also knew that the most basic, animalistic drives—sex and aggression—imprinted in us to ensure reproduction and protection from danger, would never go away. In Damasio's terms, the two most deeply rooted neural maps in our brains are designed to trigger responses to the emotional pleasures of eating, drinking, and sex on the one hand and responses to external threats, based on the emotion of fear. Each generation has to construct a culture that integrates those deep drives into their community life. The elder generation is responsible for gaining the

wisdom it can, passing it down, and then allowing for a peaceful transfer of power to the next generation. Each generation leaves a legacy of a better or worse life for their children and grandchildren. The poets are a society's moral educators because they identify these patterns. They show us why uniting biological nature and culture is necessary for self-preservation and flourishing and how this can be done, including the mistakes to avoid.

The next section returns to Damasio's position described in Chapter Two. It points out the ways Damasio's view needs to be supplemented by the insights of the Greeks. The eighth chapter analyzes his views on many issues as representing an Apollonian archetype. Among other things, the god Apollo was the god of reason, of the sciences and math, of an ordered kind of music, and of medicine. Damasio's view is understandably and probably deliberately biased toward an Apollonian way of understanding human nature and culture. In the Greek mythological tradition, Apollo's particular passion, his love of scientific reasoning, was honored, but not more or less than the sacred passions of the other eleven deities.

The ninth chapter begins with Damasio's claims about the consequences within the next twenty years of the new drugs neurosciences are creating. His book was published in 2003. I think, given the problems of opioid addition among others, that his predictions were wrong. Studying the Olympian deities and the psychological passions they symbolize will help us understand why he was wrong. I use the Olympian deities to represent all the human passions and the sectors of society they are connected to in order to consider the consequences of the new drugs from many more perspectives. It should become clear that all twelve of the deities and the aspects of human life they represent have to be acknowledged and brought together into a larger whole. The passion for science represented symbolically by Apollo is inseparable from the passions of the other deities. Certainly, it may seem obvious that human history has evolved beyond the relatively undeveloped scientific and cultural achievements of the Greeks. However, intellectuals writing at that time were trying to explain to posterity those aspects of human life and the human condition which would not change in spite of the way the continual growth of science and its applications would inevitably lead to more and more complexity in human culture and history.

The tenth chapter examines Damasio's discussion of the goal of human life, individually and collectively, as homeostasis, a sense of the unity and integrity of body, mind, and spirit. I argue that Greek educational texts show us why this should not be our goal. Instead, the twelve Olympians deities and their many conflicts show us that the most flourishing

individuals and societies aim for pluralism. They accept complexity and a certain degree of lack of unity for the sake of acknowledging all the different positive and productive ways human beings have of becoming and being fully human. Accepting and embracing complexity, however, also means accepting tragedy and temporary breakdowns in personal homeostasis in order to create a better society for others and for future generations.

The eleventh chapter discusses Damasio's view of nature, suffering, death, and natural evil. The Greeks would be appalled at Damasio's view; they would consider it an extreme example of the worst human evil, *hubris,* translated either "pride," or "overstepping the bounds." The Greek view of human nature and culture demands that human beings figure out their natural place in the universe and in the ecosphere and biosphere. It condemns behavior that denies or undermines our need for a synthesis of culture with nature. Today, we know we are in a war against nature on a global scale. Apollonian science and technology have brought us to the brink of self-destruction. Damasio's view of good and evil does not include our need to limit our exploitation of natural resources or our need to accept natural processes, such as death.

The twelfth chapter focuses on Damasio's view of the good life as it relates to religion. He discusses two roads to "salvation," one connected to various religious traditions and institutions, and the other based on the philosophical, intellectual understanding of living in accordance with the nature of the universe, or God. Damasio's approach, as is clear from the title of his book, was inspired by Benedict de Spinoza. Spinoza's *Ethics* contains a method for training our feelings to be linked to our thoughts so that what we choose to do follows what any rational person would agree to, culminating in the love of God. For Spinoza and Damasio, this is the intellectual love of God.

I argue that ancient Greek educational texts and contexts provide us with a better educational method focused on molding or reforming feelings. Each text and the role it played in cultural life is more complex and comprehensive than Damasio's or Spinoza's positions are. The poetic stories focus on specific types of irrational feelings and replacing them. The Greeks tried to educate feelings by telling stories and presenting plays that would trigger our most deep-seated and destructive emotions. The goal is for us to recognize our capacity for giving in to those irrational emotions. We watch as people who act on such drives destroy themselves and everyone else. We should be appalled at the destruction and then be motivated to flush those emotions out of our psyches and replace them

with constructive emotions. By contrast, like Spinoza, Damasio argues for a strictly Apollonian way of educating and reeducating feelings.

I also argue that Damasio does not give an adequate account of institutionalized religion. His account does not acknowledge ancient Western paganism, certainly, but it also does not account for the actual stories of many of the world's great spiritual leaders and the lessons that the sacred texts of those traditions are trying to convey. Instead, Damasio has very oblique references to religion in its institutionalized from, which is usually fundamentally different from the lives and teachings of the people those religions claim to follow. I argue that a serious intellectual study of the world's religions is more likely to lead to the conclusion that the fundamental teachings of each are more alike than different. They all have a model of the way of life of a wise person, or what archetypal psychologists call an "individuated" and emotionally mature adult. I suggest that Damasio's research on neural mapping should lead him to change the model of what institutionalized religion is that he presents in this book and replace it with something like what I suggest.

The last chapter talks about the implications of the new discoveries of neuroscience on how we should think of liberal arts education and, especially, an education in the humanities disciplines. I am very grateful to Damasio for writing this book for a number of reasons. He describes the new view of the human soul as a complex network of neural maps that link body and mind. I also give empirical support for the conclusion that our thoughts govern our feelings. These claims provide the biological support necessary to bring back the crucial importance of the study of the humanities disciplines for everyone throughout life. The humanities disciplines flourished when the goal of education was wisdom. Ideas were assumed to cause human behavior and the driving force behind culture. Modern science tried to replace that view with the model of the psyche as a blank slate, formed by genetics and environment. Empirical data, behavior, experience, and genetic predispositions were taken as the driver behind the formation of character. For centuries, social scientists studied human behavior and tried to construct environments that used external stimuli to control behavior. Neuroscience has now reaffirmed the power of ideas, not external stimuli, to be the primary force behind human behavior. Our ideas provide our interpretations of what external stimuli mean, how we ought to respond to what we experience and what sorts of experiences and interpretations of those experiences we should structure into our adult lives and into the lives of our children, so they develop strength of character and a life-long love of wisdom. According to Damasio, our characters are mainly determined by our ideas. This means that the

wisdom literature of the world's cultural traditions has reemerged as critical for knowing how to live.

Because my academic training has been focused on the Greeks, I will describe the Greek version of a society structured on the cultivation of wisdom. I will argue that the Greeks passed down ideas about what mistakes to avoid and how to live well that we desperately need to apply to our lives today. Certainly some aspects of ancient Greek culture have been exposed as based on false beliefs. We should not blindly accept all aspects of any culture. Like other wisdom traditions, the lessons the Greeks wanted to pass down to us are based on the view that there is a fundamental "human condition" from which cultures arise. There are certain patterns of ways of living that are more likely and less likely to lead to human flourishing. It is the responsibility of humanities professors to recognize the important lessons from the past, to articulate them, to apply them to the present, and to pass them on to the next generation. This book is one example of this process.

One reason to write about the Greeks is because the culture was remembered and appropriated by Westerners over many centuries. The story of how the Greek tradition has been treated since its origin indicates how the insights of Greek culture have been trivialized, rejected, ignored, denied, or coopted and perverted to fit into another worldview. Those who defended it were often corrupt, leading others to reject the entire tradition rather than to reject only those "apologists" who manipulated it to suit their own purposes.

Neuroscience shows us that if we want to live even decent lives, much less excellent lives, we need desperately to study history, literature, theology, philosophy, music, the arts, and all the humanities fields. Further, the model of the educated soul as described in archetypal psychology is still crucial. We need to become educated in the sense that Jung explains. Greek civilization is one example of how to accomplish this goal. The book ends with a call for a new kind of humanities education that is actually a modification and adaptation of one of the oldest forms of education, the form commonly thought of as foundational for Western civilization: Greek *paideia*.

CHAPTER TWO

DAMASIO'S POSITION: NEUROSCIENCE AND ITS IMPLICATION FOR HUMAN "SALVATION"

The Neurobiological Foundation of Human Life

After summarizing his conclusions from previous books, Damasio says, "The main purpose of this book, then, is to present a progress report on the nature and human significance of feelings and related phenomena, as I see them now, as neurologist, neuroscientist, and regular user."[2] Damasio defines "feelings" as, "the expression of human flourishing or human distress, as they occur in mind and body" and "*revelations* of the state of life within the entire organism."[3] Damasio distinguishes between emotions, feelings, and thoughts. "Emotion and related reactions are aligned with the body, feelings with the mind. The investigation of how thoughts trigger emotions and of how bodily emotions become the kind of thoughts we call feelings provides a privileged view into mind and body."[4] Further, "most feelings are expressions of the struggle for balance, ideas of the exquisite adjustments and corrections without which, one mistake too many, the whole act collapses."[5] A flourishing human being is "a single and seamlessly interwoven human organism."[6]

Next,

> In order for the brain to coordinate the myriad body functions on which life depends, it needs to have maps in which the states of varied body systems are represented moment by moment. The success of this operation depends on this massive mapping. It is critical to know what is going on in different body sectors so that certain functions can be slowed down, halted, or called

[2] Damasio, *Looking for Spinoza*, 6.
[3] Ibid.
[4] Ibid., 7.
[5] Ibid.
[6] Ibid.

> into action, and so that appropriate corrections in the governance of the organism's life can be made.[7]

Some "maps" are called "body-state" maps while others are called "neural maps." Body state maps

> can provide only limited assistance without conscious feelings. The maps work for problems of a certain degree of complexity and no more; when the problem gets too complicated—when it requires a mixture of automated responses *and* reasoning on accumulated knowledge—unconscious maps no longer help and feelings come in handy."[8]

So, "feelings probably arose as a by-product of the brain's involvement in the management of life"[9] and, to meet that need, neural maps evolved in the brain. "Neural maps that are critical for the governance of life turn out to be a necessary basis for the mental states we call feelings."[10] Damasio explains why human beings need to experience feelings in order to survive. He says, "feelings help us solve nonstandard problems involving creativity, judgment, and decision-making that require that display and manipulation of vast amounts of knowledge."[11] Linking mind and body, Damasio concludes, "Only the 'mental' level of biological operations permits the timely integration of large sets of information necessary for the problem-solving processes. Because feelings have the requisite mental level, they can enter the mind fray and influence the operations."[12]

Damasio describes how neural maps form. First, an external object triggers a biological emotion over and over again. The repeated pattern leads to a map, a connection between the external object and the immediate, unconscious internal response. This connection is the necessary foundation for a state of consciousness. A feeling is simply consciousness of the existence of that external object and that corresponding emotional reaction. Then, this feeling gets linked to a higher level of consciousness, a sense of self. The sense of self includes an identity over time, linked to a past, present and future. This level of consciousness leads, in turn, to a link with reasoning processes. Says Damasio,

---

[7] Ibid., 176.
[8] Ibid., 176-77.
[9] Ibid, 176.
[10] Ibid.
[11] Ibid., 177.
[12] Ibid.

> Conscious feelings are prominent mental events that call attention to the emotions that begat them, and to the objects that triggered those emotions. In individuals who also have an autobiographical self—the sense of personal past and anticipated future also known as extended consciousness—the state of feeling prompts the brain to process emotion-related objects and situations *saliently*. The appraisal process that led to the isolation of the object and the onset of the emotion can be revisited and analyzed . . . The past, the now, and the anticipated future are given the appropriate saliencies and a better chance to influence the reasoning and decision-making process.[13]

Damasio summarizes this position.

- That the body (the body-proper) and the brain form an integrated organism and interact fully and mutually via chemical and neural pathways.
- That brain activity is aimed primarily at assisting with the regulation of the organism's life processes both by coordinating internal body—proper operations, and by coordinating the interactions between the organism as a whole and the physical and social aspects of the environment.
- That brain activity is aimed primarily at survival with well-being; a brain equipped for such a primary aim can engage in anything else secondarily from writing poetry to designing spaceships.[14]

Damasio goes on to describe the important place of mental images in the development of the reasoning process that he calls "mind."

- That in complex organisms such as ours, the brain's regulatory operations depend on the creation and manipulation of mental images (ideas or thoughts) in the process we call mind
- That the ability to perceive objects and events, external to the organism or internal to it, requires images. Examples of images related to the exterior include visual, auditory, tactile, olfactory, and gustatory images. Pain and nausea are examples of images of the interior. The execution of both automatic and deliberated responses requires images. The anticipation and planning of future responses also require images.[15]

Damasio then links these processes to the formation of neural maps.

---

[13] Ibid., 177-78.
[14] Ibid., 195.
[15] Ibid.

- That the critical interface between body-proper activities and the mental patterns we call images consists of specific brain regions employing circuits of neurons to construct continual, dynamic neural patterns corresponding to different activities in the body—in effect, mapping those activities as they occur.
- That the mapping is not necessarily a passive process. The structures in which the maps are formed have their own say on the mapping and are influenced by other brain structures . . . body, brain, and mind are manifestations of a single organism . . . they are in effect inseparable under normal operating conditions.[16]

In respect to mental images, Damasio claims that even though each human brain has to go through the process of constructing those images, in respect to certain objects, every human brain constructs the same images.

> There is a set of *correspondences*, which has been achieved in the long history of evolution, between the physical characteristics of objects independent of us and the menu of possible responses of the organism . . . The neural pattern attributed to a certain object is constructed according to the menu of correspondence . . . We are so biologically similar among ourselves, however, that we construct similar neural patterns of the same thing . . . similar images arise out of those similar neural patterns.[17]

Damasio goes on. "This does not deny the reality of the objects. The objects are real. Nor does it deny the reality of the interactions between object and organism. And, of course the images are real too. And yet, the images we experience are brain constructions *prompted* by an object, rather than mirror reflections of the object."[18]

Damasio's position is a rejection of the "blank slate" view of the human psyche. "The brain does not begin its day as a *tabula rasa.* The brain is imbued at the start of life with knowledge regarding how the organism should be managed . . . the brain brings along innate knowledge and automated know-how . . . there is nothing free or random about drives and emotions."[19] Damasio makes a clear distinction between emotions, what he calls the "natural wisdom" wired into our brains, and feelings, our self-conscious awareness that we are experiencing various emotions. "When the consequences of such natural wisdom are mapped back in the central nervous system, subcortically and cortically, the result is feelings,

[16] Ibid.
[17] Ibid., 200.
[18] Ibid.
[19] Ibid., 205.

the foundational component of our minds . . . feelings can guide a deliberate endeavor of self-preservation and assist with making choices regarding the manner self-preservation should take place. Feelings open the door for some measure of willful control of the automated emotions."[20]

Damasio explains the evolutionary process by which the physical structure of the brain—the machinery—eventually evolved into a mind-body unity. The mental processes emerged from the activity of the physical organism to produce a more complex living human organism.

> First came the machinery for producing reactions to an object or event . . . the machinery of emotion. Second came the machinery for producing a brain map and then a mental image, an idea, for the reactions and for the resulting state of the organism—the machinery of feeling . . . Eventually, in a fruitful combination with past memories, imagination, and reasoning, feelings led to the emergence of foresight and the possibility of creating novel, non-stereotypical responses.[21]

Higher-order thinking leads to an idea of a self. "The machinery of feeling is itself a contributor to the processes of consciousness, namely to the creation of the self, without which nothing can be known."[22]

Damasio explains further. "Events in the body are represented as ideas in the mind. There are representational 'correspondences,' and they go in one direction—from body to mind . . . our mind is made up of images, representations, or thoughts of our own parts of our own body in spontaneous action or in the process of modifications caused by objects in the environment."[23] From there, the mind begins to reflect upon these contents. "Once you form an idea of a certain object, you can form an idea of the idea, and an idea of the idea of the idea and so forth."[24] This is the activity of the mind.

Mind is rooted in body but goes beyond it. "The notion of 'ideas of ideas' is important [because] it opens the way for representing relationships and creating symbols . . . it opens a way for creating an idea of self."[25] Damasio calls the idea of the most basic sense of self "a second-order idea" because it is based on "two first-order ideas—one being the idea of the object that we are perceiving; the other, the idea of our body as it is modified by the perception of the object. The second-order idea of self is

[20] Ibid., 79.
[21] Ibid., 80.
[22] Ibid., 110.
[23] Ibid., 212-14.
[24] Ibid., 215.
[25] Ibid.

the idea of the relationship between the two other ideas—object perceived *and* body modified by perception."[26]

The second order idea of self "is critical for the generation of consciousness" because "it offers the mind a fragment of newly created knowledge: the knowledge that our body is engaged in interacting with an object."[27] Besides consciousness, we also possess the power of memory. Combined with the idea of self, we possess autobiographical memories.

> With the help of autobiographical memory, consciousness provides us with a self-enriched by the record of our own individual experience. When we face each new moment of life as conscious beings, we bring to bear on that moment the circumstances surrounding our past joys and sorrows, along with the imaginary circumstances of our anticipated future, those circumstances that are presumed to bring on more joys or more sorrows.[28]

The Neurobiological Foundations of Human Culture

Once we have become conscious of ourselves as being historical beings, with an identity that persists over time, we can begin to think about more than our own mind-body, psycho-neuro-mental system. We can think about human emotions in general. Damasio agrees with Aristotle, Spinoza, Hume, Adam Smith, and some contemporary philosophers that some emotions can be said to be rational, with this distinction: "In this context the term rational does not denote explicit logical reasoning but rather an association with actions or outcomes that are beneficial to the organism exhibiting emotions. The recalled emotional signals are not rational in and of themselves, but they promote outcomes that could have been derived rationally."[29] Aristotle calls such emotions "according to reason" (*kata logos*) but not yet "united with reason" (*meta logos*). Damasio claims that it can be proven empirically that cooperative behavior leads to a better state of the organism. "In a recent study, cooperativity also led to the activation of regions involved in the release of dopamine and in pleasure behavior, suggesting, well, that virtue is its own reward."[30]

Damasio concludes that, "All humans are created such that they tend to preserve their life and seek well-being, that their happiness comes from the successful endeavor to do so, and that the foundation of virtue rests on

---

[26] Ibid.
[27] Ibid.
[28] Ibid., 270.
[29] Ibid., 150.
[30] Ibid., 151.

these facts."[31] He goes on, "The biological reality of self-preservation leads to virtue because in our inalienable need to maintain ourselves we must, of necessity, help preserve *other* selves. If we fail to do so we perish and are thus violating the foundational principle, and relinquishing the virtue that lies in self-preservation."[32] The foundational principle that we must help preserve others in order to preserve ourselves links the individual to all aspects of culture. "The secondary foundation of virtue then is the reality of a social structure and the presence of other living organisms in a complex system of interdependence with our own organism."[33] Damasio claims that "the mandate for self-preservation . . . contains the foundation for a system of ethical behaviors and that foundation is neurobiological. The foundation is the result of a discovery based on the observation of human nature rather than the revelation of a prophet."[34]

Damasio wants us to come to a new recognition and appreciation for the psychology and philosophy of Benedictus Spinoza. Spinoza argued against Descartes's split between mind and body in favor of the best life as one where feelings and thoughts are completely integrated and unified and ordered in the way that is most likely to produce the highest level of human well-being for oneself and others.

Damasio describes the transition from biology to neurobiology and then from neurobiology to the development of culture.

> Human beings are as they are—living and equipped with appetites, emotions, and other self-preservation devices, including the capacity to know and to reason. Consciousness, in spite of its limitations, opens the way for knowledge and reason, which, in turn, allow individuals to discover what is good and evil. Again, good and evil are not revealed, they are discovered, individually or by agreement among social beings . . . Good objects are those that prompt, in reliable and sustainable fashion, the states of joy that Spinoza sees as enhancing the power and freedom of action. Evil objects are those that elicit the opposite result: Their encounters with an organism are disagreeable to that organism . . . Good actions and evil actions are not merely actions that do or do not accord with individual appetites and emotions. Good actions are those that, while producing good for the individual via the natural appetites and emotions, *do not harm other individuals.* The injunction is unequivocal. An action that might be personally beneficial but would harm others is not good because harming

[31] Ibid., 171
[32] Ibid.
[33] Ibid.
[34] Ibid.

> others always haunts and eventually harms the individual who causes the harm. Consequently such actions are evil.[35]

Once this foundation of the Golden Rule is established as biological, Damasio explains how culture emerges.

> The endeavor to live in a shared, peaceful agreement with others is an extension of the endeavor to preserve oneself. Social and political contracts are extensions of the personal biological mandate. We happen to be biologically structured in a certain way—mandated to survive and to maximize pleasurable rather than painful survival—and from that necessity comes a certain social agreement. It is reasonable to hypothesize that the tendency to seek social agreement has itself been incorporated in biological mandates, at least in part, due to the evolutionary success of populations whose brains expressed cooperative behaviors to a high degree.[36]

Damasio claims that culture naturally emerges from biology. "Beyond basic biology there is a human decree which is also biologically rooted but arises only in the social and cultural setting, an intellectual product of knowledge and reason."[37] Such decrees all include "the law that men must yield, or be compelled to yield, somewhat of their natural right, and that they bind themselves to live in a certain way."[38] Even though human decrees vary from culture to culture, "one reason why the human decree may take cultural roots is that the design of the human brain tends to facilitate its practice . . . our brains are wired to cooperate with others."[39]

Damasio explains the way neurobiology supports the work of scholars in other academic fields, those who study cultural phenomena. In reference to ethical behaviors, religious beliefs, laws, justice and political organization, Damasio says, "the neurobiological dispositions likely to facilitate the emergence of such cultural instruments include not just emotions and feelings, but also the capacious personal memory that allows humans to construct a complex autobiography as well as the process of extended consciousness that permits close interrelations among feelings, self, and external events."[40] Damasio points out that other species behave in ways that seem ethical. "They exhibit sympathy, attachments, embarrassment."[41]

---

[35] Ibid., 172.
[36] Ibid., 173.
[37] Ibid.
[38] Ibid.
[39] Ibid.
[40] Ibid., 159.
[41] Ibid.