EVOLUTIONARIES

Unlocking the Spiritual and Cultural Potential of Science's Greatest Idea

CARTER PHIPPS

HARPER PERENNIAL

NEW YORK • LONDON • TORONTO • SYDNEY • NEW DELHI • AUCKLAND

HARPER PERENNIAL

FIRST EDITION

Designed by Michael P. Correy

Library of Congress Cataloging-in-Publication Data is available upon request.

ISBN 978-0-06-191613-7

12 13 14 15 16 ID/RRD 10 9 8 7 6 5 4 3 2 1

To the great pioneers in evolutionary
science, philosophy, and spirituality
whose vision, dedication, perseverance, and
faith created new pathways for us all.

PROLOGUE

An Evolutionary Vision

On November 24, 1859, a little-known biologist from England quietly published a book introducing a significant new scientific theory, proposing that a process he termed "natural selection" could explain how human beings had evolved from other species. The title would soon become known the world over—*On the Origin of Species*. The first edition sold out within days, all 1,170 copies, and the rest, as they say, is history. . . .

One hundred years later, in 1959, this event had become reason for celebration. A number of leading evolutionary pioneers gathered together at the University of Chicago to commemorate the centennial of the publication of Charles Darwin's first book, spending several autumn days on the beautiful tree-lined campus paying homage to his unique genius and reflecting on the meaning of evolution. The star-studded interdisciplinary conference featured presentations from experts in the fields of biology, paleontology, anthropology, and even psychology. The best and brightest were in attendance, including legendary evolutionary biologist Ernst Mayr and geneticist Theodore Dobzhansky, who each shared their wisdom with the assembled audience. Even Darwin's grandson was present.

But perhaps the most famous guest of all was the grandson of another great evolutionist, the English biologist Thomas Henry

Huxley, one of the early supporters of Darwin's revolutionary theory. Julian Huxley, his descendant, was a brilliant scientist, humanist, and world-renowned intellectual. As he ascended the podium to address the international audience, expectations ran high. Here was a man who had worked to convince the world that Darwin's natural selection was a driving force of evolutionary change. The audience would have also known Huxley for his humanitarian ideals, which had helped inspire the great humanist movement, the twentieth century's intellectual alternative to religious faith. Some may have been aware of Huxley's interest in the existential implications of evolutionary theory, a passion that had led him to coin the phrase "We are evolution become conscious of itself." Perhaps some even knew him as the fiercely independent thinker who had endured the outrage of his secular-minded colleagues to write the introduction to the controversial book on religion and evolution, *The Phenomenon of Man*, by recently deceased Catholic priest and paleontologist Pierre Teilhard de Chardin. What would Huxley offer his audience on this momentous anniversary, when some of the greatest minds of the era had their attention trained on his pulpit?

Huxley's talk was called "The Evolutionary Vision," and he delivered it with an almost religious passion, attendees recalled. He suggested that religion as we knew it was dying, that "supernaturally centered" faiths were destined to decline, to deselect themselves out of existence like nonadaptive species in a hostile environment. "Evolutionary man can no longer take refuge from his loneliness in the arms of a divinized father figure whom he has himself created," Huxley claimed, "nor escape from the responsibility of making decisions by sheltering under the umbrella of Divine Authority, nor absolve himself from the hard task of meeting his present problems and planning his future by relying on the will of an omniscient, but unfortunately inscrutable, Providence." Huxley's words were strong, spoken with the conviction of one who had worked his whole life to free the human spirit from belief systems unsuited

to the modern world. But before proclaiming the death of religion altogether, he added a notable line. "Finally," he concluded, "the evolutionary vision is enabling us to discern, however incompletely, the lineaments of the new religion that . . . will arise to serve the needs of the coming era."

For Huxley, evolution was not merely a final nail in the coffin of traditional religious belief. It represented much more than the victory of a scientific theory over the historical forces of superstition and ignorance. The triumph of evolution also pointed us toward the future—toward a post-traditional synthesis that would arise out of our new understanding of who we are and where we came from.

In the fall of 2009, I attended another conference at the University of Chicago, held exactly fifty years following the first gathering and one hundred and fifty years after the publication of *On the Origin of Species*. Like its predecessor, the event was also a meeting of some of evolutionary theory's brightest lights, and I was curious to see what the intellectual descendants of Huxley, Mayr, and Dobzhansky might have to say about the "evolutionary vision" fifty years on down the road.

I found the conference to be fascinating, the lectures and discussions on the latest findings in evolutionary science wonderfully informative. Religion, too, was a major subject of the day. Today's evolutionary scientists are veritably obsessed with their ongoing struggles against creationism and intelligent design; they are deeply vexed about the resistance to Darwin's ideas and biology's discoveries that still characterizes so many of today's religious communities. As someone who grew up in the Bible Belt, where such controversies rage unchecked, I understood and shared their concerns. But what of Julian Huxley's vision? What of his observation that a rich, novel kind of evolutionary knowledge might change our worldview, our sense of self and humanity's place in the scheme of things?

There was little to report from Chicago on that front. To hear the version of things presented in those hoary halls, there is the on-

going march of new science, the ongoing resistance of old-time religion, and that's about the extent of it. Admittedly, there was an occasional nod to the heroic attempt to reconcile evolution and faith, but no one was on the lookout for the emergence of a new evolution-inspired spirituality. No one was talking about the way in which evolutionary ideas might transform culture and human thought in the new century. In fact, it seemed that no one was paying much attention at all to the vision that Huxley had presented on that November day in 1959.

But just because they're not paying attention doesn't mean that there is nothing worth watching. Indeed, today Huxley's evolutionary vision is more culturally relevant than ever. It is living in the hearts and minds of thousands of individuals around the world who are experimenting with new cultural perspectives, new philosophical epiphanies, new spiritual ideals, new religious visions—all based around the idea of evolution. Sadly, these cultural pioneers were not invited to the 2009 conference in Chicago. To find them, we must travel outside the conventional walls of the academy and beyond the ancient structures of traditional religion. We must journey to the frothy frontiers of culture, to the border between convention and controversy where the next great cultural breakthroughs are struggling to be born. This is a book about the search for that evolutionary vision and a new kind of worldview based on it.

CHAPTER ONE

Evolution: A New Worldview

The most extraordinary fact about public awareness of evolution is not that 50 percent don't believe it but that nearly 100 percent haven't connected it to anything of importance in their lives. The reason we believe so firmly in the physical sciences is not because they are better documented than evolution but because they are so essential to our everyday lives. We can't build bridges, drive cars, or fly airplanes without them. In my opinion, evolutionary theory will prove just as essential to our welfare and we will wonder in retrospect how we lived in ignorance for so long.

—*David Sloan Wilson*, Evolution for Everyone

Evolution is a fact. Given the seemingly never-ending controversy surrounding biological science and all of its many discoveries regarding the origins of life, it's important to be clear right from the start. In this book, there is no controversy. I would say that I believe in evolution, only I don't think belief has anything to do with it. We don't say we believe the world is round—we know it is. Evolution is not a matter of faith; it is a matter of evidence, painstaking work, and breakthrough science. Any other conclusion stretches the

journ in his earthly garden? Or are we something else? That "something else" is as yet undefined, but it is what I will be exploring in the pages that follow. There is a significant diversity among the emerging views I will be presenting, but that in itself is one of those principles of how evolution works—in nature, in culture, and even in the development of knowledge. As cosmologist Brian Swimme puts it, "You'll have an explosion of animal forms at the birth of a species—an explosion of *diversity*, this incredible chaotic explosion of possibility—and then the universe sort of winnows out the more exotic shapes and enfolds them into forms that are more enduring. Diversity is a great way in which the universe explores its future." As I explore the diversity of evolutionary perspectives that are vying for prominence in this new worldview, I hope I am contributing to that exploration—of the universe's future, and our own.

CHAPTER TWO

Breaking the Spell of Solidity

In laying hands upon the sacred ark of absolute permanency, in treating the forms that had been regarded as types of fixity and perfection as originating and passing away, the Origin of Species *introduced a mode of thinking that in the end was bound to transform the logic of knowledge, and hence the treatment of morals, politics, and religion.*

—*John Dewey,* The Influence of Darwin on Philosophy

"Worldview" is a popular term these days, and for good reason. The word comes from the German *Weltanschauung*, and is used in common parlance to signify the framework we use to interpret the world around us. In our postmodern world, we have come to recognize just how important these interpretive frameworks are in shaping our perspectives and the perspectives of others. Some of this is a natural result of globalization and our increasing proximity to peoples and cultures that see the world through dramatically different eyes. "Why do they hate us?" asked President Bush in the

week following 9/11—a question echoed on numerous magazine covers and newspaper headlines around the country and on the lips of stunned Americans who had never even considered such a thing as a worldview before. America was forced to come to terms with the fact that there were other people who see the world through a completely different lens—a lens so different that what to us was unthinkable, to them became horribly necessary. Even within our own diverse country, it is becoming increasingly clear that the differences between us are not just surface political or religious affiliations, they are more fundamental differences in how we interpret and experience the world around us and within us.

We may think that we simply have a direct perception of the world, but in fact, every perception is filtered through our particular perspective, as becomes clear in moments when we are confronted with someone whose perspective is dramatically different from our own. As philosopher Ken Wilber puts it, "What our awareness delivers to us is set in cultural contexts and many other kinds of contexts that cause an interpretation and a construction of our perceptions before they even reach our awareness. So what we call real or what we think of as given is actually *constructed*—it's part of a worldview."

There is actually a place where they study amorphous things like worldviews—the Center Leo Apostel, a research institute affiliated with the Free University of Brussels. They define a worldview in the following way:

> A world view is a system of co-ordinates or a frame of reference in which everything presented to us by our diverse experiences can be placed. It is a symbolic system of representation that allows us to integrate everything we know about the world and ourselves into a global picture, one that illuminates reality as it is presented to us within a certain culture.

A worldview is not so much a value; it is the very conglomeration of conclusions about the world that will determine what kind of values we hold. It is not just a collection of thoughts or ideas; it is the very structures of the psyche that will help determine what kind of thoughts or ideas we will have. Worldviews are like invisible scaffolding in our consciousness, deep conclusions about the nature of life that help shape how we relate to just about everything else around us. As the Christian scholar N. T. Wright explains, worldviews "are like the foundations of a house: vital, but invisible. They are that *through* which, not *at* which, a society or an individual normally looks."

We don't choose worldviews the way we choose a set of clothes or decide on our musical preferences. Worldviews are built on the cognitive and psychological architecture of the self and are heavily informed by the culture in which we live. They are not simply tastes we pick and choose at the cultural buffet line, conscious augmentations to our personalities—a dose of conservatism here, a helping of religion there, a plate of social liberalism on the side. No, worldviews are bound up in the very development of the self in the context of any given culture. We don't have them; for the most part, they have us. They are deep structures that determine the very way we make meaning in the closeted capacities of our own consciousness.

We might say that worldviews help us make sense out of the experience of being alive; they are, in other worlds, epistemological. They are also ontological, meaning that they speak to the way in which we understand the fundamental nature of being itself. But before you start thinking that worldviews are abstract ideas, let me disabuse you of that notion. Growing up in a small town on the edge of the Bible Belt, one learns at an early age that worldviews are frighteningly practical. To a teenager, they determine critical things like who can dance at parties, who is OK with premarital sex, and who thinks both things are an act of Satanic possession. They inform who goes to your church, or if one goes to church at

all. They answer questions pertaining to race and sexuality. They help establish how one views ethics and morals. They delineate the possibilities inherent in manhood and womanhood. They liberate and constrain, give confidence and are cause for doubt. They are, we might say, the true tectonic plates of our global culture, and their movements determine a great deal about the direction and development of our society over time.

A TOUCHSTONE PROPOSITION

So where do we start in defining a new evolutionary worldview when its contours are as yet unformed? We can begin by asking: what is such a worldview based on? Indeed, at the center of any worldview is a core conviction or set of convictions about the nature of what is real, true, and important. So while worldviews may very well be complex psychosocial beasts, they are also, paradoxically, simple. I don't mean that they are simplistic, but rather that they are built on simple foundations, deep convictions that set the parameters and define the terms on which we construct self and culture. A worldview might express itself through individuals in hundreds of thousands of ways, but each of those expressions will carry with it the character of that foundational conviction.

Philosopher William H. Halverson suggests that "at the center of every worldview is what might be called the 'touchstone proposition' of that worldview, a proposition that is held to be *the* fundamental truth about reality and serves as a criterion to determine which other propositions may or may not count as candidates for belief." For example, we might say that the touchstone proposition of a modernist scientific worldview is that the universe is objectively comprehensible using rational inquiry and scientific methodology—a conviction that informs its interpretations of every dimension of life, from religion to art to economics.

I believe that the touchstone proposition for an evolutionary worldview is best captured in a passage by Teilhard de Chardin. It is from the first paragraphs of his classic collection of essays, *The Future of Man*, and sums up not only the basic distinction that lies at the heart of an evolutionary worldview but the essential spirit of it as well:

> The conflict dates from the day when one man, flying in the face of appearance, perceived that the forces of nature are no more unalterably fixed in their orbits than the stars themselves, but that their serene arrangement around us depicts the flow of a tremendous tide—the day on which a first voice rang out, crying to Mankind peacefully slumbering on the raft of earth, "We are moving! We are going forward!" . . .
>
> It is a pleasant and dramatic spectacle, that of Mankind divided to its very depths into two irrevocably opposed camps—one looking toward the horizon and proclaiming with all its newfound faith, "We are moving," and the other, without shifting its position, obstinately maintaining, "Nothing changes. We are not moving at all."

We are moving. I keep coming back to that fundamental insight, and appreciating how profound it really is. The things that we think are fixed, static, unchanging, and permanent are in fact *moving*. In so many areas of human knowledge, we are discovering that reality is part of a vast process of change and development. Like geologists discovering plate tectonics for the first time, we are beginning to look out at this extremely solid, seemingly permanent world that feels so stable underfoot, and intuit a radical truth: nothing is what it seems. *We are moving.* We are *going somewhere*. It is a slow but irrevocable revelation, dawning on our awareness. Our bedrock assumptions, it tells us, our most basic instincts about life and the universe are in error. Whatever solid ground we are standing on is itself

in motion. We are not just being; we are *becoming*. That's part of the revelatory power of an evolutionary worldview. It's an ontology of becoming. We do not just exist *in* this universe; we are caught up in its forward movement, intrinsic to its forward intention, defined by its drift forward in time.

So many of the critical insights that people have come to in relationship to evolution boil down, in essence, to this one simple proposition. But even for those of us who accept and appreciate the basic principle of evolution, I don't think the extent of its influence has penetrated very deeply into our conscious awareness.

Several of my Californian friends have described the profoundly disconcerting experience of being in an earthquake, suddenly finding that the ground was moving under them for the first time. Nothing can prepare you for that moment, they told me. Psychologically, it is hard to take in, because something you considered so unquestionably solid—the earth underneath your feet—is *moving*. That which you considered absolutely fixed and stationary, is in fact not stable at all. And that seismic shift can create tremendous shock waves, not just in the surrounding landscape but in the fabric of the human character, because we have spent a lifetime unquestioningly trusting that solid foundation.

In a sense, there's an earthquake happening in human culture right now, and there has been for the past couple of hundred years. We have been captivated by the spell of solidity, the fallacy of fixity, the illusion of immobility, the semblance of stasis, but the evolution revolution is starting to break that spell. We are realizing that we are, in fact, not standing on solid ground. But neither are we simply adrift in a meaningless universe. *We are moving.* We are part and parcel of a vast process of becoming. The very structures that make up our own consciousness and culture are not the same as they were one thousand years ago, and in one thousand years they will be substantially different from how they are today.

We see this insight in so many fields of study. Most obvious, perhaps, is biology. Only a few hundred years ago we related to bio-

logical species as if they were more or less permanent. Species didn't change; they didn't evolve; they didn't go extinct—that's how we saw the biosphere. But Darwin's work demonstrated beyond any shadow of a doubt that the entire biological world is not fixed or static. Life is not just being; it is becoming.

The same is true at a cosmological level. Physicists used to think that we existed in what they called a "steady-state" cosmos—no beginning, no end. Suddenly, almost overnight, our picture has changed. The universe had a beginning. And it seems that it will someday have an ending. We are not drifting aimlessly in an immense cosmic sea but seem to be part of a vast developing process, the parameters of which we are barely beginning to grasp.

Similar revelations are dawning in our understanding of human culture. We now know that the socioeconomic systems and structures of society are not fixed or God-given or a result of unchangeable, eternal truths about human nature. They are adaptive structures that change and evolve over time. We can look back and begin to fathom the extraordinary transitions that have occurred in human culture in the last hundreds of thousands of years and see that the illusion of a solid, unchanging, static "way that human beings are" is up for question as never before.

This insight also has spilled over into psychology. In the nineteenth century, James Mark Baldwin, who was a pioneer in evolutionary theory, began to point out that even the categories of our psychology aren't fixed. He noticed that children are actually passing through developmental stages on their journey to adulthood. This was a radical idea at the time: the very structures of our psyche go through critical changes over the course of our lives. Today, we are realizing that not only do children change and develop but adults can as well. There is little if anything final or fixed about adult psychology.

Or consider neuroscience. We once thought the brain was static, fixed, and relatively unchanging; now we're discovering it to

be more plastic and malleable than we ever dreamed. "Neuroplasticity" is a word on the lips of many these days, and for good reason. The spell of solidity is cracking in neuroscience and we are realizing that even the very gray matter so intrinsic to our sense of self is anything but permanent. It is developing in relationship to many factors, not the least of which are our own choices. In discipline after discipline, stasis is losing the battle to movement, process, change, and contingency.

Moreover, it's not just the world *out there* that is moving; it's also the world *in here*. It's not just the objects you see that are moving and evolving; it's also the subject, the perceptive faculty itself. The part of you that sees, listens, interprets, and responds is also not static or solid but rather is fluid, changing, caught up in a developmental process, non-separate from this fundamental characteristic of our evolving cosmos.

These are insights that go to the core of what it means to be human. They affect our own internal world, our deepest values, beliefs, and convictions. From the foundations of the self to the edges of the cosmos, we are starting to recognize that we are part of and, indeed, inseparable from this process. *We are moving too.* In fact, some might say that we are movement itself. In so many ways, this fundamental insight is emerging everywhere. One of my favorite metaphors for this shift of perspective comes from Henri Bergson:

> Life in general is mobility itself; particular manifestations of life accept this mobility reluctantly, and constantly lag behind. It is always going ahead; they want to mark time. Evolution in general would fain go on in a straight line; each special evolution is a kind of circle. Like eddies of dust raised by the wind as it passes, the living turn upon themselves, borne up by the great blast of life. They are therefore relatively stable, and counterfeit immobility so well that we treat each of them as a *thing* rather than as a *progress*, forgetting that the very permanence of their form is only the outline of a movement. At times, however, in a fleeting vision, the invisible breath that bears them is materialized before our eyes. . . . allow[ing] us a glimpse of the fact that the living being is above all a thoroughfare, and that the essence of life is in the movement by which life is transmitted.

I love this metaphor because I'm from Oklahoma, and in the dry, hot days of my childhood summers I remember seeing what we called "dust devils" rising up from recently plowed fields. These were tornadoes of dust, sometimes small and fleeting, sometimes hundreds of feet high and imposing, borne up by the great gusts of Oklahoma wind, helter-skelter tempests racing across the plains in a doomed and desperate search for permanence. In those "fleeting visions" that Bergson described, we can sometimes see, for a moment, that even the most seemingly solid forms in the world around us—our environment, our cultural institutions, our bodies, our minds—are in fact like that dust, held in place only by the power of the invisible current of evolution that carries us. They are not permanent. They are more motion than matter. *The very permanence of their form is only the outline of a movement.*

Alfred North Whitehead, the great English Evolutionary and process philosopher, also spoke to this point when he suggested that reality is made up not of bits and pieces of matter but of momentary "occasions" of experience that fall and flow into one another and create the sense of reality and time, just as cascading hydrogen and oxygen molecules create the actuality of a river. He called our failure to recognize this movement, our tendency to turn flow into fixity, "the fallacy of misplaced concreteness."

Today, that fallacy is slowly crumbling. The spell of solidity is breaking. But we have not yet embraced the implications. "Permanence has fled," writes scholar Craig Eisendrath, "but it has left a world conceived as process, contingency, and possibility. The more we understand it, the more it increases in wonder. It is a world which

we can help create, or lose, by our own actions." As we start to incorporate this new way of thinking and understanding the world into our consciousness, it will profoundly affect not only how we see the cosmos but also how we see our own lives. Unlike a physical earthquake, which leaves one feeling out of control, breaking the spell of solidity, while disconcerting, is ultimately quite liberating. No longer the victims of unchangeable circumstances, trapped in a pre-given universe, we find ourselves released into a vast, open-ended process—one that is malleable, changeable, subject to uncertainty and chance, perhaps, but also, in small but not insignificant ways, responsive to our choices and actions.

The pioneering men and women whom I have called Evolutionaries express the touchstone proposition of this new worldview in diverse voices. But what they share is the fundamental recognition and embrace of its truth. Evolutionaries are those who have woken up, looked around, and realized: *We are moving.* And rather than bury their heads back in the sands of seeming stasis, they are ready to pick up the paddles and help steer that raft that Teilhard envisioned toward a more positive future.

As the fog of fixity lifts, we are finding ourselves much more than observers and witnesses to life's grand unfolding drama. We are influential actors, newly aware of the immense tides that are shaping the world within and without, just becoming cognizant of our own freedom—and immense responsibility.

Chapter Three

What Is an Evolutionary?

It is as if man had been suddenly appointed managing director of the biggest business of all, the business of evolution—appointed without being asked if he wanted it, and without proper warning and preparation. What is more, he can't refuse the job. Whether he wants to or not, whether he is conscious of what he is doing or not, he is in point of fact determining the future direction of evolution on this earth. That is his inescapable destiny, and the sooner he realizes it and starts believing in it, the better for all concerned. . . .

—Julian Huxley, "Transhumanism"

If you wish to converse with me," the French philosopher Voltaire is said to have remarked, "define your terms." Voltaire's wisdom applies doubly when introducing what is essentially a new term like "Evolutionary" into a discourse. And so I would like to take this chapter to explain and expand on what I mean by this term, which is beginning to be used by greater numbers across our culture today. Perhaps the closest word to "Evolutionary" in today's parlance is the term "evolutionist," a word commonly associated with evolutionary theory in academic circles. "Evolutionist" is defined in dictionar-

Chapter Ten

Spiral Dynamics: The Invisible Scaffolding of Culture

A developing brain is a sort of snowballing cognitive leviathan that adapts to everything and anything close to it. Learning is one aspect of extreme plasticity, and creativity another. Any species that can do such things as play with the world, imagine it, remember it, and expand its circles of experience . . . will ultimately start to experiment with its own fate.

—*Merlin Donald,* A Mind So Rare

In my travels around the progressive spiritual and philosophical world over the last two decades, I have met many unique, contradictory, endearing, and surprising characters, but none quite prepared me for my meeting with Don Beck—a tough-talking Texan academic activist with a unique perspective on cultural evolution. With his soft drawl and his mixture of brashness and charm, Beck

helped deepen my appreciation of that powerful insight we have explored in the last chapter: that consciousness and culture evolve through identifiable stages and structures. It's a bold and controversial proposition, but it's one that is definitely worth the time and investment to understand. And in Beck's hands, this insight takes on a particular cultural relevance. Whereas much of Jean Gebser's work was concerned with envisioning forms of consciousness as they first emerged in our cultural past, Beck is concerned with those stages as they continue to manifest today. As I've mentioned, the sequence of worldviews that define the trajectory of culture's unfolding are not simply features of our history—they still exist as stable organizing systems for societies around the world. Understanding the reality and nature of these worldviews is one of those ideas, as they say, whose time has come, and I suspect it will play a critical role in making sure that human beings do not repeat the mistakes of the nineteenth and twentieth centuries in the twenty-first and twenty-second.

While Beck's system incorporates some of the basic ideas of Gebser, Hegel, and developmental psychology, Spiral Dynamics, as it is known, is a more practical and pragmatic way to look at the evolution of worldviews. It is the brainchild of maverick psychologist Clare Graves, who was Beck's friend and mentor before his death in 1986. The basic idea of Spiral Dynamics is quite simple—deceptively so. There are eight stages or "value systems" or worldviews (Beck currently refers to them as "codes") that form the basic structures of human psychology and sociology. These stages make up an ascending evolutionary spiral that both individuals and cultures will pass through as they develop—psychologically, socially, morally, spiritually. Beck refers to these as "bio-psycho-social-spiritual" systems that form a sort of invisible scaffolding in our consciousness, unseen but influential cognitive structures that condition our perspectives and our values analogous to the way DNA influences but does not exactly determine the forms and features of

an organism. Indeed, just as Abraham Maslow, the mid-twentieth-century pioneering psychologist, was tracking a hierarchy of needs, Spiral Dynamics tracks a hierarchy of values. In fact, the relationship between those two developmental systems goes beyond mere systemic resemblance; Maslow and Graves themselves were friends and colleagues.

Beck and I first met in 2002, when he visited the offices of *EnlightenNext* in Massachusetts. He was in his seventies and I was in my thirties, but as luck would have it, we had a couple of things in common more important than age—a passion for the dynamics of evolution and a love for the sport of American football.

I grew up in Oklahoma, so I know something about that unique species of American male known as Texans. First, they tend to have a chip on their shoulder and an independent streak. Beck has both in spades. And second, they love football. So during those first encounters with Beck and Spiral Dynamics, my colleagues and I would spend hours and hours discussing the ins and outs of evolutionary stages with Dr. Beck, and then he and I would slip away, find a television, and watch college football.

Now, as my British wife will attest, when I watch football, especially University of Oklahoma football, I undergo a rather startling personality change. Temporarily, I leave behind my mild-mannered exterior and a whole subpersonality comes to the forefront of my consciousness. It's as if I'm getting in touch with my tribal roots, with warriorlike values of power, will, and domination that are not so prominent in my everyday personality. A whole new attitude emerges in my consciousness, which I suspect is more related to ancient tribal wars than anything I'm engaged with currently. It is also a predilection that runs in the family (as well as in the state). When my wife first met one of my cousins, who still lives in Oklahoma, my cousin congratulated us on our recent marriage and then quickly asked my wife with some concern, "Have you seen him watch football yet?"

Thankfully she has, and we are still happily married, but the larger point is that my temporary change of character speaks to the theory of Spiral Dynamics. Spiral Dynamics suggests that, as Gebser also believed, each of the major value systems represents an internal structure that exists within each of us. These can be reactivated at any time, depending on the circumstances of our lives. I'm watching football, and for a couple of hours I can experience, in some rudimentary way, the values and emotions more closely associated with a "might makes right" world of Attila the Hun than with a modern democracy. Now, that doesn't mean that I lose all control and turn into a tribal warrior, but it does mean that given the right conditions, any of us can, to greater or lesser degrees, reinvoke or reinhabit perspectives and attitudes whose most salient features were formed in earlier eras. Just as evolutionary psychology makes a powerful argument that many of the habits, traits, and impulses that make up our modern character were originally formed deep in our evolutionary past, Spiral Dynamics argues that many of our personal values are actually quite impersonal, formed in the evolutionary cauldron of human history.

"People are trapped in history and history is trapped in them," wrote the great American author James Baldwin. Baldwin was talking about race, but the statement also captures the way in which the evolutionary history of the species is unavoidably reflected in the interior of our individual psychology. Indeed, according to Spiral Dynamics, we are not blank pages on which we may write any drama we please. No, we are living *in* the developmental drama of history, and the sooner we recognize the true contours of that script, the more influence we can have on how the play unfolds. In that sense, "trapped" is the wrong word, but we are living in history and history is living in us.

As discussed in the previous chapter, one of the challenges for developmental theorists is understanding the relationship between individual and collective, between cultural worldviews and psychological stages of development. Spiral Dynamics is interesting in that it does seem, at least to some degree, to apply to both. But adherents have also been criticized for blurring the distinctions and drawing unproven correlations. In the pages that follow, I will no doubt be guilty of this myself, but I do so consciously for the sake of illuminating the genuinely powerful features of this perspective, and I ask readers to hold these distinctions lightly.

Beck himself was a professor of sociology at the University of North Texas when he came across Graves's work in 1974, in an article in *The Futurist* magazine entitled "Human Nature Prepares for Momentous Leap." He was immediately taken with the ideas contained in the essay. The open-ended evolutionary nature of Graves's theory struck him—the feeling that human nature was not some fixed event waiting to be mapped and understood but an unfinished, malleable, evolving system that was still in process, still adapting, still changing. In fact, we might say that he sensed in Graves's work a shattering of the spell of solidity in relationship to human culture. "The error which most people make when they think about human values is that they assume the nature of man is fixed and there is a single set of human values by which he should live," Graves declared right at the beginning of the 1974 article. "Such an assumption does not fit with my research. My data indicate that man's nature is an open, constantly evolving system, a system which proceeds by quantum jumps from one steady state system to the next through a hierarchy of ordered systems." Never one to contemplate people and big ideas from afar, Beck was soon on a plane to upstate New York, where he met the man behind this fascinating new model. They hit it off at once (Graves loved sports too) and spent hours together discussing the meaning of this new theory.

The trip was nothing short of revelatory. When Beck got back to Texas, he completely changed his research direction to further explore the implications of Graves's theoretical model. But he also took a new interest in other related models of psychological and moral

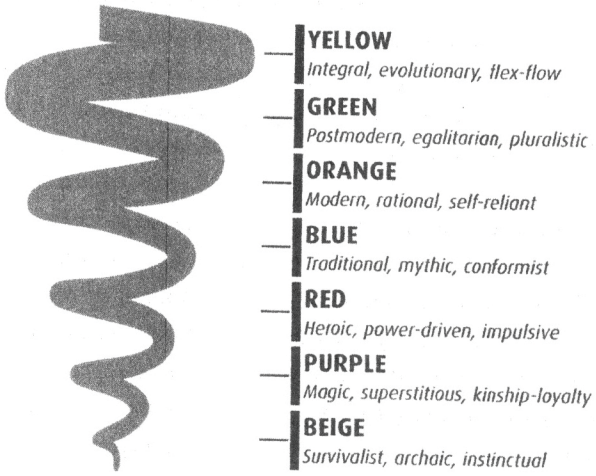
development that had been popping up in the decades since World War II. So he put his Texas-sized cowboy boots on the ground and headed out to meet the great developmental theoreticians of the day, such as legendary ego psychologist Jane Loevinger, and Lawrence Kohlberg, the celebrated Harvard theorist of moral development. But despite these illuminating visits, he found no work that had the depth of Graves's theory, so he stayed in close touch with his new mentor, developing a friendship that would span the rest of the older man's life and define the younger man's career.

Graves was a maverick whose ideas ran counter to the dominant theories of behaviorism of the day, and even to the more progressive direction of humanistic psychology. He attributed some of the originality of his thinking, his cross-disciplinary comfort level, and "his ability to see differences" to the unusual diversity of perspectives he encountered during his years at Western Reserve University. This formative experience may have been part of Graves's intellectual salvation, perhaps forging that generalist perspective characteristic of so many Evolutionaries. But he never achieved the reputation or had the influence of other significant theorists. And were it not for the efforts of Beck and another important colleague, Chris Cowan, who worked with Beck to mold Graves's ideas into a more contemporary form, Graves's unusually integrated approach to human development might still remain obscure. In the light of history, we might say that Graves's rejection by his peers was simply a result of being far ahead of his time. Yet it also points to one of the most salient aspects of his theory—that "life conditions" play a critical role in development. As times change and culture evolves, the kind of people who take the cultural center stage change as well. In war, we need generals and men willing to fight. In peacetime, we celebrate very different kinds of achievements. Similarly, as culture evolves, we newly appreciate those theorists and theories whose contributions correspond more to the needs of our own moment than the time when they were alive. Today, an evolutionary theory like Spiral Dynamics is filled to the brim with new forms of explanatory power that are more suited to helping us sort through the culture wars and the so-called clash of civilizations. And so we might say (using Darwinian language) that it has become more suited and "fit" for the cultural environment of the twenty-first century.

UNFOLDING, EMERGENT, OSCILLATING, SPIRALING BIO-PSYCHO-SOCIAL SYSTEMS

"Briefly, what I am proposing," Graves writes in the article that first introduced Beck to his work, "is that the psychology of the mature human being is an unfolding, emergent, oscillating, spiraling process marked by progressive subordination of older, lower-order behavior systems to newer, higher-order systems as man's existential problems change."

The Spiral of Cultural Development*



*Colors refer to the Spiral Dynamics model, based on the work of Clare Graves, Don Beck, and Christopher Cowan

By "older, lower-order" and "newer, higher-order" systems, Graves was referring to the systems of values or worldviews that were developed in the historical crucible of humanity's evolutionary emergence from prehistoric hominids to modern humans. In the Spiral Dynamics model, there are eight in all, although the final two are more speculative, having not entered into the cultural mainstream yet and active primarily in rare individuals. In the 1990s, Beck and Cowan made the unusual decision to color-code these systems, making them more memorable. Spiral Dynamics can be seen as having many parallels to Gebser's model, although it adds more stages. Part of the revelation of an evolutionary worldview is in beginning to see theorists from vastly different contexts tracking such similar territory. The names of the stages may be different, the exact sequencing may vary, but we can see deep and important similarities in the patterns being recognized and the evolutionary dynamics being observed.

Graves's first system (beige), which Beck now refers to as Survivalist, is a sort of clan-based, instinctual, impulsive system in which the goal is to stay alive—an almost pre-language level of consciousness that pre-dates the emergence of contemporary humans. This is similar to Gebser's archaic stage.

The second system (purple), refers essentially to a similar stage as Gebser's magic structure, although it is critical to note Gebser's descriptions are of the system as it first emerged in our ancient past. The basic dynamics of this worldview can still be seen in many indigenous populations, and it is strongly represented in ancient cultures around the world today. Here you have a deeper sense of human bonding as individuals become identified with small clans and tribes; there is a new sense of the dynamics of cause and effect—"the first sense of the metaphysical," as Beck puts it—as early humans try to explain the unpredictable dynamics of their world. Beck expresses that there is a kind of deep human connectivity in this system, a positive heritage of that almost pre-egoic sense of bonding. I saw Beck once play the song "Stand by Me" at a lecture to capture the relational quality of this value system. Here we have animism, and tendencies to think "ritualistically and superstitiously and stereotypically, thus [trying] to control by incantation, totems, and taboos." In this level there is, as Graves describes, a "name for each bend of the river, but none for the river." In the last decades, we have seen a newfound interest in the positive contribution and wisdom of this value system, evidenced by the widespread fascination with shamanism and indigenous cultures.

For the third system of values (red), we have the emergence of the "raw egocentric self—the renegade, the heretic, the barbarian, the go-it-alone, the power-self, the hedonist," as Beck explains. We have the individual self breaking free of the family, the clan, the safe structures of home and hearth. Here we have tribalism in its many forms and ethnocentrism, along with the first empires. In this system of values, we find plenty of rage and rebellion but also creativity and heroism. Think about the microcultures of inner-city gangs and organized crime, but also athletic achievers and rock stars. We might say that there is tremendous positive vitality, energy, and self-expressiveness in this value system.

The next three systems line up roughly with the three most common worldviews active in the world today: *traditionalism (blue)*, *modernism (orange)*, and *postmodernism (green)*. Beck likes to call them Holy Forces, Free Marketeers, and Egalitarians. Think Billy Graham, Bill Gates, and Oprah. Or the religious right, libertarians, and environmentalists. Or Opus Dei, IBM, and Greenpeace. Graves is just one of the tens if not hundreds of theorists and researchers at this point who have identified a roughly similar series of worldviews active today, though it should be noted that Graves was one of the first to clearly identify "postmodernism" or what he called the "relativistic, existential" system. Given that this value system really didn't move deeply into the mainstream until the 1960s, it is understandable that previous theorists might not have identified it so explicitly.

The seventh level, which later came to be called "integral," marked a significant shift, according to Graves, and is a worldview that is as yet unknown in the world, at least on a large scale. At the integral level, values are influenced less by self-interest and more by a desire for the well-being of the whole, the survival and success of the whole project of human existence. Beck describes this system as being "flex flow," a way of acting perhaps best described by Graves:

> The proper way to behave is the way that comes from working within existential reality. If it is realistic to be happy, then it is good to be happy. If the situation calls for authoritarianism, then it is proper to be authoritarian and if the situation calls for democracy, it is proper to be democratic. Behavior is right and proper if it is based on today's best possible evidence; no shame should be felt by him who behaves within such limits and fails. This ethic prescribes that what was right yesterday may not be seen as right tomorrow.

The worldviews of Spiral Dynamics can be thought of as complex systems of values. As Beck described it in an interview, "Spiral Dynamics is based on the assumption that we have . . . complex, adaptive, contextual intelligences, which develop in response to our life circumstances and challenges." They have alternatively been called "value-memes," sometimes abbreviated to "memes" (not to be confused with Richard Dawkins's use of the term*). Ken Wilber, who has incorporated Spiral Dynamics, along with many other developmental models, into his own work, thinks of these stages or codes as "waves of development"—almost like frequency waves across an electromagnetic band, distinct stages that nevertheless blur and blend into one another like colors on the visual spectrum.

* Richard Dawkins defined the term as a "unit of cultural transmission" in *The Selfish Gene* (New York, N.Y.: Oxford University Press, 1989), 192.

They are "not rigid levels but flowing waves," Wilber writes, "with much overlap and interweaving."

I think of them as complex intelligent systems that help organize our internal lives in much the same way as the skeletal system or nervous system helps to organize our biological lives. The sheer underlying power and influence of these value systems should not be underestimated, and yet it is important when we think about them to adopt a very flexible attitude, recognizing that they are not rigid or absolute distinctions but significant generalizations that enable us to make much greater sense out of the human experience. They represent deep positions in consciousness, natural attractors that tend to call to themselves ecosystems of values that resonate with the underlying principles of the worldview. Graves believed that they also represented different levels of activation in our neurological equipment, suggesting that these worldviews are not merely psychological and social but neurological.

Beck likes to point out that these value systems represent not so much types of people but types *in* people. We each may express values associated with many of these systems, and yet most people's values will tend to conglomerate around one primary worldview, their "center of gravity," as adherents like to say. It is also wrong to think of these systems as inherently bad or good. They are sets of values that adapt to fit certain life conditions. And there can be healthy or unhealthy behavioral expressions of each system. Extreme cultural relativism would be an unhealthy expression of postmodernism (green) while ecological sensitivity and gender equality would be a healthy version of that same value system. You can have an egomaniac expressing a very sophisticated cultural worldview and a decent, good-hearted person expressing the essential values of a worldview much "lower" on the evolutionary scale. Give me the latter person as a dinner companion any day! We have to be wary of the mind-set that "higher is always better." It's much more complex than that. As Graves eloquently expressed it, "What I am

saying is that when one form of being is more congruent with the realities of existence, then it is the better form of living for those realities. . . . When one form of existence ceases to be functional for the realities of existence then some other form, either higher or lower in the hierarchy, is the better style of living." Gandhi's nonviolence was a beautiful and effective response to colonialism, but I suspect it would have been less successful in the face of Genghis Khan. Military rule may be an appropriate governance structure for a country on the brink of tribal anarchy, but it would be regressive and disastrous in a more modernized culture.

Those of us who wish to study these stages or transitions through which our consciousness and culture have moved but who lack extraordinary powers of insight into the past need not despair. We can see these stages of cultural development not only by looking back but simply by looking around. As Robert Godwin writes, "We do not need a time machine . . . because in our present world, from the standpoint of psychology, developmental time *is* cultural space." What does this mean? Simply put, it means that individuals and cultures existing today in different areas of the world are at different stages of development. While much of the developed world may have reached modern or postmodern stages, there are many other nations and continents that continue to live at a traditional or even tribal stage. And even within countries like the United States, a number of these different value systems are clearly active at once. Indeed, cultures are never monolithic, particularly in a globalizing world, and within any given country there will be individuals who are inhabiting different stages of development, and moving between them as well.

So while our political system loves to use such distinctions as right versus left or conservative versus liberal as all-embracing categories when it comes to public values, "traditional," "modern," and "postmodern" are actually much better terms with which to analyze social and political movements in this country. For example, when

Richard Dawkins and the new atheists attack religious believers, it's not just atheism versus religion or left versus right. It's modernism versus traditionalism. When scientists attack creationists, it's modernism versus traditionalism. When environmentalists attack the "evil" corporations, it's postmodernism versus modernism. When my parents sent me to a Catholic grade school because the school was a good one, but fretted that their liberal Protestant son might come under the influence of Catholic beliefs, they were worried that the modern values they held dear would be undermined by more traditional ones. My sister and her husband are facing the same dilemma in Houston. Their teenage children attend a private high school run by a Christian organization. The children are intellectually challenged and stimulated by the discipline, high expectations, and value-rich climate of this achievement-oriented school. The effect on their personalities seems positive as well. I'm always struck by how sweet and respectful they are for teenagers, seemingly unaffected by the cynicism, irony-laden attitude, and laissez-faire relativism that they would almost certainly pick up at a more postmodern, conventional high school. And yet when we spend Christmas together and they tell me that their science teacher raises questions about the veracity of evolutionary biology, their uncle gets concerned about the trade-offs involved.

Culture wars are an ancient phenomenon. We can see them in mythology as the "gods" of one value-system battle the "gods" of another. When traditional culture and the monotheistic religions emerged, they struggled for centuries against paganism and polytheism. Many of our current battles have been going on since the emergence of modernism, all the way back in Voltaire's time. Each emergent worldview is, as Hegel told us, in a dialectical relationship to the one before it and is an answer to the problems created by the previous stage. Each one also transcends and includes the values of the previous level of development. The scientific values and achievement-oriented ethos of modernism were a reaction and,

ily laden with so-called right-brain tendencies," he explains, "such as heightened intuition, emotional attachments to places and things, and a mystical sense of cause and effect. I have a well-developed purple sense myself, having spent so much time with the Zulus." In fact, it was in Africa that Beck began to understand, he told me, the "majesty and dignity" of this value system, one rarely seen in the United States, at least not outside the city of New Orleans or the surviving Native American cultures.

With Graves's work fully internalized, Beck had another critical piece of the puzzle when it came to sorting out the racial prejudices that he had struggled with in his life. Indeed, as he read the newspapers and watched television in South Africa, slowly absorbing the cultural climate and political polarization that was occurring, he realized a surprising truth—one that might have seemed nonsensical to the uninitiated but represented a radically different perspective on the political tensions of the country. "Oh my God," he realized. "This is not about race."

To most South Africans, the societal fault lines were clear. It was black versus white, African versus European. But for Beck, it wasn't so simple. This struggle really masked a deeper conflict, one between value systems. Yes, on the surface it certainly seemed that white Afrikaners simply resented and devalued black Africans and their culture. But according to this new perspective, there was another layer of conflict occurring between worldviews that, in and of itself, had nothing to do with race. So Beck began to educate his audience on the importance of these cross-cultural value systems, pointing out that there were other ways to see the differences among the peoples than through the lens of color. Each race had individuals spread throughout the spiral of development. Not all Afrikaners were the same. Not all blacks were the same. If he could get people to see this, he realized, it would create new pathways for alliances across color lines. Not only did Spiral Dynamics transcend racial distinctions, it had more explanatory power. "And paradigms

change only when the new paradigm offers more explanatory power than the one it replaces," he notes.

Beck took up the challenge of South Africa's cultural evolution with a passion of a true believer, the stubbornness of a Texan, and the hardiness of a boy raised less than a decade after the Depression and Dust Bowl. "I had to shape myself to South Africa," he explains. "For example, I respected the Afrikaners rather than condemned them. The only way to speak to the Afrikaner is through religion or rugby, and I chose rugby . . . My role was to shift the categories people were using to describe the South African groupings from 'race,' 'ethnicity,' 'gender,' and 'class' into the natural value-system patterns, allowing for a new dynamic of change. Many were able to connect across these great racial divides to find the basis for a sense of being 'South African.'" He appeared on TV (especially on *Good Morning Africa*, the equivalent to *Good Morning America*), he wrote articles for newspapers, and he inserted himself into every high-level discussion about the future of the country that he could. He made a great many friends and more than a few enemies, some among progressive foreigners who felt he was too accommodating to the white power structure. Beck wanted to find solutions that took into account each of the many worldviews active in the politics of the country, and this didn't sit well with many liberals. "I was advocating a different solution than what the postmodern system demanded, which was the instant redistribution of power, since the only reason for the European-African gaps in development, [according to that value system] was blatant racism."

Exactly how influential Beck was with respect to the transformations that occurred in South Africa and the avoidance of civil war is uncertain. Without a doubt, he was a significant voice among the many contending for power and influence in that country in the late 1980s. What we do know is that the emerging idea of stages and worldviews in the evolution of human consciousness and culture had at last had its day in the political sun. It had gone from the

sweeping theories of the Hegelians to the research studies of developmental psychologists to the intuitions of Gebser to the constructions of Habermas, and in the hands of an unexpected advocate it was taken out of the garage of theory and research and allowed to drive around in public. And most important, it played a small but perhaps not insignificant role in avoiding a civil war that would have set southern Africa back generations.

EXPLAINING A COMPLEX WORLD

Frankly, when I first read about Spiral Dynamics, I was unsure what to think. The whole idea seemed so unlikely. "Isn't this oversimplistic?" I thought to myself. "An act of unbelievable hubris and reductionism? How could the extraordinary complexity of human culture be whittled down to essentially eight stages of development? Isn't this exactly the kind of idea that allows us to mistreat and marginalize people of other races, creeds, and cultures?" But as I began to understand the tremendous subtlety and complexity of the theory, I was able to see the truth of it in my everyday experience. And as I identified these cultural codes in myself and in the people around me, and came to appreciate the rich intellectual pedigree of this evolutionary perspective, my initial fears were assuaged. Eventually, I actually began to naturally perceive the world through this spectrum of worldviews. Far from being reductionist, this fundamental idea was enriching my understanding of the human condition. I began to see these differing value sets not as merely good ideas or helpful pointers but as important truths—not absolute truths, not final truths, not scientific truths, but "orienting generalizations," as Ken Wilber likes to say, that help to make profound sense out of the human experience.

Eventually, my fears were turned on their head. I began to see how clunky, ill-advised, and even dangerous it is to act in the world—socially, spiritually, politically, and especially militarily—

with an ignorance of these basic worldviews that structure and condition our lives. Frankly, it's like using nineteenth-century medicine in a twenty-first-century world. Instead of being a vehicle for marginalizing other people and cultures, this perspective is one that I came to see as an essential tool to *prevent* the mistreatment of other peoples and cultures.

Nevertheless, the idea remains controversial, and it will take some time for the understandable stigma associated with stages and hierarchy to work its way through the intellectual currents of our time. Here, again, it helps to keep a certain context. In evolutionary terms, it was not so long ago that human beings were using leeches on the sick or sacrificing babies to appease the gods. One day, I suspect, we will look back and feel similarly about how we have understood cultural development in our own age. That is not to imply that it's easy to make a transition from theory to practice when it comes to the new perspective on evolution. The issues are so complex. Indeed, when it comes to applying the values of one worldview to a society steeped in the values of another, it is easier to do more harm than good. One person's barbarian is another's indigenous elder. One person's genital mutilation is another's sacred ritual. How and where do we make distinctions, draw the lines? And yet the idea that we should unilaterally adopt a hands-off policy when it comes to other cultures is a pretension we can ill afford in today's world.

So we invade Iraq and think that they should be able to immediately embrace the freedoms of modernism and waltz into a democratic future. We're surprised when they don't welcome us with wide-open arms and shocked at the sectarian conflict that erupts. We struggle to understand the nature of tribal dynamics in Afghanistan. Scarred by our failures, we retreat to a live-and-let-live policy, or to a protected isolationism, and hope for peace. Or perhaps we resort to cynicism and embrace pessimistic views of history. Only, that doesn't work either and another Pearl Harbor or 9/11 rouses us from our reverie, calling us to be proactive in the world. But then

we imagine in our arrogance that we can quickly remake cultures in our own image, establishing modernism and democracy like some global Johnny Appleseed, distributing our idea of freedom behind the barrel of a well-intentioned gun. And so we alternate between a history-free, naïve idealism that believes too much is possible and a history-laden realism that has no faith in the future. An evolutionary worldview allows us to steer between those extremes and adopt the best attributes of both. Evolutionaries express an idealism that says the future is open-ended and extraordinary change and development is absolutely possible. But they also need to embrace a realism that acknowledges that evolution takes time and that it happens within the context of deep-rooted and complex historical patterns. To simply bypass these, avoid them, or pretend they don't exist is to work in denial of real forces that are shaping the tides of history.

Spiral Dynamics also allows us to get out of the business, as Beck points out again and again, of expecting people to be different from how they are, to somehow change worldviews overnight. That's not the path to pragmatic, workable global cultural evolution—at least not in the short term. "I'm not trying to change people," Beck often says, by which he means he's not trying to manipulate an individual's basic worldview. "People have a right to be who they are." But there are healthy and unhealthy expressions of each code in his spiral system, and some play better with others in our increasingly crowded global melting pot. Indeed, there is a huge difference between the traditional worldview of a Billy Graham and the one of an Osama bin Laden; the modernist spirit that sends people to the moon or the one that turns a blind eye to environmental destruction.

Of course, this cultural perspective is never going to be as simple or as easy to define as individual psychology. Evolutionary systems like Beck's or those of other theorists tracking similar territory certainly do not constitute final proclamations on the nature of human culture. But no longer are they merely pet theories or shot-in-the-dark guesses as to how consciousness and culture evolve. Social

science surveys indicate clearly that at least three dominant worldviews or value systems are active in the United States. They may not call them traditional, modern, and postmodern, but the data largely corroborate the developmentalists' descriptions. How will we negotiate the dynamics between these worldviews in the years to come? Political pundits often evoke the memories of the good old times of the 1950s and '60s when politicians were more bipartisan and we were able to get more positive legislation through a more amicable Congress. I have my doubts as to the accuracy of their rose-colored memories, but nonetheless, they are right about one thing. The cultural landscape is different today. The postmodern worldview became a force in the United States in the late 1960s and changed the cultural and political character of our country permanently. We should focus on understanding the new dynamics of a more complex world rather than longing for a modernist consensus that is lost forever.

Spiral Dynamics, along with other new theories of cultural evolution, represent some of the new fruits of the effort to understand this more complex world. But it will be up to future generations to use this emerging knowledge to reshape and transform the contours of our global culture—hopefully, much for the better.