

# EVOLUTIONARIES

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

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HARPER  PERENNIAL

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

*We are moving!*

—*Pierre Teilhard de Chardin*, *The Future of Man*

## INTRODUCTION

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Do you believe the Bible, or do you believe in evolution?” The question came in an urgent whisper, passed around my eighth-grade science class with the guilty subterfuge of a dirty joke. I was thirteen years old and already I understood that there were two kinds of people in my small town on the edge of the Bible Belt: those who believed and those who didn’t.

I’m not talking about God—everyone believed in God. I’m talking about evolution.

Little did I realize, at that tender age, that I was confronting one of the most profound and enduring existential dilemmas of my time and culture. A few decades later, in the brave new world of the twenty-first century, that whispered question, far from being an outdated relic, is emblazoned across the covers of the most mainstream magazines: “God vs. Darwin,” “Science vs. Spirit,” “The Plot to Kill Evolution . . .” Indeed, evolution, these days, instead of just being a scientific term denoting a biological explanation for the origin of life, has become almost a pseudonym for the endemic culture wars that simmer under the surface of American society and occasionally flare up into full-fledged showdowns that temporarily consume the consciousness

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of our mass media. The debate over evolution, we are told, is a war between irrevocably opposed camps—between those who look at the natural world and see the handiwork of a divine intelligence and those who look at the world and see only impersonal processes and meaningless manifestations of matter. In fact, judging from the headlines alone, one would have to conclude that we live in a world where God and evolution are mutually exclusive.

But like my Oklahoma hometown, America is not that simple. If the pollsters are to be trusted, 91 percent of Americans believe in God. And 50 percent accept the scientific theory of evolution. You just have to do the math to see that the black-and-white image of a polarized nation that makes books and magazines fly off the shelves is concealing at least a few shades of gray. In fact, as I've found out in my extensive research over the last decade, it conceals a whole spectrum of colors.

Personally, I always knew exactly where I stood in the evolution wars. I grew up a lover of knowledge, of science, and Carl Sagan was my childhood hero. Although I was only twelve years old when *Cosmos*, Sagan's signature PBS show on science and space, aired, I watched each episode as if it were a religious revelation. After the show, in the quiet of my bedroom, I would read the accompanying book cover to cover, letting my mind roam across the universe, imagining new worlds and new forms of matter and life. I was awed by the power of black holes, humbled by the size of quasars, and inspired by the thought that one day humans might travel among the stars.

As the years passed, I always retained that basic passion and appreciation for the ever-developing knowledge of science. There were certainly those in my hometown who saw a godless, evil half-truth in the declarations of Darwin and his intellectual descendants, but for me, my friends, and my family, evolution—like the rest of science—was just another fascinating and noncontroversial fact of life.

My relationship with religion, however, has always been more

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complex. Raised in an intellectually adventurous family, I never thought of myself as a religious person. Yes, I went to church more Sundays than not—Presbyterian was our family denomination. But church was simply a respected and honored part of the multilayered social fabric of life in a small town, not something to be taken too seriously, and certainly not something to be fanatical about. Such things were better left to the Baptists, or the overly religious folk down at the Church of Christ. By my late teenage years, however, my outlook had begun to shift. Fate seemed to instill in my young heart a passion for discovering a deeper meaning to life, and a yearning for spiritual fulfillment began to well up in my consciousness. By the end of my time at university, spirituality—and, more specifically, Eastern philosophy and meditation—had become a focal point of my life. Finally, at the age of twenty-two, in 1990, only two weeks after I graduated early from Oklahoma University, I left the world I knew behind—my honors degree, my fraternity brothers, plans for law school—and boarded a plane for the East to dedicate myself to the pursuit of wisdom, truth, and spiritual knowledge.

A decade later, I found myself in a unique position—editor at one of the most influential and progressive spiritual and philosophical magazines in America, *EnlightenNext* (formerly *What Is Enlightenment?*) And my early passion for science began to play a key role in my new career. In fact, the relationship between science and spirit became one of the most important areas of inquiry for a magazine dedicated to defining a post-traditional spiritual and philosophical worldview suited to a rational age. In the course of my work for *EnlightenNext*, I was privileged to be able to meet and interview some of the most impressive spiritual leaders and brilliant scientific pioneers alive today. I had the chance to examine where they stood on many of the most important questions confronting human culture. And I have learned that evolution is not only a line in the sand between science and faith. It is also, I have been surprised to find, a bridge that connects them.

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The journey that led to the creation of this book was what author Steven Johnson calls “a slow hunch”—a gradual epiphany that coalesced around a number of important insights and encounters. As I interviewed many individuals who were breaking new ground in science, spirituality, philosophy, psychology, and even traditional religion, I noticed that a common theme was emerging—evolution. They were informed and inspired by science’s revelation of our biological and cosmic history, and in some cases explicitly championing the notion of evolution as a new way of making meaning out of life in the twenty-first century. In the hands of some, this evolutionary inspiration leaned toward secularism and humanism, and in the hands of others it leaned toward pantheism or even theism. But they all shared a common evolutionary context for interpreting their fields. We were witnessing, I eventually concluded, the birth of an authentic new spiritual and philosophical worldview. This new worldview was science-friendly and placed questions of human purpose and meaning fully in the context of an evolutionary cosmos. It has been slowly emerging in the culture over the last two centuries but has picked up steam in the last two decades.

To be sure, there is still little cultural mind-space in mainstream America for the emergence of evolutionarily inspired forms of meaning and purpose. Let’s be honest: God vs. Darwin has great media resonance. But more and more intelligent people are beginning to question this easy dichotomy. In fact, long before I fully understood what a critical role evolution would play in developing a worldview that is adequate to meet the demands of a new century, I knew that the choice the popular media so often presents—believe in God or believe in evolution; embrace atheism or be lumped in with intelligent design—is a false choice. It is not actually a choice between the spiritual impulse and the scientific impulse but between two worldviews: one that believes in the ultimate primacy of matter and one that believes in the ultimate primacy of an ancient god. And I, for one, don’t believe in either.



So, together with my fellow editors at *EnlightenNext*, I set out on the research journey that eventually led to this book. My initial intention, which resulted in a feature article, was to uncover what I called “the *real* evolution debate”—to chart those scientific, philosophical, and metaphysical perspectives that are causing us to redefine the nature of the evolutionary process and to rethink our conclusions about where we come from, who we are, and where we might be going. As I delved behind the polarizing headlines, I uncovered an extraordinary world where conventional ideas about both science and religion are being turned upside down, and scientists, philosophers, and theologians are negotiating, in ever-surprising ways, what Plutarch described as the “difficult course between the precipice of godlessness and the marsh of superstition.”

Perhaps no single entity has done more to feature the thoughts and ideas that make up the basic framework of a new evolution-inspired worldview over the last decades than *EnlightenNext* magazine. Though small in scale, the magazine, during its almost twenty-year history, played a catalytic role in featuring the people and perspectives associated with an evolutionary understanding of the world. As executive editor, I had the unique opportunity to play several roles in this movement—journalist, critic, witness, and also creative participant. My position has afforded me the opportunity to engage with many of the remarkable scientists, religious thinkers, philosophers, spiritual visionaries, psychologists, researchers, and theorists who are spearheading this novel perspective. It is to those many thousands of hours of enlightening conversation, dialogue, and discussion that the contents of this book owe their debt. I am a firm believer in the idea that innovation and creativity is as much a function of the right kind of relationships as it is of a particular kind of individual vision. In that respect, I have been blessed to be part of an extremely stimulating network of friends, colleagues, and collaborators.

Evolution is one of those bellwether ideas that is able to uniquely track the currents of our cultural zeitgeist, simply because its roots

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reach so deep into the way we understand reality. It is not hyperbole to say that how we think about evolution profoundly affects how we think about life, the universe, and everything. That is why it is a critical pillar in the work to form a new worldview that can meet the demands of the twenty-first century. I'm not alone in this conviction. This book brings together a diverse but interconnected ecosystem of theorists, researchers, teachers, and philosophers who are, each in their own way, helping to contribute to this critical cultural project. As the contours of this evolutionary worldview become clear, I am confident that it will help us to find new and creative responses to the many challenges of life in this complex and rapidly changing world that we have inherited. How we think about evolution is foundational to the kinds of visions that we hold for our collective future. It shapes our understanding of who we are today, how we got here, and what our role is in creating the world of tomorrow. Confronted by the unprecedented challenges of a globalizing, environmentally threatened, culturally dissonant world, nothing could be more critical. Paradoxically, the debate about our origins is also a cultural referendum on our future.

PART I

REEXAMINING EVOLUTION

## PROLOGUE

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# An Evolutionary Vision

**O**n 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 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 words, 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

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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.