

## *Introduction*

**“Beware of the stories you read or tell; subtly, at night, beneath the waters of consciousness, they are altering your world.”**

—Ben Okri, *Nigerian poet and author*

IN MARCH OF LAST YEAR, THE INSTITUTE OF NOETIC SCIENCES published *The 2007 Shift Report*, which has now become an annual series of investigations into the challenges of our civilization and the evolution of our species. Subtitled “Evidence of a World Transforming,” the report emphasized the importance of *worldview* and discussed both the influence of a dominant worldview that is wreaking havoc on the planet and its people, and an emerging worldview based on very different assumptions about our human potential and how the universe works. The limitations of our materialist-reductionist model of science were identified, and evidence of a new science presented in such areas as quantum physics, epigenetics, neuroscience, and psychology. The report also identified several breakthrough initiatives in health care, business, education, and global development. It concluded:

“Materialist science represented an evolutionary leap from a mind-set that relied on religious authority for verifying truths to one that valued an objective search for knowledge. In this global age of rapid change and transformation, it is time for another such leap . . . [to] include the rigorous study of subjective, inner experience, a renewed appreciation for meaning and purpose, and a recognition that the world of consciousness is far more mysterious and influential than we have ever imagined.”

This new report updates some of these issues while extending our exploration into several additional areas. The blending of insights and research from a broad range of disciplines and perspectives provides a necessary framework for understanding the complexity of the world we live in.

As noted in that first report and examined in more detail in this one, the current science-dominated and largely Western worldview that has such a significant impact was a response to the religious fanaticism and conflicts of the seventeenth and eighteenth centuries. It prioritizes reason and the primacy of the physical universe; favors such characteristics as objectivity, predictability, hierarchy, and duality (either-or, right-wrong); and is rooted in the study of parts instead of systems. In turn, these characteristics—along with certain economic and social applications drawn from this worldview and certain religious beliefs that have stood the test of time—have churned out a variety of assumptions about who we are and the way reality works, assumptions that are affecting global culture and ecological health. Those assumptions include the following:

- **Growth is good; more is better.**
- **Economic wealth is the truest sign of progress.**
- **“The market” is the most reliable measure of value.**
- **Individual selfishness serves the common good.**
- **We live in a world of scarcity.**
- **Humans are superior to other creatures.**
- **The Earth is ours to exploit.**
- **The world consists of “us” and “them.”**
- **People are intrinsically bad.**
- **Technology—or God—will save us.**

It’s no secret that the last few hundred years have seen significant improvements on many fronts, in such fields as medicine and technology and in the creation of wealth—however unevenly spread. It’s also no secret that we live in a time of great peril and that the reasons can be traced to many of the assumptions outlined above. “When our Western (and Westernized) culture sees the world as dead matter, the world becomes something to exploit,” says Paul Devereaux, coeditor (with Trish Pfeiffer and the late Harvard psychologist John E. Mack) of *Mind Before Matter: Visions of a New Science of Consciousness*. “Our economics, politics, and social arrangements symbiotically create and are applied to that worldview.”

We can evaluate the cumulative influence of these assumptions by considering some key global indicators of ecological stability and human and social well-being. A selection of such metrics in the first report presented numerous signs for concern, and additional data offer plenty of new and ongoing worries.

- **Climate Change** – The indicators of this are too numerous to count, but among the more telling is the accelerated melting of the Arctic ice cap—a record 552 billion tons in 2007;<sup>1</sup> record-high surface temperatures in the Arctic Ocean;<sup>2</sup> an alarming rise in the rate of global carbon emissions;<sup>3</sup> and more than 260 high-temperature records broken in the United States last year.<sup>4</sup> The Intergovernmental Panel on Climate Change has recommended that greenhouse gas emissions be reduced to 25–40 percent below 1990 levels by 2020; the 1997 Kyoto Protocol requires industrial nations to reduce such emissions to 5 percent below 1990 levels by 2012. At the recent UN conference on climate change held in Bali and convened to replace the Kyoto Protocol (which expires in 2012), specific emissions reduction targets for industrialized countries were postponed for at least another two years, largely the result of U.S. resistance.

- **Mass Dislocation and Resource Wars** – In a recent report titled “A Climate of Conflict,” the independent peace-building organization International Alert concludes that nearly 3 billion people in 46 countries already afflicted by poverty, poor governance, and socioeconomic tension will be hardest hit by climate change, resulting in political chaos, violent conflict, and mass migration. An additional 1.2 billion people in 56 countries are at risk of similar instability as a result of climate disruption.<sup>5</sup> According to “Climate

### *Climate Change Still Low Political Priority*

**The unusual weather affecting the nation this winter may have reinforced the widely held view that the phenomenon of rising temperatures is real (77 percent of Americans believe that), but the public continues to be deeply divided over both its cause and what to do about it. Only about half (47 percent) of the public now says that human activity, such as the burning of fossil fuels, is mostly to blame for the Earth getting warmer. Moreover, there are indications that most Americans do not regard global warming as a top-tier issue. In Pew’s annual list of policy priorities for the president and Congress, global warming ranked fourth-lowest of 23 items tested . . . the public’s relatively low level of concern about global warming sets the United States apart from other countries. [An earlier survey] found that only 19 percent of Americans who had heard of global warming expressed a great deal of personal concern about the issue. Among the 15 countries surveyed, only the Chinese expressed a comparably low level of concern (20 percent).**

—“Global Warming: A Divide on Causes and Solutions,”  
Pew Research Center  
(1/24/07)

Alarm,” a new report from Oxfam, natural disasters have increased from an average of 120 a year in the early 1980s to as many as 500 a year today, affecting more than 250 million people.<sup>6</sup> And as water and arable land become scarcer, conflicts over resource access and use will increase.

- **Arms Sales** – Terrorism, political instability, ethnic conflicts, resource protection, environmental refugees, and the U.S. invasion of Iraq have helped increase worldwide military spending by 34 percent over the past ten years to more than one trillion dollars, an amount approaching that during the Cold War.<sup>7</sup> The United States is responsible for nearly half of that total, with the United Kingdom, France, Japan, and China well back at 4–5 percent each. The countries with the largest percentage increases in military spending are China (165 percent), Saudi Arabia (94 percent), and India (82 percent). Approximately 41 percent of each U.S. tax dollar goes to current military spending and the cost of past wars.<sup>8</sup> Developing nations continue to be the primary focus of foreign arms sales activity, and a report titled “Shattered Lives,” coauthored by Amnesty International and Oxfam, investigates the profoundly destabilizing impact of such sales on living conditions in those places.<sup>9</sup>

- **Peak Oil** – According to a 2005 U.S. Department of Energy report called “Peaking of World Oil Production: Impacts, Mitigation, and Risk Management,” worldwide demand for oil is expected to increase by 50 percent by the year 2025.<sup>10</sup> At the same time, many experts predict that world oil production will begin to decline in the next few years, and that “peak oil” has already occurred in 64 countries (including the lower 48 U.S. states, where it occurred in the 1970s despite the significant improvement in technology since).<sup>11</sup> As the report concludes, “the development of the U.S. economy and lifestyle has been fundamentally shaped by the availability of abundant, low-cost fuel. Oil scarcity and several-fold oil price increases due to world oil production peaking could have dramatic impacts . . . The world has never faced a problem like this . . . the problem will be pervasive and will not be temporary.”

• **Population Growth** – The world’s population is expected to exceed 6.6 billion early this year—more than double the figure of 1965—and reach 9 billion by 2050. While the rate of increase has gone down from 2.2 percent to 1.1 percent, overall population has been increasing by approximately 80 million people each year.<sup>12</sup> As this population growth exerts increasing demands on resources, the carrying capacity of the planet becomes compromised. According to the Global Footprint Network, in the late 1980s our cumulative activities and needs began exceeding Earth’s biological capacity to provide sufficient raw material and absorb wastes, and we are now more than 25 percent over capacity. Not surprisingly, the United States has a disproportionately higher impact than does any other region, requiring the equivalent of nine Earths to sustain its consumption and waste patterns.<sup>13</sup>

Other pressing issues such as industrial agriculture, the privatization of water, rainforest destruction, fisheries depletion, species extinction, pollution of the oceans, child trafficking, and deplorable conditions of poverty and lack for billions of people reflect a world that seems incapable of achieving any kind of balance among economic growth, ecological sustainability, and socioeconomic justice. Most of the studies cited above do propose a wide variety of actionable solutions to many of these problems, but too few of those solutions are being implemented, for a wide variety of reasons.

Not all the problems of the world can be laid at the feet of a single dominant paradigm or worldview—we live in complicated times. But the influence of a reductionist-materialist model of reality and its various social and economic extensions has been significant, and its cumulative impacts potentially cataclysmic. Not surprisingly, the various assumptions underlying this orientation will be difficult to change. They have become embedded in our psyches,

### *United States Seeks African Resources*

**In February 2007, the White House announced the formation of the U.S. African Command (AFRICOM), a new unified Pentagon command center in Africa, to be established by September 2008. This military penetration of Africa is being presented as a humanitarian guard in the Global War on Terror, [but] the real objective is the procurement and control of Africa’s oil and its global delivery systems . . . It is in Western and Sub-Saharan Africa that the U.S. military force is most rapidly increasing, as this area is projected to become as important a source of energy as the Middle East within the next decade. In this region, challenge to U.S. domination and exploitation is coming from the people of Africa—most specifically in Nigeria, where 70 percent of Africa’s oil is contained.**

—“Top 25 Censored Stories of 2008,”  
Project Censored ([www.projectcensored.org/censored\\_2008/index.htm](http://www.projectcensored.org/censored_2008/index.htm))

resulting in a complex architecture of psychological, emotional, and neurological entanglements. A revealing study carried out in 2004 at Emory University, designed to gain insight into how our “political brains” work, captures just how complicated our inner world of belief making is.<sup>14</sup>

While studying participants’ brain activity with functional magnetic resonance imaging (fMRI), investigators presented to a sample of Republicans and Democrats a series of contradictory statements made by both John Kerry and George W. Bush and asked each group to rate how contradictory those statements were. Not surprisingly, each group felt that the other party’s candidate’s statements were more contradictory than those of its own candidate. The most interest-

**“The brain is a stubborn organ. Once its primary set of beliefs has been established, the brain finds it difficult to integrate opposing ideas and beliefs. This has profound consequences for individuals and society and helps to explain why some people cannot abandon destructive beliefs, be they religious, political, or psychological.”**

—Andrew Newberg, *Born to Believe*  
(Free Press, 2006)

ing part is what was going on inside their brains as they reached these conclusions.

“We did not see any increased activation of the parts of the brain normally engaged during reasoning,” said Drew Westen, director of clinical psychology at Emory, who led the study. “What we saw instead was a network of emotion circuits lighting up . . . Essentially, it appears as if partisans twirl the cognitive kaleidoscope until they

get the conclusions they want, and then they get massively reinforced for it, with the elimination of negative emotional states and the activation of positive ones.” In short, Westen ominously concludes, “Partisan beliefs are calcified, and the person can learn very little from new data.” As neuroscience writer Jonah Lehrer notes about the study, “The voters were literally censoring their cognitive dissonance. Instead of using their reasoning faculties to logically analyze the facts, they use reason to buttress their opinions.”

And so it appears that we avoid the discomfort of contradictory facts when they challenge a particular decision or belief—denial equals emotional homeostasis. This observation has a strong bearing on how one confronts an existing worldview and considers ways to change it. Those who accept the maxim “Growth

is good,” for example, will resist other perspectives even in the face of evidence that such a conviction may be slowly killing us. The media is complicit in reinforcing such entrenched assumptions, and the inability to distinguish between reality and fantasy becomes an enduring characteristic of the cultural soup.

### **Exploring Our Capacity for Change**

What are we to make of all this? This time of convergent crises feels overwhelming, and many people are paralyzed by the specter of the accumulated threat. It’s also painfully clear that immediate action on multiple fronts is needed to avoid our worst-case scenarios. Solutions do exist, and books such as Lester Brown’s *Plan B 3.0: Mobilizing to Save Civilization* and *Limits to Growth: The 30-Year Update*, by the late Donella Meadows et al., do a very good job of laying out those options. But progress has been painfully slow. And yet if the new tool of neuroscience is revealing that we are as hardwired for cooperation as competition, for altruism as much as selfishness, for compassion as much as fear, why isn’t change happening more quickly? The reasons are as internal as they are external, for while the institutional forces of greed, power, and globalization are a significant source of resistance, findings such as those reported in the Emory study provide a clue to our own complicity—all complicating the transition from a life-threatening to a life-affirming future.

In the remaining sections of this report, we look more closely at that complicity while exploring our capacity to transcend our limitations. In Section I, “Evolution and Human Nature,” we continue to identify signs that a new story of our potential is emerging, while considering some of the evolutionary patterns that may be holding us back. Section II, “Toward a New Scientific Synthesis,” explores the paradigm of Western science through research into anomalous cognition and also reports on a major conference in which notable scientists, both skeptical and supportive, came together to identify their differences and areas of potential agreement. In Section III, “The Rise of Global Civil Society,” we document some of the contours of a powerful grassroots movement that is addressing with conviction and creativity many of the challenges confronting us. Finally, in Section IV, “Internalizing Paradigm Shift,” we explore how aspects

of the dominant paradigm live in each of us and how science and spirituality are converging to offer tools for rewriting the stories we've been born into.

Woven throughout the rest of the report, explicitly as well as implicitly, is evidence of the crucial role that consciousness plays in any effort to advance toward a more globally sustainable and just civilization. Voting is good, but changing one's mind and heart is better. Our fundamental position is that reality follows the quality of our thoughts and beliefs, both conscious and unconscious, because these are what drive the choices that cumulatively result in the world we live in. By changing those beliefs, we can change the future.