

DOZIER BELL

INTELLIGENT EVOLUTION

GARY E. SCHWARTZ

IMAGINE THAT THERE HAD BEEN NO ABRAHAM, NO MOSES, NO JESUS, NO MUHAMMAD. Imagine a world without mystics, prophets, shamans, or medicine men. And what if there were no Old Testament, no New Testament, no Koran—just contemporary, twenty-first-century science? In such a world, would scientists feel the need to come up with a theory that some kind of invisible organizing process—that is, a God—exists in the universe and in our daily lives?

In today's real world, where some version of the God concept is accepted by a majority of the planet's six billion people, God is a subject traditionally shunned by scientists. And for good reason: A sure way for federally funded scientists to lose their government support from the National Institutes of Health, the National Science Foundation, or NASA is for them to start conducting experiments documenting the existence of God.

But is the belief in God—a universal intelligence, source, and energy of all that is—something we must accept only on faith? Or is there compelling scientific reasoning, supported by incontrovertible experimental evidence? If this essence is actually at work in the scientist's lab, as well as in our daily lives, it's time for us to take notice. My experiences in the laboratory and in life demonstrate convincingly, I believe, that science can lead us to the God who is now making himself/herself/itself known in physics, statistics, computer science, and even in, of all places, parapsychology experiments. [And] to avoid all the emotional baggage that too often comes into play when somebody tries to tell you about his or her notion of God, I use the term "G.O.D." to suggest a Guiding, Organizing, Designing process.

CHANCE VERSUS INTELLIGENCE

There are basically two schools of thought—what scientists label as two foundational hypotheses—about the origin of the universe. One can be called the chance universe; the other, the intelligent design universe.

The chance universe is the current interpretation generally accepted by mainstream science in the fields of statistics, quantum physics, and evolutionary biology. It suggests that the growth and evolution of all things, from the subatomic to the galactic—and everything in between—reflects a version of natural selection and survival of the fittest as elegantly proposed by Charles Darwin. At its core, the idea of survival of the fittest is

presumed to be possible due to the existence of random mutation and chance in biological systems, driven by physical laws, as they interact with the environment.

Highly regarded twentieth-century scientists—ranging from the late Richard Feynman and Carl Sagan in physics and astrophysics to Richard Dawkins and the late Stephen Jay Gould in evolution and biology—are often associated with some version of this randomness interpretation of the origin of order, life, and evolution in the universe.

It is important to pay close attention to the wording here. Generally speaking, mainstream scientists tend to ignore the "origin" question because they cannot address it. Explaining the evolution of biological life in terms of existing laws of physics, chemistry, and biochemistry ignores the fundamental question: What explains the origin and organization of the laws that are presumed to be the building blocks of higher-order biological systems, including the appearance and evolution of intelligence in life? If the explanation for the origin and organization of natural laws is not chance and randomness, then what is it?

Other distinguished twentieth-century scientists—ranging from the late Albert Einstein and David Bohm in physics to Rupert Sheldrake and the late Willis Harman in evolution and biology—are often associated with some version of an intelligent design interpretation. A more apt term, one that is consistent with the evidence from evolution as well as from statistics, is "creative intelligent design." This intelligent trial and error or "experimenting intelligence" integrates intelligence as expressed in both art and science.

The proponents of the chance universe hypothesis cite verifiable mountains of data that seem to be consistent with the existence of randomness in the evolution of the universe. I emphasize the word "seem" because to accept the chance hypothesis requires that one assume that if something appears random—like the sequence of numbers in pi—then the order must be random. It also requires the assumption that the overabundance of order seen in the universe (for example, spiraling galaxies) can be explained as random combinations of laws and processes.

The most vocal advocates claim—with complete conviction—that randomness essentially rules the universe. They presume that the universe began in a state of true chaos (disorder), and that it is basically running down (the second law of thermodynamics). To the chance advocates, if such a thing as God exists, there would be no question that such a God plays dice with the universe. ➔

In fact, according to some interpretations of probability theory, you can literally bet your life that the chance universe hypothesis is true. The seeming exception to this overall picture of increasing entropy and disorder in the universe is the existence of small pockets or areas of evolving order—such as witnessed on the planet Earth.

The alternative explanation involves some sort of creative intelligent, trial-and-order ordering process—what I term an Experimenting G.O.D. process. This explanation proposes that what Darwin termed natural selection is an intelligently guided process that promotes the creative expression and evolution of ever more complex and interconnected systems: the operation of intelligent evolution. There are three primary reasons for such a conclusion:

1. The balance of forces necessary to sustain the universe and ultimately sustain biological life is too precarious and precise to have come into existence simply by chance alone.

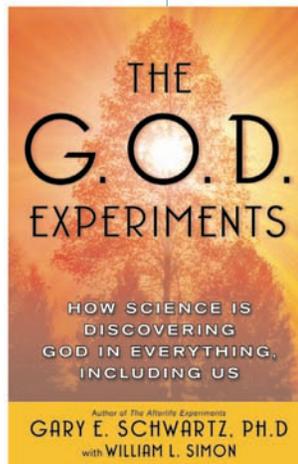
2. The chance explanation is not supported by experimental evidence.

When, for example, conditions for producing random sampling are in place, in the absence of a specific ordering process, numbers always create what is termed a “normal” distribution, a bell-shaped curve. And the more numbers used in the calculations, the more perfectly formed becomes the curve.

3. The conditions for creating chance do not exist in the universe. When we carefully consider the conditions necessary to produce random orders in the first place, we are reminded that a prerequisite for random sampling is independence of events. If events are not independent, random distributions are never observed. This is a well-accepted fact in science. And when we look for the existence of independence in the universe, what we find instead is interdependence and interconnectedness. What physics calls the vacuum or void is actually filled with

incomprehensibly complex dynamic networks of highly organized—and organizing—fields of force. Though physicists do not understand the origin and organization of these invisible force fields, they are convinced that they definitely exist and play a regulating or guiding role in all physical systems.

Once you fully accept the reasons above, you are led inexorably to consider the possible existence of some sort of universal, invisible intelligent Guiding-Organizing-Designing field process that must somehow, to some degree, be playing a fundamental role in everything that expresses order—from subatomic superstrings, through personal coincidences that are too unexpected to be chance, to superclusters of galaxies.



EVIDENCE-BASED FAITH

Belief is profoundly important in everything we do. Belief is what guides our attention. Belief is what leads people to see in particular directions, and therefore to discover. Belief also plays a powerful role in motivation. It's one thing to know how to fly an airplane; it's another to believe that you can do it. For whatever reason, knowledge is not enough.

The potential transformation from belief to faith is important because to have faith one must have trust. Evidence-based faith is far different from blind trust, though; it is open-minded, discerning trust. And it is intelligent trust. Similarly, evidence-based belief is not blind belief; it is open-minded, discerning belief. And it is intelligent belief.

Evidence-based belief is the empirical “show-me” approach to believing. It is the approach of the genuine scientist, the open-minded explorer who looks not only to personal experiments for evidence but also to experiments conducted by others that are convincing. The extreme evidence-based believer says, in essence, “I ultimately don't care what I have been taught, what I personally want or experience, or even what logic tells me. What matters most is what replicable experiments in my life and the laboratory reveal.”

When I take a day away from the university campus to

teach concepts of energy and force to high school students or to medical researchers, I perform a simple demonstration. I take an eraser, a book, a set of keys—whatever objects are handy—and holding out my arm, I release the object from my hand. Every time I've released an object in this way, it has fallen to the ground. Even though I know, in principle, that this will not happen in the space shuttle when it is orbiting Earth, and even though I can imagine, in principle, that someone might one day be able with their mind alone to slow the object's fall or even suspend the object in midair, what happens when I release objects on the Earth is that they fall to the ground.

Releasing objects is as reliable as taking a sand painting and shaking it in a pot. The object falls every time. The sand painting mixes always. Can we put our faith in something that happens 100 percent of the time? I would say "virtually yes." If the evidence says that something has happened 100 percent of the time in the past, then we have reason to believe, not with absolute certainty but at least with virtual certainty, that it will likely happen this way in the future. This is the strongest form of evidence-based faith.

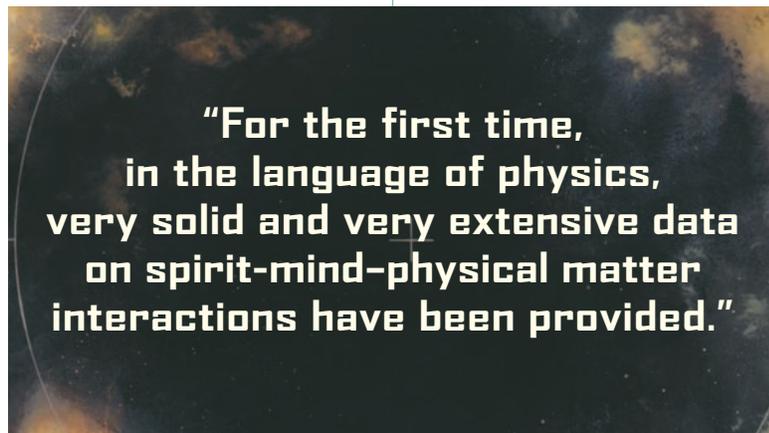
If something happens approximately 45 percent of the time—which is about the average of shooting baskets from the floor for great basketball players—we can put our faith in the fact that in the foreseeable future, it will continue to average around 45 percent. Some games will be less, some will be more. However, we will continue to gather evidence in order to keep our faith in a given player's performance.

Comprehensive and responsible evidence-based faith takes evidence from a variety of disciplines such as physics, mathematics, psychology, and parapsychology, and when the observations all lead to the same conclusion, accepts the result as evidence-based faith. I have taken evidence from physics (sand mixing 100 percent of the time), from mathematics (the normal curve appearing bell-shaped 100 percent of the time), from psychology (the mind's capacity to extend its understanding from the

infinitely small to beyond the universe itself), and from parapsychology (certain individuals being able to dream about future months' events in advance) as together providing evidence of orchestration of complex personal lives. I have considered the implications of this combination of evidence honestly and forthrightly. It is the weight of the evidence, spread over multiple disciplines and contexts, that brings me to a conclusion I can trust: that some sort of universal, creative, and intelligent designing process is part of the very essence of the evolving universe itself.

LIVING IN THE QUESTION

Most scientific researchers never mention the G-word in the context of their science. Nor is the G-word listed in the index of books like *Conscious Acts of Creation* or *The Field*, nor mentioned, except briefly, in books like *The Genius Within* or *The Conscious Universe*. However, the avoidance of the G-word reflects the politics of science, not its essence. For when the emerging body of consciousness research is "seen with new eyes," it portends



a spectacular paradigm change.

Professor Rustum Roy describes the work of Stanford Professor Emeritus (and materials scientist) William Tiller and his colleagues as follows: "For the first time, in the language of physics, very solid and very extensive data on spirit-mind-physical matter interactions have been provided." Science and spirituality are becoming two sides of the same coin. Science is not only helping to solve the mystery of mysteries; in fact, we are beginning to see G.O.D. process as the Ultimate Experimenter, an intelligent, creative, and caring intellect that we can come to know and serve—if we are willing to ask.

My evidenced-based faith is that if we stay willing to continue asking challenging questions with an open and discerning mind and then creatively apply the evolving tools of science to address those questions, definitive

answers will be revealed in time. It is the nature of science that when one question is answered, more questions present themselves. And so we are left with many unanswered questions: Is what we term the G.O.D. process an expression of a universal organizing consciousness—an awareness and intelligence in everything? Is the G.O.D. process perhaps conducting a great experiment? Is the ultimate outcome of this grand experiment already known (and is it possible that the G.O.D. process has a bag of cosmic tricks up its sleeve)? Or is G.O.D., the Ultimate Experimenter, continually discovering new things just as we are? And is the G.O.D. process itself evolving along with the evolving universe? And a question we all share: Is there a universal co-creative process of which we, individually and collectively, are a part?

How might we live our lives differently if we were to accept the evidence-based conclusion of the G.O.D. process as true? Since we would now be open to a larger plan and purpose in our individual lives, as well as the lives of people we interact with, we would begin to become ever more aware of the coincidences and synchronicities

that exist in our lives. By pondering these matters and searching for their meaning, we would search within ourselves as well. We would continually ask questions: What might this coincidence mean? What is the lesson I am meant to learn from this situation? How can I take advantage of this learning, this gift, or this disappointment, to benefit myself, my friends, and the world? We would learn to hear the G.O.D. process, and perhaps we would learn to listen, as well. 🌐

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GARY E. SCHWARTZ, PHD, is professor of psychology, medicine, neurology, psychiatry, and surgery at the University of Arizona and director of its Laboratory for Advances in Consciousness and Health. He is the author of *The Afterlife Experiments* and *The Truth About “Medium”* and coauthor of *The Living Energy Universe*.



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