

# Looking Inwards

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During the past ten years, I have written eleven books and many essays and articles describing what I see with increasing clarity by looking inwards, when rationally and systematically mapping the Cosmic Psyche, the ninety-nine percent of the Universe inaccessible to our physical senses. Almost no one has read these books and essays with understanding, because when it comes to learning about what it means to be human, in contrast to machines with so-called artificial intelligence, we are still in kindergarten, as a species.

Yes, spiritual teachers and depth psychologists have developed an intuitive understanding of what we all share within and how to relate harmoniously to each other, expressing these insights in a wide variety of languages. However, they have not been able to answer the most critical unanswered question in science: *what is causing scientists and technologists, aided and abetted by computer technology, to drive the pace of scientific discovery and technological development at unprecedented exponential rates of acceleration?*

This crucial question is not on the agenda of any scientific institution, technological company, governmental agency, nongovernmental organization, or association seeking to unify science and spirituality because it cannot be answered by following the work ethic that human societies established some 4,000 years ago with the invention of money, the most divisive force on the planet.

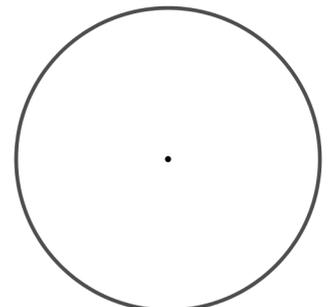
To understand the root cause of change, we need to map the psychodynamics of society in the context of evolution as a whole with the semantic modelling methods of information systems architects in business, abandoning the financial modelling methods of economists, bankers, and accountants. And because such an all-inclusive, holographic approach to mapping the Universe is unprecedented in the history of ideas and human learning, we are mostly living our lives in ignorance, not fully understanding humanity's place in the overall scheme of things and hence our ultimate fate.

Maybe this doesn't matter any longer. For banks and stock exchanges, driven by the fear of death, will soon disappear as *Homo sapiens* 'wise human' vanishes in the middle of the eighth mass extinction of land animals on Earth. However, I cannot sit idly by waiting for this inevitable event to happen, for the creative power of Life continues to pour through me enthusiastically and irresistibly.



So, right now, I feel moved to go right back to first principles. For if these are not brought into consciousness, there is little chance of intelligently building the coherent cognitive structures we need to understand what is happening to us all as a species, thereby confronting the great existential crisis we all face today with an open heart.

The key point here is that mathematical objects, such as circles and numbers, do not have mass and so do not reside in the physical universe. Rather, they exist in the Cosmic Psyche, as nonmaterial beings. This diagram of a circle is not a circle in a pure mathematical sense, for the circle has mass when printed on paper or displayed on a computer screen. Rather, it is an *expression* of the mental image of a circle, which we draw to communicate that which we see within us with our inner eyes.



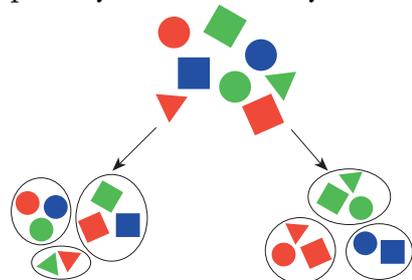
In *The Elements*, Euclid gave this definition: "A circle is a plane figure contained by one line such that all the straight lines falling upon it from one point among those lying within the figure are equal to one

another.” This was the fifteenth definition of basic mathematical objects that he gave in Book I, the first two being “A **point** is that which has no part,” and “A **line** is breadthless length.” The sixteenth definition was “And the point is called the **centre** of the circle.”

It is pretty clear that neither the circle nor its centre has spatial dimensions in a physical sense. However, Euclid does not mention that these reside in multidimensional space in the Cosmic Psyche, far more than the three dimensions we experience in the world around us or the four space-time dimensions of the special theory of relativity, as H. S. M. Coxeter, the foremost geometer in the twentieth century, pointed out in *Regular Polytopes*. For the conception of the Cosmic Psyche was unknown to the Greeks—as it still is to most today—even though both these words are Greek in origin.

The concept of number, as a mathematical object, is also far from clear. Yes, we do distinguish *numbers*, such as three, in our minds, and their expressions in our outer worlds, as *numerals*, such as 3 or III. But how is number, regarded as the most fundamental in mathematics, to be defined? Well, this can only be done in terms of the intuitive concept of *set*, as a grouping of entities with a similar attribute or property. A number then is the count of the members of the set, which is more fundamental than that of number.

This fact was recognized in the 1960s, when a group of mathematicians attempted to introduce sets into primary and elementary schools for eight to eleven-year-olds in the UK and USA, respectively. As the



authors of *The 'New' Maths* pointed out, the new maths was intended to bring meaning to mathematics and hence to all other disciplines. For instance, as children, when we began to form concepts, we learned to distinguish colours, shapes, and numbers, as in this diagram. This transcultural, transdisciplinary interpretative process is central to pattern recognition, conscious evolution, and all our learning.

In this regard, it is important to note that mathematicians and computer programmers treat the concepts of mass, space, and time in exactly the same way as any other quantitative variable in their equations and functions. Information systems architects go even further, treating both qualitative and quantitative domains of values identically. To demonstrate that mass, space, and time are not special, librarians, using Melvil Dewey’s decimal library classification system, categorize books on the scientific and philosophical perspectives of space-time as ‘530.11’ and ‘115’ (‘115.4’ before the seventeenth edition), respectively. On the other hand, books of knowledge about knowledge are in the category ‘000 Generalities’.

Sets, then, are the basic building blocks for our cognitive mapmaking, which doesn’t cost a penny. In contrast, particle physicists spend billions of taxpayers’ euros and dollars in searching for an ever-smaller subatomic particle that is supposedly the basic building block of the universe. This is absurd, for as soon as one group of physicists claim to have found such a particle, another group sets out to prove them wrong, which is exactly what has been happening at CERN recently, following the discovery of the Higgs boson. As I could see as a teenager, no one can say when this investigative process will end. Accordingly, I abandoned physics at university when majoring in mathematics, instead studying economics as the required subsidiary, which turned out to be even more depressing.

But regarding sets as fundamental to conceptual modelling does not tell us anything about their Origin. At present, most scientists believe that the origin of the universe happened about 13.8 billion years ago in a big bang and so spend even more billions of taxpayers’ money in searching for what happened soon after this supposed beginning. This absurdity was another reason for abandoning physics as the primary science, when studying this subject in high school in the late 1950s. I did not believe that the universe began at some finite point in time, much preferring Fred Hoyle’s steady-state model as being more elegant.

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Charles Darwin also did not tell us where we all come from, despite his 1859 book on the theory of evolution being titled *On the Origin of Species*. As Lynn Margulis and her son Dorion Sagan point out in *Acquiring Genomes: A Theory of the Origins of Species*, “in 500 pages of closely spaced type the title question—on the origin of species—[was] entirely circumvented—abandoned, ignored, or coyly forgotten.” Quoting the Australian biologist George Miklos, “The ‘struggle for existence’ has been accepted uncritically for generations by evolutionary biologists with the *Origin of Species* quoted like so much Holy Writ, yet the origin of species was precisely what Darwin’s book was *not* about.”

Rather, to reveal the Origin of the Universe, as the Totality of Existence, we need to look inwards like the mystics, as I have discovered. We can regard the Origin as the Formless Absolute, in contrast to the relativistic world of form, but never separate from it. To denote the Absolute as the Origin, I call it the *Datum*, from Latin *dare* ‘to give; cause’, these meanings having different roots in the Proto-Indo-European (PIE) language, which is most convenient. For, when humans were beginning to learn about themselves and the world around us they provided us with words that can help us understand who we are, where we have come from, and where we are all heading at breakneck speeds.

The Datum is thus ‘What is given’, as the Divine Source of Life, the ultimate cause of everything that exists in the manifest universe. This is not a new idea. For instance, Vivekananda said in *Raja Yoga*, “Everything that has form, everything that is the result of combination, is evolved out of this *Akasha*. ... Just as *Akasha* is the infinite, omnipresent material of this universe, so is this *Prana* the infinite, omnipresent manifesting power of this universe.” Similarly, in Huayan Buddhism, Fa Tsang (Fazang)’s central principles were *mutual identity* and *mutual causality*, of vital importance in unifying our Divine and human identities. Similarly, again, *qi* (*ch’i*), a central concept in Taoism and Chinese medicine, denotes “the vital energy, the life force, the cosmic spirit that pervades and enlivens all things”, literally ‘air, breath, gas’.

However, the editors of Wikipedia, dogmatically defending the materialistic and mechanistic assumptions of the so-called natural sciences, say that the notion of *qi* is ‘pseudoscience’, incompatible with the conventional scientific concept of energy, associated with mass, as in Einstein’s famous equation  $E = mc^2$ .

Yet, humans have experienced this nonphysical energy within them throughout the ages as a vital principle underlying human experience, encapsulated in Henri Bergson’s concept of *élan vital*. This is normally translated as ‘vital impetus’ or disparagingly as ‘vital force’, which Bergson called the ‘*original impetus* of life’. This vital force is “the energy or spirit which animates living creatures”, as my dictionary says.

Similarly, Reginald O. Kapp, formerly Professor of Engineering at London University, said in 1940 in *Science versus Materialism*, it is utterly amazing that vitalism is not so much dead, as it was claimed at the time, as a taboo. This iconoclastic book, which his son John has published on the Web, courageously made a commonsensical claim for the obvious, saying, “Any evidence which proves the organic world to be subject to laws from which the inorganic world is free is evidence for vitalism,” for “as an engineer, we know that it is not in the nature of Matter unaided to fall into the form of machines.”



There we are. NASA has recently landed a rover on Mars named Perseverance, one of whose goals is to identify ancient Martian environments capable of supporting life, projecting scientists’ understanding of life from living organisms on Earth, consisting principally of the elements of carbon, hydrogen, oxygen, and nitrogen. These four elements compose about 96% of the weight of the human body, ignoring the fact that 99% of human beings—as body and psyche (mind, spirit, and soul)—lies beyond the senses.

Of course, 99% is not an accurate measurement. It merely serves to illustrate the insignificance of the material universe within the Universe, as a whole. For, as Yehuda Berg tells us in *The Power of Kabbalah*,

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—as the mystical core of Judaism—there is a curtain that divides our reality into two realms, 1% being our physical world, while the other 99% “is the source of all lasting fulfilment. All knowledge, wisdom, and joy dwell in this realm. This is the domain that Kabbalists call *Light*.”

Yehuda Berg goes even further, telling us how rabbis, priests, and imams attempt to shut out the Light of Consciousness, without which Self-reflective Intelligence, as the eyesight of Consciousness, cannot function. For instance, he says that the Zohar, the primary Kabbalistic text, “warned that the ‘governing religious authority’ would always try to prevent the people from claiming the spiritual power that was rightly theirs.” Such authorities would “act as an intermediary between man and the divine”. For if they allowed people to “connect directly to the infinite, boundless Light of Creation” that “would mean their demise as gatekeepers to heaven”.

In contrast to the leaders of the organized Abrahamic religions, who, along with scientists, attempt to shut out the light, Advaita, Taoism, and Buddhism in the East are designed to help their followers become awakened, as we see most clearly in Sanskrit *bodhi* ‘awakened’. A buddha is thus an ‘awakened one’. In recent years, *woke* has come to mean ‘aware of and actively attentive to important facts and issues (especially issues of racial and social justice)’. Yet, *woke* has become weaponized by the ‘anti-woke’ media, seeking to maintain their conservative values, which they feel under threat.

Such narrow-minded intransigence is extremely dangerous at the present time with the pace of evolutionary change accelerating faster and faster. This became crystal clear to me in 1979, when the BBC broadcast David Attenborough’s *Life on Earth*. This enthralling television series graphically illustrated the exponential rate of evolutionary change. It is now some 3.6 billion years since the first self-reproducing forms of life appeared on this planet. So, if we consider 10 million years to be a day, we can map the whole of evolution on this planet to the days of the year.

Using this model, if 1st January marks the birth of single-cell organisms, then the first multicellular organisms appeared in the middle of August, with sexual reproduction beginning about six weeks later. Other significant events during the late autumn were the emergence of fish, land plants, and reptiles. Then about the 10th December, both mammals and dinosaurs appeared, with mammals surviving the mass extinction that occurred on Christmas Day, one of seven and nine mass extinctions of land and marine forms of life so far in the life of the Earth.

This catastrophe enabled the primates to appear on Boxing Day, to be followed by the hominids four days later. Then on New Year’s Eve, the first exemplars of the *Homo* genus appeared around teatime. The whole of human evolution has thus taken place during the evening of the last day of the year, with *Homo sapiens* being born about 23:59:30. As we rapidly approach midnight on 31st December, we can see that the whole of mental evolution has thus taken place during the last three or four seconds, with the computer age beginning less than a single tick of the clock earlier.

In 2016, I wrote a book, titled *Through Evolution’s Accumulation Point: Towards Its Glorious Culmination*, showing how we can use the logistic map in nonlinear systems dynamics to develop a mathematical model of the whole of evolution since the most recent big bang. I was inspired to do so by a presentation that Nick Hoggard, a software developer, gave at a gathering in Sweden of the Scientific and Medical Network (SMN) in 2000. Yet, as far as I am aware, no member of the SMN or adviser to the Galileo Commission, which is seeking to expand science beyond materialism, has read this book.

As the application of the mathematics of chaos theory in this book is rather advanced, I have been seeking other ways of making a positive contribution to humanity. In particular, I felt that by looking inwards, we could establish mystical, depth psychology as the primary science on which all others are built,

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as William James and Eugen Bleuler sought to do around the turn of the eighteenth and nineteenth centuries. As Sonu Shamdasani tells us in his introduction to Carl Gustav Jung's monumental *The Red Book*: "It was held that by turning psychology into a science through introducing scientific methods, all prior forms of human understanding would be revolutionized. The new psychology was heralded as promising nothing less than the completion of the scientific revolution."

However, progress is still slow, despite the publication in 2000 of Stanislav Grof's *Psychology of the Future*. As he said in 2016 in a YouTube video titled 'The Root Cause of the Global Crisis', such a holotropic psychology is essential for the survival of the human species.

Uta Frith, emeritus professor at the Institute of Cognitive Neuroscience, University College London, well described the challenges that we face if we are to recognize that the structures that lie within the Cosmic Psyche are what causes us to behave as we do, pointing out that the scientific establishment is very far from accepting psychology in any form as a valid science. In an interview in *The Guardian* on 30th November 2015 under the rubric 'Where next for the Royal Society?' to mark Venki Ramakrishnan taking over as the President of the Royal Society, she said,

My own field, call it psychology, or cognitive or behavioural neuroscience, still leads a rather shadowy existence in the hallowed halls of science. Although nearly 100 years old, it is far from maturity. There is as yet no Newton. Many would agree that one of the biggest scientific challenges this century is to understand the mind-brain. So I dare hope that it will be possible to increase the number of outstanding scientists in this field, currently representing less than three per cent of the Fellowship.

This would lead to an increase in the prestige of mind-brain studies and attract more brilliant young researchers. One reason for the currently poor reputation of psychology is the obstinate belief that we already know what goes on in our mind, and that we can explain why we do what we do. This naïve belief will be overcome by improved communication of empirical findings, and especially of those that go against ingrained folk psychology. It's not rocket science. It's a lot harder than that.



Yet, looking inwards to develop a universal science of reason is not really hard; it is simplicity itself, entirely natural. It only appears to be difficult because such a holistic way of learning, healing the fragmented mind in Wholeness, is counter-cultural, turning evolutionary divergence into convergence. In this regard, I am very well aware that my ontogeny is exceptional, as spiritual teachers, psychiatrists, and psychologists who have met me have noticed, not understandable within any existing cultural framework or worldview. For, when we are young, we learn what our parents want us to learn. So, by the time we go to school, we are thoroughly enculturated, a conditioning process that our teachers continue to impose on us.

In contrast, I did not willingly follow this path. Because my three-year-old brother had been killed fifty days after my conception, the remaining time I spent *in utero* felt like a hostile environment. In *The Holotropic Mind*, Stanislav Grof calls the consequences of such a devastating traumatic event a 'bad womb', where the innate mystical experience of 'oceanic ecstasy' disappears.

Then, when I was born, I did not feel welcomed by my parents, still grieving for their first-born child, who they had sanctified, forgetting all his tantrums. Then, when I was seven, seeking to return to the oceanic ecstasy that I had lost almost as soon as I came into existence, I began questioning the religious and scientific assumptions of the culture I had been born in, not very popular, reinforcing the sense of living in a hostile environment. For, as Rupert Sheldrake points out in *The Presence of the Past*, once a specific behaviour pattern is formed in evolution, it tends to repeat itself through habit.

In the event, I have only felt assimilated into the deluded culture I was born in for fifteen years out of the past eighty—at the ages eleven, sixteen, eighteen, and from twenty-two to thirty-four, when I followed the conventional path of getting married, having children, and building a managerial career in business. So,

I learned almost nothing during my formal education, realizing that what I was being taught in church and at school and university did not make sense as a coherent whole. Even mathematics and logic, as they were taught to me as an undergraduate, did not help to sort out the mess that religion, science, and economics were in, as they still are.

The turning point came in the late seventies, when I went through a major midlife crisis, triggering traumatic memories of my brother's death. This was a wake-up call, helping me to see in 1980 that my children, then aged ten and seven, were not being educated to live in the world that they would be living in when they came to be bringing up children of their own. This insight created an enormous tension between my managers and me, for IBM did not seem to be similarly concerned with the long-term psychological and economic consequences of humanity's growing dependency on information technology, which has become a gigantic global crisis today.

Then, on 27th April 1980, this emotional strain triggered a big bang to erupt in the utmost depths of my psyche, as I was given the key that would unlock the innermost secrets of the Universe: what it is, how it is intelligently designed, and what it truly means to be human, in contrast to the other animals and machines, like computers. As I see today, this breakthrough was the antidote to the breakdown that I suffered on 16th October 1941, when my brother John was run over by an army lorry and killed instantly. For, when viewed as a whole, everything is constantly in balance.

Even though these experiences are exceptional, they are not uncommon, as I describe in my 2017 book *The Psychodynamics of Society: From Conception to Death*. Most particularly, after a few pioneering souls had explored the effects of pre- and perinatal traumas during the twentieth century, eventually the First International Congress on Pre- and Perinatal Psychology was held in Toronto in July 1983. The aim of the conference was to lay "the foundation for the systematic study of pre- and perinatal psychology", recognizing that these pioneers were standing "on the frontiers of a new science of the mind".

For, as Michel Odent said at the conference, "Our species cannot go on destroying itself and destroying the earth, the oceans, the atmosphere. To create a new world we have to create another human being who will have a maximum capacity to love." Since the conference, an active community has formed with two international societies holding annual conferences and publishing papers on the latest developments: the Association for Pre- and Perinatal Psychology and Health (APPPH) and the International Society for Prenatal and Perinatal Psychology and Medicine (ISPPM), based in the USA and Germany, respectively.

Regarding my eureka moment, William R. Miller and Janet C'de Baca wrote a book on *Quantum Change: When Epiphanies and Sudden Insights Transform Ordinary Lives* in 2001, describing a study of some fifty-five people in Albuquerque, USA, who had similarly reported such life-changing experiences. Accordingly, they did a scientific analysis of such jumps in conscious understanding, "drawing on both the concept of a quantum leap and unpredictability in quantum mechanics".

Then, in 2018, the Consciousness and Experiential Psychology Section of the British Psychological Society held a conference in London on 'Exceptional Experiences', which I attended. One of the speakers was Steve Taylor, author of *The Leap: The Psychology of Spiritual Awakening*, which goes even further than *Quantum Change*. Referencing Eckhart Tolle, who experienced a sudden spiritual awakening when he was twenty-nine, *The Leap* describes other examples of such events that happen to seemingly ordinary people in all walks of life, even those with no background in spiritual traditions or practices.

In my case, the key that I was given in an apocalyptic awakening in April 1980 is that active and passive data in both humans and computers is synergistically causal and hence energetic. But more than this. As I see today, meaningless data elements and their relationships to each other, arising from the Datum of the

Universe, are all there is, explaining many other phenomena that cannot be explained by conventional science, such as psi effects. The energy that such data patterns have in the Universe is determined by their meaning, as I learned from David Bohm, my primary scientific mentor, formally a friend and colleague of both Einstein and J. Krishnamurti. For, as Bohm told me when we first met in November 1980, energy is contained within structures, whether these be physical or psychospiritual.



Accordingly, with Bohm's invaluable assistance, I set out to develop a scientific method that would enable us to build a comprehensive science of causality, unifying psychospiritual and physical energies, including acausal quantum effects. For conventional scientific method, based on the deduction, induction, and abduction of Aristotle, Francis Bacon, and Charles Sanders Peirce, respectively, is hopelessly inadequate when it comes to mapping the Cosmic Psyche.

However, we should not abandon traditional scientific method entirely. For despite its weaknesses, it contains much that can help us in scientific self-inquiry, as I describe in my 2014 book *The Theory of Everything: Unifying Polarizing Opposites in Nondual Wholeness*. In 1739, David Hume pointed out the logical and psychological weaknesses of scientific induction in *A Treatise of Human Nature: Being an Attempt to Introduce the Experimental Method of Reasoning into Moral Subjects*, leading some philosophers of science—seeking certainty, like Bertrand Russell—to despair.

Then, in 1972, Karl R. Popper attempted to come to the rescue in *Objective Knowledge: An Evolutionary Approach*. Popper's solution was to note the logical asymmetry between verification and falsifiability. While scientific statements cannot be absolutely verified, they can be falsified. However, A. F. Chalmers calls Popper's approach 'naive inductionism' in *What is this thing called Science?*, a standard textbook on scientific method for students at the Open University in the UK. For in practice all observation statements are theory dependent. It is not possible to observe anything without some preconceptions of what is being observed.

Chalmers' solution to the limitations of scientific induction was to view a scientific theory as a complex structure of some kind, much inspired by Thomas S. Kuhn, who published his landmark book *The Structure of Scientific Revolutions* in 1962. However, Chalmers made one assumption that does not help us to understand what is causing scientists and technologists to drive the pace of change in society faster and faster. He said, "I accept, and presuppose throughout this book, that a single, unique, physical world exists independently of observers." Einstein held a similar view. In 1931, when commemorating the centenary of James Clerk Maxwell's birth, he wrote, "The belief in an external world independent of the perceiving subject is the basis of all natural science."

Popper also believed in an objective reality independent of an intelligent, knowing being. To support this view of the Universe, he suggested "that it is the aim of science to find *satisfactory explanations*, of whatever strikes us as being in need of explanation." By *explanation*, he meant finding the unknown but true causes (the *explicans*) that logically entail that which is to be explained (the *explicandum*). "Thus, scientific explanation ... will be *the explanation of the known by the unknown*."

Now the ultimate unknown *explicans* is the Formless, Nondual Absolute, which some say is unknowable, lying as it does deep within and far beyond the relativistic world of form as Immanence and Transcendence or Emptiness and Fullness. However, this *explicans*, as the Datum of the Universe, is not accepted as the Gnostic Foundation of all scientific reasoning.

There are two major inhibitors to bringing the Absolute and hence Life into science: our cultural and personal conditioning. First, as we have already seen, the cultural authorities in our lives do their best to maintain a cognitive and experiential split between humanity and Divinity, opened up at least 5,500 years

ago, as we see from the PIE roots of *human* and *Divine*, denoting humans as earthlings, in contrast to gods, as shining beings in the heavens.

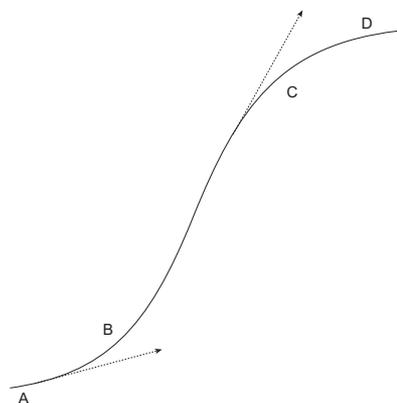
Secondly, because of our fragmented minds, out of touch with Reality, when we make an observation of our inner beings, we generally do so with a host of preconceptions of what we see, often affected by what we would like to see. And when we make observations of others' behaviour patterns, these are often distorted by projections of our own prejudices, whether good or ill.

So, if we are to develop a sound science of humanity, which Erich Fromm called for in 1976 in *To Have or To Be?*, we need to become as free as possible of our cultural and personal conditioning, as Krishnamurti and Vimala Thakar urged us to do in *Education and the Significance of Life* in 1953 and *Spirituality and Social Action: A Holistic Approach* in 1984, respectively. For, as Bohm said in 1985, when being interviewed about Krishnamurti's enlightened approach to education, if we do not question the basic beliefs and assumptions of the cultures we live in then humankind is not a viable species.

However, Bohm's theory of the Implicate Order, which postulated an undivided level of order underlying the material universe, is still not accepted by most physicists. So, for the past two or three years, I have been writing my final book titled *Unifying Mysticism and Mathematics: To Reveal Love, Peace, Wholeness, and the Truth*, describing the algebra of algebras, as a meta-algebra, that Bohm felt he needed to establish his unification of quantum and relativity theories on sound scientific principles.

This book has the potential to complete the final revolution in science, just as Johannes Kepler's *New Astronomy* and *Harmonies of the World* in 1609 and 1619, respectively, and Newton's *Mathematical Principles of Natural Philosophy* in 1687 completed the first scientific revolution. However, unlike these books, which can be understood with the intellect, *Unifying Mysticism and Mathematics* can only be intuitively understood by looking inwards with Self-reflective Intelligence. For, as the Sufi poet Rumi said, "Love is the sea of not-being and there intellect drowns."

For many years, I thought that living in oceanic ecstasy by awakening to Total Revolution with a transhuman science of intelligence could lead humanity into the eschatological Age of Light. But, this Utopian vision no longer seems relevant. We are on the threshold of abrupt climate change, partly caused by self-reinforcing feedback loops—such as the release of vast accumulations of methane in the Arctic—which display similar patterns to evolutionary development under constraint. An example is population growth, displayed in the S-shape of the logistic function, illustrating the way gradual change can unexpectedly accelerate, as the coordinating point *B* in the curve is reached.



What this means is that a billion years of sexual reproduction on Earth will soon come to a sudden halt, as our habitat will no longer be able to grow the food we need to survive. On a personal note, even if my twin granddaughters grow old enough to have children of their own in the 2030s, when they would normally be in their twenties, the chances of these great grandchildren surviving into adulthood is virtually zero.

So, rather than dwell on this prospect, I continue to joyfully live my life day by day, following the guidance of my inner guru, which the Greeks and Romans called *Daimon* and *Genius*, respectively. I had no idea that I would write this reflective monograph, as the seventh such piece this year, until I did, this time celebrating the flowering of spring. So what surprises await in the coming days, weeks, and months with all the chaos around us, we shall just have to wait and see.