



[The Flowering of the Heart Newsletter](#)

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The Science of Oneness Section

Guest Writer – Malcolm Hollick, Findhorn, Scotland

Malcolm Hollick's Summary of his book The Science of Oneness:

Deeply embedded in our culture and worldview are many beliefs inherited from the Enlightenment and scientific revolution. They include:

- The separation of mind and matter as represented by Descartes' famous dictum "I think therefore I am."
- Matter and energy are what is ultimately real, and consciousness is no more than an unexpected by-product of complex material systems.
- Matter consists of isolated objects which interact with each other, but do not form an integrated whole.
- Material objects behave mechanistically, driven by complex chains of physical cause and effect, uninfluenced by consciousness. This belief persists despite nearly a century of quantum physics in which consciousness plays a vital role.
- Living things are simply complex machines; there is no life-force or soul.
- The universe and life have evolved by chance through processes that are unaffected by the participants or their experiences, and that are driven by aggressive competition for survival.
- Understanding of life, the universe and everything can be achieved by humans acting as objective observers and applying the scientific method.
- Life has no deep meaning or purpose.
- There is nothing beyond death.
- The cosmos is godless and soulless.

Given this catalogue, is it any wonder that so many people succumb to despair, depression, apathy, alienation and anomy, or fill the existential void with hedonsim and retail therapy? Is it any wonder that so many are being drawn to fundamentalisms that bring meaning and certainty to life? Is it any wonder that many react with aggression and violence against the black joke the cosmos has played on us?

But this vision of reality does not accurately represent what modern science is saying. Across many disciplines, a different reality is emerging. And if we combine their separate findings with the insights of spiritual traditions, a coherent vision emerges of a cosmos that is a sentient, loving, creative, purposeful and meaningful whole; a cosmos of which we are co-creators with the ultimate Mystery of existence, Cosmic Consciousness.

This 'science of oneness', as I have called it, is two things. First, it is a holistic way of knowing. And second, it is a body of knowledge about the universe, and our place within it. I will briefly summarize these two aspects in the next two sections.

The Science of Oneness as a Holistic Way of Knowing

Descriptions of the scientific method vary, but they typically depict the creative interaction of rational, usually mathematical, theorizing and objective experimental observation. The results are then tested by peer review, publication and replication by other investigators. This process has proved to be extraordinarily powerful at revealing the secrets of the material universe, and this has led many scientists to claim that the scientific method is the only reliable way to knowledge in general. However, this is a belief rather than a demonstrable scientific fact.

In reality, science is far from the ideal objective, rational process it is often painted. It is significantly affected, for example, by individual personalities, the conservatism of established scientists, the source of research funds, and refusal to countenance findings that do not fit dominant paradigms. Scientists also often forget the vital role played in many breakthroughs by imagination, intuition, direct experience, serendipity and other ways of knowing. For example, Einstein intuitively 'knew' how the universe works, and then set about proving it.

The science of oneness (SoO) seeks to retain the strengths of the scientific method, whilst integrating them with other ways of knowing. In this way it hopes to uncover the richness of understanding and wisdom that can flow from the synthesis of diverse ways of seeing and interpreting reality. Key features of SoO, many of them shared with the ideal scientific approach, include:

- Deep questioning of everything we think we know whether it be from science and the intellect, or from intuition, direct experience, relationships, spiritual insights and traditions, or other sources. SoO accepts nothing on trust or authority.
- Non-attachment to current knowledge as indicated by an attitude that "I currently believe this to be true, and I fully accept that I may be wrong."
- An openness to the potential validity of any new information, theory or interpretation, whatever its source.
- Recognition that all human knowledge, including science, is subjective to some extent. All knowledge is founded on unprovable beliefs, and is constrained and channelled by the way the brain works, the language we use, and other cultural and personal factors. Also, human consciousness and actions often influence the system being studied. Hence, pure objectivity is impossible.
- Conscious acceptance of subjective ways of knowing, together with safeguards to minimize the risk of delusion and other forms of error, primarily through cooperative processes and collective critical evaluation and validation. An example of such a process is Cooperative Inquiry.
- Acceptance that all human knowledge is partial due to our biological and cultural limitations. Hence, apparently contradictory perceptions and worldviews may actually be complementary images of a more complex whole.
- Testing all potential knowledge for its reliability. This goes beyond the scientific criterion of successfully predicting material events to include the spiritual criterion of examining the fruits of knowledge in practice. For example, does application of this knowledge result in an increase in practice of universal values such as love, compassion, wisdom and justice?
- The aim of SoO is not simply practical knowledge of how things work, but also the wisdom to apply knowledge in ways that maximize benefits and minimize unwanted impacts.

The Science of Oneness as a Body of Knowledge

I want now to discuss briefly how many modern sciences as well as ancient spiritual traditions are pointing towards Oneness – a reality in which everything is linked into one coherent whole. For convenience, I have divided the material under four sub-headings:

The One from the Many

The Many from the One

The Nature of the One

The Implications of Oneness

The One from the Many

Today, few people are unaware of the pop-ecology maxim that “Everything is connected to everything else.” The best illustration of this that I know comes not from a scientist but from Zen Buddhist Master Thich Nhat Hanh. In one of his books he wrote:

If you are a poet, you will see clearly that there is a cloud floating in this sheet of paper. Without a cloud there will be no water; without water, the trees cannot grow; and without trees you cannot make paper. So the cloud is in here. The existence of this page is dependent on the existence of a cloud. Paper and cloud are so close. Let us think of other things, like sunshine. Sunshine is very important because the forest cannot grow without sunshine, and we humans cannot grow without sunshine. So the logger needs sunshine in order to cut the tree, and the tree needs sunshine in order to be a tree. Therefore you can see sunshine in this sheet of paper. And if you look more deeply ... you see not only the cloud and the sunshine in it, but that everything is here: the wheat that became the bread for the logger to eat, the logger's father ... the paper is full of everything, the entire cosmos. The presence of this tiny sheet of paper proves the presence of the whole cosmos.

Systems sciences are revealing the inner magic of how the One emerges from the many, but there is space for only a few key points here. Even quite simple non-living systems show remarkable qualities. They may:

- Display elementary forms of purpose, for example maintaining a set temperature in a refrigerator;
- Cooperate harmoniously together, for example the thermostat and cooling system of refrigerator;
- Display autonomy and freedom by acting unpredictably (eg a jointed pendulum), and adapting to changed conditions (e.g. a refrigerator that keeps its internal temperature constant as the weather changes);
- Grow and evolve creatively to new forms as when self-organising chemical reactions form patterns of concentration in time and space;
- Respond to small disturbances that may grow and transform them.

The Many from the One

The last section argued that all the apparently independent objects in the universe are connected into one Whole. Looking at things the other way round, science is revealing how the diversity and complexity of the universe originated in a simple unity. Hence, the many emerged from the One. This section briefly looks at the development of the universe, and the evolution of life and consciousness.

Modern cosmologists believe that the universe began as pure energy at the big bang. This energy condensed into elementary particles and a few types of atom which were drawn together by gravity. Eventually, stars formed which forged all the elements we know today and blasted them out into space. Those elements, in turn, joined to form myriad molecules, culminating, at least here on Earth, in the emergence of life and consciousness.

As we look at this development from energy, to matter, to life, to consciousness, the universe appears to be driven inexorably towards greater complexity and diversity. This contradicts the famous and well-established second law of thermodynamics which holds that all organisation and complexity will inevitably decay into random disorder. As a result, many scientists now speculate that there may be a complementary 'law of complexification.' If so, the development of the universe is not random and may be seen as purposeful.

A major part of this cosmic process is the evolution of life. The more we learn, the more it is apparent that there is no clear boundary between living and non-living. Organisms are more complex, more autonomous, more creative, more purposeful, more cooperative than non-living systems – and in some indefinable way they are more alive. Life used to be thought of as a rare and tender creation, but the discovery of 'extremophiles' thriving in extraordinarily hostile environments has proved that it is robust and adaptable. This has led many scientists to conclude that the evolution of life is almost inevitable wherever conditions are remotely suitable.

The theory of evolution has received a lot of media attention due to challenges by creationists. I see evolution as a fundamental operating principle of the cosmos which enriches rather than conflicts with my spirituality. Darwinian theory portrays evolution as a two-fold process. First, random genetic changes occur, thus creating variations amongst the organisms in a species. Second, natural selection weeds out those variants which are less well suited to their environment. In this way, new traits arise by chance that either die out, or eventually dominate the population. Individual organisms and its species are powerless victims of the process. However, this picture of evolution is being deeply challenged.

Research is revealing that organisms have considerable influence over their destiny, and continually strive to transcend their current forms and limitations. Many genetic mutations are not chance events, but result from experiments by the organism to modify its own genes, or to switch specific genes on or off. Even some learned behaviours may become encoded in the genes and passed on to offspring without the need for them to be re-learned.

With regards to natural selection, it is now clear that, rather than being passive subjects of environmental conditions, organisms actively modify their environments in ways that are inherited by their offspring.

Further, studies of the growth of organisms from seed cell to maturity are showing that development is not controlled by master genes but is coordinated by self-organising processes that involve not only the genes and gene expression, but also the organism's structure, biochemistry, environment, and, possibly, morphic fields with which the organism resonates. These heretical findings suggest that natural selection is not the all-powerful creative force that it is usually portrayed. Rather, it can do no more than select from a menu of available self-organised forms, and then fine-tune these structures and processes.

Darwinian theory also represents natural selection as a fierce competition for survival between organisms. But from a different perspective, organisms depend totally for their survival on being part of a harmoniously cooperative ecosystem – the interactive whole that provides their nutrition, health, shelter from harsh weather, conditions for reproduction and so on. In reality, cooperation is at least as deeply embedded and important a process in evolution as competition – perhaps more so.

Where does this leave us? Rather than being at the mercy of blind forces, it seems that life is substantially master of its own destiny. The acorn is not a passive victim, but feels the pull of the oak it is to become and harnesses natural processes to that end.

So much for life, but what about the emergence of mind and consciousness? Mainstream science claims that matter and energy are fundamental, and that mind and consciousness have somehow emerged from matter. But science has great difficulty explaining how consciousness could be produced by biochemical and neurological processes. Our subjective experience – the redness of a rose, what it is like to be me – has been dubbed 'the hard problem' of consciousness.

Science also has great difficulty understanding how non-material thoughts and feelings can influence material objects. And yet they clearly do. Examples include:

- The influence of the observer on the outcome of quantum processes;
- Multiple personality disorder in which the body changes dramatically when the personality switches;
- False pregnancy in which a woman who desperately wants a child shows all the symptoms of pregnancy without there being a fetus;
- The relationship between back pain and suppressed anger;
- Remission of cancer through meditation;
- The power of positive thinking and prayer.

Similarly, the materialist assumption leads to rejection of the validity of many aspects of human consciousness including:

- Before birth memories and near death experiences;
- Well proven paranormal phenomena such as telepathy, remote viewing etc;
- The experience of unity or cosmic Consciousness.

Most of these difficulties disappear if Consciousness is assumed to be the primary reality; as the One from which matter, energy and life have emerged.

This assumption resonates with the beliefs of many spiritual traditions and:

- Makes sense of the purpose and creativity displayed by even quite simple systems;
- Dissolves the hard problem of consciousness;
- Potentially explains the existence of a 'law of complexification';
- Brings new perspectives to the role of consciousness in quantum mechanics;
- Explains transpersonal experiences and the human spiritual hunger and inner awareness.

The Nature of the One

Quantum and relativity physics, systems sciences and mystical traditions all agree that there is a deep unity, or Oneness to reality. And mystics and relativity theory also agree that this reality is timeless – that all time is contained in this present moment; that every event is somehow everywhere and everywhen. This broad consensus can give us confidence in the basic truth of these propositions. If we also assume that the Eternal One is a form of cosmic Consciousness, what can we deduce about its nature from science, philosophy and spiritual traditions?

Quantum and relativity physics approach Oneness from opposite directions: the subatomic and the cosmic scales. They both create a picture of reality that is wildly different from our everyday experience. Matter is mostly empty space, and the form in which it manifests (particles or waves) is determined by conscious observation. 'Particles' have no clear boundary or location, and may influence each other instantly across the vastness of space. Time and distance depend on the motion of the observer, and all time is present in every moment. Matter, energy, space, time and consciousness are all interconnected and interactive.

Particles emerge from and dissolve back into an underlying quantum field. It seems that this field may retain a 'memory' of everything that has ever happened. Human consciousness may have access to this field, thus explaining many transpersonal experiences and paranormal phenomena. The field memory also may help the cosmos to learn from experience, thus guiding its development. This idea suggests that there is no pre-existent design for the universe, and even the laws of nature may be no more than self-consistent habits.

Modern cosmology is in turmoil, and has surprisingly little to add to this picture. So-called dark matter and dark energy constitute 96% of the universe, but cosmologists do not know what these are. They also do not know what came before the big bang. Perhaps the universe created itself from nothing with no cause, or perhaps it has always existed and always will. Perhaps the big bang followed a 'big crunch' as a previous universe collapsed – possibly the latest in a long series of such events. Or perhaps our universe is a bubble in an infinite foam of universes competing for survival in a supra-cosmic process of natural selection.

At this point, I would like to introduce some ideas from Gnostic cosmology which make at least as much sense as the scientific story. Gnostics recognised that there is a Mystery at the heart of existence; that no matter how far back we trace cause and effect there will always remain the questions: "Why is there something rather than nothing?" and "Where did THAT come from?"

Gnostics¹ believed that this Mystery is One; an undivided whole that is pregnant with potential consciousness. In some indefinable way, this Mystery wanted to know itself, to become self-aware. But consciousness and self-awareness require both a knower and what is known, an observer and what is observed, a subject and object, a witness and experience. Hence, in order to know itself, the Mystery had to split into two, thus introducing duality into the primal Oneness. This was the split between God and Goddess, Spirit and soul, One and many, Being and becoming, eternal Perfection and evolution. This first split was followed by a cascade of further divisions through which Cosmic Consciousness brought the universe into existence, shaping the potential of the Mystery into energy, matter, life and consciousness as we know it.

This myth suggests that the purpose of the universe is to achieve full self-awareness. What this means can be illustrated by analogy with a wheel that has a central hub connected by spokes to many separate segments of rim. Cosmic Consciousness is fully aware both of itself as the hub at the centre, and of all the conscious beings in the universe represented by the segments of the rim to which it is connected. But each segment of the rim, each separate being, is aware only of itself and the hub to which it is linked by a spoke. Complete self-knowledge would require all parts of the rim, that is all beings, to awaken to their true nature as integral parts of the one wheel.

The exact way in which this evolutionary goal will be achieved was left undefined at creation because there are many ways that cosmic self-knowledge can happen. Also, a fixed spirituality, a predetermined path to the goal, would be a mockery of true self-awareness. Hence, cosmic Consciousness had to leave scope for creative freedom.

It is possible from this discussion to draw a number of conclusions about the nature of cosmic Consciousness, Spirit, or whatever we prefer to call the ultimate Mystery of existence.

- It must be a potential, presumably beyond time and space, that somehow unleashes its own potential in the act of creation.
- It can create only what is latent or potential within itself, but from our perspective this is unlimited. However, its creativity is constrained by the need for inner consistency in a stable universe.
- Cosmic Consciousness is what is ultimately real; it is the source of space, time, energy, matter, life, and individual consciousness.
- It is beyond full human understanding or expression in words. Every description of God or Spirit reflects our human nature and culture as much as it reflects the essence of Consciousness.

It is also possible to draw some conclusions about human nature:

- Since cosmic Consciousness is the ultimate source, it permeates everything.
- Hence everything we are, perceive, experience, think and do is Consciousness made manifest.
- This means we share the creative urge and power of cosmic Consciousness, and its desire for self-knowledge.
- It also means that spirituality is part of our nature because we share the same essence as Spirit.

¹ Gnosis is the direct perception of reality of Oneness gifted by the divine Consciousness.

The Implications of the Science of Oneness for our Lives

There is remarkable unanimity amongst scientists, philosophers and spiritual traditions that our perceived self, our sense of identity, is an illusion. Who we are is a collection of stories that we have woven from the multiple strands of our being and our roles in the world. But our existence as separate beings is possible only in and through our connections and relationships each other and with nature. As our awareness of this 'interbeing' grows, so our sense of self enlarges from 'skin-encapsulated ego' to 'person-in-environment-and-society'. We integrate more and more into our perception of who we are until we realize that we are one with cosmic Consciousness.

That realization brings awareness that our creative freedom and power are real. We are free to experiment and innovate, to make mistakes and learn from them, to create evil, suffering and hatred as well as good, happiness and love. And as co-creators with all sentient beings and Consciousness, we share responsibility for guiding the future of our world towards the manifestation of love, truth, compassion, wisdom, justice, and other universal values.

We are also free to choose, or create, our own spiritual path; our own way of relating to cosmic Consciousness. There is no single best way, but a smorgasbord of beliefs and practices. We can choose a path that suits our temperament and stage of life, and we can change it when necessary. In making these choices, it is important to recognise that ordinary daily life can be a spiritual path and practice just as much as a religious vocation. Such paths include conscious vocation, partnership or parenting; good neighborliness; aware consumerism; community service; action for political, social or economic reform; deep connection with nature; and creativity in all its forms. They can lead to transcendent experiences of cosmic Consciousness as well as explorations of our inner depths.

How can we choose amongst the various paths? Perhaps the best we can do, beyond choosing what appeals to us as individuals, is to examine the impact of alternative paths upon their followers. Do they empower the realization of universal values in the lives of individuals and communities? Do they increase love, compassion, truth, beauty, wisdom and other universal values which foster the evolution of a coherent, harmonious society and planet?

The true meaning and purpose of human life is to be found in becoming loving, harmonious components of the whole; entering fully into the creative richness of life with all its joys and woes; and in co-creating the future of our community, society, planet, and maybe even the cosmos. It matters what we do because our present actions determine our future, both in this life and beyond death.

The transformation of our society, world and universe starts and ends with the transformation of ourselves. Our life-long task is to integrate the various aspects of ourselves into a whole being, and to become deeply loving, compassionate and truthful. And in this way to co-create with others and Spirit a person, a community, a civilization, a planet, and a cosmos which are whole and harmonious.