

A Conceptual Framework for the Union of Science and Spirituality By Federico Faggin

Over the last few centuries there has been much talk about the union of science and spirituality, but they have two very different worldviews that resist integration. Is it possible to find a synthesis of the two where they can merge into a unified worldview that changes the way we understand and practice both – becoming two facets of a seamless whole?

I propose a new conceptual structure that has the potential to do just that, namely to unify the two worldviews and resolve the mind-body problem that is at the core of the duality. I propose a union that goes far beyond an intellectual understanding, one that will also actively involve the physical, emotional, mental, and spiritual aspects of each human being, unifying the inner and out aspects of reality through personal participation. This solution promises to free up the vast creative resources and good will that are needed to solve the many challenges now facing humanity.

Often people believe that spirituality and religion mean essentially the same thing, but this is a major misconception that needs to be clarified. “Religion” is a set of organized beliefs about the relationship between natural and supernatural aspects of reality that believers are expected to adopt. Such beliefs, including the duality inherent in dividing the natural and supernatural realms of existence, often have the status of dogmas that are not to be questioned. Many religions make a distinction between priests and followers, giving special status to priests as the intermediaries between the two realms.

“Spirituality,” on the other hand, is a personal search for a transcendent dimension within one’s own experience. As such, spirituality stresses the first person (singular and plural), experiential aspect of the transcendent. Spirituality is experimental and open to finding the truth, whereas religion demands that followers believe by faith in particular doctrines often revealed by God’s emissaries if not by God directly, to the founders of the religion.

Therefore, at the core of religion there is a cognitive system based on authority rather than one supported by open inquiry and debate. Many religions, in fact, do not encourage personal experience of the transcendent and their teachings generally remain confined to issues of theology, ritual, and moral behavior. This attitude takes power away rather than supporting human beings to discover and develop their own intrinsic strengths.

Science is a discipline that builds and organizes knowledge in the form of testable explanations and predictions about the universe. Science, and in particular physics, discovers universal laws that can be mathematically expressed in a set of equations whose solutions represent the expected behavior of the particular system under study. It may take a long time, but science has a way to recover from mistakes or distortions through a process that can be initiated by anyone competent enough.

Religion, on the other hand, has neither a clear-cut methodology for collecting evidence, nor a way to change doctrine based on evidence. These differences mean science and religion can never be unified: they represent two fundamentally irreconcilable worldviews.

With regard to spirituality however, the situation is different because spirituality is based on experimental evidence even if this evidence is only that of first person experiences. Therefore, spirituality is compatible with science because it is possible to design experiments in which information can be independently collected and compared by several researchers thus allowing the creation of a body of reliable knowledge. Spirituality can, in principle, be unified with science if proper care is taken in the gathering and analysis of evidence. Nevertheless, much work needs to be done to extend the scientific methodology to properly address inner experiences that are now considered subjective and not suitable for scientific study.

There is plenty of evidence that some people can access information or directly affect matter in ways that are impossible to explain with the current scientific paradigm. Research in this field, however, is currently avoided since these claims undermine the fundamental assumptions of science, are difficult to study scientifically, and lack a theory or explanation to support them.

I believe that the first step necessary for union between science and spirituality is the scientific study of consciousness. Physicists generally consider consciousness a still unexplained property of physical matter, something emerging from the operation of the brain that will eventually yield to scientific investigation using classical physics.

There is a hypothesis that can potentially explain consciousness, although it is considered radical and unnecessary by most scientists, namely that consciousness is the evolutionary product of an irreducible and primordial awareness already present in the very energy that created space, time, and matter. This is also my view: awareness is taken to be an irreducible aspect of the energy of the Big Bang. Therefore this primordial energy contains the seeds of space, time, matter AND consciousness.

This view postulates the nature of the universe as a co-evolution of consciousness and material forms, starting from that unified seed. The material forms, then, are physical representations of the self-knowing achieved by the evolving consciousness of the universe. The intuition here is that for consciousness to know itself, it needs matter to function as a dynamic mirror, reflecting to itself its own ever changing and ever growing self-knowing. Thus matter and consciousness are tightly coupled, constituting respectively, the co-evolving inner and outer aspects of reality.

Adding the awareness aspect to the energy of the Big Bang also restores the elements of purpose and meaning to the universe, elements that a purely materialistic theory considers unnecessary. A word about purpose and meaning is

appropriate here: purpose is the reason for which something is done and meaning is the measure of the significance of something. If the purpose of the universe is for consciousness to know itself, then increasing the self-knowing increases the fulfillment of consciousness and the meaning of the universe is to increase fulfillment.

Current physical theories cannot predict the existence of consciousness since they can only describe a world in which there are no inner aspects of reality. Physical theories, therefore, are contradicted by the vivid inner sensory, emotional, mental, and spiritual life experienced by each human being. According to physics there is absolutely no reason for humans to be conscious at all. Humans should behave as they do without being conscious, just like zombies. In other words, within physical theory there is absolutely no necessity for consciousness to exist, nor is there any obvious reason why consciousness should be desirable in a world where there is only outer reality. YET IT IS THERE! And its existence is not predicted by the current theories.

It is possible to articulate more clearly what the union of science and spirituality entails. Union starts by developing a single worldview that integrates the separate worldviews of science and spirituality into one unified whole. The first essential step irreversibly transforms the way to think about, and to practice, both science and spirituality. This new worldview removes the duality between mind and matter, inner and outer life, intuition and reason, intellect and emotion, mind and heart, objectivity and subjectivity, life and death, and it creates a new vision of the nature of reality that was not contained in either the vision of science nor the vision of spirituality.

Rarely have scientists deeply explored the spiritual realms from the inside through first-person experiments, and just as rarely have spiritual people deeply studied the core theories of physics and attempted to experience physical reality as first-person experiences. For union to occur, both sides need to respect and learn from each other what they do not know or practice now. Only from this shared knowledge and experience can union arise.

To summarize then, union means to recognize that both subjective and objective experiences are real and to bring the power of both intellect and intuition into the study of both inner and outer realms. Therefore, union requires working toward knowing oneself and knowing the outer world, seeing the reflection of self in the outer world and the reflection of the outer world in the self. It means combining self-development with a deep knowledge of the universe and expanding the ability to see new aspects of both inner and outer realities by using capacities of consciousness that are as yet largely undeveloped.

Typical scientists today are not motivated to do the difficult work of knowing themselves (particularly their emotional selves) that holds the key to personal development. This effort will require dedicated and intense work on emotions in

order to recover the original intuitive and creative aspects of the self that are now obfuscated by deeply armored psychological defenses. Spiritual people could take advantage of the rigorous methodology that minimizes the potential for self-deception and wishful thinking that are the most prevalent causes for arrested spiritual progress.

The new conceptual framework capable of unifying the two separate worldviews into a single all-encompassing worldview will only be the necessary beginning. Once the separation between inner and outer reality is clearly seen as non-existent, the permission and motivation to explore the inner realms with both intuitive and rational tools will allow scientists to know themselves as an integral part of the universe. The converse will be true for the spiritual person who will be able to explore the outer realms with both rational and intuitive tools and to see the world as an integral part of the self.

For now the scientist and the spiritual person are almost polar opposites when it comes to the purpose, methodology, tools they use. Eventually there will be no major differences between the two. Once consciousness and matter are seen as complementary and irreducible aspects of reality, when knowing the self is not much different from knowing outer reality, and when the same patterns embedded in matter are seen reflected in the emotional, mental, and spiritual aspects of reality we will have a unified worldview.

From that point on, any exploration will be both inner and outer and mankind will learn in a more full and creative way than has ever been known. The union of science and spirituality is not an intellectual exercise, but a deep and unique journey into the nature of Life itself. This new approach will not only allow us to heal the ecosystem, but will also bring personal satisfaction, social justice, improved education and health and peace on earth.

The hope that technology alone will resolve humanity's problems is ill founded. It is well known that technology is just a tool that can be used either for or against the wellbeing of humanity and the planet. The proliferation of evermore powerful and easily accessible technologies is very dangerous if it isn't accompanied by an equal growth in a sense of personal responsibility that is rooted in respect for all life.

The universe is a big place indeed, a place we will not be able to explore from the outside given that the finite speed of light imprisons us in a small corner of our own galaxy. If it is true that consciousness connects everything from the inside, then consciousness may be the only instrument for exploration of a universe that is otherwise essentially off limits to mankind as physical beings.

There is too much at stake to persist in the position that one side is right and other must then be wrong. It is likely that each is both right and wrong. Each side has a lot of truth and many distortions. Only by joining forces and looking at reality with

clear eyes can mankind find common ground and begin a new era for the evolution of OUR planet.