

Deep Mind Beyond Science, Behind Spirit

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Science and spirituality have never made easy bedfellows. Their views on the nature of things often seem to clash. And the more our scientific understanding of the world has grown, the deeper that clash appears to have become.

Modern science, having explored deep into the realms of space, time and matter, often appears to have done away with God. Astronomers have looked out into deep space, to the edges of the known universe; cosmologists have looked back into what they call "deep time", to the beginning of creation; while physicists have looked down into the "deep structure" of matter, to the fundamental constituents of the cosmos. From quarks to quasars, they find no evidence of God. Nor do they find any need for God. The Universe seems to work perfectly well without any divine assistance.

The God that science has thus eliminated is called "the God of the gaps"—the God that was needed to explain the gaps in human knowledge. Over the centuries, science has progressively filled these gaps. Before Newton, people thought God moved the sun and moon through the heavens; now we understand their motion in terms of gravity. Before Darwin, it was believed that God created the many different species of life; now we account for them in terms of genetic evolution. Similarly with earthquakes, the aurora borealis and the immune response, today plate tectonics, solar ions and molecular biology explain them quite satisfactorily.

Steadily and mercilessly, science has filled the gaps. For a while it looked as if the most significant gap of all—the creation of the cosmos itself—would not be filled. But quantum mechanics is now explaining how even the Big Bang could have started all by itself. The God of the gaps has finally, it seems, been made redundant.

There is, however, more to religion than explaining the gaps in our knowledge. Most traditions also speak of the profound personal experiences that come from following a spiritual path. They may talk of them in terms of rebirth, liberation, awakening, enlightenment, transcendence, rapture or holy union. Yet whatever the interpretation, there is a general consensus that these experiences have a profound impact on one's life.

Science has very little to say about spiritual experiences. They are not occurring in the world of space, time and matter that science charts so well, but in the world within. To understand them fully we would need to venture

into the realm of "deep mind"—a realm that Western science has yet to explore.

An Inner Science

Science may not have explored deep mind, but others have. They are the mystics, ascetics, shamans and spiritual adepts of every culture. These people have used practices such as meditation to delve beneath the surface levels of the mind. They have observed the arising and passing of thought. And they have looked beyond, to the source of their experience, to the essence of their own consciousness. There they have discovered a profound connection with the ground of all being.

Western science does not usually pay much attention to such subjective approaches. It certainly does not consider them "scientific". Scientists are concerned with objective truths, with verifiable facts that are not dependent upon one's state of mind. They are looking for effects that can be measured, not internal subjective changes.

But is this subjective approach really so unscientific? The essence of science is to gain knowledge through careful observation of the natural world. Since scientists want to be able to trust this knowledge, a process has evolved to make it as reliable as possible—what is often referred to as the "scientific method".

An essential part of this method is isolating the object of study. If, for example, you were investigating the electrical activity of the human brain during meditation, you might put the subject in an electromagnetically shielded room to reduce electrical noise ("noise" in the technical sense of unwanted information). Then, in order to get as much desired information as possible, you would ensure the electrodes made a good electrical contact with scalp. You might also set up a "control group", studying non-meditators in the same circumstances, to be certain that the effects you measured were specific to meditation, not simply the result of relaxation. Having gathered your data, you would study it, draw conclusions, and then make your conclusions available to others to see if they agreed. If they did, you would have established some reliable knowledge about meditation and the brain.

Similar principles apply to someone using meditation to explore the mind first hand. First, they would seek to remove themselves from external noise. This is usually achieved by choosing a quiet place, free from disturbance. Since one wants to observe the mind clearly, it is important to remain awake and attentive, so people generally sit in a relaxed but alert posture. Then closing the eyes, which reduces visual distractions, one turns the attention within and begins to observe.

The first thing people notice when they observe their own mind, is the almost incessant flow of thoughts and inner dialogue. This internal noise continually distracts the attention from the subject of investigation—the

nature of the mind itself. Here meditation comes into play. It can be thought of as an experimental technique employed to reduce the internal chatter, allowing subtler aspects of the mind to come into focus.

Countless people, throughout history, have entered the laboratory of the mind and performed such inner experiments. These "inner scientists" have published the results of their investigations in spiritual and mystical texts—The Upanishads, The Tao-Te-Ching, The Tibetan Book of the Great Liberation, The Cloud of Unknowing. Their conclusions show a remarkable consistency across culture and time, suggesting that this subjective approach does indeed lead to reliable knowledge about the nature of mind.

Beyond Thought

What have they discovered? Almost everyone notices that as the mind settles down there comes a growing sense of peace. The self-talk that normally occupies much of our awareness tends to increase arousal and tension. We may be worrying about things we have or have not done, feeling anxious about what might or might not happen, planning a future action, solving a problem or going over a conversation. As this activity subsides, the mind naturally becomes more peaceful.

Reducing mental activity further, one can arrive at a point where all verbal thinking ceases. At this level of consciousness, one discovers a much deeper, all-pervasive peace. Some call it bliss, others joy or serenity; but all agree that the pleasures of everyday life pale in comparison to this profound feeling of inner well-being.

Another quality that is found in this inner quiet is love. This is not the love we know in our daily lives, a love that is usually focused on a particular person or circumstance. It is pure love, love without an object. It is "being in love" in a new sense; one's whole being is bathed in love.

Perhaps the most significant effect of stilling the mind is transcendence of the ego. When all the thoughts, feelings and memories by which we usually define ourselves have fallen away, the sense of a separate self dissolves. There is no longer a sense of "I am experiencing this thought or this sensation". Instead there is an identity with the essence of being. I am the consciousness in which all experience takes place.

A Personal God

Although the descriptions of deep mind are remarkably consistent across cultures, the ways in which people have interpreted them vary widely.

Within the monotheistic worldview that dominated Western culture for nearly two thousand years, mystical experiences were usually interpreted in terms of a personal God. Such states of consciousness are so far removed

from daily life that it is easy to see how they could be taken to be a direct connection with divinity—particularly when aspects of the experience correspond so closely to traditional descriptions of God.

A state of profound peace could indeed seem to be "the peace of God that passeth all understanding". An upwelling of the heart that bursts forth in an all-pervading love might well be interpreted as the love of God miraculously entering one's being. The compassion that dawned could be confirmation of a caring, forgiving God. And the sense of deep fulfillment and inner freedom that comes with such states could easily be taken to be the salvation promised by a merciful Deity.

The experience of the pure "I am" did not, however, fit into the monotheistic worldview quite as easily. Many identified this unbounded sense of self with God. Some went so far as to say that "I am God." To traditional religion, this rings of blasphemy. How can any lowly human being claim that he or she is God, the almighty, supreme being? When the fourteenth-century German mystic Meister Eckhart preached that "God and I are One", he was brought before Pope John XXII and forced to "recant everything that he had falsely taught". Others suffered a worse fate. The tenth-century Islamic mystic al-Hallāj was crucified for using language that claimed an identity with God.

Yet when mystics say "I am God," or other words to that effect, they are talking neither about the individual person nor about a supernatural deity. Their inner investigations have revealed the true nature of the self. This they have experienced as a connection with the ground of all being. And it is this that they have named God.

The Eastern View

Explaining such experiences as a direct contact with God could be seen as yet another example of the God of the gaps—albeit in a more subtle form. In this case, the gap is in our understanding of deep mind. Western traditions, both religious and scientific, have left this realm largely unexplored. To find a coherent body of knowledge about the inner world, we must look to the East, where spiritual adepts have been exploring the mind for thousands of years.

Of the Eastern traditions, Buddhism has probably gone the farthest in charting the mind. Buddhism has no concept of God; it is an atheistic religion—paradoxical as that may sound to Western ears. For Buddhists, peace, ease, joy, and compassion come from knowing the essential nature of mind. They are inherent qualities of pure awareness—an awareness that is unsullied by the agitation of everyday thoughts and concerns.

A similar approach is taken by other eastern traditions. Some of them may talk of deities and devas, but in most instances these are interpreted as aspects of the mind—the inner challenges we face and the inner allies that can help us on our journey.

Although these traditions do not need to invoke a supreme deity to account for mystical experiences, this does not make these states of mind any less awesome, meaningful or life changing. On the contrary, by interpreting them in terms of one's essential nature, the eastern traditions can offer practical ways to make them more accessible.

Western religions have much to offer on theology, morality and the potential for spiritual advancement, but less on techniques that facilitate spiritual experiences. Eastern teachings, however, provide detailed analyses of how our awareness becomes trapped in habits and attachments, and various techniques and practices—we might call them inner technologies—to relieve the mind of its dysfunctional patterns. The goal is self-liberation, freeing the mind to experience its essential nature, and reaping the rewards that come from such an awakening. Here spirituality is science, the science of the mind.

God in the Brain?

A third way of interpreting spiritual states is that of Western science, which believes that the real world is that of space, time and matter, and all phenomena are reducible to events in that world. It seeks to account for transcendental experiences, neither as a union with some supernatural deity nor as a reflection of the mind's essential nature, but in terms of brain function.

Some recent research, which has aroused quite a debate in this area, investigated changes in the brains of advanced Tibetan Buddhist meditators. When the subjects reported that their everyday sense of self was beginning to dissolve, the researchers took a brain scan. By observing the flow of blood through the brain, they were able to identify changes in brain activity. They found that as the sense of a separate self dissolved, activity in the parietal lobe, an area towards the top of the brain, decreased. This is precisely the area that neuropsychologists believe is responsible for the distinction between self and other.

The conclusion that many draw from such studies is that spiritual experiences can now be explained in terms of brain function, and that science has once again triumphed over religion. But there is really nothing very surprising about these findings. It is generally accepted that brain activity and subjective experience bear a close relationship (even if we cannot say whether one causes the other, or how). We should expect, therefore, that changes in consciousness as profound as the cessation of verbal thought, the dissolution of a separate sense of self, and a feeling of deep peace would show corresponding changes in the brain.

That we are beginning to chart these changes does not explain away spiritual states. If anything, it validates them. It shows that meditators probably do experience what they claim. So we could think of these

discoveries as Western science beginning to confirm the conclusions of the inner sciences.

Meditators also claim that such states of consciousness have beneficial effects on their lives—a tendency to be more open, generous, caring and forgiving. There seems little reason to doubt that this too is true. If so, rather than concluding that spiritual experience has been satisfactorily accounted for, the scientific community might ask: how can we use our growing understanding of brain function to enhance the occurrence of these deep states of consciousness. For they would appear to be just what the world sorely needs.

Salvation

In the past, spiritual awakening was seen as essential for one's personal salvation—to save us from hell, whether God delivered or self-created. Today it has become an imperative for our collective salvation.

Humanity is clearly in crisis. If we continue consuming and polluting as we have done, with little regard for the long-term health of our environment, we will almost certainly trigger some or other ecological catastrophe. We may even render ourselves extinct.

Looking to the underlying causes of this crisis we find, time and again, the human factor—human decisions based on human desires, needs and priorities, often driven by human fear, greed and self-centeredness. It is clear that the crisis is, at its root, a crisis of consciousness.

If we are to navigate our way safely through these challenging times, we need to see some significant shifts in attitudes and values. We need to recognize that inner peace does not depend on what we own, our social status, the roles we play, or how wealthy we are. We need to wake up to a deeper sense of self that is not at the mercy of external circumstances, and that does not need to be continually defended and maintained. We need a degree of care and compassion that extends beyond our immediate circle of family and friends to embrace strangers and people of different race and background—and also the many other species with whom we share this planet. We need to know in our hearts that their well-being is our well-being.

What is the most effective way of promoting such shifts in consciousness? The evidence points to spiritual experience. Rather than distracting us from the course of scientific progress, spirituality could be our saving grace.

Our burgeoning scientific knowledge has led to technologies that have enabled us to control and manipulate our world. The underlying goal has been to free us from unnecessary suffering and increase human well-being. Spiritual teachings have likewise sought to liberate people from suffering, but their path has been inward. They have sought to understand the mind

and to develop inner technologies that enable us to find happiness and freedom within ourselves.

It is now becoming obvious that the material approach has not achieved all that people hoped. Despite our abundant luxuries and freedoms there is little evidence that people today are any happier with their lot than people were fifty years ago. On the other hand, we have only to look at the peace and wisdom emanating from someone such as the Dalai Lama to see that the spiritual approach does seem to bear fruit.

When it comes to understanding the cosmos, science and spirituality are describing two complementary aspects of reality—one the nature of the material world we observe around us, the other the nature of the mind observing this world. When we consider how these understandings can be applied to the betterment of humanity, we see that science and spirituality are again complementary. To create a truly sustainable world, we need both—the knowledge of science integrated with the wisdom of spirituality.