

Founding Yoga Science: The Outing of Inner Time

Introduction: Breaking the Scientific Impasse

Scott Virden Anderson

© 2010, Yoga Science Foundation and/or its contributors, all rights reserved – edited draft v 9/30/10

Time is a construct: it is fundamentally and inherently *subjective*. Yogis discovered this long ago (using subjective methods of inquiry). Twentieth-century physicists made this same discovery (using objective methods of inquiry), but it has been kept in the shadows and off the front pages — most likely because the consequences of this finding are nothing short of revolutionary for both science and how we conceive of ourselves and arrange our collective lives. This discovery calls for something like a “first scientific revolution in the mind sciences,” as B. Alan Wallace describes it, but the world seems far from ready for yet another scientific revolution. Instead, the world seems preoccupied with what appears to be another kind of upheaval — a crisis of confidence. What we have assumed, for the last several hundred years, to be a sure formula for global success — accelerating technological advances, ever higher standards of living, and more and more “democracy” — is not working.

Objectivist science has been an essential part of this “sure formula.” Science got its start by carving out for itself a territory free from religious dogma, a territory called “the natural world.” This natural world, the world we routinely relate to as being out there, was taken to be obvious, a given: reality as it presents itself to our senses, our “common sense” notion of what is. Because many early scientists were also members of the church who deeply respected religion, they left the inner subjective world alone. Off limits to science, it was the proper domain of religion. Individuals were relatively free to choose to believe whatever they wished about this inner, subjective domain. It became axiomatic that there are two “non-overlapping magisteria,” as biologist Stephen Jay Gould famously dubbed the situation: the objective world, the magisterium of science; the subjective world, the magisterium of religion.

What became apparent in the course of the twentieth century, however, even early on to those at the cutting edge of physics, was that common sense notions were simply wrong, as often as not. Physicists discovered deep paradoxes in the nature of matter, space, and time — specifically relativity and quantum mechanics. A deep tension has been growing steadily at the core of science ever since, for a hundred years now. Although tensions routinely exist within science, in this critical case, science has kept itself from resolving the tension by painting itself into the corner of *scientism*, a sort of scientific fundamentalism with mind closed firmly upon a polar opposite to religious fundamentalism. And given how central science has become to our understanding of reality, this tension has now become a global headache — not just the surface conflict between science and religion but also the deeper conflict between science and scientism. Countless books, journal and magazine articles, conferences, and websites have explored

the symptoms and possible causes of this chronic headache.

Psychology, meanwhile, still a fledgling science throughout the twentieth century, has not been equipped scientifically or politically to meet the challenges posed by the new findings in physics. The momentum of markets, material progress, and new technologies for “better living” dominated development in the sciences. A poor sister to physics, psychology was in no position to develop a paradigm for psychology fully in keeping with the radical implications of the new physics. Behaviorism was a safer course, officially sanctioned and funded because it focused on the outer, objective aspects of human life and steered clear of the subjective domain. Only gradually, toward the end of the twentieth century, did the inner life begin to find its way back into mainstream psychology in the form of cognitivism — itself premised on a certain confidence that our subjective world would eventually be explained as emerging from the objective brain. Cognitive psychology, and now cognitive and affective neuroscience, has kept itself professionally well insulated from the new physics. The occasional scientist who strays across the professional boundary is only given press and podium if he or she cleaves to the notion — increasingly obvious as an ideology — that all things subjective are to be explained by objective processes.

All the while, amidst the other many crises of our time, the underlying crisis regarding time has been growing. We all sense that “things are speeding up” and increasingly look for ways to help us deal with the impact this is having on our bodies, emotions, and minds. Behind the scenes, top physicists confess that they are baffled by time, having found in the most fundamental equations of the new physics that time is mysteriously irrelevant. Time is being revealed as “a mental construct” — a concept that we humans have found useful but that does not have a fundamental existence in and of itself. It is becoming obvious that time is thus a *subjective* phenomenon. This represents a profound turning point for science, committed as it has been up to now to the assumption of a purely *objective* reality. Is something so central to science inherently subjective?

This book offers a new scientific view of time in which time is understood as both useful concept *and* subjective phenomenon. Time has both a subjective inner depth and a timeless context *in addition* to what we usually think of as its role in outer reality. This view complements the twentieth-century discovery of “deep time,” the billions of years that light takes to reach us from the farthest edge of the cosmos. A second kind of deep time can be found within our every subjective moment, deep *inner* time. The exploration of this inner domain has long been the focus of yoga, which is the systematic cultivation of awareness. At the core of inner awareness, yoga reveals timelessness. *Yoga science* describes for the first time how, with a simple turn of technical description and scientific understanding, we can include outer *and* inner deep time as intrinsic parts of a novel and total cosmology — a scientific cosmology that is not just a description of the world out there, but one that *includes* the totality of our inner humanity as well.

This new scientific cosmology calls for a fundamental reorientation of science itself. Science need no longer be pitted against religion. Yes, science will certainly continue to reveal, as it has already, that any number of ideas traditionally associated with specific religious teachings is spurious or metaphoric — as with the six days of creation in Judeo-Christian theology or Mount Meru of Buddhist cosmology. Such refutations notwithstanding, science can now embrace the whole of our *humanity*. This will mark an epochal new departure: science as the loyal servant of the whole human.

This new scientific cosmology leaves behind a number of so-called hard problems in science, the “hard problem of consciousness” perhaps foremost among these. There are a number of related hard problems as well, including subtle energies, psychic phenomena, natural healing, and the full range of psychological (including spiritual, or yogic) human development. Millions of scientists have committed their entire careers to research programs that assume reality is objective—“out there” only. When this assumption is questioned, many have ridiculed the question. When only an objective world is assumed, what else can science make of the inner riches of human experience but hard problems? All of these hard problems are the direct consequence of how science has been pursued: an enterprise exclusively committed to objective reality. But now the demonstration, in simple scientific terms, of an alternative assumption opens wide the inclusion of the whole of our subjective reality within the scientific purview.

This book further explores how this shift in our scientific conception of time might help us reframe the many global crises we face today and thus help us to find new ways of resolving them. For well over a century, men and women of sound mind and good heart have been on their own as to how science might be reconciled with the inner stirrings of the heart. Traditionalists have tended to insist upon their views — often couched in terms of specific religious dogmas — even at the expense of sound scientific evidence. Modernists have tended to trumpet science as the only way to true understanding — often at the expense of any acknowledgment of religion, or the inner life. It is the Cultural Creatives who have sought for ways to reconcile the two and have found many resonances between them, in particular when both are more broadly defined than usual: religion more as *spirituality* and science more as *new science*.

However, at present we remain stuck at an impasse: powerful media endlessly exploit the dramas of polarization between science and religion, between Traditionalists and Modernists, and between conservatives and liberals, while Cultural Creatives, no matter how busy they may be off screen, remain mostly invisible and politically impotent. It seems increasingly likely, given the depth and complexity of the multiple challenges we face globally, that in the not-too-distant future, we could encounter an all-hands-on-deck situation in a crisis crescendo. We might be forced to go beyond our existing “positions” just in order to survive. Yoga science suggests that we do not need to wait for a catastrophe to bring us

together. There are certain to be alternative scenarios possible given the demonstration by yoga science that our inner subjective depth is *intrinsic* to reality.

Evolutionary psychologists have already found compelling evidence that religion played a pivotal role in the emergence of humanity itself. The discovery of our inner depth — “the socialization of the supernatural” as psychologist Matthew Rossano calls it — was key to the increased social collaboration and creative invention that empowered our prehistoric ancestors to people the earth. No matter what science reveals about specific religious notions and practices, the religious impulse itself is being shown to be deeply rooted in our species’ psychology. Science cannot rightly persist in a blanket dismissal of religion if religion itself is a scientific finding. Traditionalists can take heart from this scientific vindication of the religious impulse.

Yoga science offers science a new way of approaching the study of the subjective domain, that has been excluded for so long as a permissible topic of scientific investigation. Yoga science demonstrates unequivocally that there is a temporal continuum extending from the farthest deep *outer* time into deep *inner* time via the human body. There is no intrinsic separation between outer and inner phenomena, and both can be investigated scientifically with the development of proper tools and methods. Modernists can appreciate these findings as representing a scientific way into the subjective domain — one that does not require discarding any existing scientific findings.

For Cultural Creatives, yoga science can be viewed as a novel and deep reconciliation of science and religion. It demonstrates directly how the two domains of experience, outer and inner, can be understood scientifically as aspects of a single whole. Yoga science further suggests how we can cultivate our total humanity by recognizing that our world and we exist in both time and timelessness. This new perspective on our situation can give us new eyes with which to see our many challenges. It may help us discover a new integrity, a unity and clarity that free the intelligence and energy needed to find novel and unexpected solutions.

Yoga science boldly proposes a scientific revolution of sorts — one that could perhaps be thought of as “a first scientific revolution in the mind sciences,” but which really goes beyond that. It embraces the whole of reality: the world, the body, the mind, as well as the timeless domain within which mind appears. Yoga science thus proposes a fundamental revolution in how we conceive of science itself. Four previous scientific revolutions — let’s call them the revolutions of Copernicus and Newton, then Darwin, Einstein, and finally Watson and Crick — have all brought profound consequences to humanity. In the course of just a few centuries, the emergence of modern science has propelled the whole world into confrontation with itself. We are now knit into a global economy, yes — but we are also a global village crowded with suffering and strife, a spaceship Earth with

chaos below decks and nobody at the helm. Given the powerful but mixed effects of scientific revolutions to date, it seems wise to offer humanity a voice in how this next revolution plays out — this revolution in how science itself is understood. Hence, yoga science is presented here for as broad an audience as possible with an invitation to participate in shaping its future unfolding.