Editorial Musings

Honoring Convergence and Connectivity

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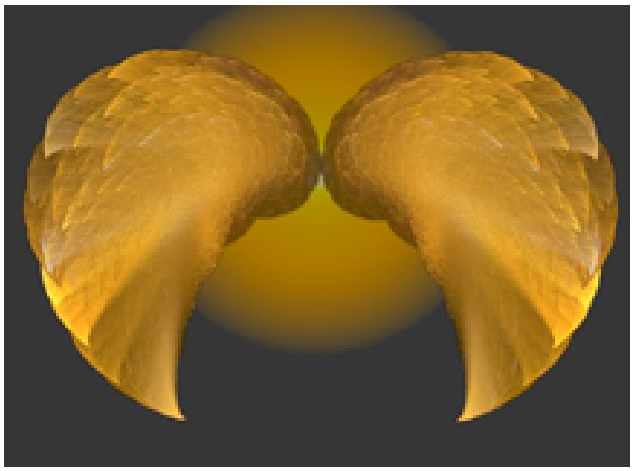
Even while Wikipedia informs us that the phrase "paradigm shift" has been rendered meaningless by overuse, something is happening that is increasing the depth, richness, and security of our theories about the inner life and outer behavior of humans that amounts to a major change of perception and understanding. The convergence of many disciplines, fueled by advances in technology, is helping us ground our ideas about behavior, learning, relationships, and many other human endeavors in the relatively solid foundation of science.

Consider the example of psychology, where numerous theories of the origin and alleviation of human suffering have emerged during the hundred years since Freud and others directed our attention toward exploration of the inner life as a possibly scientific endeavor. Even though the technology was not yet available to support Freud's vision, he was certainly onto something. Since then, several major, competing schools of thought have research to back up their claims of truth and efficacy (perhaps also reflecting how the researcher influences the study). Certainly, this has not been the "hard" research of astronomy and physics. Instead, psychologists have sought to plumb invisible realms that resist being divided into parts that can be individually studied, as astronomers and physicists believed they could examine a single star or atom.



However, with the human genome unveiled and starry glimpses of the universe inside the brain unfolding before us, there is a convergence allowing the ancient argument of nature vs. nurture to be tamed on scientific grounds. Brains scans are just beginning to unmask the roots of subjective experience, even as the impact of relationships on the developing brain prove that we are indeed interwoven with one another. The science of human development and relationships is perhaps becoming "harder." At the same time, the sharp distinction between animal and human is also softening, as mice exhibit the same decreases in dopamine that human teens display when they both launch into the risk-taking behaviors that mark their adolescence. On the other side of the scientific fence, when photons become waves or particles depending on how we observe them, we see that "hard" science is also having to relinquish its claim to objectivity in favor of something else that is not yet fully defined. In all of it, there is a convergence that tells us we are perhaps on the edge of seeing things differently, with greater wholeness and congruence.

In 1962, Thomas Kuhn wrote *The Structure of Scientific Revolutions*, coining the term "paradigm shift" to connote moments when the basic assumptions within a ruling theory of science change. Our current process seems a bit different. It is as though we have had a collection of possibilities, constituting the shifting sands of our visions of inner and outer life, which are now crystallizing around discoveries that can say "yes" or "no" to some of our underlying assumptions. A similar process occurred as increasing technological sophistication confirmed that plate tectonics was indeed the process underlying the movement of continents and the rise of mountain ranges. The story of the struggle among geologists around that particular paradigm shift can prepare us for both

the energizing and uneasy days ahead as old ways of thinking fragment, making way for a new, more complex synthesis to emerge.

We can feel our sympathetic nervous systems engage as we stretch toward the emerging synthesis, much like a two-year old reaching out for new experience. At the same time, we may be challenged, cognitively and emotionally, by what the change demands of us, especially if we are invested in an earlier viewpoint. We might partly locate this recalcitrance in the power of invariant representations, those superhighways of neural connectivity that tell us what to anticipate in the future based on the past. Because these representations are one foundation of security and stability, large changes in perception can be emotionally as well as cognitively upsetting. Some people report nausea or a feeling of falling when an old way of thinking viscerally crumbles.

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In my view, this current paradigm shift, facilitated by increasing technological sophistication, yet involving both the subjective and objective realms, asks more of us than to simply "know" something different. Just as the shift from the Ptolemaic center to Copernican edge required a reevaluation of our place in the universe, with all that meant at every level of our being, these new discoveries about brain, mind, and relationships nudge us toward a different way of engaging with life. If we approach these new understandings in the old, objective way, they are interesting discoveries that might briefly light up our minds, but not presage a sea change in our lives.

We could call that side-by-side learning, where there is no true integration of what we are discovering. Keeping the knowledge cordoned in the logical left mode process means we don't have to suffer the impact on our implicit self, on our mental models of how the world works. If we are to move fully into this new paradigm, we have to sense the intersection of subjectivity and objectivity as a call to live differently. I know I am just beginning to go down that road. At certain moments, an old way of seeing isn't satisfying or even acceptable. I can be suddenly struck by a sense of painful selfishness that isn't coming from old voices inside, but from my sense that I have lost track of the impact my state of mind is having on those around me. These moments are difficult and exhilarating at the same time, inviting me to enlarge my vision, my heart, and my mind to make room for the scientific reality of living connectivity and influence.

When we are able to open ourselves to this process, becoming increasingly capable of embodying the new vision, at least one challenge remains—to avoid dogmatically immersing ourselves in the new paradigm in a way that forestalls ongoing change. After brief pauses to consolidate, we may be able to develop the capacity to tolerate sands that will always shift. One of the tragedies of most social revolutions is that within a fairly short period, the new regime becomes as immovable as the one it replaced. Perhaps the assumptions and behaviors are different, but the process is identical. Flexibility invites us to remain open, to be willing to deal with the ongoing discomfort that emerging states of awareness brings. Where is stability in this equation? Following Dan Siegel's lead, I believe that the legacy of this particular passage through disorganization to a higher order of organization is an increasingly integrated brain, a more coherent mind, and a widening circle of empathic relationships, all of which support one another in a lovely elaboration of wholeness that can steady us for the long haul.

None of us will honor connectivity perfectly, and sometimes not even well. However, every time we are able to hold the vision within our living skin, we make the next such moment slightly more probable. At the same time, we may catalyze similar states in those near us through the resonance circuits that tie us together in the dance of emerging integration.

We welcome your comments.