A NEW RENAISSANCE
Transforming Science, Spirit and Society
Edited by David Lorimer and Oliver Robinson
First published by Floris Books in 2010
© 2010 Scientific & Medical Network

All rights reserved. No part of this book may be reproduced without the prior permission of Floris Books, 15 Harrison Gardens, Edinburgh, www.florisbooks.co.uk

CONTENTS

Introduction: The Choice Before Us  David Lorimer 7

Part 1: Worldviews in Transition

1. The World's Health Problem: An Integral Diagnosis Ervin Laszlo 17
2. Celebrating Crisis: Towards a Culture of Cooperation Elisabet Sahtouris 34
3. The Greater Copernican Revolution and the Crisis of the Modern World View Richard Tarnas 48
4. Recapturing the Whole: Brain Hemispheres and the Renewal of Culture Iain McGilchrist 61
5. Reinventing the Human Species: An Evolutionary Crossroads Frank Parkinson 70
6. Restoring Harmony and Connection: Inner and Outer HRH Prince of Wales 82
7. Modernity and the Transmodern Shift Oliver Robinson 91

Part 2: Consciousness and Mind in Science and Medicine

8. Mind and Neurons: Consciousness and Brain in the Twenty-First Century Larry Dossey 103
9. New Science, New Earth Chris Clarke 120
10. The Credit Crunch for Materialism and the Possible Renewal of Science Rupert Sheldrake 131
3. The Greater Copernican Revolution and the Crisis of the Modern World View

RICHARD TARNAS

Richard Tarnas is a professor of philosophy and cultural history at the California Institute of Integral Studies in San Francisco, where he founded the graduate program in Philosophy, Cosmology, and Consciousness. He also teaches archetypal studies and depth psychology at Pacifica Graduate Institute in Santa Barbara. A graduate of Harvard University and Saybrook Institute, and formerly the director of programs and education at Esalen Institute, he is the author of The Passion of the Western Mind, a history of the Western world view from the ancient Greek to the postmodern that became both a bestseller and a required text in many universities. His most recent book, Cosmos and Psyche: Intimations of a New World View, received the Book of the Year Prize from the Scientific and Medical Network. This chapter is an abbreviated excerpt from Cosmos and Psyche (Viking, New York, 2006).

In the course of the past century, the modern world view has seen both its greatest ascendency and its unexpected breakdown. Every field and discipline, from philosophy, anthropology, and linguistics to physics, ecology, and medicine, has brought forth new data and new perspectives that have challenged long-established assumptions and strategies of the modern mind. This challenge has been considerably magnified and made more urgent by the multitude of concrete consequences produced by those assumptions and strategies, many of them problematic. As of the first decade of the new millennium, almost every defining attitude of the modern world view has been critically reassessed and deconstructed, though often not relinquished, even when failure to do so is costly. The result in our own postmodern time has been a state of extraordinary intellectual ferment and fragmentation, fluidity and uncertainty. Ours is an age between world views, creative yet disoriented, a transitional era when the old cultural vision no longer holds and the new has not yet constellated.

Recently there have been emerging from the deconstructive flux of the postmodern mind the tentative outlines of a new understanding of reality, one very different from the conventional modern view. Impelled by developments in many fields, this shift in intellectual vision has encompassed a wide range of ideas and principles, among which can be identified a few common themes. Perhaps the most conspicuous and pervasive of these can be summed up as a deeper appreciation of both the multidimensional complexity of reality and the plurality of perspectives necessary to approach it. Closely related to this new appreciation, as both cause and effect, is a critical reappraisal of the epistemological limits of the conventional scientific approach to knowledge. This reappraisal includes a more acute sensitivity to the ways in which subject and object are mutually implicated in the act of knowing, a revised understanding of the relationship of whole and part in all phenomena, a new grasp of complex interdependence and subtle order in living systems, and an acknowledgment of the inadequacy of reductionist, mechanistic, and objectivized concepts of nature.

Other major characteristics of this emerging intellectual vision include a deeper understanding of the pivotal role of the imagination in mediating all human experience and knowledge; an increased awareness of the depth, power, and complexity of the unconscious; and a more sophisticated analysis of the nature of symbolic, metaphoric, and archetypal meaning in human life. Behind many of these themes can be seen a rejection of all literalistic and univocal interpretations of reality — of the tendency, as Robert Bellah has put it, to identify "one conception of reality with reality itself." (Bellah 1969). Equally fundamental to this shift is a growing recognition of the need for and desirability of a radical opening of the mainstream Western intellectual and cultural tradition to the rich multiplicity of other traditions and perspectives that have evolved both within the West and in other cultures.
Yet this emphatic embrace of pluralism has been balanced by — and to a great extent been in the service of — a profound impulse for reintegration, a widely felt desire to overcome the fragmentation and alienation of the late modern mind. Underlying the variety of its expressions, the most distinctive trait of this new vision has been its concern with the philosophical and psychological reconciliation of numerous long-standing schisms: between human being and nature, self and world, spirit and matter, mind and body, conscious and unconscious, personal and transpersonal, secular and sacred, intellect and soul, science and the humanities, science and religion.

For some time this emerging consensus of convictions and aspirations has seemed to me, as to many others, the most interesting and hopeful intellectual development of our age and perhaps the one most likely to produce a viable successor to the rapidly deteriorating modern world view. Yet from its beginning this new vision or paradigm has confronted a seemingly insurmountable problem. The present world situation could hardly be more ripe for a major paradigm shift, and many thoughtful observers have concluded that such a shift, when it comes, should and very probably will be based on principles resembling those just cited. But to succeed in becoming a broad-based cultural vision, or even to achieve its own implicit program of psychological and intellectual integration, this new outlook has been lacking one essential element, the sine qua non of any genuinely comprehensive, internally consistent world view: a coherent cosmology.

The shadow of the Copernican revolution

In retrospect it is evident that the fundamental intellectual turning point of Western civilization was the Copernican revolution, understood in its largest sense. Nothing so effectively bestowed confidence in the supreme power of human reason. Nothing so emphatically and comprehensively affirmed the superiority of the modern Western mind over all others — all other world views, all other eras, all other cultures, all other modes of cognition. Nothing emancipated the modern self from a cosmos of established pregiv

meanings more profoundly or more dramatically. It is impossible to think of the modern mind without the Copernican revolution.

Yet the luminosity of that great revolution has cast an extraordinary shadow. The radical displacement of the Earth and humanity from an absolute cosmic centre, the stunning transference of the apparent cosmic order from the observed to the observer, and the eventual pervasive disenchantment of the material universe were all paradigmatic for the modern mind, and these have now come to epitomize humankind's underlying sense of disorientation and alienation. With the heavens no longer a separate divine realm and with the Earth no longer embedded in a circumscribed celestial order of planetary spheres and powers, humanity was simultaneously liberated from and thrust out of the ancient-medieval cosmic womb. The essential nature of reality underwent an immense shift for the Western mind, which now engaged a world possessed of entirely new dimensions, structure, and existential implications.

For all the exalted luminosity of the Copernican birth, the new universe that eventually emerged into the light of common day was a spiritually empty vastness, impersonal, neutral, indifferent to human concerns, governed by random processes devoid of purpose or meaning. At a deep level human consciousness was thereby radically estranged and decentred. It no longer experienced itself as an essential expression and focus of an intrinsically meaningful universe. The Copernican revolution was the modern mind's prototypical act of deconstruction, bringing both a birth and a death. It was the primordial cataclysm of the modern age, a stupendous event which destroyed an entire world and constituted a new one.

Not only the subsequent evolution of modern cosmology, from Newton and Laplace to Einstein and Hubble, but virtually the entire modern intellectual trajectory has sustained and magnified the primary Copernican insight: Descartes, Locke, Hume, Kant, Schopenhauer, Darwin, Marx, Nietzsche, Weber, Freud, Wittgenstein, Russell, Heidegger, Sartre, Camus. From seventeenth-century rationalism and empiricism to twentieth-century existentialism and astrophysics, human consciousness has found itself progressively emancipated yet also progressively relativized, unrooted, inwardly isolated from the spiritually opaque world it seeks to comprehend. The soul knows no home in the modern cosmos. The status of the
human being in its cosmic setting is fundamentally problematic —
solitary, accidental, ephemeral, inexplicable. The proud uniqueness
and autonomy of 'Man' have come at a high price. He is an insig-
nificant speck cast adrift in a vast purposeless cosmos, a stranger
in a strange land. Self-reflective human consciousness finds no
foundation for itself in the empirical world. Inner and outer, psyche
and cosmos, are radically discontinuous, mutually incoherent. The
most celebrated of human intellectual achievements, it remains the
watershed of human alienation, the epochal symbol of humanity's
cosmic estrangement.

Here we face the crux of our present predicament. For it is this post-
Copernican cosmological context that continues to frame the current
effort to forge a new paradigm of reality, yet that context, utterly at
variance with the deep transformations now being urged, thereby
confounds them. The cosmological metastructure that implicitly
contained and precipitated all the rest is still so solidly established as
to be beyond discussion. The physical sciences of the past hundred
years have flung open wide the nature of reality, dissolving all the old
absolutes, but the Earth still moves — along with, now, everything
else, in a postmodern explosion of centreless, free-floating flux.
Newton has been transcended but not Copernicus, who has rather
been extended in every dimension.

For all the notable strides made in deconstructing the modern mind
and moving towards a new vision, whether in science, philosophy, or
religion, nothing has come close to questioning the larger Copernican
revolution itself, the modern mind's first principle and foundation.
The very idea is as inconceivable now as was the idea of a moving Earth
before 1500. That most fundamental modern revolution, along with
its deepest existential consequences, still prevails, subtly yet globally
determining the character of the contemporary mind.

From the cosmological perspective, the various movements now
pressing for the creation of a more humanly meaningful and spiritually
resonant world have been taking place in an atomistic void. In the
absence of some unprecedented development beyond the existential
framework defined by the larger Copernican revolution, these
less primordial intellectual changes can never be more than brave
interpretive exercises in an alien cosmic environment. No amount of
revisioning philosophy or psychology, science or religion, can forge a
new world view without a radical shift at the cosmological level. As
it now stands, our cosmic context does not support the attempted
transformation of human vision. No genuine synthesis seems
possible. This enormous contradiction that invisibly encompasses the
emerging paradigm is precisely what is preventing that paradigm from
constituting a coherent and effective world view.

As a long line of thinkers from Pascal to Nietzsche have recognized,
the cosmic spaces of meaningless vastness that surround the human
world silently oppose and subvert the meaning of the human world
itself. In such a context, all human imagination, all religious experience,
all moral and spiritual values, can only be seen as idiosyncratic human
constructs. Despite the many profound and indispensable changes
that have taken place in the contemporary Western mind, the larger
cosmological situation continues to sustain and enforce the basic
double bind of modern consciousness: Our deepest spiritual and
psychological aspirations are fundamentally incoherent with the very
nature of the cosmos as revealed by the modern mind. 'Not only are we
not at the centre of the cosmos,' wrote Primo Levi, 'but we are alien to
it: we are a singularity. The universe is strange to us, we are strange in
the universe' (Levi 1985).

The tension of science and spirit in the modern world view

The distinctive pathos and paradox of our cosmological situation
reflects a deep historical schism within modern culture and the
modern sensibility. For the modern experience of a radical division
between inner and outer — of a subjective, personal, and purposeful
consciousness that is incongruously embedded in and evolved from an
objective universe that is unconscious, impersonal, and purposeless
— is precisely represented in the cultural polarity and tension in our
history between Romanticism and the Enlightenment. On the one side
of this divide, our interior selves hold precious our spiritual intuitions,
our moral and aesthetic sensibilities, our devotion to love and beauty,
the power of the creative imagination, our music and poetry, our
metaphysical reflections and religious experiences, our visionary
journeys, our glimpses of an ensouled nature, our inward conviction
that the deepest truth can be found within. This interior impulse has been carried in modern culture by Romanticism, understood in its broadest sense — from Rousseau and Goethe, Wordsworth and Emerson all the way through to its spirited renascence, democratized and globalized, in the post-Sixties counterculture. In the Romantic impulse and tradition, the modern soul found profound psychological and spiritual expression.

On the other side of the schism, that soul has dwelled within a universe whose essential nature was fully determined and defined by the Scientific Revolution and Enlightenment. In effect, the objective world has been ruled by the Enlightenment, the subjective world by Romanticism. Together these have constituted the modern world view and the complex modern sensibility. One could say that the modern soul’s sustaining allegiance has been to Romanticism, whereas the modern mind’s deeper loyalty has been to the Enlightenment. Both live within us, fully yet antithetically. An impossible tension of opposites thereby resides deep in the modern sensibility. Hence the underlying pathos of the modern situation. The biography of the modern soul has taken place completely within a disenchanted Enlightenment cosmos, thereby contextualizing and rendering the entire life and striving of the modern soul as ‘merely subjective.’ Our spiritual being, our psychology, is contradicted by our cosmology. Our Romanticism is contradicted by our Enlightenment, our inner by our outer.

Behind the Enlightenment/Romanticism division in high culture (mirrored in the academic world by the ‘two cultures’ of science and the humanities) looms the deeper and more ancient cultural schism between science and religion. In the wake of the Scientific Revolution, many spiritually sensitive individuals have found resources to help them cope with the human condition in the modern cosmological context in ways that, to one extent or another, answer their religious longings and existential needs. Paradoxically, it seems to be this very context, with its absolute erasure of all inherited orders of pregiven cosmic meaning, that has helped make possible in our time an unprecedented freedom, diversity, and authenticity of religious responses to the human condition. These have taken a multitude of forms: the pursuit of the individual spiritual journey drawing on many sources, the personal leap of faith, the life of ethical service and humanitarian compassion, the inward turn (meditation, prayer, monastic withdrawal), involvement with the great mystical traditions and practices from Asia (Hindu, Buddhist, Taoist, Sufi) and from diverse indigenous and shamanic cultures (Native North American, Central and South American, African, Australian, Polynesian, Old European), recovery of various gnostic and esoteric perspectives and practices, the pursuit of psychedelic or entheogenic exploration, devotion to creative artistic expression as a spiritual path, or renewed engagement with revitalized forms of Jewish and Christian traditions, beliefs, and practices.

Yet all these engagements have taken place in a cosmos whose basic parameters have been defined by the determinedly nonspiritual epistemology and ontology of modern science. Because of science’s sovereignty over the external aspect of the modern world view, these noble spiritual journeys are pursued in a universe whose essential nature is recognized — whether consciously or subconsciously — to be supremely indifferent to those very quests. These many spiritual paths can and do provide profound meaning, solace, and support, but they have not resolved the fundamental schism of the modern world view. They cannot heal the deep division latent in every modern psyche. The very nature of the objective universe turns any spiritual faith and ideals into courageous acts of subjectivity, constantly vulnerable to intellectual negation.

Only by strenuously avoiding the reality of this contradiction, and thus engaging in what is in essence a form of psychological compartmentalization and denial, can the modern self find any semblance of wholeness. In such circumstances, an integrated world view, the natural aspiration of every psyche, is unattainable. An inchoate awareness of this underlies the reaction of religious fundamentalists to modernity, their rigid refusal to join the seemingly impossible spiritual adventure of the modern age. But for the more fully embracing and reflective contemporary sensibility, with its multiple commitments and alertness to the larger dialectic of realities in our time, the conflict cannot be dismissed so readily.
The disenchanted cosmos

The problem with this dissociative condition is not merely cognitive dissonance or internal distress. Nor is it only the privatization of spirituality that has become so characteristic of our time. Since the encompassing cosmological context in which all human activity takes place has eliminated any enduring ground of transcendent values — spiritual, moral, aesthetic — the resulting vacuum has empowered the reductive values of the market and the mass media to colonize the collective human imagination and drain it of all depth. If the cosmology is disenchanted, the world is logically seen in predominantly utilitarian ways, and the utilitarian mindset begins to shape all human motivation at the collective level. What might be considered means to larger ends ineluctably become ends in themselves. The drive to achieve ever-greater financial profit, political power, and technological prowess becomes the dominant impulse moving individuals and societies, until these values, despite ritual claims to the contrary, supersede all other aspirations.

In such a context, everything can be appropriated. Nothing is immune. Majestic vistas of nature, great works of art, revered music, eloquent language, the beauty of the human body, distant lands and cultures, extraordinary moments of history, the arousal of deep human emotion: all become advertising tools to manipulate consumer response. For quite literally, in a disenchanted cosmos, nothing is sacred. The soul of the world has been extinguished: ancient trees and forests can then be seen as nothing but potential lumber; mountains nothing but mineral deposits; seashores and deserts are oil reserves; lakes and rivers, engineering tools. Animals are perceived as harvestable commodities, indigenous tribes as obstructing relics of an outmoded past, children's minds as marketing targets. At the all-important cosmological level, the spiritual dimension of the empirical universe has been entirely negated, and with it, any publicly affirmable encompassing ground for moral wisdom and restraint. The short term and the bottom line rule all. Whether in politics, business, or the media, the lowest common denominator of the culture increasingly governs discourse and prescribes the values of the whole. Myopically obsessed with narrow goals and narrow identities, the powerful blind themselves to the larger suffering and crisis of the global community.

In a world where the subject is experienced as living in — and above and against — a world of objects, other peoples and cultures are more readily perceived as simply other objects, inferior in value to oneself, to ignore or exploit for one's own purposes, as are other forms of life, biosystems, the planetary whole. Moreover, the underlying anxiety and disorientation that pervade modern societies in the face of a meaningless cosmos create both a collective psychic numbness and a desperate spiritual hunger, leading to an addictive, insatiable craving for ever more material goods to fill the inner emptiness and producing a manic techno-consumerism that cannibalisizes the planet.

Defined in the end by its disenchanted context, the human self too is inevitably disenchanted. Ultimately it becomes, like everything else, a mere object of material forces and efficient causes: a sociobiological pawn, a selfish gene, a meme machine, a biotechnological artifact, an unwitting tool of its own tools. For the cosmology of a civilization both reflects and influences all human activity, motivation, and self-understanding that take place within its parameters. It is the container for everything else.

This, therefore, has become the looming question of our time: What is the ultimate impact of cosmological disenchantment on a civilization? What does it do to the human self, year after year, century after century, to experience existence as a conscious purposeful being in an unconscious purposeless universe? What is the price of a collective belief in absolute cosmic indifference? What are the consequences of this unprecedented cosmological context for the human experiment, indeed, for the entire planet?

It was Friedrich Nietzsche who seems to have recognized most intensely the full implications of the modern development, and experienced in his own being the inescapable plight of the modern sensibility: the Romantic soul at once liberated, displaced, and entrapped within the vast cosmic void of the scientific universe. Using hyper-Copernican imagery to depict the dizzying annihilation of the metaphysical world and death of God wrought by the modern mind, and reflecting that peculiarly tragic combination of self-determining will and inexorable fate, Nietzsche captured the pathos of the late modern existential and spiritual crisis:
What were we doing when we unchained this Earth from its sun? Whither is it moving now? Whither are we moving? Away from all suns? Are we not plunging continually? Backward, sideward, forward, in all directions? Is there still any up or down? Are we not straying as through an infinite nothing? Do we not feel the breath of empty space? Has it not become colder? Is not night continually closing in on us? (Nietzsche 1882)

It is perhaps the very starkness and self-contradictory absurdity of this situation that suggests the possibility of another perspective. The modern mind has long prided itself on its repeated success in overcoming anthropomorphic distortions in its understanding of reality. It has constantly sought to purify its world view from any naive anthropocentrism and self-fulfilling projections. Each revolution in modern thought from Copernicus onward, each great insight associated with a canonical name in the grand procession — from Bacon and Descartes, Hume and Kant to Darwin, Marx, Nietzsche, Weber, Freud, Wittgenstein, Heidegger, Kuhn, and the entire postmodern turn — has brought forth in its own manner another essential revelation of an unconscious bias that had until then blinded the human mind in its attempts to understand the world. The gist and consequence of this long, incomparably intricate modern and postmodern epistemological development has been to compel us with ever-increasing acuity to recognize how our most fundamental assumptions and principles, so long taken for granted as to fully escape our notice, imperceptibly bring into being the very world we consider unarguably objective.

Beyond the anthropocentric bias

Let us, then, take our strategy of critical self-reflection one crucial and perhaps inevitable step further. Let us apply it to the fundamental governing assumption and starting point of the modern world view — a pervasive assumption that subtly continues to influence the postmodern turn as well — that any meaning and purpose the human mind perceives in the universe does not exist intrinsically in the universe but is constructed and projected on to it by the human mind. Might not this be the final, most global anthropocentric delusion of all? For is it not an extraordinary act of human hubris — literally, a hubris of cosmic proportions — to assume that the exclusive source of all meaning and purpose in the universe is ultimately centred in the human mind, which is therefore absolutely unique and special and in this sense superior to the entire cosmos? To presume that the universe utterly lacks what we human beings, the offspring and expression of that universe, conspicuously possess? To assume that the part somehow radically differs from and transcends the whole? To base our entire world view on the a priori principle that whenever human beings perceive any patterns of psychological or spiritual significance in the nonhuman world, any signs of inferiority and mind, any suggestion of purposefully coherent order and intelligible meaning, these must be understood as no more than human constructions and projections, as ultimately rooted in the human mind and never in the world?

Perhaps this complete voiding of the cosmos, this absolute privileging of the human, is the ultimate act of anthropocentric projection, the most subtle yet prodigious form of human self-aggrandizement. Perhaps the modern mind has been unconsciously projecting soullessness and mindlessness on a cosmic scale, systematically filtering and eliciting all data according to self-elevating assumptions at the very moment we believed we were 'cleansing' our minds of 'distortions.' Have we been living in a self-produced bubble of cosmic isolation? Perhaps the very attempt to de-anthropomorphize reality in such an absolute and simplistic manner is itself a supremely anthropocentric act.

I believe that this criticism of the hidden anthropocentrism permeating the modern world view cannot be successfully countered. Only the blinders of our paradigm, as is always the case, have prevented us from recognizing the profound implausibility of its most basic underlying assumption. For as we gaze out now at the immense starry heavens surrounding our precious planet, and as we contemplate the long and richly diverse history of human thinking about the world, must we not consider that in our strangely unique modern commitment to restrict all meaning and purposive intelligence to ourselves, and refusing these to the great cosmos within which we have emerged,
we might in fact be drastically underestimating and misperceiving that cosmos — and thus misperceiving, at once overestimating and underestimating, ourselves as well? Perhaps the greater Copernican revolution is in a sense still incomplete, still unfolding. Perhaps a long-hidden form of anthropocentric bias, increasingly destructive in its consequences, can now at least be recognized, thus opening up the possibility of a richer, more complex, more authentic relationship between the human being and the cosmos.

Questions and issues like these compel us to direct our attention with new eyes both outward and inward. Not only inward, as we habitually do in our search for meaning, but also outward, as we seldom do because our cosmos has long been regarded as empty of spiritual significance and unable to respond to that search. Yet our gaze outward must be different from before. It must be transformed by a new awareness of the interior: the questions and issues we have confronted here require us to explore yet more deeply the nature of the self that seeks to comprehend the world. They press us to discern yet more clearly how our subjectivity, that tiny peripheral island of meaning in the cosmic vastness, subtly participates in configuring and constellating the entire universe we perceive and know. They compel us to examine that mysterious place where subject and object so intricately and consequentially intersect: the crucial meeting point of cosmology, epistemology, and psychology.

References


4. Recapturing the Whole: Brain Hemispheres and the Renewal of Culture

IAIN MCGILCHRIST

Iain McGilchrist is a former Consultant Psychiatrist and Clinical Director at the Bethlem Royal & Maudsley Hospital, London, and has researched in neuroimaging at Johns Hopkins Hospital, Baltimore. He taught English at Oxford University, where he was a Fellow of All Souls College. His publications include Against Criticism (1982) and The Master and his Emissary (2009).

That the brain is deeply divided into two hemispheres is a fact so fundamental that it has been taken for granted, and yet so extraordinary that it cries out for an explanation. For the brain is an organ the whole purpose of which is to make connections. When one realizes that the main function of the bundle of tracts by which the hemispheres are joined, the corpus callosum, is to inhibit, the puzzle is compounded.

In a recently published book, The Master and his Emissary: The Divided Brain and the Making of the Western World, I suggest that evolution has carefully preserved the division of the brain into two hemispheres. I argue that, like our bird and animal relatives, we need to be able to apply two different types of attention to the world: a narrowly focused, precisely targeted attention to what we have already decided is of importance to us, and at the same time the broadest possible, open attention to whatever there may be, without