

THE WORLD DANCE

(S)ymbols do not follow the same rules as experience. They follow rules of their own . . . The difference between experience and symbol is the difference between mythos and logos . . . Mythos points to experience, but it does not replace experience. Mythos is the opposite of intellectualism. Ceremonial chants at primitive rituals (like football games) are good examples of mythos. They endow experience with value.¹

--Gary Zukhav
The Dancing Wu Li Masters

Richard S. Falk's "citizen pilgrim" returns us to the everlasting search for mythos, the search for a better country or a better life, to the beginnings of the political process and the search for meaning and understanding. The myth-power-value relationship, as Zukhav recognizes, takes us to quantum physics which in turn calls for participation in the world-dance of Shiva Natarajah. Becker et al in Quantum Politics extend the relationships of the quantum world to politics.² Tribe's "curvature of constitutional space" leads to a proposal for randomness in the selection of legislators. Perhaps the presumption is that no real experience is necessary to participate in the ritual, and we are back at the Saint-Simonist "participate in order to understand." Princeton physicist, John Wheeler, suggests that the universe is "brought into being" through the observer's participation in

the mythological ritual. We cannot, according to this theory, observe or understand the "patterns of organic energy" (wu li or physics) without participating in them and changing them. Such participation opposes the classical scientific mythology of the detached value-free observer, whose "prejudice" as Zukav points out is his "objectivity." Whitehead writes that: "Our experiences of the apparent world are nature itself," which tends to break down the "bifurcation of nature," the traditional separation between nature as it really is and the observation or psychological experience of it.³ Such analysis moves us in the direction of chaos theory and interconnectedness. In discussing the parallels between oriental mysticism and quantum physics Zukhav also indicates the process by which the universe is actualized by the observer. If such indeed is the case, then politics can be as scientific as any other discipline since the political scientists can observe directly the microcosmic units of their study (which quantum physicists cannot yet do). Further, if the subatomic world mimics freedom or choice, it resembles the models of politics more closely than those of classical mechanics. We arrive not at cogito ergo sum but cogito ergo est, that the myth-creative imagination causes reification. Politics becomes the art of the possible and the politician becomes the magus. Physics becomes the mythology of the probable with an entire array of science fiction concepts at its borders such as superluminal communication and instantaneous teleportation, defying Einstein as well as Newton. The myth world, incidentally, has never had any trouble accepting such phenomena especially when bolstered by ESP or psi powers. Mythological man has always been a repository of unlimited potential, auras, astral projection, time travel, karma, and here it is interesting to see myths stemming from science.

One of the largest problems challenging the student of science and myth is the Buddhist theory of interconnectedness and the scientific manifestation of Bell's Theorem, Aspect's experiment, and chaos theory (St. Augustine's creation ex nihil and Aristotle's potentia).⁴ An intricately interconnected world suggests either super-determinism or insanity, which may be maintained by perceiving only a limited number of dimensions. Otherwise, if man were able to perceive hundreds of dimensions,

we would be existing with halls of mirrors, ladies and tigers, all over the place, but myth does impose stability upon both our world-view and our politics. Perhaps we should again be positing with Voltaire the Great Participator, the Great Observer, who dances with the Universe and actualizes it, who hears Bishop Berkeley's tree fall without any human observation. He collapses the probability curve a la Wigner.

The irony then is that science itself, no longer a mythological monolith, has begun to recognize its human, fallible quality, its element of mythology in which since subatomic behavior being neither particulate nor undulate, we posit the existence of a hybrid or resonant form of wave-particle, or quantum (not to mention spacetime in other areas). The wave-particle allows us to regain a bit of stability even if it does not exist in the real world in any ordinary sense. It is a profoundly mythological concept which responds to empirical tests and scientific needs. Similarly where we are dealing with the Ptolemaic versus the Copernican theories, geocentric versus heliocentric, we find that for navigational purposes the Ptolemaic myth will get the ships to port as well as the Copernican. We can also introduce Bohr's complementarity principle of determinacy in the macrocosm and indeterminacy in the microcosm as a convenient escape hatch. No wonder he selected the yin-yang on his coat of arms.

Myth does not conform to mathematical principles. $2 + 2 \neq 4$ just as with a colloidal suspension. In the myth world parallel lines can meet. Lobachevsky is right Hobbes can square the circle. Monads, pace Leibniz, can be windowed, windowless, or defenestrated (either/or is both/neither). Myth is non-Euclidean and engages in quantum leaps on seven-league boots. The possibilities are infinite, but a series such as 1,5,7, ___ (any schoolboy will claim the next number is 9) does not exist in myth. The next number may be 666, the "omen," or 13, 5, or one, as the process retrogresses, repeats, or makes "unnatural" jumps. Where we are trying to repair a car or get into college, it is well to hold fast to the conventional 9, but exploring myth requires greater imagination. Alice is in, and crime may precede punishment or punishment precede crime. Euclid is out, mostly. Hocart refers to a Sinhalese verb (rahatve) which means to disappear and pass instantaneously from one point to another. Does modern science offer anything more?⁵

positively dangerous at times. The effort on the other hand to delimit or define myth tends to destroy it, for myth operates on the basis of belief, which at first appears to be a different order of knowledge from science. Yet myth takes over on the peripheries of science, where scientists are uncertain or can only theorize or hypothesize, they recommend that we view the universe in a certain manner until the "model" can be improved or "verified." Scientists in fact constantly create myths in order to maintain sanity and stability. Paradigm shifts are essentially major realignments in the conventional mythology. Science has both dulled and sharpened our sense of the mysterious and the miraculous, dulled it by making what seemed miraculous to the past to be banal, sharpened it by discovering new mysteries. Scientific thought arrives at an uneasy rapprochement with myth in quantum and chaos theory.

If the behavior (note how easy it is to slip into the anthropomorphic mode) of subatomic units is not determined, then quantum theory again faces problems similar to those of political theory. If the wave-particles are "free" and are not simultaneously communicating in an interconnected network, then the existence of "human freedom" is not an absolute barrier to the establishment of a "scientific" politics, and B.F. Skinner's dictum that "if man is free, a science of behavior is impossible" is controverted. (We know at any rate that human observation is imperfect what with Claude mirrors and retinal blind spots.) Students of politics have always recognized the existence of complementary methodologies, particularly in the Kantian dictum that "perception without conception is blind, and conception without perception is useless." Both prescription and description are necessary, both facts and values. There is no single "scientific method," what an imposing myth that was. Where in fact we are bound by overly rigid forms and procedures we are likely to stifle creative vision and insight. The current price is a few contretemps with cold fusion, alchemy, perpetual motion, and Piltdown men, but the solution to many human problems requires imagination rather than formalism as its "method." Myth again opens new gateways into the unknown.

Take again the Zen-like paradigm of Schroedinger's Cat, which raises the clear separation of subject/object. The cat is in a sealed box into which lethal pellets can be released by randomly generated numbers. Schrödinger asserts that we cannot "know" that the cat is dead until we observe that fact by opening the box. The classical objective observation collapses. Again we are close to Archbishop Berkeley's percipio esse ("to be is to be perceived" with God observing the cat in the absence of human witnesses. If we remove God from the equation (while admitting that He does not "play dice" with the universe), we are left with the contention that the scientist is part of his experiment and that perception/conception (not to mention deception in politics) are all part of the "scientific" process. As Castañeda writes: "All of this exists only because of our attention. This very rock where we are sitting is a rock because we have been forced to give out attention to it as a rock."⁶ Although we might ask why we are "forced" to notice material existence as well as why the observer's pants stick to the rock, the point is similar. If, however, the scientist is part of his experiment, then we no longer need worry about the political scientist who must by his nature observe people and cannot be objective or value-free. His value-holding as citizen no longer conflicts with his value-freedom as observer because the value-freedom is mythological. We need no longer worry about his being treated by scientists as a politician and by politicians as a scientist. The schizoid anxiety is no more. We learn that real scientists also have their "anxiety meters," but they keep them better concealed in their arcana statistica, heiratic language, and mystical formulae. Similarly there is little difficulty in assimilating the "uncertainty principle" and the "relativity principle" into political thinking. Indeed political scientists have spent a great deal of time in imitating the successes of the natural sciences. It is rumored that some have become so lost in their own creations as to fear being pursued by stray radical electrons, a mode of thought simultaneously mythological and paranoid. Science itself has become an escape into rather than an escape from myth.

In the nineteenth century Max Müller and others attempted to reconcile science and mythology and to establish a "scientific mythology." During that period there were also attempts to demythologize history and religion to make them more "scientific." None of the efforts were particularly productive. Demythologization is in fact

Before investigating problems posed by chaos theory and mythological utility, we will venture to explore a quantum gateway opened by Danah Zohar and Ian Marshall in The Quantum Society (1993). Whatever its theoretical deficiencies, the authors valiantly attempt to rescue man from the no-win, dodo's game of post-modernism. (As in some animal rescues, some of the animals bite their rescuers.) There are times when either the pataphysics of Ubu Roi or some sort of pre-primitivism seem preferable as alternatives. To remedy the lack of moral purpose in post-modernism, Zohar contends that human consciousness is in essence a quantum phenomenon related to the Bose-Einstein condensate.⁸ Society has both undulate and particularate aspects. The individual is the particle; the group, the wave: "Such wholes cannot be reduced to the sum of their parts. They are built upon the indeterminate, 'possible' characteristics that those parts come to have only when they relate. In these entities, relationship evokes reality. It literally 'calls out' a possibility latent within the situation and actualizes it." We are back at shadow puppets, Carneades, St. Simon. Perhaps the shift in perceived reality requires an interaction between the manipulator and his audience (or football crowd). There is a similarity to Rousseau's social contract with its divestiture of self in which the individual loses his identity to become part of a group, but the condition must be resonant. Neither the individualist position (Ibsen) nor the transcendentalist (Emerson) is completely satisfying. The "I" again in Bakunin's phrase wants to be "We," yet as Rabbi Hillel stated "If I am not for myself, who will be? But if I am only for myself, what am I?"⁹

Zohar recognizes that "myths, legends, literature, and culture serve a similar purpose." There is a "link between physics, myth, and vision," but she takes Myth no further as the medium of the quantum relationship which allows communication of the diverse structures.¹⁰ The shared vision also occurs as part of Thomas Kuhn's "paradigm shifts." Unhappily the myth is a myth manqué, for all potential does not have the same probability of actualizing, and the most probable result may be the least desirable because of the relationship between power and morality. She indeed celebrates unity in diversity but leads to a new Proudhonism, multiplying gro

in which order is latent, and the wonderful world of chaotics. In a way the ever-changing clouds of Michael Feigenbaum are not too distant from the "clouds" of Socrates, for chaos theory, if not Chaos itself, is a profoundly aesthetic statement. Like the transition phases it studies, chaos theory thrives at the interstices of power and values, precisely the location of myth. Moreover a theorist such as Mandelbrot bridges the gap between science and art. He demonstrates the inherently intuitive "eureka" process of scientific revolution, not to mention the anti-mythological resistance to innovation by scientists. Gleick describes Mandelbrot as "(a)lways a believer in creating his own mythology," Libchaber as a "mystic," and cites Peitgen and Richter, "perhaps we should believe in magic."¹²

Fractals recall elements of tantric Buddhism except in the latter there is always a return to the original 0o...0. This concept is developed in turn by Mircea Eliade as the "myth of the eternal return," by Bach in his fugues, by Nietzsche and Plato, and perhaps Carneades. Gödel and Escher may give us important clues on how to traverse the myth world and the science world.¹³ The Tibetan kor-la, or prayer wheel, also reflects the eternal recurrence of things. Thera, Hiroshima, or Lisbon, or some other natural cataclysm may break the cycle, cause reassessment of existing myths or the creation of a new mythology to stabilize the system. After the "flood" the cultural hybris is destroyed, the cultural machismo humiliated, and we return to the Sphinx or Ozymandias.

In chaos theory it is particularly interesting to note how the rediscovery of interconnectedness draws upon sources such as Goethe's "Faust" and his "Metamorphosen des Pflanzen" and "On Color" as well as Plato's Forms. Some time before "loaded dice" and "butterfly effects" had become popular, before chaos theory was launched, "Bet-a-Million" Gates was wagering on which raindrop arrive at the bottom of a windowpane first. Chaos theory allows physicists, biologists, and political scientists to communicate on shared problems in a common language of mythology, for political turbulence and individual voting behavior respond to a chaos treatment. (Ex nihilo nihil, in nihilum nil posse reverti/ Tangere enim et tangi nisi corpus nulla potest res, Lucretius quoted by Voltaire). Students of politics and economics peruse Lorenz and search for the beauties of "strange attractors." Oddly enough our world has expanded

sufficiently that a Chinese (or Japanese) butterfly just might cause the New York stock market to crash.

In the world of mythology the scientist becomes a dispeller and creator of illusions. Quoting "one scientists," Gleick notes:

Relativity eliminated the Newtonian illusion of absolute space and time; quantum theory eliminated the Newtonian dream of a controllable measurement process; and chaos eliminates the Laplacian fantasy of deterministic probability.¹⁴

A paradigm shift (Kuhn) towards chaos theory revives long-neglected problems regarding the reconciliation of freedom of the will with determinism, the theories of Calvin and Jansen regarding predestination. Myth returns again in Locke's "fiduscience," where predictability yields to probability and the explanations for phenomena are sufficiently veiled as to require an artificial stability or a working hypothesis. The imaginative scientist, as opposed to the technician, is always a mythmaker, and even the experimenter may be captivated by an illusion of value-freedom or objectivity.

Unfortunately the political macrocosm cannot become completely free without becoming chaotic, and chaos in politics is not an observably desirable condition. The presence of freedom in politics needs to be stabilized, and giving stability is essentially a mythological function, but paradoxically that effect can only be achieved by the presence of freedom or its illusion. Similarly the presence of evil is contained by the power of Good. Evil does not subtract from Good but magnifies it as does the subtraction of a negative number. Both freedom (especially excessive, or revolutionary, or irrational variants) and evil require a mythological limiter or stabilizer. From that fact the possibility arises that they are identical. Freedom under these circumstances would be necessary evil as in situations in which in politics a group or individual has checks or limits to power removed in order to deal with a crisis situation. The temporary diminution in freedom and increase in power is tolerated in achieving the long term goals of the political system.

The interconnectedness concept of chaos theory further suggests that we may eventually approach a "unified field theory" of human knowledge taking us back to Heraclitus and the equation of physical, moral, and political law and the ability to teach physics in essentially political terms, also found in medieval alchemy. Myth allows making the transition jumps as in euglenia (plant-animal); tobacco mosaic virus (mineral-animal) and even Christ (God-man). If in all fields the complexity of variables means that no matter how much we refine our methodology or how frequently make our observations that we can only deal with probabilities, then man is always going to remain a doubting and doubtful animal. Students of politics will be like meteorologists with weather patterns or botanists with ecological data. The botanists can describe leaves which are a satisfactory test for identification purposes; they can state with a high degree of probability by what date a tree will have lost all of its leaves. They can never be certain about a particular leaf any more than a political analyst can be certain about a particular voter's electoral behavior or a meteorologist that a butterfly in China may start a hurricane in the Caribbean. Real scientists have just rediscovered leaves and butterflies, bees and voters. In politics the argument proceeds that no matter how close in time the observations an aberration may intervene unnoticed. Thus if at May 1, 10:00 a.m. President Clinton has 55% approval and on May 2 at the same time has a 55% approval, we cannot be absolutely certain that during the interim there was not a dramatic swing in public opinion and then a return to the previous level. We find it convenient, however, to maintain the illusion of continuity between the observations, or to behave as if such continuity exists. Again there is an "as if" situation to some extent like filling in the gap in our retinal blind spot. To science perhaps neither stability nor predictability preoccupies science but the creation of the illusion of predictability and stability.

By analogy in politics we return to the utility of certain myths and particularly the criterion of mythological utility in dealing with democracy. Mythological utility presents one of the most important aspects of myth in relationship to our own political system. Gaining such stability may even explain the mythological imperative which we have repeatedly observed on the pilgrimage of mythos, that part of human nature which drives man the mythmaker to fabricate all sorts of useful fictions. Scientists likewise indulge in an urge to create new myths to mark out their territories. Scientists resort to myths where myths are useful.

Let us deal then just briefly with the concept of mythological utility and how myth serves as a useful tool of the democratic process. Jump for a moment to unicorns. It is easier to believe in the existence of unicorns in the presence of an observable unicorn, even if we are in the presence of a goat with a horn transplant or we have redefined the unicorn as a rhinoceros. Science commands belief by a high rate of successful prediction, which is about what most good shamans and winning politicians do. In politics it is easier for people to believe in democracy where freedom is present (and the politicians have convinced us that freedom is a key component in democracy) than where the state is coercive. The exertion of force or power can be minimized by the presence of a high level of satisfaction in the system. Hence myth possesses a fundamental utility as well as many specific political and social uses which we have seen in a multicultural context. Myth allows us to validate what we cannot prove in the classical terms of science. As Thorson states in The Logic of Democracy, one of the most frustrating problems of democratic theory has been that it cannot be proved through an appeal to either prayer or statistics, either inductively or deductively.¹⁵ Democracy, however, can be justified for its maximal mythological utility in furthering stability or other desired goals or values. Myth is useful in both politics and science.

C. S. Lewis reminds us that the greatest truths come from myth rather than science, but the "truths" of science as well as the discoveries are also mythological and nature. The reconciliation of science and myth remains Thomistic in essence, that gratia non tollit naturam sed perfecit, that grace (or myth) does not replace nature (or science or reason) but perfects it.

NOTES:

1. Gary Zukav, The Dancing Wu Li Masters (1987), p. 276; Fritjof Capra, The Tao of Physics (1991).
2. Theodore Becker et al, Quantum Politics (1991); Richard S. Falk, Explorations at the Edge of Time (1992); Danah Zohar and Ian Marshall, The Quantum Society Mind, Physics, and a New Social Vision (1993).
3. A. N. Whitehead, cited by Colin Wilson, Religion and the Rebel, pp. 307-308.
4. Abner Shimony, "The Reality of the Quantum World," Scientific American, pp. 46-51
5. A.M. Hocart, The Life-Giving Myth (1952), p. 28.
6. Castañeda, Tales of Power, p. 234.
- 7.
8. Zohar and Marshall, op. cit., p. 49-51.
9. Ibid., p. 74.
10. Zohar and Marshall, op. cit.
11. Wilson, The Outsider, p. 15.
12. Gleick, Chaos, Making a New Science, p. 90.
13. Douglas R. Hofstadter, Gödel, Escher, Bach: An Eternal Golden Braid 1989 (1979) Godel's theorem is that all truth is partial; Cf. Thomas Kuhn, The Structures of Scientific Revolution (1970). Cp. Carneades on probability.
14. Gleick, op. cit., p. 6.
15. Thomas Landon Thorson, The Logic of Democracy (1962)

John Locke, An Essay Concerning Human Understanding (1984), p. 15.
Gerald Clarke, "The Need for New Myths," Time, January 17, 1973, pp.50-51, discussing Joseph Campbell, "living mythology" and "everyone is a creature of myth," p. 50.

Perhaps at the end of the journey there should be a little imperfection. Just as the Navaho weaver leaves an imperfection in the design so that his or her soul will not be captured by the rug, so the political mythmaker must leave a spot open in his work from which to escape the labyrinth.