

The Politics of Mystical Ecology

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"Building the Green Movement. A National Conference for a New Politics"¹ was the motto of the "first open national Greens gathering" that drew more than 600 people July 2-7, 1987 in Amherst, Massachusetts. Although the gathering was considered a success, it was overshadowed by a clash between the "Spiritual" or "holistic" Greens and the "left" Greens personified in Charlene Spretnak and Murray Bookchin respectively. The Left Green position is in the socialist tradition. Social and environmental problems are seen as the consequence of specific social relations of domination.² Spiritual Greens view social and environmental problems as the consequence of humanity's spiritual alienation from nature. In this view, Green politics is but one expression of a cultural revolution in industrial societies. This cultural revolution is based on an emerging new ecological paradigm which is gradually superseding the dominant mechanistic worldview bent on power,

1. For conference accounts see *Green Letter*, vol. S, no. 6 (1987); Mark Satin, "Fear and Longing at the Green Gathering," *New Options*, no. 40 (June 30, 1987); Jay Walljasper, "The Prospects for Green Politics in the U.S.," *Utne Reader* (Sept./Oct.1987), pp. 37-S9; Kirkpatrick Sale, "Letter from America" *Resurgence*, no. 125 (Nov./Dec, 1987) and "Deep Ecology and its Critics," *The Nation* (May 14, 1988) pp. 670-75; Murray Bookchin, "Social Ecology vs. Deep Ecology," *Resurgence*, no. 127 (March/April 1988); Charlene Spretnak, "Diversity In Ecofeminism," *The Nation* (April 2, 1988) pp. 446, 476 and "In Defence of Pluralism," *Resurgence*, no.128 (May/June 1988) pp. 43.

2. For a brief overview of the Left Green position see *Call for a Left Green Network and Principles of the Left Green Network* (West Lebanon, NH: Left Green Network, 1988). Left Greens are considerably influenced by the concept of "social ecology" developed by Bookchin. See Murray Bookchin, *The Ecology of Freedom* (Palo Alto: Chesire Books, 1982) and *The Modern Crisis* (Philadelphia: New Society Publishers, 1986).

manipulation, and control. Within this framework, ecology is elevated from a scientific discipline to a philosophy often referred to as "deep ecology."³ By revolutionizing our perception of the world, the establishment of the new paradigm will entail the restructuring of society according to ecological principles, thus allowing reconciliation with nature. In this context Green Politics is understood as "transforming holistic theory into political practice," transcending the outworn political Left/Right cleavage characteristic of the declining old paradigm.⁴

The dispute at Amherst revolved around issues like the role of spirituality and the meaning of ecology. Kirkpatrick Sale, among others, was bewildered by the Left Greens' "tirade" against their spiritually oriented political companions, which initially triggered the argument. The differences "are ones of emphasis and priority, not of fundamental incompatibility," ultimately rooted in individual idiosyncracies which hardly justify "trying to trash the other, working toward some imagined dominant theoretical purity."⁵ Unfortunately, things are not so simple. The conflict reflects significant differences in their approaches to society, politics, and social change. The following will probe the theoretical foundations of Spiritual Green thought, focusing on Fritjof Capra's *The Turning Point* — one of the most influential attempts at elaborating this particular Strand of Green thought.⁶

3. The term "deep ecology" was introduced by Naess (see Arne Naess "The Shallow and the Deep, Long-Range Ecology Movement. A Summary," *Inquiry* 16, no. 1 [Spring 1973], pp. 95-100). See also Arne Naess, "The Deep Ecology Movement: Some Philosophical Aspects," *Philosophical Inquiry* 8, no. 1-2 (1986), pp. 10-31; Bill Devall and George Sessions, *Deep Ecology* (Salt Lake City, UT: Peregrine Smith Books, 1985); and Michael Tobias, *Deep Ecology* (San Diego: Avant Books, 1985). For a critique of deep ecology, see Tim Luke, "The Dreams of Deep Ecology," in *Telos* 76 (Summer 1988), pp. 65-92.

4. Charlene Spretnak and Fritjof Capra, *Green Politics. The Global Promise* (Santa Fe, NM: Bear and Company, 1986), p. xxvi. For a short overview of the Spiritual Greens' perspective see Stephen Bodian and Florence Windfall, "Seeing Green," *Yoga Journal*, no. 79 (March/April 1988). For a more thorough introduction, see Capra's *The Turning Point. Science Society, and the Rising Culture* (New York: Bantam Books, 1983); and Charlene Spretnak, *The Spiritual Dimension of Green Politics* (Santa Fe, NM: Bear and Company, 1986).

5. "Deep Ecology and its Critics," *op. cit.*, p. 675, and Kirkpatrick Sale, "Letter from America," in *Resurgence*, no. 125 (Nov.-Dec., 1987).

6. Although not an active participant in Green politics, Capra is associated with various Green activists and his writings reflect the general thrust of Spiritual Green thought. The Elmwood Institute, which he founded in 1983 "to facilitate the cultural shift from a mechanistic and patriarchal world view to a holistic and ecological view," is allegedly an intellectual resource base for the Green movement. See Kirkpatrick Sale, "Letter from America," in *Resurgence*, no. 120 (Jan.-Feb., 1987), p. 13; Fritjof Capra, "Das neue Denken ist grün. Interview mit Fritjof Capra," in Matthias Pilgrim

Crisis and the Dominant Cultural Paradigm

Capra sees the current state of affairs as "a complex of interrelated facets of a single crisis" (25)⁷ — a systemic crisis rooted in a profound cultural imbalance he identifies with the prevalent value system and its corresponding worldview which has dominated Western culture for 300 years. He attempts to clarify the relation between cultural imbalance and the underlying value system by means of "Tao," a concept drawn from Chinese philosophy which views reality as "a process of continual flow and change." All phenomena are in constant motion, following cyclical patterns, drawing momentum from the dynamic interplay of two poles — yin and yang. Capra identifies the following characteristics of the yang: masculine, expansive, demanding, aggressive, competitive, rational, analytic, self-assertive; as opposed to those of the yin: feminine, contractive, responsive, cooperative, intuitive, synthesizing, integrative. Cultural imbalance is the product of a systematic overemphasis of the yang at the expense of the yin.

Western culture is dominated by what Capra terms the "Cartesian-Newtonian paradigm" — a worldview based on a distinction between mind and matter, paving the way for the secularization of nature, ultimately allowing its subjugation and instrumentalization. Within this framework, undifferentiated economic and technological growth "are seen as essential by virtually all economists and politicians" (213), which is not surprising given the prevailing notion that the common good results from the maximization of individual wealth. This is a "reflection of linear thinking" (213), since it neglects the fact that unlimited expansion in a finite environment is simply impossible. This perspective is a result of the dissociation of the economy from its social and ecological context.

How does the Cartesian worldview affect social reality? To Capra, social structures and processes are the concrete manifestation of the respective underlying value system. Society is thus the objectification of "yang values." Accordingly, the notion of society as a struggle for existence ruled by the survival of the fittest has generated competitive behavior

and Steffen Rink, eds., *Zwischen den Zeiten. Das New Age in der Diskussion* (Marburg: Diagonal Verlag, 1989), p. 171. Capra's contact with Spretnak, one of the most prominent representatives of the Spiritual Greens, eventually led to their collaboration on *Green Politics: The Global Promise*, which not only reflects the basic perspective elaborated in *The Turning Point*, but was instrumental in the subsequent organization of the US Green movement.

7. All references to Capra's *The Turning Point* will be indicated by page numbers in parentheses.

over cooperation; quality of life is equated with material consumption and progress with economic and technological growth (31). Capra identifies the "obsession with growth," a central feature of the economy, as the common denominator for most of today's problems (397). In a society dominated by yang values, people feel increasingly alienated and dissatisfied. Work has been degraded so that its sole purpose has become earning a living; the focus of people's lives has gradually shifted towards recreation and consumption, which is served by a huge industry "exhorting people to ever more wasteful consumption" (231).

The Ecological Paradigm

The new paradigm originated at the beginning of the 20th Century when physicists began to realize that their basic conception of reality was inadequate to grasp subatomic phenomena. Basic premises concerning the properties of the natural world were in need of revision. Thus the prevalent mechanistic paradigm has been transcended, leading to a holistic conception of the universe. As in physics, a reevaluation of basic assumptions is taking place in other disciplines experiencing similar difficulties.

The emerging new paradigm is based on the systems view of reality in the sense of general systems theory (42). Systems are integrated wholes whose properties cannot be reduced to those of its parts. Systems are not constituted by basic elements, but by relations among them. Although in constant motion, systems nevertheless maintain stable structures. These are, however, not static. Rather, structures are produced and reproduced through continuous dynamic processes following regular patterns. Order is achieved through the coordinating activities of the parts. Consequently, the systems approach focuses on basic principles of organization rather than on basic elements as in the old paradigm. Organisms, societies, and ecosystems are all seen as systems, and must be considered living systems since they possess the capacity for self-organization — the distinguishing feature for living systems.

Capra believes that the emergence of the new paradigm has far-reaching consequences. All systems constitute an integrated web of dynamic relations which cannot be grasped adequately in terms of linear models of cause and effect. Thus, instead of isolating the economy from its social and ecological context and framing it in terms of simplistic, highly unrealistic models based on free markets, perfect competition, and the like, the systems view conceives the economy as "a living system composed of human beings and social organizations in

continual interaction with one another and with the surrounding eco-systems on which our lives depend" (390). It is this insight into the nonlinear nature of all systems dynamics which constitutes "the very essence of ecological awareness" (390). From an ecological perspective "it becomes evident that our economy, our social institutions, and our natural environment are seriously out of balance" (396).

Capra concludes that the question of scale must be regarded as central to the process of restructuring. Thus variables that have been overstrained will have to return to manageable levels, making decentralization necessary (396). To return to a more human scale requires technologies which incorporate ecological principles (399). Deurbanization will be crucial in view of the fact that the excessive growth of cities poses one of the greatest threats to social and ecological balance. Similarly, political decentralization is urgently needed since the nation-state is no longer an effective unit of governance (398). Decentralization must be accompanied by the redistribution of production and wealth within countries and between industrialized countries and the Third World.

Following Toynbee, Capra attempts to locate the current situation in the context of human cultural evolution. In this view, human history unfolds as an ever recurring cycle of genesis, growth, culmination, and decline of civilizations, the decisive variable being the ability of a society to adapt to changing circumstances. While the ossified cultural mainstream clings to outdated concepts, creative minorities appear on the scene, providing new solutions, thus initiating a new phase of cultural evolution. Capra believes we are presently experiencing a process of profound cultural transformation; the transition to the "solar age" is well on its way (408). Periods of cultural transformation are preceded by a variety of social indicators, many of which can be observed today. "They include a sense of alienation and an increase of mental illness, violent crime, and social disruption, as well as an increased interest in religious cultism — all of which have been observed in our society during the past decade" (26). Among several transitions, Capra identifies three "that will shake the very foundations of our lives and will deeply affect our social, economic, and political system" (29): the decline of patriarchy, the decline of the fossil fuel age, and a paradigm shift, "a profound change in the thoughts, perceptions, and values that form a particular vision of reality" (30).

The overemphasis on yang values is currently being counteracted by the multitude of social movements, the emergence of which we have been experiencing since the 1960s. They are the bearers of the shift to

the new ecological paradigm, representing the ascendant culture. So far these movements are preoccupied with separately promoting certain aspects of the ecological paradigm, not yet realizing the extent to which their purposes interrelate. Once recognizing the commonality of their aims, Capra believes, they will flow together to "form a powerful force of social transformation" (46). With the further concretization of the "new vision of reality," he claims that "a critical mass of awareness" (418) will be reached, leading to the creation of new political parties, some of which have already been formed in various countries.

For Capra, this process of transformation is inevitable. Following Chinese philosophy he argues that change is a "natural tendency, innate in all things and situations" and "does not occur as a consequence of some force" (37). Contrary to views of social evolution that emphasize the role of struggle and conflict, such as the Marxist, which reflect old paradigm thinking, Capra believes it is necessary to minimize conflicts during times of social transition (35). Since change is an inherent property of all reality, resulting from the "continuous oscillation" between yin and yang, there is no need to engage in or even aggravate conflict as a means of bringing it about. Conventional political parties as well as the traditional Left and Right, and most of our economic, political, and academic institutions are all part of the declining culture. The dominant social institutions will continue imposing their outdated views, but will gradually "disintegrate" during the process of decline.

Value System, Worldview, and Social Structure

Capra's analysis of social processes is based on an idealistic view of society. People subjected to a common culture share a certain world-view and its implicit value system, which motivates and guides their actions. Out of this context they create corresponding lifestyles, social institutions, technologies, etc. In spite of his claim "to show how the strikingly consistent preference for yang values, attitudes, and behavior patterns has resulted in a system of academic, political, and economic institutions . . ." (39), Capra fails to reflect on how structures and values may interrelate, simply assuming a linear relation of cause and effect. This is somewhat paradoxical in light of his constant emphasis on the interrelatedness of all phenomena. It implies there is a homogeneous culture based on a consensual value system, and that these values are indeed congruent with those expressed in the selectivity of social structures. Although values and social structures are of course interrelated, one cannot simply be considered the reflection of the other. Ironically,

systems theory — so highly praised by Capra — has emphasized the independence of structures from values and beliefs.⁸

Not only does Capra fail to explain how values relate to structures, he further omits any systematic attempt to address the process of value formation: How do values come about in the first place? He provides three kinds of "explanations" when he does occasionally touch upon the issue: a) value systems and corresponding worldviews simply change over time, following regular patterns of cyclical fluctuation (31-32); b) value systems change in response to environmental challenges (190); c) components of value systems and worldviews are subject to processes of manipulation through social institutions. For instance, the "public is brainwashed" (219), "farmers are indoctrinated" (255), consumers are "induced to buy, use, and throw away" (236), and their tastes and opinions are conditioned through advertising (248). Despite the fact that these are of little explanatory value, they at least acknowledge that values do not simply cause structures while being independent of them. Lamenting over the perceived deficiencies of the prevailing value system, it never seems to occur to Capra that there are reasons for the way people think rooted in their everyday experience, which has little to do with Descartes or Newton. Presumably, there is a certain appropriateness concerning the values people develop in coping with everyday life. These reasons do not simply cease to exist just because one has been informed on the "actual nature of reality."

Since social structures are understood as the immediate reflection of prevailing "culture" — essentially meaning "collective consciousness" — it is not surprising that Capra's critique lacks systematic social analysis. It hardly reaches beyond the level of a superficial critique of culture which is thereby reduced to a social-psychological category. Accordingly, the continuous growth of economic production is traced back to "our obsession with growth," overlooking the fact that in a capitalist economy the pursuit of growth is a compulsive structural feature independent of personal preferences; economic decline being the price paid by any economic entity failing to achieve a level of accumulation sufficient to maintain profits. By identifying the problem as an "obsession" Capra denies the autonomous dynamic of the economic process, disregarding the fact

8. For a systems theoretic account of the indifference of the political and juridical Systems towards individual values and beliefs, see Niklas Luhmann, *Legitimation durch Verfahren* (Frankfurt a. M.: Suhrkamp Verlag, 1969). In Capra's account of social and environmental problems this is repeatedly acknowledged, apparently without realizing the implications.

that in his description of concrete problems it is acknowledged repeatedly. In defining the cause as an "obsession" an adequate understanding of structural problems is obstructed by creating the impression that Western civilization has been overcome by some collective psychosis, as if people were attempting to satisfy some compulsive urge in the pursuit of economic growth. Likewise, the nuclear arms race is rooted in an "obsession with winning" and "aggressive behavior," both characteristic for patriarchal culture (242). The expansion of nuclear power is due to an elite's "obsession with power" (247-48), etc.

Capra's account of economic processes provides further illustrations of how his failure to analyze structural dynamics distorts the nature of social problems. He claims that the "desire for indefinite expansion" is rooted in the corporate structure. ". . . corporate executives who knowingly bypass an opportunity for increasing the corporation's profits, for whatever reason, are liable to lawsuit. Thus maximizing of profits becomes the ultimate goal, to the exclusion of all other considerations" (221). This suggests that the fundamental problem lies not in the logic of the system of production as such, but rather in the constitutive features of corporations. Accordingly, resulting problems are not the result of the unequal distribution of private property in the means of production. Rather, "corporate property" and "state capitalism" — a perversion of the original idea of private property, so to speak — is considered as problematic (221). It is thus not surprising that Capra's objections are not directed against property relations but against the structure of corporations.

Social Change

Capra's model of social change is an eclectic potpourri lacking internal coherence. He seems to arbitrarily draw on any concept that promises to support a point he would like to make, irrespective of mutual consistency; the common denominator being their adherence to a view of social change as a regular process following a cyclical pattern.⁹ The most fundamental problem with his account is its determinism, which contradicts the proposed systemic paradigm since, according to this concept, the outcome of change is basically indeterminate: "When

9. At least four concepts are presented, the interrelations of which are left unclear: Taoism's "dynamic interplay" of yin and yang; Toynbee's cyclical rise and decline of civilizations; Sorokin's conception of history as a product of fluctuating value systems; systems theory, according to which change is the result of processes of self-transcendence, resulting in continuously increasing complexity.

a system becomes unstable, there are always at least two new possible structures into which it can evolve" (288). If this is the case, how then can any specific outcome be deemed inevitable?

Capra identifies a whole range of social pathologies in our society that typically accompany transitional phases. However, these are unfortunately anything but precise. How can one measure "sense of alienation," "mental illness," etc? How can one determine if people today are more alienated, mentally ill, and so on than they were let's say 50 years ago? What level of mental illness, violent crime, etc. can be considered a reliable indicator for an approaching transition? In addition to the quicksilver nature of his indicators, Capra provides no precise criteria that would justify any prediction of the direction of social development. How can we know that the achievements with respect to women's rights reflect the decline of patriarchy and not simply its reorganization? As a point of comparison, the elimination of feudal bonds during the transition to capitalism was not equivalent to the elimination of domination, but only a change in its specific mode. Similarly, there is no reason why the exhaustion of fossil fuels necessarily entails "radical changes in our economic and political systems. "Why should solar-powered capitalism differ fundamentally from its fossil-fuel-powered ancestor?

As Nemitz points out, the problem with Capra's or any other deterministic philosophy of history is that it proposes a guaranteed outcome.¹⁰ Aside from theoretical deficiencies, such a perspective can have devastating consequences for radical political movements. Determinism hinders insight into the capacity for adaption a social system might still be able to mobilize, thus obstructing the ability to develop appropriate political strategies. It furthers passivity and opportunism since the desired goal will ultimately be achieved irrespective of individual action. Consequently, a precise understanding of the concrete historical situation and its dynamics becomes superfluous.

In striking contrast to his optimistic account of social change, Capra draws a gloomy picture of omnipotent corporations controlling economies, politics, media, academic and other educational institutions, permeating "virtually every facet of public life" (220-21). Allegedly, "their political power surpasses that of many national governments" (220) and "there are no laws to deal effectively with these giant

10. Rolf Nemitz, "Yin und Yang und die neuen sozialen Bewegungen. Über Capras technologische Romantik," *Das Argument* (September 1985), Sonderband 125, p. 158.

institutions" since the growth of their power "has outstripped the development of an appropriate legal framework" (221). This has led to the present situation where "crucial decisions are not made in the national interest but rather in the interest of dominant corporations" (228). These pressure, manipulate (253), control, (219), brainwash (219), condition (218), indoctrinate (255), etc. politicians, researchers, technicians, and the population in general in their effort to maximize their power and profits. These institutions are vigorously opposed to change (262) and willing to exercise their power and even apply force to protect what they perceive as being their interests (248). It is thus not surprising when Capra points out that the solar transition — being a political not a technical problem — "generates clashes between social and private interests" (408).

The problem of power epitomizes the deficiencies of Capra's analysis. He deals with the decline of the prevailing order and the rise of the new as if these developments somehow go past each other without much interference. Whenever the discussion broaches concrete problems, however, he points out that any attempt at change will encounter fierce resistance from dominant institutions." What then does it mean that the dominant social institutions will "decline and disintegrate," that the ascendant culture "eventually will assume its leading role," and that this can take place with a minimum of conflict since it accords with the time, in a context dominated by the seemingly all-encompassing power of old paradigm institutions? How are the "new cultural forces" to establish themselves in light of unfavourable power relations?

Capra's answer is rooted in Taoism. Since change is inevitable, the question of political strategy is of secondary importance just as long as it is in accordance with the "natural flow of things." In practice, however, it is difficult to comprehend how these dashes of interests will be decided in favour of change by avoiding conflict.¹² As Emits has argued, the

11. In his discussion of corporate power Capra reveals a simplistic, mechanistic concept of power. Corporations impose their "will" in various ways on their social environment. This possibility of imposing one's will already presupposes a structural correspondence on the part of the submitted system enabling such influence. Thus this underlying relation is what needs to be explained. See Claus Offer, "Political Authority and Class Structures — An Analysis of Late Capitalist Societies," *International Journal of Sociology* 2 (1972), pp. 73-108; and "Structural Problems of the Capitalist State. Class Rule and die Political System. On the Selectiveness of Political Institutions," *German Political Studies*, vol. 1 (1974), pp. 31-57.

12. When dealing with the practical aspects of social change Capra's principal strategy is dodging the issue. Consider the following: "To facilitate die cultural transformation, it will therefore be necessary to restructure our system of information and education, so that the new knowledge can be presented and discussed appropriately. Much of

point is not to minimize conflict for the sake of harmony, but to identify those conflicts which are unavoidable.¹³

When Capra finally does address the practical side of the problem of social change he has no other perspective to offer than the emergence of "new paradigm political parties" that will draw flocks of disenchanting citizens to the polls, all voting for revolution. Since social and ecological problems are ultimately seen to be the consequence of misconceived values and ideas, social change is contingent upon the ability to communicate the insights of the new paradigm. Capra's idea that communicating the New Age message will automatically motivate masses of disenchanting non-voters to make a run on the polls is not too convincing. Why should Capra's message be particularly attractive to, e.g., an unemployed single mother of three living in the slums of South Bronx? Presumably, the call for voluntary simplicity, the condemnation of materialistic values, and the insight that her situation is rooted in our and thus her obsession with yang values and corresponding inadequate perception of reality would hardly appear plausible to her, especially since a lot of her immediate concerns are very much "materialistic," i.e., a decent job, fair pay, appropriate housing, child and health care, and the like.¹⁴

Moreover, the suggested political strategy presumes that the political system in "Western democracies is composed of politically neutral institutions which can be used for whatever purpose by the respective majority. Hence, political change is ultimately a question of appropriate personnel. It does not occur to Capra that there are obstacles to the simple instrumentalization of the political system for radical change, which lie in its own structure as well as in the specific relation to its social

this restructuring of information is already being done successfully by citizens movements . . . However, if the new ecological awareness is to become part of our collective consciousness, it will have to be transmitted, eventually, through the mass media. These are presently dominated by business . . . and their contents are censored accordingly. The public's right of access to the mass media will thus be an important aspect of the current social change. Once we succeed in reclaiming our mass media, we can decide what needs to be communicated and how to use the media effectively to build our own future" (409). The decisive question, *how* we are to reclaim "our mass media" is simply skipped by the term "*once*." How are we supposed to do that? Is this going to take place without conflict? Maybe we just need to wait until CBS, Warner Brothers, Rupert Murdoch's media empire, and the like simply "disintegrate"? Capra's vagueness increases exponentially whenever he approaches the decisive issues.

13. Nemitz, *op. cit.*, p. 160.

14. See, for example, *Green Letter*, vol. 5, no. 1 (Spring 1989), especially Jesus Sanchez, "The environment: Whose movement?," on the problem of class and racial barriers in organizing the Green movement in general and resistance to environmental destruction in particular.

environment.¹⁵ It is thus not clear that gaining a majority in an election would automatically allow for profound social change.¹⁶

Nature, Science and Society

In Capra's account the new paradigm appears as a kind of doctrine of salvation. The application of its insights, reflecting the "systemic wisdom of nature," will allow the reestablishment of balance and harmony in society as well as in our relation to nature. His assumption that alternative values, worldviews, and principles for social organization can be derived from insights into natural processes is highly problematic. A society's concept of nature is not an "objective" description taken from its natural environment. Rather, it is a social product; the result of cognitive, normative, and symbolic construction.¹⁷ In constructing "nature" it is not simply nature as an objective entity which is being described. A society's view of nature must be seen as part of its self-interpretation, reflecting social relations and its relation to the natural environment.¹⁸ Nature is given meaning in society which it does not have apart from it. It is thus impossible to develop any socially neutral concept of nature. In constructing nature, society can ultimately refer to nothing other than itself.¹⁹ Accordingly, Capra's attempt to develop the philosophical implications inherent in nature is a tautological undertaking. Meaning is derived from nature as empirical fact

15. It has been pointed out that the political system is relatively autonomous vis-à-vis societal interests and influence. This, however, has nothing to do with neutrality or indifference towards societal interests, rather, the preferential treatment of certain interests is structurally guaranteed. See Claus Offe, "Thesis on the Theory of the State," in Claus Offe, *Contradictions of the Welfare State* (Cambridge, MA: MIT Press, 1984) and "Political Authority and Class Structures," *op. cit.*

16. That the electoral process is an unsuitable instrument for bringing about radical change is incidentally also argued by systems theory. See Niklas Luhmann, *Legitimation durch Verfahren*, *op. cit.*

17. Klaus Eder, *Die Vergesellschaftung der Natur* (Frankfurt a. M.: Suhrkamp Verlag, 1988).

18. Egon Becker, "Natur als Politik?" in Thomas Kluge ed., *Grüne Politik. Der Stand einer Auseinandersetzung* (Frankfurt a.M.: Fischer Verlag, 1984), p. 112.

19. This viewpoint is shared by systems theory. Thus, Luhmann points out that society is not *part* of nature. Rather, society is the totality of meaningful communication. In this sense, communication is an exclusively social operation. Although society is an open system, it is operationally closed. Society cannot communicate *with* its environment but only *about* it. The environment cannot be relevant to society in any immediate sense. It can enter society only to the extent that it is communicated and thus transformed socially. What is communicated is not the environment but what society takes to be the environment. See Niklas Luhmann, *Ökologische Kommunikation* (Opladen: Westdeutscher Verlag, 1986), pp. 62-63.

which is actually ascribed to nature in the process of interpretation.²⁰

Capra's attempt to derive criteria for action from nature is all the more surprising since he himself emphasizes the socially conditioned relativity of human knowledge in his critique of conventional scientific assumptions. He argues that in research on subatomic particles scientists were confronted with the phenomenon that the answers one gets depends on the questions one asks (78, 87). Following this argument there can be no absolute certainty with respect to our knowledge of the world. The results obtained in any research process are inherently related to the theory and methodology guiding it, which leads Capra to conclude: "... modern physics has not only invalidated the classical idea of an objective description of nature but has also challenged the myth of value-free science. The patterns scientists observe in nature are intimately connected with the patterns of their minds; with their concepts, thoughts, and values" (87). If this is the case, it is difficult to see how criteria for action derived from nature could be anything but the reflection of normative assumptions projected upon nature in the process of description and analysis.

From this Capra proceeds to draw an inadequate conclusion: "The fact that all properties of particles are determined by principles closely

20. Consider the following argument: "Detailed study of ecosystems over the past decades has shown quite clearly that most relationships between living organisms are essentially cooperative ones. . . . Even predator-prey relationships that are destructive for the immediate prey are generally beneficial for both species. This insight is in sharp contrast to the views of Social Darwinists, who saw life exclusively in terms of competition, struggle, and destruction. Their view of nature has helped create a philosophy that legitimates exploitation and the disastrous impact of our technology on the natural environment. But such a view has no scientific justification, because it fails to perceive the integrative and cooperative principles that are essential aspects of the ways in which living systems organize themselves at all levels" (279). Against the individualistic, antagonistic conception of the Darwinian view of nature, Capra proposes a picture of nature as a network of cooperative relations. The "incorrect" view of nature has allegedly been invalidated by means of scientific inquiry in favor of the accurate understanding of natural relations as "essentially cooperative ones." Capra's argument suggests that the disagreement is located on *the* level of the cognitively adequate comprehension of an empirical relation. The disagreement does, in fact, not refer to the accuracy of the understanding of the empirical phenomenon, but rather to the *meaning ascribed* to it. Contrary to the implications of Capra's argument, this is not an issue that can be decided by scientific inquiry. Whether the relation between predator and prey is considered cooperative or antagonistic is essentially a matter of perspective, reflecting different normative conceptions. See Ludwig Trepl, *Geschichte der Ökologie* (Frankfurt a.M.: Athenäum, 1987), p. 192, note 66. Capra is correct in his assessment of the antagonistic view of nature as an ideology for the legitimation of exploitative relations. The view of nature as a struggle for survival is nothing following from nature but, rather, its historically specific interpretation. However, he commits the same fallacy as the Social Darwinists by naturalizing the social.

related to the methods of observation would mean that the basic structures of the material world are determined, ultimately, by the way we look at this world; that the observed patterns of matter are reflections of patterns of mind" (93). While some of this is accurate, "that the observed patterns of matter are reflections of patterns of mind," the preceding formulation suggests that there indeed is no world apart from our perception of it; our thoughts and values being constitutive of the world. This would indeed be a good argument supporting Capra's idealism, but obviously runs counter to any attempt to establish the autonomy of natural processes from which criteria for action could be derived.²¹

Capra is correct that our relation to nature expresses a culturally specific normative conception. However, he ultimately fails to address the question of how precisely it is rooted in the structure of the criticized system of knowledge. The mechanistic view of nature is simply equated with an exploitative relation to nature as if it were the necessary consequence of the other. In positing the ecological paradigm's revolutionary potential it is mistakenly assumed that the cognitive process of learning, which systems theory may represent compared with mechanistic concepts, necessarily implies a process of moral learning. It is, however, difficult to see why an understanding of nature in terms of systems theory should automatically entail any fundamental revision in society's relation to nature. Systems theory is no less "reductionist" than Newtonian mechanics. Its principle of reduction is merely different: the totality of ecological relations are selectively reduced to *functional* relations that can be dealt with by means of conventional science. Contrary to Capra's enthusiastic account systems theory does not break with the logic of a utilitarian, exploitative relation to nature but represents the perfection of technocratic control. Capra attacks conventional science and technology for its fragmenting, reductionist character, which neglects destructive side effects of human action, only to propose intervention guided by systems theory which, when failing to adequately address the structural roots of society's destructive relation to the natural environment, promises no less than the systematic instrumentalization of nature as a self-reproducing "bio-cybernetic world-machine."²² The essential progress is the insight that the further exploitation of nature requires taking minimal conditions for its reproduction into consideration.

21. A more adequate conclusion would be that all properties *ascribed* to particles are determined by principles related to the methods of observation, and thus what *appears* to be the basic structure of the material world is contingent on the way one looks at it.

22. Becker, *op. cit.*, p. 117.

Capra questions the excessive emphasis on rationality in "Western culture, which has led to "scientism": the insistence on the scientific method as the only acceptable approach to knowledge. Thus the development of ecological awareness has been obstructed, which runs counter to the linear and analytic nature of rational thought. This "obsession with rationality" is a major root of the ecological crisis. Capra's critique, however, remains caught in dominant ideology.

A question that arises in this context is: Why should rational thought necessarily be linear, reductionist, and thus *intrinsically opposed* to ecological awareness? Similarly, with respect to ecological awareness: In which sense is the insight into ecological relations a question of intuition? Unfortunately, Capra fails to defend his claim. On the contrary, he concedes that "scientific thinking does not necessarily have to be reductionist and mechanistic" (48) while presenting physics, "the manifestation of an extreme specialization of the rational mind" (47) as a source of the ecological paradigm. Systems theory, as its theoretical core, is very much a product of the "rational mind." It may represent a shift from a linear, causal, and static to a non-linear, functional, and dynamic conception of reality, but most certainly not a shift from a rational to an intuitive mode of cognition.²³

Capra's belief in science is essentially unbroken. His critique is ultimately directed only at scientific conceptions he considers inadequate. As far as his rejection of scientism is concerned, it stands in odd contrast to his presentation of systems theory — a scientific concept — as an all-encompassing formula to explain the world, the cosmos, and even God¹. In this respect, it is difficult to see the difference between Capra's procedure and the attempts to model the universe in terms of mechanical laws.²⁴ His critique of scientism notwithstanding, Capra

23. Capra's rejection of reason for intuition has questionable implications. Thus, how are conclusions to be reached on the basis of some mix of intuition and rationality — whatever that may be? How are we to decide between divergent intuitions? Imagine a conservative nationalist, drawing on the insight into the "nonlinearity of systems," intuitively reaches the conclusion that the "dynamic balance" of a society is disturbed by a perceived "excess" of foreign immigrants. In accordance with the systemic insight that "if you do something that is good, then more of the same will not necessarily be better" (41) he might suggest it is necessary to get rid of these people. Now my intuition may tell me something different, but why should my intuition be better than someone else's?

24. Nemitz criticizes this for reproducing the fallacy of the Cartesian-Newtonian worldview by indiscriminately applying a concept that may well be appropriate within a limited realm to other domains. See Nemitz, *op. cit.*, p. 163. In this respect, see also Stephen Jay Gould, "Utopia (Limited)," *New York Times Book Review* (March 3, 1983). Gould points out the problem with Capra's attempt to extrapolate the insights of physics to apply to all of nature.

actually ascribes a vanguard role to science in revolutionizing the prevailing worldview; from a source of destruction, science undergoes an instant metamorphosis to a potential for salvation. Despite all claims to the contrary, it is physics which leads the way.²⁵

Political Implications of Mystical Ecology

Capra substitutes a mystified, systems-theoretical version of sociobiology for social analysis.²⁶ As a concept of social order, his philosophy reveals anti-emancipative implications. He posits a systems-theoretical view of nature as an apodictic framework: the perceived "laws of nature" are definite, noncircumventable laws of being. As an integral part of nature society cannot evade them. Thus the question of the adequacy or desirability of a social order is not a contingent issue to be resolved in social discourse. Like it or not, there is ultimately no other choice than to adapt the rules of the game or engage in self-destruction. Nature is simply the way things are.

Once a naturalistic paradigm is commonly accepted as a frame of reference for the legitimacy of a social order, attention is diverted from the real issue of the underlying normative assumptions to the pseudo-issue of society's correspondence with the "principles of nature." Consequently, emancipatory goals such as the abolition of relations of domination become contingent on the ability of proving such correspondence. Positing nature as the ultimate point of reference further results in the difficulty to distinguish conflicting political concepts using formally analogous modes of reasoning. The way is open for any ideology sharing an "ecological" framework to climb on the bandwagon. Current developments in parts of the European Right are a case in point. In their attempt to modernize conservative ideology, authoritarian political concepts are supported by systems-theoretic, naturalistic, and sometimes spiritually transfigured arguments.²⁷ Capra himself proves the point when

25. See Capra, *The Turning Point*, *op. cit.*, pp. 47-49. For a critique of Capra's scientism see Rosemarie Rübsamen, "Der Wolf hat Kreide gefressen — bewahrt euer Mißtrauen gegenüber der Wissenschaft!" *Beiträge zur feministischen Theorie und Praxis* 12 (1984), pp. 61-67. See also Becker, *op. cit.*, p. 118, who has pointed out that latent scientism is rather typical for the proponents of ecology as a doctrine of guidance.

26. While Capra rejects sociobiology for its "reductionist" concept of genetic determinism (115), he fails to understand its quintessential fallacy. Its fundamental problem is not genetic determinism but the reduction of the social to the level of the biological or "natural," of which genetic determinism is merely a manifestation. This lack of understanding becomes apparent in his reproduction of the sociobiological fallacy.

27. See Peter Dudek, "Konservatismus, Rechtsextremismus, und die Philosophie der Grünen," in Kluge, *Grüne Politik*, *op. cit.*, pp. 90-108. Consider the following passage

he praises Heidegger as part of the tradition of the new paradigm, able to provide direction for an ecological reorientation of society (412). Excited by the intriguing similarities between his own philosophy and Heidegger's critique of Western civilization, Capra overlooks that Heidegger's identification with Nazism may have been rooted in his philosophy.²⁸ Unfortunately, the issue is not merely a theoretical one. Its practical relevance has recently been demonstrated by American environmental activists subscribing to the deep-ecological perspective, which have triggered a debate on principles among the US Green movement.²⁹ These environmentalists have argued that starvation in Ethiopia is a natural and thus acceptable process of nature seeking its own balance,³⁰ US

from Rolf Kosiek's critique of the development of post-WWII German society: "By condemning and stigmatizing the biological as well as the significance of living systems, questions of ecological balance have been suppressed. Humans and their environment were thought to be arbitrarily conditionable, manufacturable and alterable; an actually already overcome mechanistic-materialistic view of technology gained acceptance. . . . Progress and growth were the driving slogans of previous decades. . . . The fact that a continuous process of growth . . . ultimately would destroy every state of balance . . . was not taken into account. . . . Conservative policies aimed at the preservation of natural balance . . . were depreciated and rejected." "Instead of cutting down production a bit in times of economic boom, thus reducing unavoidable environmental pollution and stretching growth more organically over a longer period of time, millions of foreigners were imported like commodities . . . Now, in the course of emerging economic problems . . . they . . . threaten to destroy our welfare system and form an explosive socio-political issue . . . Additional masses were pressed into West Germany . . . without taking into consideration that every system has limits of adaption, which in our region have already far been exceeded. . . . In some large cities the inner city is already captured by foreigners. A Turkish ghetto in Berlin is unnatural, an integration or germanization is genocide, and inhuman, and a crime against the inner world of people. Ten thousands of foreigners in a German city . . . amount to an environmental modification of the greatest extent, the destruction of a natural state grown during a long period of time. . ." Rolf Kosiek, "Geistige Grundlagen der Umweltzerstörung. Die Frage nach den Ursachen," in *Nation Europa*, vol. 32, no. 5 (1982), pp. 5-10.

28. Farias has argued that Heidegger's political orientation was not an accident, but a logical consequence of his philosophy. See Victor Farias, *Heidegger und der Nationalsozialismus* (Frankfurt a.M.: Fischer Verlag, 1989). For a dissenting analysis, see Paul Gottfried's review of Farias' book, "Heidegger on Trial" in *Telos* 74 (Winter 1987-88), pp.147-51.

29. This was one of the issues resulting in the previously mentioned dispute at the Amherst Green Conference. For a discussion of the "ecology debate" within the American Green movement, see Brian Tokar, "Exploring the New Ecologies. Social Ecology, Deep Ecology and the Future of Green Political Thought," *Alternatives*, vol. 15, no. 4 (1988), pp. 30-43. See also George Bradford, "How Deep Is Deep Ecology?" *Fifth Estate*, vol. 22, no. 3 (Fall 1987), pp. 3-30; Murray Bookchin, "Crisis in the Ecology Movement," *Zeta Magazine* (July/August 1988), pp. 121-23 and "Social Ecology vs. Deep Ecology," *Socialist Review* (Summer 1988), pp. 9-29.

30. Dave Foreman, an activist of a radical environmentalist group named "Earth First!" cited in Bradford, *op. cit.*, pp. 17-18.

culture is in danger of Latinization" with corresponding destructive consequences as the result of an uncontrolled influx of Latin immigrants,³¹ AIDS is applauded as Earth's self-regulatory response to the problem of human overpopulation,³² etc. The parallels to the racist discourse of the European Right are obvious. Now, the logic of Capra's concept provides no internal criteria for distancing oneself from such a position, other than insisting that it reflects an erroneous interpretation of nature. Consequently, spiritualists conclude, these statements constitute "the most extreme comments by a small number of individuals" which are somehow out of touch with the core concepts,³³ failing to grasp that it is the concept itself that allows such interpretation.

With some justification it can be argued that Capra's concept is potentially an ideology for domination. Since the "laws of nature" are not simply self-evident, the problem remains how to identify and interpret them with respect to social reality. He suggests two possible solutions. First, there is scientific research guided by the new paradigm able to decipher nature's wisdom and make it accessible to humanity. Second, there is intuition. Due to their privileged access to the fundamental truth of the new paradigm, those who master these techniques are predisposed to guide humanity towards salvation.³⁴ One might speculate whether the ecological paradigm may provide an adequate ideology for

31. Edward Abbey, also an Earth First! activist cited in Bradford, *op. cit.*, p. 17.

32. Miss Ann Thropy, a pseudonym, in an Earth First! publication cited in Brad Edmondson, "Is AIDS Good for the Earth?" *Utne Reader*, no. 24 (Nov./Dec. 1987), p. 14 and Daniel Keith Conner, another member of "Earth First!" "Is AIDS the answer to an environmentalist's prayer?", originally published in *Earth First! The Radical Environmental Journal* (Dec. 22, 1987), reprinted in *Utne Reader*, no. 27 (May/June 1988).

33. Charlene Spretnak, "Diversity in Ecofeminism," *op. cit.*, p. 476.

34. The anti-democratic implications of this claim to absolute truth become apparent in the following quote: "Green politics attracts people who have been searching for a way to transform new-paradigm understandings into political practice. . . Unfortunately, in nearly every country where a Green movement has been established, it has also attracted opportunistic persons from unsuccessful groups on the right and left who enter the new movement with hidden agendas and dishonest tactics. Identifying and banning them are difficult. . . However, persons who undermine the progress of Green political development by repeatedly trying to impose their own incongruous priorities should not be allowed to ruin the movement. Although allegiance to . . . a declaration would not preclude the possibility of dishonesty, it would clarify the movement's expectations of its members. If infiltration actually occurs, additional means would have to be devised to address it" (Spretnak and Capra, *Green Politics*, *op. cit.*, pp. 217-18). Who decides on the appropriate agenda and priorities, the movement's expectations, etc.? What are the criteria — adherence to the "new paradigm" doctrine? This account hardly sounds like anything resembling the principles of grass roots democracy praised by the authors. In this respect, see also Herbert P. Kitschelt, "The Global Promise of Green Politics," in *Theory and Society*, vol. 14, no. 4 (July 1985), pp. 525-32.

the legitimation of a privileged position of a class of technocrats in a society in which skill, as a productive resource, is becoming increasingly important. This impression is fostered by the tendency to combine cognitive with moral competence, as if the former naturally qualifies with respect to the latter.³⁵ Just as the ascendant bourgeoisie established its rule with the promise of freedom and equality on its banner, which turned out to apply only to the freedom and equality of the propertied, in the course of events Capra's ecological paradigm may serve to justify the displacement of the propertied through the "competent."

Speculation aside, a sober look at Capra's philosophy finds little, if any, perspective for emancipatory social change. Given its failure to deal with the structural roots of current social developments and problems, its determinism and naiveté regarding politics, it is unlikely to lead anywhere. Capra's ecological paradigm — at least its systems-theoretical core — is indeed being adapted widely. However, far from being a cultural revolution, it can be expected to find its way into contemporary crisis management as an instrument for the perfection of technocratic control — a pragmatic response to the increasing complexity of structural problems — while leaving the prevailing social order essentially untouched. In the final analysis, Capra mystifies far more than he clarifies. By blurring the structural roots of social problems, discarding reason as an inadequate means of cognition, and proposing a naturalistic paradigm as a common frame of reference, he paves the way for authoritarian strategies to solve social problems.

35. In this respect, see Michael Weingarten, "Die Herrschaft der Schamanen. Die Naturwissenschaftler auf dem Weg zum organischen Intellektuellen des Kapitals," in *Forum Wissenschaft*, no. 3 (1986), pp. 43-48.