

**TO FOCUS ON SMALL HUMAN ACTIVITY SYSTEMS, DESIGNING-
PLANNING, LOCAL-TO-GLOBAL ISSUES, AND THE FUTURE:
A HUMAN-CENTERED CYBERNETIC-SYSTEMIC ECOLOGY**

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ABSTRACT

As the social issues and conditions of life develop toward greater complexity and globalization, in response, a person can easily become bewildered and disoriented. Whether from concern to understand, cope, or ameliorate, one must eventually confront this increasingly common existential dilemma. A person may discover several choices to address his/her particular case. The more constructive choices entail being part of small group cooperative collaborative activities which contribute to fostering desired and preferred local-to-global conditions. Choice prompts individual as well as collective forms of action. Choice-to-action benefits from cognizance of the cybernetic and systemic principles applied to describing our relationships to all living beings within the biopsychosocial context of the human predicament. Our actions are political expressions of individual choice, whereby our participation in the pursuits of knowing, understanding, and improving converge, pulled together by a shared vision, and propelled by faith and hope in the future.

1. INTRODUCTION

We live in a time when a person can no longer so easily turn away from worldly affairs. The major social issues and living conditions of contemporary life appear to be increasingly complex and global in nature [1, 8]. What can we do to cope, remain informed, and engage effectively as contributing members of society, while invasive unwanted and undesired elements hit us repeatedly and compete with our ongoing daily activities?

It is my purpose here to articulate a constructive position which ties together the constructs stated in the title of this paper, and which poses a contributive path taken by many socially conscience citizens worldwide, who have been moved to resolve our current existential dilemma.

2. FROM TANGIBILITY TO VIRTUALITY

Whether one focuses on a person, family, subculture, society, or global community, we are coming to realize that our future viability depends more on informationism than materialism. The reciprocal, co-evolving, and explosive relationship between advances in technology and the volume of information has increased rapidly the complexity of everyday life [8]. Information has become something to be valued, like gold, money, and real estate. But unlike most

commodities, information is not material, it is virtual. We are transforming our industrialized societies into information societies.

3. DESIGNING AND PLANNING FOR COMPLEXITY

One natural adaptation to the inundation of new information is to organize, package, and store it in forms, which are familiar (for example, knowledge), forms which keep it accessible for imagined as well as unforeseen circumstances. To this end, designing and planning are becoming increasingly important.

Design is an inherent feature of every organized activity. We use information to design our activities. We organize information into patterns or configurations, which in themselves represent designs. *Design* emphasizes the spatial organization of matter, energy, and information. Design is coupled to *Plan*, which emphasizes the temporal organization of matter, energy, and information. Plan enables us to actualize design. Designing and planning are fundamental space-time processes to coping with information complexity; they are keys to our future and the amelioration of the human global problematique [8]. A greater awareness of and familiarity with designing-planning processes enables us to articulate possible futures, in which we may better cope, maneuver, and survive [4].

4. DESIGNING-PLANNING AND ECOLOGICAL ETHICS

With the pairing of science and industrialization, each historical turn of the helix of humanity has brought a renewed consideration of the central issues of contemporary life. Earlier, where a design decision had consequences lasting generations, currently, the impact cycle is shrinking, while at the same time, the decision can be more profound in its immediacy of impact. This paradox makes it all the more important that we better understand the implications of our design decisions and activities.

When advantaged by good fortune of material and information resources, we may take a more active and responsible role in directing our affairs and enterprises [1]. But the pending human imperative for a more global ethic [3] will pressure us to do so, more now than ever, not only for our probable legacy to future generations, but also in our required service to Nature as planetary caretakers. Ideally, whether a person or a small group, we can be more able, prepared, and conversational with our more complex world through greater centrality and responsibility in our use of designing and planning.

In the more industrialized and technologically developed countries, people can no longer assume that the future will be a simple continuation of the past, a simple linear progression termed progress, and that the expenditure of local resources in the designing and planning of technologies, which presume to promote the amelioration of the local inhabitants, in fact do so and without global consequences, both beneficial and detrimental. Basic paradigmatic assumptions, such as progress without conservation, are quickly reaching their asymptotic values.

While there are more human beings alive today on the earth than ever before in human history, there are also more different means today, courtesy of an impressive variety of technologies, that two people can communicate with each other than every before in human history [9]. Thus, regarding the volume of communications, the general level of human activity has reached incomprehensible proportions. We have created an artificial and electronic mantle enveloping the earth. The electronic envelop is but one example, forcing us to reconsider repeatedly means to cope and manage the increasing complexity, for these changes are simultaneously opportunistic and invasive.

Adaptation to changing conditions requires more forethought in terms of preparatory activity. Innovative organization, ongoing design, and careful implementation are essential aspects of that preparatory activity to posture us for different situations, relevant and imagined. But this matter must be done more concertedly now with respect to potential local-to-global consequences. The locus of concern will no longer remain provincial, such as U.S. government Environmental Protection Agency reports, but it must expand toward potential global impact statements whenever possible, such as those that can be issued by multinational regulating bodies. From the conscientious objector associated with the world wars of this century, we must shift our thinking away from such passivities of objection as inaction, avoidance, denial, rationalization, minimalization, and intellectualization. We must acquire a responsiveness for active ecologically and ethically oriented amelioration. Resource preservation, development, and management are to become more center-stage categories of occupational activity and employment opportunity for many thousands of human beings in the next century. A widespread global conscientiousness is critical from many sectors of humanity, adhering to agreed upon guidelines and directives, for example, a Global Marshall Plan [6].

5. DIVERSITY TO SCALE

Recent interests in macro-systems can be matched by those in micro-systems, both natural and artificial [9, 10, 11, 12]. For example, the scientific preoccupation with technological miniaturization and the study of fractal geometry in Nature attest to the increase in complexity to subhuman levels of scale. Concomitantly, the technological wonders of the modern world housing and transporting small cities of people and the study of colossal sections of the known universe attest to the increase in complexity to suprahuman levels of scale. Furthermore, at any designated level of complexity, there is a profound diversity in the myriad forms of organization of matter, energy, and information.

It is only with the aid of a cybernetic-systemic perspective [7, 11, 12] that we, from our human point of reference, attempt feebly to comprehend the seemingly incomprehensible. From the more current human-oriented cybernetic-systemic stance in scientific thought [2], I think that we can re-acquire a more respectful and compatible relation with Nature. And from this viewpoint, we can also understand that the profundity of Nature easily overwhelms the modernist mentality (so pervasive throughout this century), enabling various irresponsible acts of passivity toward the environment, such as polluting, resurfacing, and trashing.

The scientific advances of this century have compounded the choices available in material consumption and communication through providing a multiplicity of designing and planning configurations. By combining basic elements in wide variety a large number of designs and plans are created, which can be applied to mass productions on the one hand and idiosyncracies of individual consumers and users on the other hand. But more importantly, this diversity has become increasingly available not just in terms of things or objects, but in regard to activities and meta-activities, that is, designs about designs and plans about plans. For many manufacturers and service providers, a diversity of quality goods and services may be essential to success in the global marketplace, but equally essential to that success is a diversity of marketing strategies and simulated scenarios postured to meet imagined situations.

6. THE PARADOX OF ROUTINE OF EVERYDAY LIFE

From a more pedestrian point of view, a person acquires routines, which when imposed on present events provide some stability to daily life. A person comes to depend on such routines to cope with and respond to a wide variety of situations. One might think of them as an acquired library of subroutines, but one goes further to create various combinations among them to meet the demands of a new situation. In this sense, every person becomes a designer and planner of one's daily life. So what can one do in the face of the global problematique? One can begin the transition with oneself and domicile [5]. But with ongoing change and increase in complexity, shifts toward more preparatory action become more frequently necessary in order to cope effectively and efficiently.

Ironically, while the time required for preparatory activity to meet a more complex situation appears to be longer, the time delay before one must act may appear to be shorter. Further, in terms of the complexity of the process into which one may wish to intervene, the more time one may need to prepare for intervention, the shorter the time one may have to do so, before the dynamics of the process change the situation, thus making the intervention less timely and appropriate. It is likely that active participation in a complex process requires more prolonged preparation and readiness for the opportunity to participate.

Paradoxically, the apparent distinction between preparatory and direct action may appear to disappear with increasing complexity. As one's momentary activities become more consciously preparatory in relation to direct action and more pervasive with increasing complexity, the former mode of action overshadows the latter. However, this activity has two aspects which must be balanced. The emphasis on preparatory activity will likely disrupt the stability of direct activity of daily routines.

To the extent preparation can occur in advance, one can anticipate and draw upon one's preparation [4]. But such preparation can easily be misunderstood. One may jump to the conclusion that if one can draw upon many designs and plans, then: a) the world can be made stable and predictable, b) in fact one can create a predictable world, and c) the world can be controlled with a cybernetic-systemic science through careful designing and planning. This line of reasoning is misleading and illusionary. It is more likely that the more preparatory our use of design and

plan — though they can not control the world — the greater one is able to work with the unexpectedness and uncontrollability of daily life. Designs and plans amplify choices. To reiterate, rather than control, designing and planning organize and structure human activity. Their absence poses limitations on existence and places one more at risk in regard to survival and success.

7. CONCLUSION

As the prevalence and complexity of human life continues to magnify, we are pushed to consider more seriously a human-oriented cybernetic-systemic ecology. Through a more considered knowledge of designing and planning in the face of emerging social issues, controversial living conditions and practices, and the paradoxes of daily life, one can create and apply more possible choices than one would ordinarily have. We bear witness to individual actions in the forms of solo and small group activities that are growing from the sporadic local to the global level in recent years. It is imperative that a new vision become supported worldwide within the first quarter of the next century, a planetary caretaker mentality. In such a vision, to give focus and life to the small human activity systems, designing-planning processes, and local-to-global issues, I think that responsive choice is the substance and sustenance of a viable vision, manifest by means of the creation and application of possibilities for worlds within and respectful of Nature.

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