

JOURNAL OF SOCIOCYBERNETICS

Volume 4

Number 1

Spring/Summer 2003

*Official Journal of the Research Committee on Sociocybernetics
(RC51) of the International Sociological Association*

JOURNAL OF SOCIOCYBERNETICS

www.unizar.es/sociocybernetics/

Editor Richard E. Lee

Newsletter Cor Van Dijkum

Editorial Board
Mike Byron
Felix Geyer
Chaime Marcuello
Vessela Misheva
Philip Nikolopoulos
Bernard Scott
Mike Terpstra

The **JOURNAL OF SOCIOCYBERNETICS** (ISSN 1607-8667) is an electronic journal published biannually--Spring/Summer and Fall/Winter--by the Research Committee on Sociocybernetics of the International Sociological Association.

MANUSCRIPT submissions should be sent electronically (in MSWord or Rich Text File format) to each of the editors: Richard E. Lee rlee@binghamton.edu and Cor van Dijkum, c.vandijkum@fss.uu.nl. In general, please follow the Chicago Manuel of Style; citations and bibliography should follow the current journal style (APA). Normally, articles should be original texts of no more than 6000 words, although longer articles will be considered in exceptional circumstances. The Journal looks for submissions that are innovative and apply principles of General Systems Theory and Cybernetics to the social sciences, broadly conceived.

COPYRIGHT remains the property of authors. Permission to reprint must be obtained from the authors and the contents of JoS cannot be copied for commercial purposes. JoS does, however, reserve the right to future reproduction of articles in hard copy, portable document format (.pdf), or HTML editions of JoS.

SOCIOCYBERNETICS traces its intellectual roots to the rise of a panoply of new approaches to scientific inquiry beginning in the 1940's. These included General System Theory, cybernetics and information theory, game theory and automata, net, set, graph and compartment theories, and decision and queuing theory conceived as strategies in one way or another appropriate to the study of organized complexity. Although today the Research Committee casts a wide net in terms of appropriate subject matters, pertinent theoretical frameworks and applicable methodologies, the range of approaches deployed by scholars associated with RC51 reflect the maturation of these developments. Here we find, again, GST and first- and second-order cybernetics; in addition, there is widespread sensitivity to the issues raised by "complexity studies," especially in work conceptualizing systems as self-organizing, autocatalytic or autopoietic. "System theory", in the form given it by Niklas Luhmann, and world-systems analysis are also prominently represented within the ranks of RC51.

The institutionalization of sociocybernetic approaches in what was to become RC51, the Research Committee on Sociocybernetics of the International Sociological Association, began in 1980 with the founding of an ISA Ad Hoc Group and proceeded with the organization of sessions at succeeding quadrennial World Congresses of Sociology. The eventual RC51 became a Thematic Group and then a Working Group. Finally, in recognition of its extraordinary success (growing from some 30 members in early 1995 to 240 in 1998), the group was promoted to the status of Research Committee at the 1998 World Congress of Sociology in Montreal.

Over these past two decades, sociocybernetics has attracted a broad range of scholars whose departmental affiliations represent the entire spectrum of the disciplines, from the humanities and the social sciences through the sciences, mathematics and engineering. Furthermore, the many countries of origin of these RC51 members attest to the wide international appeal of sociocybernetic approaches. Within this highly diverse community, there is wide agreement on some very general issues, for instance, on developing strategies for the study of human reality that avoid reification, are cognizant of the pitfalls of reductionism and dualism, and generally eschew linear or homeostatic models. Not surprisingly, however, there are also wide divergences in subject matter, theoretical frameworks and methodological practices.

Many have argued that models developed for the study of complexity can be usefully appropriated for the study of human reality. Moreover, however, the emphasis in complexity studies on contingency, context-dependency, multiple, overlapping temporal and spatial frameworks, and deterministic but unpredictable systems displaying an arrow-of-time suggest that the dividing line between the sciences and the historical social sciences is fuzzier than many might like to think. What is more, in the humanities, the uniquely modern concepts of original object and autonomous human creator have come under serious attack. The coincidence of these two phenomena substantiate the impression that across the disciplines there may be observed a new concern for spatial-temporal wholes constituted at once of relational structures and the phenomenological time of their reproduction and change.

In this context of rich history and exciting possibilities, the Research Committee on Sociocybernetics of the International Sociological Association extends an open invitation through the **Journal of Sociocybernetics** to all engaged in the common quest to explain and understand social reality holistically and self-reflexively without forsaking a concern for human values--human values not construed simply as a matter of individual ethics, but conceived as an integral part of a social science for our time.

JOURNAL OF SOCIOCYBERNETICS

Volume 4

Number 1

Spring/Summer 2003

Contents

Articles

Janet McIntyre	Participatory Design: The Community of Practice (COP) Approach and Its Relevance to Strategic Knowledge Management and Ethical Governance	1
Michael Paetau	Space and Social Order: The Challenge of Computer-Mediated Social Networks	23
RC51 News	Newsletter 15	37

**PARTICIPATORY DESIGN:
THE COMMUNITY OF PRACTICE (COP) APPROACH AND ITS
RELEVANCE TO STRATEGIC KNOWLEDGE MANAGEMENT AND
ETHICAL GOVERNANCE**

J. McIntyre*

Social and environmental links

All things are connected. Whatever befalls the earth befalls the people of earth.
We do not weave the web of life. We are merely a strand in it. Whatever
we do to the web, we do to ourselves (Chief Seattle (in Doel and Shardlow 1996)¹
talks of the dangers of trying to commodify nature.)

People links

Geoff Shaw (1998)² talks about the need for co-intelligence as the starting point: " When
you watch the spider build its web, the whole structure interacts and binds the web together
with diagonal, horizontal and vertical ties to give it strength and stability...we must continue
to be like the spider's web...linked to each other...giving strength to each other"

Systemic thinking

"We need to change the way we think if we are to have a hope of solving the problems we
have created by the limitations of current thinking" (Albert Einstein in Banathy 1996).

Dialogue and ethical governance

"The closest we can get to truth is through dialogue" (McIntyre-Mills 2000).
Silencing is the result of othering (power resides in ability, gender, class, culture).
We need all the voices for a mandala of knowledge. The systemic dialectic
of unfolding and sweeping in is the jump lead of creativity (McIntyre,
drawing on Churchman 1971, 1979, 1982).

Designing from multiple viewpoints

"Interpret Leibniz's 'apperception' to mean the ability of the system designer to
design the system from many points of view--to design science as a management
system or design physics as a psychology. To the extent that a system fails in its
apperception, it is less than God, i.e., it is an imperfect monad."
(Churchman 1979: 75)

A community of practice is a style of management that is based on the premise that complex problems pertaining to social and environmental justice that do not fit into boxes are best

* Direct correspondence to Janet McIntyre, Flinders Institute of Public Policy and Management, GPO Box 2100, Adelaide, South Australia 5001.

¹ I have changed "he" to "we": Doel, M and Shardlow. 1996. *Social Work in a Changing World: An International Perspective on Practice Learning*. Aldershot: Ashgate.

² Tangentyere Council Annual Report 1997-1998, p. 23

approached through complex approaches to problem solving. Professions are taught as disciplines, but problems are unbounded (Banathy 1996; Churchman 1971: 174). This article will discuss participatory design and its relevance to development, policy and knowledge management through 'unfolding' the value of COPs to stakeholders in a range of examples and 'sweeping in' the social, political, economic and environmental considerations.

"UNFOLDING" AND "SWEEPING IN"

This contribution draws on the work of Churchman and applies it to specific examples drawn from my own experience of attempting to address complex development challenges. The discussion addresses the suitability/relevance of Churchman's contribution to the current, complex, global era, which is paradoxically spelled out in terms of greater links in terms of global markets and greater divides between the richest and poorest interest groups and nations (McIntyre-Mills 2000). In policy and management terms openness and closure to geographical borders and conceptual boundaries co-exist and are linked with choices based on interpretations of strategic pragmatism. We need an emphasis not only on technical knowledge, but a great deal more emphasis on the links across the areas of technical, strategic and communicative knowledge (Habermas 1984).

The notion of 'joined up thinking' for revitalizing democracy and for shifting governance away from departmentalism and competition is not new and has been applied to so-called complex, 'wicked problems' that have not responded to fragmented approaches, because they are the result of interrelated factors. The experience in the United Kingdom of the Blair government's approach has been critically reviewed by Kavenagh and Richards (2000). They warn that the challenge of shifting from a hierarchical approach can be "gummed up" (to quote Kemp (in Kavenagh and Richards 2000: 8) who referred only to financial issues by a lateral "heterarchy" (2000: 5) that is equally problematic) as a result of the need to maintain a web of social, political, and economic connections. In addition, problems with technology or a lack of compatible digital systems can add to the challenge.

What is needed is not merely for policy and practice to change, but for people to change the way they think and define issues ontologically. The approach to ontology (questions about the nature of reality) and the approach to epistemology (the way we know the world, or think we know it) have been neglected. Tacit knowledge (that does not fit the rigid frameworks of the dominant culture) has been neglected. The lived experiences of ordinary people have been lost (Polanyi 1962). Competition and individualism need to be replaced with a different understanding of the world drawing on the new physics (Van Gigch 2002; Reason 2002) that stresses that change and fluidity are axial to existence. Energy is the most basic unit of all communication and when the communication process is limited, entropy follows (Flood and Carson 1998)!

Capacity building (as per Roche 2001) to change the way people think needs to begin in the public, private and non government sectors to start a social movement for change (see McIntyre-Mills 2000) that can make sustainable living and thinking in the home, at school and at work as natural as breathing (and hopefully it will lead to the preservation of social and

environmental justice). Churchman made strides in this direction. In order to celebrate his contribution to systemic praxis, the examples focus on developing ways to address problems systemically and to manage knowledge needed to address complex challenges across sectors and disciplines.

Examples of participatory governance involving people in civil governance are addressed from the local level (through informal support networks and housing associations) to the public sector (at local and state level). Challenges are discussed and suggestions are made for policy and practice in a range of social contexts. The vastly different contexts include South Africa, the Philippines and Australia. The example of working on a community of practice initiative for the public sector in Australia, helped to crystallize some of the ideas and to draw comparisons with other contexts where participatory design solutions within local supportive networks help to transform the quality of interventions. The focus is in part on the way in which matrix networking can find and create resonance and meaning across the participants and thus enhance cooperation. This process is also about working systemically, intuitively and building connections based on trust over time and through participation in a network that addresses issues and solves problems without bureaucratic red tape. COPs are owned by the participants. Where this does not occur they cannot get off the ground.

Wenger (1998) coined the concept of COP. The original idea (developed as an interpretation of what actually happens in working life, on the basis of listening to narratives and close observation) has been used in a range of other contexts. The COP concept lends itself not merely to interpreting action, but as a means to support action and manage knowledge. In the words of Wenger with reference to the COP:

It is therefore incumbent on a learning community to deal with its position in various communities and economies [of meaning] and with respect to various enterprises, styles, and discourses. It must seek the reconfigurations necessary to make its learning empowering--locally and in other relevant contexts ... A learning community is therefore fundamentally involved in social reconfiguration: its own internally as well as its position within broader configurations ... This means that COPs need to consider the social, political and economic contexts in which it operates. ... Issues such as the acquisition of specific subject matters, involvement in civic concerns, and people's relations to their jobs are actually implicated in the structures of meaning, even though they are often cast in terms of personal choices and abilities ... Of course availability of information is important in supporting learning. But information by itself, removed from forms of participation, is not knowledge, it can actually be disempowering, overwhelming, and alienating ... what makes information knowledge--what makes it empowering--is the way in which it can be integrated within an identity of participation (1998: 220).

COPs provide a means to develop/represent intangibles such as values or tacit learning (and the way these aspects are carried over and translated in communication processes). Tacit learning, for example refers to the way that we address a problem that is outside any so-called "reified rule" or "procedure" (as per Wenger 1998). In other words the etic (or outsider knowledge) needs to be understood by employees or community development

facilitators/change agents through engaging in conversation to enhance mutual understanding. Conversations for co-creating meaning can address what is meant by 'competence', 'citizenship rights and responsibility', 'governance' and 'management' by the different parties. Greater mutual understanding can lead to creative solutions across sectors and disciplines.

At a praxis level (this means linking thinking and doing) the workshops and learning materials could provide a resource for those practitioners and citizens who wish to make a difference by working across sectors and in an interdisciplinary manner. It is both practical and idealistic in its message. This is not a contradiction. Unless we can empower people to voice their vision through respectful dialogue (as per Habermas 1974), creativity is lost and democracy is stunted (Banathy 1996; 2001a; 2001b; Romm 2001). Scaling up participatory approaches from the local to the national and international context is increasingly important as a means to promote mutual understanding. COPs can provide a vehicle for participatory governance that has the potential to address complex issues and values. Democracy requires active citizenship in multiple contexts, not just the vote, in order to create socially and environmentally just governance.

COPs operate on the principle of unfolding issues in context and sweeping in a range of concerns that have a bearing on the context. In this sense it puts into operation the two poles of the dialectic, namely 'unfolding' and 'sweeping in'. Intuitive thinking is part of this. The hunches and intuition of a number of people are pooled, along the lines of the quality circle idea. This is the aspect that Churchman (1982) alluded to in his discussion of "light and radiance" created by communication that is meaningful and creates a spark of understanding and energizes people to work together. Ordinary people can use all the tools of thinking beyond the limits of any management framework to be creative. The COP can expand to cover sectors and disciplines.

The article (as per Churchman 1982: 126) 'sweeps in' a wide range of considerations that are vital to enable the public, private, and volunteer sectors to address complex challenges, to improve governance and design for the future. COPs provide a way to work systemically with knowledge categories, rather than within categories. COPs have the capacity to develop transcultural and disciplinary webs of meaning (as per McIntyre-Mills 2000) with due consideration of all the stakeholders in co-creations that are meaningful to all the participants. Knowledge (and what is considered to be knowledge) can be augmented by personal lived experience (Polanyi 1962) that can draw on multiple insights.

Knowledge narratives need to incorporate multiple human meaning systems (beyond western science and logic) and the dimensions of time and place, if they are to be systemic or holistic. How do we shift from seeing the world through one set of lenses/assumptions to understanding without framing the problem in terms of any one set of assumptions? How can our designs encompass our human frailties "the enemies within", named by Churchman (1979) as "politics, religion, morality and aesthetics"? Without these we are lost and with these values we act in ways that make us less than human and less than compassionate and considerate. What do we do when our designs are based on logic that fails us? The challenge is to work with multiple meanings and encompass more than one way of seeing the world. The world has changed since September the 11th 2001 and the notion of 'good and evil' is daily news. We need to unfold assumptions and values when we talk about social and environmental policy.

This is useful for developing theoretical and methodological literacy and enriching our thinking through contemplation of multiple sets of meanings.

If we go the route of trying to find common denominators (by virtue of our shared humanity and shared planet) we can hold in mind the ideal to bind together the rifts across:

- a) Those that think there is no ultimate truth (extreme postmodernism and the cynics),
- b) Those who believe that the closest we can get to truth is through dialogue (post positivism inspired by the humility of Popperian falsification and its potential to liberate) and
- c) Those who believe in a great totalizing and potentially oppressive truth (extreme positivists and fundamentalist zealots of many religious and political persuasions).

If all three positions can accept that there is indeed a common foundation based on our humanity and our shared planet, then perhaps it is possible to re-construct that ultimate healing synergy of the 'dependent origination idea' (as per Buddhist philosophy and many indigenous ways of thinking).³

A range of complex issues need to be addressed if social and economic sustainability is to be achieved by policy makers and managers. The "might-right" issues (Flood and Romm 1996) need to be surfaced, whilst mindful of the strategic implications for the stakeholders, in order to assess the way that power and values impact on data that are presented as fact and that may lead to a shift from recognition of shared values to a denial of any areas of difference. Diversity recognition is also essential, because diversity is a jump lead for creativity. Indigenous Standpoint Theory (Foley 2002) stresses the need for maintaining a separate space to avoid forms of totalizing control. It can be necessary not only for political reasons, but in order to preserve a space for difference.

In "Thought and Wisdom", Churchman (1982: 55) highlights the problems associated with making decisions that "cut off" opportunities too soon in a design process. Resonance or meaning in all interventions is dependent on participatory approaches that take into account many considerations. Systemic thinking and in particular critical systems thinking has much to offer. It can indeed make a difference to old-fashioned positivist approaches that operate in categories and that test the relationships across just some variables, instead of thinking about contextual shapers of definition and boundaries. Churchman stresses the importance of going beyond traditional scientific thinking to sweep in values and beliefs, because they too make a difference, not only to the way we operate and the way we do research and practice, but how we construct the issues we investigate.

Induction can enable us to leap from the known to the unknown; it can lead to creativity and "the pit" (Flood and Romm 1996). Deduction can be flawed, based on mistaken premises; faulty equipment and flawed readings based on human senses of sight, hearing, touch and smell. Being tired or emotional can cloud judgment, but suppression/denial of feelings and ignoring intuition can also cut off useful insights. Recognizing that a perfect system incorporates the notion of goodness, that elusive quality that is by definition part of the perfect monad (Churchman 1971: 41)⁴ means that we can never forget Churchman's enemies within (politics, religion, morality, and aesthetics) because paradoxically and systemically they relate

³ See Tetsunori 2001.

⁴ Drawn from his reading of the Greek philosopher Anaxagoras, who assumed that "all things contain all things".

to quality. Quality is a relational concept and an absolute goal; it is the elusive systemic monad.

DIVERSITY MANAGEMENT AND ADDRESSING COMPLEXITY

The challenge is to realize that today we work in complex settings. Flood and Romm (1996: 129) question the taken for granted assumptions. They discuss ways to move away from working within narrow 'centres of learning' to holistic systems based on critical questioning. We need to consider not only the social, political, economic and environmental context, but also that we work at the level of the individual, the level of the organization, the community, the nation, and in terms of the international context. Furthermore, we need to consider the implications of rights and responsibilities for action and sustaining action. We need to work across disciplines and sectors and realize that working with, rather than within knowledge areas, requires managing knowledge and understanding that information is based on 'either or' as well as 'both and' definitions of data. It is also based on the idea that energy is the basic unit of information for life, as per the systems physicist, Simms (2001). Energy flows, it gives life and is radiant. Radiance, according to Churchman, is the difference between meaning that generates hope and goodwill and meanings that are imposed and limit creativity and good will. Decisions (derived from the Latin, 'to cut off'), options (as per Churchman 1979, 1982), should not be taken lightly.

Knowledge narratives can be explained in terms of a mandala, symbolic of a meta-systemic view of knowledge, rather than as separate categories. A mandala is symbolic of a complex whole. Data can be defined as bits (binary oppositions that can be computer read/interpreted as technical information) and as Logons derived from telephonic communication research. Bradley defines information as the "minimum uncertainty beneath which the fidelity of a signal cannot be compressed" (2001: 68). There is yet another definition of information from the physics of living systems as the basic unit of energy required for life from conception to reproduction. As Simms (2001), a physicist argues, information is required for energy, a determinant of living systems. Thus it is possible to argue that units of energy resonate as a continuum of life in all living systems. If we consider information to be the potential to carry energy to enable work (Simms 2001), then we can accept that information can be derived from both 'either or' thinking and 'both and' thinking and we will be more responsive to diversity as a means to attempt to falsify or 'try out' propositions (in a loose sense as per Popper) through respectful dialogue (as per Habermas).

Working with people from other disciplines or sectors (public, private, or volunteer) within multidisciplinary teams is not easy. Reason (1991) talks of "power and conflict" associated with different levels of status associated with different professions. Personalities and politics also play a role, according to Reason (op cit). Managing group dynamics and communicating through co-creation (as per Reason 2002) in such a way that participants from diverse disciplines can understand one another remains a challenge for all those attempting to take on complex issues.

Energy (the basic unit of co-creation) may or may not lead to consensus, but the

process of communication could construct new narratives and build webs of understanding that can help to re-wire the closed/compartmentalized ways in which we think. Troncale (2001, personal communication, ISSS workshop) stressed the importance of understanding linkages as a means to address closed thinking leading to oppression and bigotry.

Information, the most basic unit of energy, shapes life, whether we use religious, mythical, or scientific narratives. Psychological narratives appear to confirm this as well: "What we know about the world becomes projected upon the world" (Banathy in Romm 2001). In terms of this paper I follow Simms definition as it provides a generic basis for understanding across social, political, and economic disciplines. But other definitions need to be "swept in", as they have shaped knowledge and practice. The either/or thinking and the space/time definition of information are indeed relevant because information and the way we understand it, shapes our perceptions of the world and our positions in interactions. But we can reconstruct this information through critical thinking, in order to steer the direction of change (Habermas 1984).

A SYSTEMIC APPROACH TO RESEARCH AND PROBLEM SOLVING

There are many areas of knowledge and complexity needs to be addressed through unfolding the layers of meanings. Let me illustrate this with an example of my own research experience as a way into discussing participatory design and governance. I have not confused COPs with innovative survival strategies at the community level. But without confusing 'a sense of community associated with a survival network' with a COP, a resonance between the two will be highlighted; namely communication built on resonance of meaning and trust that can provide a source of human resources for problem solving. The essence of a COP is that through action learning people find ways to work across boundaries to address complex problems and to create plausible outcomes in a range of contexts. According to Wenger (1998), participants in a COP can find and create ways to deal with unique challenges and human tragedies. According to Wenger's (1998) participant observation of COPs, fuzziness and messiness is their reality, not the textbook situations that rules address.

The COP includes many ordinary people and provides multiple hooks of reference to provide a context for multiple meanings. A COP cannot be understood by means of a survey, it needs to be understood by means of qualitative research that taps into the meanings of the participants. Wenger originally developed the concept of the COP on the basis of participant observation. It is even more appropriate to use participatory action research to develop on the ground understanding of meanings in context. Ontologically it requires working with, rather than within frames of meaning. It provides an excellent context for complex problem solving. Churchman stressed methodologically that early decisions about frameworks and relevance could lead to designs that 'cut off' options. He reminded us that decision is derived from the Latin root meaning "to cut off" and that making decisions sometimes led to limiting our creative options and problem solving. Open communication systems are vital for managing the mess of complex human lives and tragedies, in so far as we need to work in a complementary way, not in isolation, but across paradigms. They refer to the debate as to whether knowledge

can progress through isolationism based on non-commensurable nature of paradigms or based on the belief that through using intelligent critical and systemic thinking complementarism can be achieved. We need to recognize that rationality is based on communication and dialogue that is meaningful to the stakeholders involved (as per Habermas). Communication needs to occur across sectors. This includes public, private and volunteer sectors and a range of disciplines, in order to achieve integrated policy and practice.

In the following example I also try to demonstrate that research needs to attempt to represent the meanings of the participants and a survey design alone would not have helped, because the actual design could not have achieved open-ended and participatory questioning to enable me to know what the right questions should be. It involved:

"Setting aside" "the taken for granted worldview" on the nature of health and illness. I had to move from Level I learning (to use Bateson's (1972) term), within a single framework to level 2 learning, making comparisons within known paradigms, to making a leap beyond the existing framework to level 3 learning.

"Unfolding" the concept of illness and misfortune called 'intwaso', by talking with patients, doctors, nurses a social worker, Indigenous spiritual healers (known as diviners) and with members of households in a neighborhood of Section 3 Guguletu (at that time an urban ghetto in Apartheid South Africa). It involved attending ritual dance séances that lasted for two days and two nights. It involved tracing diviner networks to a rural area (where people returned for healing and to draw on support networks, where possible).

"Sweeping in" a range of considerations: social, cultural, political and economic.

By working the boundaries and not working within them I was able to achieve a level of understanding. We need to be able to "bracket", to use Husserl's term or set aside our own "taken for granted views of the world" and to begin to understand the point of view of the other by using the two tools of critical "unfolding" (looking at the layers of meaning by asking the, how, what, why, and in whose opinion questions). The other is "sweeping in" the social, political, economic, environmental issues when looking at an issue.

In the following example I discuss how the processes of "sweeping in" and "unfolding" are necessary for understanding knowledge narratives and the meanings of participants and for tapping into areas of knowledge that are usually framed out of the dominant knowledge narratives. This is the area of tacit or experiential knowledge. This is an example of a network or matrix approach to poverty and survival. Usually bounding an area of inquiry is the first thing we are taught when we do traditional research. Churchman's (1971) argument that this is inappropriate has not been commonly shared. Some social anthropologists, such as Monica Wilson, whose work I studied as a student at the University of Cape Town (where her legacy was influential) stressed that bounding an enquiry could cause one to do worthless work. We were reminded of this by means of the admonition that "sometimes we only know the right questions to ask right at the end of the research project!" Bounding an enquiry is a double-edged sword. Some questions can lead to explanatory analysis. Other questions can lead to asking questions that are meaningless to the informants and thus produce data with presumed deductions that are actually just meaningless inductions (that are created as an artifact of the way that the research questions were constructed). Although this research was conducted as a social anthropologist before discovering the work of Churchman, the issues that he has

emphasized about bounding the research are well illustrated by reflecting on this research.

At the request of a psychiatrist (at a hospital for the mentally ill in Cape Town) who could not understand why so many more patients were being classified as schizophrenic at the hospital, I was asked by my sociology professor to find out if there was indeed a possibility that the patients were being misdiagnosed. Instinctively I thought, "well perhaps it is hardly surprising that people are mentally ill and suffering from schizophrenia in apartheid society, where life chances and quality of life at that time were determined by race. It soon became apparent that the patients were being rather rapidly processed in a large outpatient's clinic. A number of things were happening. The nurses were black, the psychiatrists were white. Cultural capital meaning a sense of status associated with familiarity with the culture of the dominant class, was leveraged on the side of the white doctors. Nurses with hard-won qualifications deferred to the doctors. They did not usually translate fully the stories told and they began to label the patient who invoked the cultural idiom as schizophrenic. The only problem was that the same cultural idiom, was involved in each case. To say that one is "called by the ancestors", is simply a way of expressing pain and misfortune. To talk of dreams and symbols provided a route for expressing an inability to cope, but paradoxically also gave power as one marked (not stigmatized) by the ancestors who was required to follow culturally determined rules and idioms, in order to regain health and well-being. In that apartheid context the patients were prescribed drugs for a wide range of symptoms. The patient went away with a treatment schedule, which may or may not have been comprehensible. That was all the hospital provided to outpatients. Those who were very distressed could become in-patients, but there were very few places. One social worker attached to the hospital and a conversation with her confirmed in my mind that the people were desperate. I was asked to do the history collection before the patients went to the psychiatrist. I asked the social worker to help me. The stories were of hardship. One patient explained to me that she had been told by her Indigenous healer to come to the hospital to see if she could "get anything to help address her misfortune". She said pills would not be of much help. But visiting the outpatient's clinic at the hospital was one of the options available and many people made use of it. A prescription and a doctor's certificate could help one if one was working and needed sick leave. It was of no help if one were a casual labourer or unemployed. My patient informant explained her survival strategy in terms of being a member of a diviner school and a church. Both provided emotional and some practical resources for survival. She explained to me that a diviner school involved learning how to divine the meaning of dreams from a 'diviner mother', who had in turn learned through being called by her ancestral spirits and through being healed.

I began to understand *intwaso*, an Indigenous concept for ill health and misfortune, or quite literally "being called by the ancestors". In the past people who were ill and could not cope, expressed their dissatisfaction in a culturally acceptable way. Those who die (according to Indigenous African cultural cosmology), remain interested in the lives of their descendents on earth. They are believed to intercede in the lives of their descendents and to appear to them in dreams. Sometimes in the form of bush animals, symbolic of the wild and the untamed parts of the mind and life (the resonance with Jungian symbols is strong). Also wild animals were very important to urban dwellers who had left rural 'homelands' (where people had the vote, but were subject to the apartheid fiction that homelands constituted a substitute for citizenship

rights in the rest of South Africa). To have an ancestor looking after one and returning in dreams as a wild animal helped to create a sense of balance. They had no choice but to come to the urban centers, because they faced poverty in the so-called homelands (a construct of Verwoerd), the architect of apartheid. In the cities of South Africa, where they were working due to economic necessity, they had no voting or citizenship rights. Once in town the migrant workers lived in hostels and in cramped living conditions and a host of illnesses were common in this context. Others who lived in small houses (known as match box houses) lived in a similarly precarious manner relying on at least one person in the household being employed--and if no work was forthcoming in a household, then poverty deepened to desperation. Survival networks made the difference between surviving in town and having to return to the so-called homeland areas. These return trips were made meaningful in terms of the cultural idiom as a means to access special herbs or to fulfill ritual requirements "in the bush". A way to access survival networks was to declare oneself called by the ancestors and to seek help from a diviner mother (often she doubled as a church elder in the Zionist or Apostolic churches. These Indigenous churches incorporated relevant symbols and practices and became transcultural, rather than limited to a particular cultural framework. Transcendence and resonance was achieved through drumming a polyrhythmic sound, singing, chanting, and immersion in the sea whilst wearing biblical robes. To add to the transformation they filled roles with important titles such as "Bishop", "Prophet", and "Priest" (West 1975). This helped to compensate for daily lives of poverty and indignity (op cit).

The turning point in my understanding of the phenomenon of intwaso and the way that it was being misunderstood, was taking the decision to enlarge my research design to incorporate the process whereby people at a household or individual level decided to seek help for some symptoms and to find out what treatment route they should take. If I had limited my study to the hospital I would not have understood the way in which aetiology was determined at the household level, or why or when symptoms were considered "to have something behind them" and in need of the treatment of a diviner. At the invitation of my patient informant I began my study of diviner networks. I also undertook a household survey to understand the context of etiology. Intwaso was an interpretation of a range of different symptoms and circumstances. The study revealed that many of the patients attending the hospital who said that they were "called by the ancestors", were also attending tuberculosis clinics in Guguletu. The same was true of the patients at the diviner school and members of households in a neighborhood of Guguletu. All those who defined a range of symptoms as intwaso, had one thing in common: a sense of desperation. TB was (and is) endemic. I learned that the seeking of help by people who are marginal and without support, would lead to the diviner mother mobilizing resources from family, extended family in the rural areas, neighbors and her own apprentices. Networks of reciprocity based on trust were a central aspect of survival where there was and still is very little state welfare. Also they would be encouraged to seek treatment for their physical symptoms from biomedical practitioners. But the question: "why me and why now" (West 1975) would be addressed through prayer and ritual through the diviner schools and through the churches. Also the prayer groups or "Manyanos" doubled as savings clubs. If social capital were built through praying together to God and to the ancestors then members would trust one another to follow the rules of the savings club. Each person would have a turn

to draw the entire pool of savings. The ceremonies associated with *intwaso*, also involved a communion: the sharing of protein with members of the support network. Animal sacrifice in this context was vital for survival. The symbol of the drum across Africa is important,⁵ like the idea of maintaining webs of reciprocity as indicated by Mauss (1990).

The diviner schools filled (and probably continue to fill) the function of providing for basic survival needs: health, well being, and re-creation/recharging the spiritual batteries. At the time I did not know that I would be studying an old cultural idiom that had responded to the very particular challenges of survival in apartheid South Africa (old wine, in new wineskins or the brittle flagons of apartheid life).

The example from past research is mentioned, because experientially it was very important as an introduction to tacit knowledge and its value for addressing complex problems in a context where self help was the only help as there was no political will to address the problem of disenfranchisement and poverty.

The recognition of tacit knowledge is also a starting point in the recognizing multiple realities.

UNFOLDING A COP TO ADDRESS PROBLEMS: AN AUSTRALIAN EXAMPLE

"Survival; is not mandatory, it is our choice",⁶ is the mantra we need to bear in mind! This applies not only in societal contexts without democratic rights, but also in contexts where maintaining democracy requires the vigilance of ordinary citizens.

In this example a community of practice (set up to assist senior managers in the Australian public sector) is critically analyzed with a view to unfolding the implications of COPs (Wenger 1998) for addressing socio-demographic, economic, technological, and environmental challenges. With higher levels of turnover in staff in the public sector currently and in the future and higher levels expected in the future, it is vital to find alternative means to document, manage, and retain the explicit and implicit knowledge within and across sectors of the government. Digital records can assist the process of managing knowledge. Working across sectors and disciplines is necessary to achieve integrated solutions. This requires matrix team approaches to design, plan, and implement policy to address the complex, interrelated social challenges we faced currently and in the future.

The Community of Practice was set up to facilitate organizational learning in response to a changing world. Engagement is with the local context of organizations, but the context is shaped by global challenges. Thus the social, cultural, political and economic and environmental context in which organizations operate need to be considered in designs for the future. This impacts on learning, public policy and management. Some of the key challenges are in the areas of:

Socio-Demographics. Australia has an ageing population and like many developed nations,

⁵ Janzen (1998), who was a supervisor of this research, points out in his work that there is an etymological root to drum, ancestors, and cattle, all linked with the ritual of continuity and sustaining the communication energy across the barriers of death and thus, sustaining the living.

⁶ Speech by Paul Case, Commissioner for Public Employment PSA Conference 14 August 2001

the number of retirees drawing down their superannuation will place added stress on the social fabric. The declining birth rates and overall population will mean a higher dependency ratio in the future. The public sector will have to address this challenge in partnership with the private and volunteer sectors, because the current resources for government are increasingly residual in the era of what has been termed the "post welfare state" (Jamrozik 2001).⁷ He argues that all Australian families with dependant children have less disposable income than ever before and the Gini co-efficient shows that the gap between rich and poor is growing. He concludes that in the future we face an aging population and low rates of immigration, thus raising questions of sustainability and dependency. An added concern is that the baby boomers are about to retire and to draw down their superannuation, thus depleting the reserves available for funding welfare in the future. Jamrozik considers that fewer people employed in Australia are in full time positions and working longer hours, which impacts on family life. More people are in casual and contract positions and they compete globally for the lowest production costs. This means that the wages of workers in developed countries could decrease. Globalization may have winners, but the losers will need to be assisted to obtain services and skills. It is a fact that the gap between rich and poor in Australia is widening.

Social and cultural changes. In this generation socio-cultural changes are accelerating in response to many challenges and the technological changes are dramatic (as per Banathy 1996). This means that people's identities need to accommodate change. A globalized workforce that moves in response to the dictates of the market to find work faces the loss of a sense of place, a sense of continuity in their work, home, and neighborhood. A sense of continuity becomes a characteristic that has to be achieved in new innovative ways. Also as people have fewer religious or national, or ethnic boundaries they feel lost unless they can integrate these changes into their lives in a meaningful manner. The impact on well-being cannot be underestimated. But digital networks can play a role in providing a sense of community for solving private troubles and public issues (to use C. Wright Mills' (1975) distinction), even if they cannot replace the face-to-face interactions that have a special resonance.

Technology. Biotechnology and nanotechnology will impact on the ethics of being human and will have particular relevance to the health sectors.

Environmental sustainability. In terms of natural resources, soil and water, in particular will be key shapers of quality of life.

Social sustainability. Meeting other needs such as: affordable power and service costs, housing and transport. All these factors impact on the lives of families. Health, education and employment remain key challenges for all governments, as they are central pillars of citizenship. Good governance is increasingly hard to deliver and it will depend on the ability of the players to become innovative and to work effectively across organizational sectors to enhance designs, plans and operational delivery. One way to enhance governance is work across sectors and disciplines. Digital databases for knowledge management are also a useful

⁷ The definition is based on a shift from universal quality of life projects, to residual welfare to meet basic needs. This is because of the challenges posed by the way that the market functions and the way it is currently viewed and constructed, and in part because Governments make policy decisions on who gets what, when, where, and why, but also because more people currently draw welfare benefits than ever before.

starting point to facilitate working across sectors and disciplines. The narrow compartmentalized approach to addressing problems is being replaced by a realization in many areas of research and practice that in a complex, changing world, integrated responses are needed. Health, education and employment can be positively and negatively impacted by designing supportive neighborhoods, places of work, recreation and learning.

One of the key challenges for the future is building and sustaining the rights and responsibilities of citizens through developing social and environmental capital, not only economic capital. The so-called 'triple bottom line' (people, the environment, as well as economic considerations) will be vital (Elkington 1997). When we also consider that the frameworks we apply are sometimes inappropriate (because they are too compartmentalized and the time frame is short-term, not long-term) the problem deepens. We need to be mindful that we are citizens, not merely customers or business operators and that the social and environmental contract is deeper than any commercial contract. Learning needs to enable the participants to make sense not only of their own field of practice, but to learn to engage with others in other fields of practice. Identity based on one set of assumptions and values associated with one's own learning and experience needs to be expanded to negotiate with other frameworks of meaning. This involves becoming boundary workers across subject areas, sectoral areas and cultural areas. Skills will include transcultural understanding, knowledge management and management of diversity. These are not entirely new skills and they can be developed by building on existing competencies in conflict resolution, communication skills (based on respect for the other) and one's enthusiasm to learn from others in a range of contexts and via a range of media. Imagination is helpful (not merely in trying to predict the future and then attempting to plan rigidly for it) but in being able to anticipate the best route. Anticipation is based on consulting records of the past and being mindful of future developments and the interpersonal and personal challenges on the voyage, so as to be able to set the right course and to anticipate when and how to set one's sails appropriately, to travel with currents (that are supportive of one's mission of social and environmental sustainability) and to avoid troubled waters (as per Banathy 1996, 2000).

According to McIntyre Mills:

The goals and objectives of traditional generic management have been almost entirely focused on the pursuit of profit through efficiency. The drive for profit motivated efficiency through top-down, 'power over' forms of communication is precisely what has been identified (Karpin, 1994) as the major barrier to essential change in contemporary generic management. This barrier has had the effect of polarising and separating workers and employers.... but furthermore there is also an opportunity cost to employers, namely the loss of the creative potential of employees that could be used to increase outputs. Empowering managers as well as workers through the application of ... principles ... [that value contributions and creativity] could be of benefit to all (2000: 92).

The process involves enabling participants to engage in learning to meet future organizational challenges in an integrated or systemic manner based on connectedness, engagement with issues and sharing knowledge across disciplines and sectors to reformulate individual troubles into shared issues and shared solutions.

Conversation was used a design tool (as per Banathy 1996) to surface assumptions and values. An analysis of the following issues demonstrates a tension between on the one hand, the valued competencies in the public sector based on efficiency and are narrowly task oriented, but on the other hand, the public sector wishes to develop an appreciation that competencies can be enhanced by other processes such as engaging in conversations that are wide ranging, systemic, and that begin to address the complexity of issues that we face and for which we need to design responses. Designing alternatives requires making opportunities to rethink and envisage alternatives beyond the existing boundaries.

The experience of valuing contributions through respectful communication that allows for discursive, rather than directed, agenda-run conversation was described as: "this is enjoyable just to talk without an agenda. ... The COP is a safer environment to share, because [formal] meetings are so agenda driven." The communication process per se is an area that is under-researched and vital for management. Interactive design strives to anticipate challenges whilst avoiding the problems of the past, namely trying to think in narrow frameworks.

Shared reality can only be co-created through respectful conversation that aims at mutual understanding and draws on the particular skills of the participants. The challenge that group members faced throughout was that in discussing even the most basic issues (using concepts like "management", "competency", or "learning") participants in a conversation perceived and used concepts differently. Differences stem from educational background and disciplines, level of education (whether the participants have a technical or conceptual grasp of issues), as well as different cultural attitudes and values towards people and work.

A DESIGN FOR AN INDIGENOUS COP IN ALICE SPRINGS

The following is an example of policy design based on ongoing research in Alice Springs. This design is to support the capacity of an Indigenous Housing Association to set up a community of practice. The proposal is to set up a COP and to use participatory action research (PAR) to assess its value and impact on improving governance to guide and design the future development of Indigenous living choices. It is envisaged that this proposal to improve governance and management would support existing initiatives and priorities. The COP explores citizenship rights and responsibilities and the way in which these concepts are linked with experience and life chances. As such the COP process goes beyond the current debates concerning so-called 'victim mentality' that tend to limit thinking. This approach to governance is systemic. If appropriate systems solutions can be introduced then the positive flow on effects would be multiplied.

Diversity management (Flood and Romm 1996) could be learned via the COP using tools such as triple loop learning (op cit.) to address questions about tasks, processes and the rationale for the decisions. It is ideally suited to addressing complex, systemically linked social cultural, political, economic issues that pertain to governance and empowering the participants. It is also suited to enhancing participation. Empowerment through the COP means helping people to achieve greater confidence and power in the following areas: resources, relationships,

information, and decision making.

The life chances of Indigenous citizens in Alice Springs are significantly lower than for non-Indigenous citizens, in terms of health, education, and employment indicators. Alice Springs has almost twice the number of human services as the national average and yet the outcomes in terms of social health are dramatically below the national average (according to the Australian Bureau of Statistics Regional Statistics for 1996). The barriers to achieving health, education, and employment outcomes for some Indigenous citizens living in Alice Springs are both personal and social due to systemic social-cultural, historical, demographic, geographic, economic, and political factors. The impact of colonization on Indigenous people needs to be considered in all analyses of the current status of social health in Alice Springs (Menzies Annual Report 1999) Alcohol misuse is an effect of a legacy of colonization and marginalization and a cause of social ills. Higher mortality and morbidity rates in Alice Springs and the Northern Territory are outcomes associated with violence and road deaths as well as diseases directly and indirectly linked with alcohol and the associated poor nutrition (as a result of both spending money on alcohol as well as the unavailability and very high cost of food in remote communities). The ramifications of the abuse of alcohol need to be understood as being systemic in their causes and effects. Alcohol misuse is the immediate cause of many social ills. The causes and effects become a cycle of damage to individuals, families and communities resulting in ongoing and intergenerational poverty because of the modeling of behavior to the younger generation and the sense of cultural loss, meaninglessness and dependency on welfare. The cycle is one of marginalization, alcohol misuse and further marginalization.

The premise of the systemic approach is that not only are systems linked (Churchman 1979), but that management and policy in line with the Ottawa Health Charter of 1986 need to address health and development and to engage multiple disciplines and sectors. But there is also a need to be sensitive to the definitions and meanings of interest groups and men and women of all ages. The social, cultural, political, and economic contextual issues faced by age groups and by gender groups need to be a focus for action learning to address governance as it pertains to citizenship as it is experienced. What do rights and responsibilities mean to those who have experienced marginalization but have survived colonization? This is in line with the Ottawa Health Charter of 1986 that stresses the need to understand the links across health and development, but the focus will be on how to make the rhetoric workable on the ground through translating policy into practice by means of PAR.

Learning to use Participatory Action Research (PAR) tools can help to enhance policy and practice that works with, rather than within boundaries to achieve integrated solutions. This requires matrix team approaches to design, plan and implement policy to address the complex, interrelated social challenges we faced currently and in the future. The community of practice management approach appears to be suited to this challenge (Nichols 2000; Wenger 1998). Facilitation would draw on contemporary systems thinking and practice as per Flood and Romm (1996), Romm (1998), Jackson (1995), current president of International Systems Sciences Organization Banathy (2000, 2001a, 2001b, 2001c) and Duhl (2001). The five key action areas (as per the Ottawa Health Charter of 1986) are promoting "healthy public policy, supportive environments, community action, personal skills and reorienting organizations."

Jamrozik (2000) describes the shift from universal to residual welfare policy as

indicative that Australia, like many other nations, has moved towards a post welfare policy in a post welfare state. It is a fact that the gap between rich and poor is widening, but that since 1966 the percentage of citizens drawing welfare has increased: 8% of the population were on benefits and in 1996 24.8% of the population were on benefits.

The goal is to increase the viability of preventative and promotive approaches by facilitating an Indigenous COP, built on the Housing Associations, to act as a hub for implementing change to improve governance. This approach would build on the local organizational structure and realities, rather than re-inventing another network and then trying to get Indigenous people to join. It is vital that local people who have been developing innovative changes own and run the community of practice initiative. The proposal is to enable this to happen.

As a bridge from the known to the unknown, community of practice provides some of the thinking tools that can help participants *leap outside* (as per Banathy 1996, 2000; Romm 2001) the emic (or taken for granted) and engage in creative practice that focuses on rights and responsibilities. The COP could enable local government to transfer diversity management approaches (systemic design, planning, facilitation, monitoring and evaluation) to the housing association members on town camps.

The process creates value by building connections, relationships, common ground and documentation of processes and thus enhances effective health and development practice (Lesser 2001). Since 1986 there has been progress in translating the vision of the Ottawa Health Charter through specific projects internationally (Davies and Kelly 1993), specific agendas such as Agenda 21⁸ that flowed from the UNCED summit (14th June 1992) recognize the links across disciplines for problem-solving. Incremental steps for setting up a transformative healthy setting COP maximize the multiplier effects of working across sectors and disciplines.⁹

The process of participatory action learning (using systemic approaches) is one of learning through dialogue, observation, and action with age and gender groups (Stanley and Wise 1993; Fonow and Cook 1991), with the specific goal of improving social dynamics and empowering the participants to address their sense of well-being. This is particularly relevant to empowering research that strives to ensure that participants determine the constructs and the direction of the interventions that form the basis for learning. It is based on thinking skills called "unfolding" meanings and their implications for stakeholders (as per Ulrich 1983) and "sweeping in" social, cultural, political and economic considerations (as per Churchman 1979; Banathy 1996, 2000; McIntyre forthcoming). These skills can be taught through the use of graphic, conceptual drawings and could build on painting and dramatic and narrative skills (story telling) as a starting point for identifying an axial or central issue on which the housing association members could work (in age and gender specific groups and as integrated, intergenerational groups) to improve the quality of life. Quality is a concept that is perceived as an aesthetic, cultural, moral, political, spiritual/religious concept (as per Churchman 1979), but it has physical implications. Physical, mental and spiritual well-being can only be achieved

⁸ See International Council for environmental Initiatives (1998) *Our community our future: a guide to local Agenda 21*.

⁹ Adapted from Mowbray, P. Healthy Cities Illawara: ten years on. A history of Healthy Cities from 1987-1997.

through integrated approaches.

Values are at the heart of the definition of well-being and are at the heart of all development initiatives. Unless the initial definitions are owned by specific interest groups (age and gender specific) and shared to develop a co-created sense of citizenship rights and responsibilities (McIntyre-Mills 2000; Romm 2001), then the process of development is meaningless. Definitions that are owned and that reflect the needs across interest groups, that reflect the meaning of rights and responsibility can form the basis of conversations and practice that "have radiance" (Churchman 1979; McIntyre forthcoming) and power to transform. Radiance is the difference between meanings that flow from self-confidence and a sense of dignity and identity, to meanings that are imposed.

The techniques for action learning all stem from the belief in the ability of people to change their worlds through thought and action. I have used action-learning techniques in many community development contexts to address design issues. The playing out of options to address issues can act as "mental walk throughs" and a means to address practical concerns in the future. The conceptual skills can be taught in simple and direct ways using action-learning techniques that build on conversation (as design and practice tools). This approach can be usefully applied by staff and housing association members to address:

At a specifically theoretical level the conversations that make up the fabric of the community of practice could contribute to critical and systemic thinking and could demonstrate the inherent value in open discussions that can improve design and 'diversity management'. In this way the Indigenous COP could contribute to the field of management and organizational learning (see for example Flood and Romm 1996; Romm 2001). The importance of building trust is stressed throughout. History, language, religion, politics and the environment must be 'swept into' the discussions, rather than framed out by rigid approaches to research, management and evaluation (see Ulrich 2001). This systemic approach is vital to ensure that multiple variables are held in mind. Ignoring 'just one variable' can make all the difference; a mistranslation of a term, ignoring cultural nuances, token gender considerations, forgetting the importance of social dynamics and their political/historical context could undermine the viability of a project.

Similarly, the systemic approach allows for the process to consider both the intended and the unintended results of interventions. The pros and cons of each are considered valuable lessons from which to learn, so that the next phase of the cycle can benefit from what was thought, said and done previously.

CONCLUSION

COPs are a function of individual values and will and organizational contexts within the context of time and space. They can only develop in a context of relational knowledge, but when the context does not exist for pooling resources in an atmosphere of trust, then COPs can exist only in name. Power continues to determine what constitutes knowledge, but COPs can be used as a means to address the power bases, if trust can be developed amongst participants who wish to bring about change and to reconstruct meanings in multiple arenas. It is possible, but it

takes energy, commitment and the ability to think in a strategic sense whilst engaging in interactive designs for the future.

By way of drawing to a close I will share the experience of trying to share the principles of participatory development in Samar, one of the poorest provinces in the Philippines. The process of teaching systemic praxis was mediated through a university context where I held a series of workshops. As a development facilitator I was associated with the university and with the powerful elite. Despite also having conversations with representatives of the Barangays/villages and groups of women (who were concerned about a range of issues) and despite their being part of the planning seminars, more mentoring was needed to help them to deal with the bureaucratic committee system of governance. Added to this, the poorest men and women felt disempowered by the fact that the land was becoming re-owned, through their own indebtedness, by some of the powerful participants at the workshops, despite the government buy-back system. The old landlord-peasant relationships were revived in some communication contexts. The reality reflected this deferral and sense of obligation and indebtedness.

My being located within the elitist space of the university made my role as facilitator to address marginalization in terms of status, income, access to resources, information, and decision-making paradoxical, because it was not the role anticipated by the stakeholders. A student network (including Australian students) was set up with the university to assist the process of participation in decision-making at the village level. Some placements were co-located with NGOs. Perceptions and trust are all important in the process of development and the energy of resonance is vital. The process continues, albeit via occasional email and via sharing teaching materials. Systemic praxis via COPs can develop in contexts where relational knowledge can be developed because the environment is supportive, but it can also develop in environments that are challenging (and thus they are oppositional), provided adequate facilitation is possible.

The examples demonstrate that matrix type responses can be useful to:

- Engage diverse interest groups and ensure that people irrespective of age, gender, socio-cultural background, level of education, level of income are able to participate in generative dialogue (Banathy 1996) for problem solving;
- Work across sectors (for example, health, education, employment);
- Work across disciplines in a range of public, volunteer sectors at local and state level.

As a vehicle for enhancing governance this approach could be helpful in terms of shifting approaches from compartmentalized thinking and practice to matrix web-like thinking and practice that is suited to addressing complexity. It can help to shift ontological and epistemological approaches to management and research and enable greater facility in creative problem solving. Instead of operating within bounded units of thinking, management and practice, the COP can facilitate "leaping beyond" (in the sense used by Banathy 1996) the framework in order to design more appropriate policy responses to complex issues. The new Agora approach (Banathy 2000) and support at the website (<http://www.globalagoras.org/>) can make some contributions, provided we are mindful not to create another Greek Agora, where only the free can participate in co-creating democracy. The slaves were silent in the Greek Agora, but we can learn from the past and try not to repeat the same mistakes. Today the silent are those without sufficient education or income to access a computer discussion. Thus we

need to develop ways to include the most marginalized. We live in a world of paradoxes, where the digital can become yet another layer of division between the haves and the have-nots. Just accessing safe water and sanitation or a workable telephone can be a challenge in many parts of the world.

Promoting participatory design and the skills to exert democratic rights and responsibilities remains one of the greatest challenges of strategic knowledge management. We need to incorporate tacit knowledge through a COP that helps to bridge the divide between civil governance and the grass roots and the boardrooms of the public sector and the volunteer sectors. COPs can contribute to providing a network/a web of meaning that has resonance. Further, it can also help to redress the problems of both hierarchies and hetarchies by helping to at least make the rules workable and if possible to rework them.

WORKS CITED

- Banathy, B. 1996. *Designing Social Systems in a Changing World*. New York: Plenum.
- . 2000. *Guided Evolution of Society: A Systems View*. London: Kluwer/Plenum.
- . 2001a. "Self-guided Evolution of Society: The Challenge: The Self-guided Evolution of ISSS." 45th International Conference, International Society for the Systems Sciences, July 8-13.
- . 2001 b. "The Agora Project: Self-guided Social and Societal Evolution: The New Agoras of the 21st Century." 45th International Conference, International Society for the Systems Sciences, July 8-13.
- . 2001c. "We Enter the 21st Century with Schooling Designed in the Nineteenth." *Systems Research and Behavioural Science* 18, 4, 287-90.
- Bateson, G. 1972. *Steps to an Ecology of Mind: A Revolutionary Approach to Man's Understanding of Himself*. New York: Ballantine.
- Bradley, R. 2001. "Bits and Logons: Information Processing and Communication in Social Systems." Abstracts: International Systems Sciences Conference, Asilomar.
- Churchman, C.West. 1971 *The Design of Inquiring Systems: Basic Concepts of Systems and Organisation*. New York. Basic Books.
- . 1979. *The Systems Approach and its Enemies*. New York: Basic Books.
- . 1982. *Thought and Wisdom*. California: Intersystems Publications.
- Davies, J. and Kelly, M. 1993. *Healthy Cities: Research and Practice*. London: Routledge.
- Duhl, L. 2001. "Systems and Service at School of Public Health, Berkley." *International Systems Sciences*.
- Elkington, J. 1997. *Cannibals with Forks*. Oxford: Capstone.
- Flood, R. and Carson, E. 1998. *Dealing with Complexity: An Introduction to the Theory and Application of Systems Science*. Second edition. London: Plenum.
- Flood, R. and Romm, N. 1996. *Diversity Management: Triple Loop Learning*. Chichester: Wiley.
- Foley. D. 2002 "Indigenous Standpoint Theory." Sharing the Space Conference. Flinders University.

- Fonow, M. and Cook, J. 1991. *Beyond Methodology: Feminist Scholarship as Lived Research*. Bloomington: Indiana University Press.
- Habermas, J. 1974. *Theory and Practice*. London: Heinemann
- . 1984. *The Theory of Communicative Action: Reason and the Rationalization of Society*. Beacon: Boston.
- Jackson, M. 1995. *Systems Methodology for the Management Sciences*. New York: Plenum.
- Janzen, J. 1978. *Quest for Therapy in Lower Zaire*. Berkley: University of California Press.
- Kavenagh, D. and Richards. 2000. "Can Joined-Up Government be a Reality? A Case Study of the British Labour Government 1997-2000." Paper presented at the Australian Political Studies Association 2000 Conference, Australian National University, Canberra 4-6 October 2000.
- Lesser, E. 2001. *Communities of Practice and Organisational Performance*, IBM Institute for Knowledge Management, Boston University. Unpublished White paper.
- Mauss, M. 1990. *The Gift*. Translated by Halls, W.D. Foreword by Mary Douglas. London, New York: Routledge.
- McIntyre-Mills, J. 2000. *Global Citizenship and Social Movements: Creating Transcultural Webs of Meaning*. Netherlands: Harwood.
- Mills, C. Wright, 1975. *The Sociological Imagination*. Harmondsworth: Penguin.
- Nichols, F. 2000. *Communities of Practice: Definitions, Indicators and Identifying Characteristics*.
- Polanyi, M. 1962. *Personal Knowledge*. London. Routledge and Kegan Paul.
- Reason, P. 1991. "Power and Conflict in Multidisciplinary Collaboration. *Complementary Medical Research* 5, 3.
- . 2002 Justice, Sustainability and Participation. Inaugural lecture. <http://www.bath.ac.uk/%7Emnspwr/Papers/InauguralLecture.pdf>, Published in *Concepts and Transformations* 7, 1, 7-29
- Roche, A. 2001. "What is this Thing Called Workforce Development?" In *Systems, Settings, People: Workforce Development Challenges for the Alcohol and Other Drugs Field*. Edited by Roche, A. and McDonald, J. Commonwealth Department of Health and Aged Care.
- Roche, A. and McDonald, J., eds 2001. *Systems, settings, people: workforce development challenges for the Alcohol and other drugs field*. Commonwealth Department of Health and Aged Care.
- Romm, N. 1998. "The Process of Validity Checking through Paradigm Dialogues." 14th World Congress of Sociology, Montreal.
- . 2001. "Our Responsibilities as Systemic Thinkers." 45th International Conference, International Society for the Systems Sciences, Asilomar
- . 2001. *Accountability in Social Research: Issues and Debates*. London: Kluwer/Plenum.
- Simms, J. 2001. *Systems Science: Fundamental Principles*. In Ragsdell, G. and Wilby, J., eds. *Understanding Complexity*. New York: Kluwer.
- Stanley, L. and Wise, S. 1993. *Breaking out Again: Feminist Ontology and Epistemology*. London. Routledge.
- Tetsunori, Koizumi. 2001. "The Buddha's Thought and Systems Science." 45th International

- Conference of International Society for the Systems Sciences, Asilomar.
- Ulrich, W. 1983. *Critical Heuristics of Social Planning: A New Approach to Practical Philosophy*. Chichester: Wiley.
- . 2001. "The Quest for Competence in Systemic Research and Practice. *Systems Research and Behavioural Science* 18, 3-28
- Van Gigch, J. P. 2002. "Comparing the Epistemologies of Scientific Disciplines in Two Distinct Domains: Modern Physics versus Social Sciences. Part 1: the Epistemology and Knowledge Characteristics of the Physical Sciences." *Systems Research and Behavioural Science* 19, 3, 199-210.
- Wenger, E. 1998. *Communities of Practice: Learning, Meaning and Identity*. Cambridge: Cambridge University Press
- West, M. 1975. *Bishops and Prophets in a Black City*. Cape Town: David Philip.

SPACE AND SOCIAL ORDER: THE CHALLENGE OF COMPUTER-MEDIATED SOCIAL NETWORKS

Michael Paetau*

The growing interest that is once again taken in the issue of space in social science debates does not necessarily reflect the true significance that is attributed to spatial aspects in observing the social. On the contrary, a substantial number of sociologists interpret the debate as a kind of requiem for the concept of social spaces. Here, two phenomena in the development of the modern age are given as a reason: first, the emergence of a global society in which the role of traditional spatial borders, such as those of the nation-state, is steadily diminishing, and second, the revolution in the conditions of information and communication, the constitution of cyberspace, which was triggered by the rapid developments in digital media. Concentrating on the second aspect, I shall address the issue of how space and sociality relate to each other. What significance can be attributed to space as an explanatory factor for social order? How should the way the issue of space has so far been treated by sociology be assessed, and how should concepts of a "spaceless sociology" be viewed in this context? Niklas Luhmann is often referred to as a principal protagonist of a sociology that is not dependent on space (Stichweh 1998; Werber 1998).¹ In my opinion, this reference is entirely unjustified, as I will attempt to demonstrate in the following.

DUPLICATION OF SOCIETY

Strangely enough, the issue of space has re-entered the sociological debate through a problem that many authors have already interpreted as a clear sign of the "vanishing of space":

Presented at the XV World Congress of the International Sociological Association, Brisbane, Australia, July 7-13, 2002.

* Direct correspondence to Michael Paetau, Fraunhofer Institute for Autonomous Intelligent Systems, Schloss Birlinghoven, D-53754 Sankt Augustin, Germany; paetau@ais.fraunhofer.de; <http://www.ais.fraunhofer.de>.

¹ Stichweh's principal argument is that the category of space is a concept that is external to society. There can be no doubt that Luhmann only grants segmental societies a role for space that explicitly shapes sociality. Here, just like relations, space can serve the purpose of defining the borders of larger social units (Luhmann 1997: 635). But can one conclude from this that the criterion no longer has a role to play in modern societies that are distinguished by functional differentiation? I will take this point up further on.

the digital revolution of our information and communication conditions. To be more precise, it is the unclear *relation* between the new and the old communication conditions themselves that has once again posed the question of the significance of the spatial aspects of social relations.

Some literature initially fostered the impression of a duplication of society. There have been reports of an emerging virtual economy in which virtual companies and organizations encounter their sisters in the real world. They are discussed in virtual conferences. And hopes have even been pinned on virtual communities in countering the individualization tendencies of the modern age (Rheingold 1993). Virtual spaces complement traditional space, and even society in its entirety has its pendant in cyber-society.

The borders between the "old" and the "new" society seem to be clearly marked. Communicative events within "cyberspace" as conditioned by the information and communications technology defines "virtual society" as a sort of "society in parallel to society". Everything that is outside remains in the other, so-called real-world space of old society. Whereas in one world, spatial aspects of communication, that is, interaction among those present,² are stylized as a reference model for the feasibility of social order, it is assumed that they can be dispensed with in the other, so-called "virtual" world.

The drawing up of a border in this manner, with a virtual world here and a real world there, has shaped the debate over the last few years. One side disputed the idea that anything resembling social communication could occur in the virtual world (Bredekamp 1996), and from this, it was deduced that it was impossible to arrive at stable social structures in cyberspace. This was challenged by the claim that the world of computer networks was in the process of developing into an independent social system. This hypothesis was founded on the communicative links the Internet offers, an aspect that indeed can hardly be disputed (Fuchs 2001).

In my opinion, both assessments lead into a cul-de-sac. I regard this manner of distinguishing between the media world and the real world, however it may be defined, as problematic in that one specific form of communication is played off against another. On one side, the social efficiency of communication transported by the media is assessed with reference to communication among those present (i.e., interaction in a physical space). On the other, media-transported communication overcoming the synchronicity of time and space is declared a reference model for further societal development. The magic formulas are E-commerce, E-governance, E-democracy, and so on.

DISLOCATION OF SPACE FROM PLACE

While sociology has never directly linked the issue of the social with space, spatial proximity or distance as a factor determining the possibility of particularly close or less close, stable or less stable social relations always played an important role. Embedding communication in local or spatial contexts of action (e.g., village communities, teams in companies, nation-state), which was still empirically significant until just a few decades ago, was used as a plausible explanatory pattern (Simmel 1908; Tönnies 1963[1887]). For Tönnies

² Giddens speaks of "facework commitment" (Giddens 1990).

(1963[1887]), "locational ties" are one of the three central categories on which his concept of community is based (alongside blood ties and spiritual ties). Simmel's reflections on the spatial conditions for the shape that community life assumes are oriented on a geographically delimited space that constitutes sociality depending on whether it is "filled" or "less filled" with interaction. Simmel perceives the social as something that is formed spatially. Here, space assumes the role of delimiting those in a given space from others (Simmel 1908). Luhmann takes up this argument to describe segmented societies; alongside relatives, "inhabited space" is one of the principles according to which they define their unity (Luhmann 1997: 635). Norbert Elias regards space as an "arrangement of social intertwining patterns" (Elias 1988). The concept of space also assumes an important role in Henri Lefebvre's sociology. However, Lefebvre isolates it completely from its geographical connotation. For him, social space is the comprehensive incorporation of a society's social practice. The activities of individuals and their societal reproduction relations are manifested in it. "Spatial practice, which embraces production and reproduction and the particular locations and spatial sets characteristic of each social formation. Spatial practice ensures continuity and some degree of cohesion. In terms of social space, and of each member of a given society's relationship so that space, this cohesion implies a guaranteed level of competence and a specific level of performance" (Lefebvre 1991: 33).

More recent analyses of modern society describe the fundamental changes that have occurred in the spatial and temporal constellation. Giddens observes an inherent development of the modern age towards a temporal and spatial asynchronicity, which he refers to as dislocation and disembedding, as taking the social out of interactive contexts tied to a location. Establishing general communication conditions independently of space and time generates new forms of sociality. For one thing, however, their stability is still completely uncertain. And, secondly, this does not rule out destabilizing consequences for society as a whole.

Thus the historic fundamental question sociology raises as to the feasibility of social order appears in a new form: How important or unimportant are location and space under the conditions of the spread of information and communications technology-mediated social networks? To what extent can social relations whose embedding in spatial circumstances has either not taken place or only exists in a rudimentary form be maintained not only in a temporary and fluid form but for the long term and in a stable condition?

Giddens pins his hopes on so-called re-embedding mechanisms. The term refers to types of social relations that relate to local spatial and temporal circumstances and can, as it were, simulate them. Thus Giddens ultimately retains relating to a location as an important explanatory pattern for social order, albeit in the shape of a "spatialisation" and using mediating and simulating "re-embedding mechanisms".

Strangely enough, in the ensuing debate on Giddens' hypotheses, many hopes have been pinned on those forces that caused the trend towards delocalization in the first place, i.e. the new media themselves. The strategies recommended in the media sociology debate are contradictory. On the one hand, it is hoped that the location can once again be attributed its old role, thus saving the unity of the social in the traditional manner (marketplace metaphor, the global village, etc.), and on the other hand, one tends to drop location and space as the point of reference for the social. Going beyond Giddens, many authors nowadays subscribe to the

hypothesis of "space disappearing" altogether (cf. Bolz 2001).

Luhmann's statement that a theory appropriate to modern society ought to be formulated in a manner "that does not make it dependent on space and time in setting social borders" (1997: 30, note 24) is understood as an argument for the concept of a "spaceless" sociology. However, I would like to support a different position and claim that Luhmann's theory is suitable like none other to arrive at a concept of "social space" that can be of use in the analysis of modern society and could do away with the division into two societies outlined earlier on. My hypothesis is that this could enable the social sciences to catch up with a semantic development that took place in the natural sciences a century ago, where it resulted in a revolutionizing of the concept of space.

THE SEMANTICS OF SPACE: FROM THE CONTAINER METAPHOR TO A RELATIONAL CONCEPT

When space was referred to in sociological analyses, an Euclidean notion of space was presupposed, albeit more implicitly than explicitly. Social space was assumed to be a homogenous, three-dimensional thing that is filled with bodies (or is not, in which case it is an empty space). This notion has received much criticism because it commits sociology to traditional topology and also suggests the illusionary concept of a coinciding of the political spaces with the economic and human or social spaces (Läpple 1991: 189).

In the natural sciences, attempts were already being made towards the end of the 19th century to abandon the Euclidean notion of space. This started with Riemann's separating the physical concept of space from the mathematical one (1854)³ and was completed with Einstein's considering time in determining space. Einstein criticized the so-called container concept of space and replaced it with the relativity of space and the unity of the space-time relation.

A relational concept of space like the one that has been used in physics since Einstein dispenses with a fixed reference system from which space can be observed and measured. For Einstein, as opposed to Newton, space does not continuously stay the same and immobile if it is not related to another object but depends on the position of the observer. Transferred to society, the location of the social could be identified where the operative process of communication takes place.

Already in 1995, Georg Großklaus demonstrated how conceptual models of the social space have changed over the previous 150 years. In connection with the development of communication conditions in society the concept of space drawn up in the traditional manner

³ Riemann maintains that whereas physics has to determine space on the basis of experience, mathematics can dispense with this and make use of modern experimental options instead. While he stresses that what is mathematically feasible by no means has to have a physical parallel, he also points out that physics can venture into hitherto unexplored areas with the aid of mathematical methods to determine space. Riemann above all reckoned with measurement relations of space proving unwieldy at infinity when confronted with the provisions made by geometry and believed that this could motivate researchers "to consider non-Euclidean geometry or move on to mathematical projective spaces" (Rösenberg 1987).

and followed by corresponding formation of social identities and social systems (e.g., drawing up of borders between different cultural spaces, between public and private space, between immediate and distant space, between the center and the periphery) had started to move (cf. Großklaus 1995). I maintain that with Luhmann's systems theory, this semantic shift has reached a theoretically advanced state in which it is justified to speak of a radical paradigmatic change of the category of space in the social sciences. The space in which sociality is constituted develops through the relations between the elements of social systems, that is, communication. No geographical borders can stop it. Communication does not take place *in* social spaces. Rather, it creates these spaces. It is solely the ability of communication to link up that determines the formation of a social space.

SPACE AS A RECOGNITION PATTERN OF SOCIO-CULTURAL TOPOGRAPHIES

For a long time, certain socio-cultural topographies that were handed down played a considerable role in the development of people's social and cultural orientations. Großklaus speaks of "cognitive maps" that provided societies with a spatial and symbolic model of orientation for thousands of years and underwent partial modifications from time to time. This binding list of spatial frontiers

regulated all forms of ritual exchange and interchange between gods and people, dead and living people, the initiated and the non-initiated, rulers and subjects, savages and civilised people, members of one's own group and members of strange groups: it determined the rituals of crossing borders and defined the paths and routes on which one could leave one's own interior space and reached the foreign external space of other peoples and cultures; finally, it provides a basis as a narrative structure for myths, epics and texts of all sorts right up to contemporary times (Großklaus 1995).⁴

These traditional and familiar "cognitive maps" are currently losing their significance. The model of space based on them is no longer able to provide appropriate referential structures for our media-supported experience. The process of deterioration goes on step by step, and its progress probably depends more strongly on the historical process of conversion from print to visual media than on the development of techniques to overcome geographic space (coaches, trains, cars, aeroplanes).

Primarily this cognitive map evolved via a *symbolic* adoption of the faraway foreign space instead of as a result of real locational changes through *travelling*. As long as the monopoly of interpreting the world was tied to the book, this type of "virtual" border-crossing had to progress via reading. Literature sent its heroes out on a "transcendental journey" (Großklaus 1995: 110), forced them to leave their home space and cross the border to the foreign space. "These slow journeys presupposed the fixed system of borders and distances that

⁴ Stichweh suspects that spatial perception dominated in hunting and gathering societies because they had to rely on the permanent exploration of spaces. This only changed with the Neolithic revolution and the fixed attribution of positions to individuals. The process was completed in the modern age, where (spatially-distant) strangeness is reinterpreted into backwardness (in terms of temporal and civilizational aspects) (Stichweh 1998: 345).

was represented in the old spatial map." In his novel "Las Palabras Perdidas", Jesús Díaz has the "immense poet" say: "Day for day, I travel in my library. Not only in space, but also in time" (Díaz 1992: 153).

All this changes fundamentally with the development of audio-visual media.⁵ The process starts with photography and film and carries on via television and the digital media. The transition from the cinema to the television already represents a marked break. Since television perception is always confronted with *processes* of optical-electronic (image) manipulation (not with image *situations*), it builds up events as fleeting image shapes only to decompose them again. "The orientation of television perception always progresses in an accelerated manner, right up to the physiological limits; its pattern is the dynamic mosaic; its process is that of a hyperactive and hypermobile collage of stimulus points" (Großklaus 1995: 129). Whereas the traditional film (more or less) slowly builds up the plot in a similar fashion to how literature proceeds and also requires our attention throughout the entire length of the film, television is, by its very structure, "the machine that smashes and shatters the stories" (Großklaus 1995: 129). Wherever images appear and disappear in real-time, a condensation of events into stories, and thus the collective assurance of a meaning is rendered impossible. Rather, the TV picture serves the short-term assurance of present reality. Events worldwide flow through the brains of viewers in a "tele-iconic" fashion, without delays, interim periods and distances. According to Großklaus, it is above all real-time, the simultaneity of the distant event and the close event image, that vouches for the image's authenticity. "Simulatory proximity dissolves distances, blurs the borders between what is close and is one's own and the distant strangeness, effecting the ultimate demystification of what one has perceived as strange: the strange body, the strange space, the strange culture in favour of global acquisition via signs" (1995: 132). Everything that drops out of this real-time simulation loses authentic and simulatory strength.

This development is radicalized with the computer in the sense that it now becomes possible to separate the simulation from its real-world model. For the first time, things can now also be simulated that are neither perceptible nor observable in reality, that is, that are not real or not yet real (but feasible in principle). What was only possible via imagination in the pre-computerized era is now objectified, represented as a sort of reflectance of the real world. But above all, it is represented as consistent, calculable and programmable. And thus it suggests that even these final, transcendental residual areas have been subjected to the will to have everything at human kind's disposal.

The emergence of computer-mediated social networks (e.g. so-called virtual organizations) completes this development, and I maintain that it is reflected scientifically in sociological systems theory.

⁵ Großklaus divides this transition into periods using different technical inventions and the corresponding changes in perceptive behavior: 1. Panorama (England 1794, France 1799); 2. Daguerreotypography (1837); 3. Cinematography (1892); 4. Television (1936); and 5. Computer (Großklaus 1995: 113 pp. 9).

A RELATIONAL NOTION OF SPACE IN LUHMANN'S SYSTEMS THEORY

The changes in our spatial perception have only very slowly led to theoretical consequences in sociology. The theoretical reconstruction above all features a step-by-step abandonment of the Euclidean notion of space. Preliminary work in this direction was already done by authors such as Elias, Lefebvre, Bourdieu, and also Giddens. Discarding the container metaphor means setting out from the social operations themselves. The social space would then no longer be determined by geographical aspects (arrangement patterns of the locations of people and artifacts) but primarily as a co-ordinate system of social action or social positions (Bourdieu) or as a network of communication (Luhmann) that has, to a large extent, liberated itself from its geographical prerequisites. Such a complete turn to a relational concept of space we find in Luhmann's Systems Theory. Luhmann dispenses completely with a fixed inertial system that would be available as a reference system for the communicative network. I maintain that the crucial point is that in treating the issue of sociality, the approach does not set out from a unity but from a world that is not structured around a center. It is a polycontextural world (cf. Fuchs 1992). By integrating the observer's situation into the definition of what appears as a social space, one could speak of a constructivist concept of space. Although Luhmann does not present an explicit theory of space,⁶ his definition of the social does not require locations. What constitutes the social context is communication; and it will not be stopped by any geographical borders. Societal functional systems do not comply with country or language borders, mountain ranges, seacoasts or rivers. Such delimitation categories are not respected as borders by the generalized communication media, neither by money nor by truth or love. Communication does not take place in spaces but creates these spaces.

On the other hand, it cannot be denied that existing spatial facts have a not inconsiderable impact on the social. Language communities that can be identified in area spaces, cultural differences oriented on geographical conditions, forms of communication conditioned by climatic features: all of these are without any doubt spatial factors that cannot be ignored when analyzing social systems. But of what significance can all this be to the social if one follows Luhmann's hypothesis of the autonomy of social systems (understood as an operational unity in the sense of the autopoiesis concept)? If society constitutes itself through nothing but its own operations, i.e., communication, then the aforementioned spatial conditions can only be circumstances in society's geographical and physical external world instead of conditions in society itself. They could only be referred to as social facts on account of the communicative consequences that the society or a societal functional system draws from the external conditions. Here, there is an indication of a differentiation of the concept of space into a geographical and physical space and a social space.

A sociological concept of space could be formulated if it was a space produced by the operations in society itself--a social space generated by communication. Spatial distance and spatial borders by no means lose their character of setting barriers, but they can be made

⁶ When he is explicitly dealing with space, he sometimes sticks to the container metaphor (e.g., Luhmann 1995: 179pp.), while he also subscribes to Giddens' distinction between places and objects in space (Giddens 1984: 110ff), interpreting space as a *medium* consisting of loosely linked elements into which *forms* can impress themselves (Luhmann 1995).

disposable by society with the aid of modern information and communications technology. Social spaces can be explored that used to be inaccessible to past generations. The issue of whether someone lives in a center or on the periphery of a social system is determined less by his or her place of residence but rather by the intensity and the connections of his or her communication. Here, the geographical and physical and the communicative circumstances may correlate. However, this depends more on the communications technology infrastructure and the development of communicative relations it enables than on geography.

Interpreting the emergence of computer-supported social networks as the formation of relational spaces implies a sociologically relevant distinction between society and interaction. This is not new. Because from a sociological perspective, it has always been the case that the physical presence of individuals at certain places in space only determines communication in certain instances. Organizations can be referred to as examples of the opposite. Organizations replace the principle of face-to-face communication with the criterion of membership, or as Luhmann puts it, social inclusion and exclusion. In large organizations, most people never see each other face-to-face, have never spoken to each other and are nonetheless members of a social system that has been created by communication.

Thus social spaces can be interpreted as communication networks that are crossed by social systems of all types, both by interactive systems tied to the synchronicity of communication and by organizations that have liberated their action from synchronicity and can--at least to a large extent--dispense with the criterion of who is present in their communication. Society takes advantage of the computer networks to create sociality. It uses the new forms of communication for its autopoiesis. This also occurs with the aid of interaction or organizations. Thus computer-mediated communication is regarded as being imbedded in the manifold communicative operations of social systems. In this sense, following Luhmann, the networks can be interpreted as a form in the medium of communication, as a form that is in itself at the disposal of creating further forms.

This perspective needs not speak against identifying social systems evolving solely within computer networks by using telecommunication. It is clear that every communication not only has to choose from the wealth of world events which are to be treated as informative, but that it also has to select from the diversity of available forms of dissemination. Here, there may be compelling connections between the information chosen and a suitable dissemination medium with which it is communicated. However, if the focus is on a certain social system and it is not merely a single communicative operation that is being observed but the overall context of its autopoietic reproduction, one will, in most cases, encounter hybrid forms of communication. Communication takes place both within and outside the networks. It finds its own way regardless of the dissemination media it uses.

SOCIETY AS A VIRTUAL REALITY

Luhmann regards social systems as communication systems operating in the medium of meaning. With this formulation, Luhmann is following Husserl's phenomenology, in which meaning is the premise for any processing of information. Every date in experience is projected

onto a horizon of further possibilities. Seen from this premise, every society initially reveals itself as a *virtual* reality, independently of computer networks, physical simulation or computer-aided visualization technologies. Society first presents itself as an immense potential for irritations, surprises and referrals from which immediately required operations are selected. However, these selections are not random but are subject to certain restrictions. Not everything that happens in the world can be perceived (even with the aid of the media), not everything that is uttered as information in the world can be understood and not everything that is understood bears the potential to further communicative connectivity. Our connection to the world's incomprehensible complexity is already restricted by a narrow section of reality. This section, in itself a social construction, can be designated as virtual reality.

In this sense, virtual reality refers to the difference between potentiality and actuality. The expression *difference* implies that both sides must be considered, both that of what is actually there and what is possible. Possibilities must also be accessible in some way for cognitive or communicative operations. This is the only way in which a decision can be taken to make this or that side topical and not to address the other one. And this is also the only way to identify a selection as a selection, namely by the reflection of what has not been selected. This is what distinguishes virtual reality from the world's immense and inaccessible complexity. The world is the incomprehensible manifold of what is given. Virtual reality is what is already on the horizon of possibilities and what allows more or less dot-accurate access. What has not been selected in this situation has not vanished but remains extant and potentially accessible, and can therefore be re-actualized.

In this context, Alfred Schütz speaks of "virtual reality areas", referring to an individual's horizon of meanings, which consists of the diversity of experiences and events and constitutes sediments in various delimited regions of meaning. Not all of these delimited regions of meaning are in the core area of the field of awareness at a given moment. The "Attention à la vie" (Schütz 1982: 32) refers to a certain area of reality. In this moment, it becomes "selected reality" that can, however, be left at any moment.

Computer networks can influence the difference between potentiality and actuality, they do not generate it. The boundaries are already set by the difference in complexity between the world and the social systems operating in it. In this respect, communication in the worldwide Internet is no more or less virtual than, for example, a scientific discourse taking place mainly in specialist journals but also, of course, in conferences, letters and mailing lists. From this theoretical angle, it is inappropriate to make virtuality conditional on the spatial and temporal asynchronicity of computer-aided communication or on the simulation abilities of modern computer technology. For example, when Howard Rheingold, who equates "virtuality" with "simulation" in a similar fashion to Baudrillard (Rheingold 1993; Baudrillard 1994), speaks of "artificial experience of reality" with regard to the use of computer-supported media, it is assumed that one can distinguish between an artificially created experience of something that is real and a real experience of something that is artificial. But precisely this is to disbelieve. Luhmann is critical of the term "virtual reality" because it encourages the mistake of assuming "that there is still a real reality that can be grasped with the natural faculties a human being has, while the issue has long become that of perceiving these natural faculties as just one of many possible cases " (Luhmann 1995: 243).

When mention is made of virtual reality and one thinks of data helmets, data gloves and data suits, or even just of data highways, fiberglass or coaxial cables, the focus may well initially be on the issue of what has been artificially created. But there are good empirical and theoretical reasons to pursue another course. Here, we are confronted with a debate that was already held in connection with the sociological concept of technology. And in the course of that debate, it was above all clarified that making a distinction between "artificial" and "natural" is of little use in obtaining an appropriate sociological understanding of technology (Rammert 1998; Weingart 1989). And the same applies to the issue of virtuality. Just like it is impossible to distinguish between what is natural from what is artificial in canalized rivers or among organisms that have been created with biotechnology methods, the attempt to do so when entering cyberspace will be doomed to failure.

For example, virtual enterprises do not define themselves by communicating via computer networks. It is neither the use of multimedia systems (even virtual reality technology, for instance in the areas of simulation, construction, teaching or medical applications), the employment of computer-aided communication networks, the staging of teleconferences, nor the creation of so-called tele-workplaces that turns an enterprise into a virtual enterprise, but the special way in which its system elements are connected. No doubt it can be assumed that the use of multimedia systems is an important precondition for the viability of virtual enterprises in the first place. And in this sense, these technologies act as important catalysts for the development of such forms of the social.

What is crucial is a special form in which economic activities are organized that raises doubts as to whether it is an organization. What is certain and does appear to have been agreed on in organization sciences is that virtual organizations distinguish themselves by loose connections and non-memberships. They are not tied to fixed structures or configurations of components (e.g., organization members, machines, buildings).

Organization science literature brings the temporary character and project mode of the service-creating processes to the fore. Davidow and Malone (1992) stress that it is above all the inclusion from time to time of external suppliers or clients in the planning and running of the production process that leads to the development of virtual enterprises. The structures evolving from this represent a problem-related, dynamic integration of real resources (Picot et al. 1996). The resources are there, but linking them up to organize real service processes initially only exists as a potential. One could refer to this as a system "lying in wait" (de Vries 1998).

With Luhmann, who takes up Fritz Heider, one can also describe this relation as the difference between the medium and the form. The communicative structure of a virtual venture provides the medium in which a distinction is made between reality, potentiality (as a conditional reality) and the unreal. It is only the (loosely connected) communicative structure of the enterprise that makes something that was previously recognized as existent in the world (e.g., in the market) but was not identified as lying on the possibility horizon of the respective social system useful for the development of forms. The medium enables a multitude of elements to create a multitude of forms or at least does not oblige them to seek one ostensibly best way of linking up.

The given possibilities are not random. So in relation to the diversity of the world as a whole they already represent a selection. They are always meaningful possibilities in a given

situation in which the difference between actuality and potentiality represents the basis for real formation of structures. In virtual organizations only *specific* communication can emerge, not *random* communication. But the system provides enough scope to prevent the development of fixed ties or strict connections.

CONCLUSION

The relation between space and sociality can now be clarified by distinguishing the medium from the form, that is, by referring to the difference between potentiality and actuality. A sociological concept of space can be formulated at this point that distinguishes at a conceptual level between two interpretations of space: geographical and physical space on the one side and social space on the other. As the environment of the social, the geographical and physical concept of space remains inaccessible for societal operations. One can adopt Stichweh's view and refer to the social space (or, as it were, the communication space) as a "medium of perception and communication" (Stichweh 1998: 346). However, we cannot observe it performing this role. Media as such cannot be observed. In the same manner as we are unable to observe "language as such" but only in its respective form, as Spanish or Chinese (and, even then, only in its written or spoken form, and again, in that form, only in the shape of a novel, newspaper article, etc.), space can only be observed in the forms it assumes. And these forms can be of a nature that completely separates them from geographical and physical categories of space. Social space can assume forms that can then be perceived by an observer as a group regularly attending a seminar in a university room as well as the form of a network with which companies or political campaign groups liberate themselves from local conditions of residence.

A space concept of this kind that sets out from Luhmann's systems theory is based on the following premises:

- the cybernetic premise of self-regulation and self-steering, according to which each (regulating) observer is himself or herself an element of what he or she is observing or regulating;
- the constructivist premise that no view exists that can observe the world in a better, more complete or more objective manner than others can;
- the autonomy premise in the sense of an operational and self-referential closure of social systems;
- the systems theory premise that systems only generate themselves through their own operations and that, therefore, only those operations can be regarded as elements of a system that (re-) produce the system and present the forms created in a medium;
- the difference-logic premise that the operations of a system generate forms (structures) in a medium, with medium and form being mutually conditional.

As a theoretical consequence going beyond Luhmann, space could be understood as an additional dimension of meaning (cf. Stichweh 1998; Werber 1998). When discussing issues of meaningful processing of the world's complexity, Luhmann distinguishes between three dimensions of meaning. First there is the fact dimension (it selects according to *what* happens

in the world and what out of this is regarded as relevant), second, the social dimension (it makes its assessments according to *who* communicates something) and third, the time dimension (it refers to when something happens). The spatial dimension would have to be added that asks *where* something happens.

My hypothesis is that spatial aspects have not become worthless, for queries about, for example, the center/periphery, proximity/distance, exclusion/inclusion by no means become superfluous. But any attempt to tie the social context to space, which is what some of the sociological classicists have done, would mean overrating the societal regulatory role that spatial borders (of a national, regional or communal nature) have. However, the reverse strategy of completely dropping the location could imply a massive overestimation of the potential successful communication has. Luhmann also persistently warns of this overestimation when he refers to the "improbability" in principle "of social communication". And particularly with a view to the computer-aided media and so-called cyberspace, this warning appears to be important. For on the one hand, we are experiencing a huge increase in communication, but on the other hand, the options and the need for selection of communicative links are growing, too. Thus the *improbability* of successful communication in the sense of the realization of its mutual links initially increases.

Here, spatial aspects could play a major role as a dimension of a meaningful construction of reality. In the form calculus of Spencer-Brown (1969), spaces are tied to differentiations. He calls the space that is divided up by a differentiation (into a marked space and an unmarked space) "form". In this sense, the space can be regarded as a differentiation introducing a new differentiation. Stichweh suggests "proximity/distance", not in a geographical sense but in the sense of "measuring and calculating objects" as a cognitive operation (Luhmann 1995: 179). Luhmann explains this approach with the example of the emergence of the public in the 18th century. "When the integration of society is left to 'public opinion' in the 18th century, this ultimately implies that spatial integration has been dispensed with (...). For 'the public' implies nothing less than lifting of access control for everyone, i.e. dispensing with access control, i.e. that spatial integration is not defined in structural terms" (Luhmann 1997: 314).

WORKS CITED

- Baudrillard, J. 1994. *Die Illusion und die Virtualität*. Bern: Benteli.
- Bolz, N. 2001. *Weltkommunikation*. München: Fink.
- Bredenkamp, H. 1996. "Cyberspace, ein Geisterreich. Freiheit fürs Internet: Eine Achterbahn durch die Reste der zerfallenden Utopie." *Frankfurter Allgemeine Zeitung* February 3.
- Davidow, W. H. and Malone, M. S. 1992. *The Virtual Corporation*. New York: Harper Collins.
- de Vries, M. 1998. "Das virtuelle Unternehmen - Formentheoretische Überlegungen zu Grenzen eines grenzenlosen Konzeptes." In *Virtuelle Wirtschaft. Virtuelle Unternehmen, virtuelle Produkte, virtuelles Geld, virtuelle Kommunikation*. Edited by Brill, A. and de Vries, M. Opladen: Westdeutscher Verlag, 54-86.
- Díaz, J. 1992. *Las palabras perdidas*. Barcelona: Ediciones Destino.

- Elias, N. 1988. *Über den Prozeß der Zivilisation. Soziogenetische und psychogenetische Untersuchungen*. Frankfurt am Main: Suhrkamp.
- Fuchs, P. 1992. *Die Erreichbarkeit der Gesellschaft. Zur Konstruktion und Imagination gesellschaftlicher Einheit*. Frankfurt am Main: Suhrkamp.
- . 2001. "Die "world" in der Welt des World Wide Web." *Medienjournal: Mediale Netzwerke* 25, 3, 49-57.
- Giddens, A. 1984. *The Constitution of Society. Outline on the Theory of Structuration*. Berkeley and Los Angeles: University of California Press.
- . 1990. *The Consequences of Modernity*. Cambridge: Polity Press.
- Großklaus, G. 1995. *Medien-Zeit, Medien-Raum. Zum Wandel der raumzeitlichen Wahrnehmung in der Moderne*. Frankfurt am Main: Suhrkamp.
- Läpple, D. 1991. "Essay über den Raum. Für ein gesellschaftswissenschaftliches Raumkonzept." In *Stadt und Raum. Soziologische Analysen*. Edited by Häußermann, H. et al. Pfaffenweiler: Centaurus, 157-207.
- Lefebvre, H. 1991. *The Production of Space*. Cambridge, Mass.: Blackwell.
- Luhmann, N. 1995. *Social Systems*. Stanford, CA: Stanford University Press.
- . 1997. *Die Gesellschaft der Gesellschaft*, Vol. I and II. Frankfurt am Main: Suhrkamp.
- Picot, A. et al. 1996. *Die grenzenlose Unternehmung. Information, Organisation und Management*. Wiesbaden: Gabler.
- Rammert, W. 1998. "Die Form der Technik und die Differenz der Medien. Auf dem Weg zu einer pragmatischen Techniktheorie." In *Technik und Sozialtheorie*. Edited by Rammert, W. Frankfurt am Main: Campus, 293-326.
- Rheingold, H. 1993. *The Virtual Community*. Reading, Mass.: Addison-Wesley.
- Rösenberg, U. 1987. "Raumvorstellungen in der Physik." In *Philosophie und Wissenschaften: Das Problem des Apriorismus*. Edited by Pasternack, Gerhard. Frankfurt am Main: Lang, 123-134.
- Schütz, A. 1982. *Das Problem der Relevanz*. Frankfurt am Main: Suhrkamp.
- Simmel, G. 1908. "Der Raum und die räumliche Ordnung der Gesellschaft." In *Soziologie. Untersuchungen über die Formen der Gesellschaft*. Edited by Simmel, G. Leipzig: Duncker & Humblot, 614-708.
- Spencer-Brown, G. 1969. *Laws of Form*. London: Allen & Unwin.
- Stichweh, R. 1998. "Raum, Region und Stadt in der Systemtheorie." *Soziale Systeme* 4, 341-358.
- Tönnies, F. 1963[1887]. *Gemeinschaft und Gesellschaft. Grundbegriffe der Reinen Soziologie*. Darmstadt.
- Weingart, P., ed. 1989. *Technik als sozialer Prozeß*. Frankfurt am Main: Suhrkamp.
- Werber, N. 1998. "Raum und Technik. Zur medientheoretischen Problematik in Luhmanns Theorie der Gesellschaft." *Soziale Systeme* 4, 219-232.

NEWSLETTER 15

1. LETTER OF THE PRESIDENT

Dear Members of RC51,

RC51 is going through difficult but challenging and promising times. About the difficulties, which are mainly due to the policy changes of the ISA with regard to RC membership fees and on which we reported already in the previous Newsletter and in various e-mails to you, I can say that the new board of RC51 has taken the necessary steps and invested a very substantial amount of time in working towards a solution.

We are on the right path, as all the participants of our Corfu conference, 36 scientists from 18 countries, carried out the necessary administrative steps to become once more members in good standing. This means that after the ISA had credited us with only 4 (four) members in good standing in January due to the new way of counting, we are currently in the range of 50 again.

With this number, however, we are barely halfway through recuperation, as we need 120 ISA members in good standing in order to qualify for a maximum of benefits from the ISA, in particular subsidies and a maximum number of session slots at the next World Congress of Sociology, which will be held in Durban in 2006. Only if we get the maximum of sessions we can accommodate about 64 papers as we did in the Brisbane World Congress. I remind you, that we had about twice as many paper proposals for Brisbane than we could accommodate after all!

This means that it is now up to you to bring this crisis in our existence as an ISA Research Committee to a positive conclusion: to sign up immediately as a member of RC51 and if necessary to up-date your ISA membership too, or join ISA for the first time.

On the one hand we must take this problem seriously. On the other hand, our Corfu conference has clearly demonstrated that apart from the administrative difficulties, RC51 is well and alive, even more than ever before. Corfu was not only the largest one of all of our intermediate conferences in terms of numbers of papers and participants, but I dare say it was also the one with the best set of papers we have ever had and, according to my personal impression, also the one with the best spirit, among old friends but also among quite a number of new people and young members. Moreover, it took place in a very unique and historical setting, in the heart of the Old Town of Corfu and one day even in its historical Old Fortress. I want to take this opportunity to thank our national organizer, Philippos Nicolopoulos, for this wonderful conference and all the work he has done.

On top of all of this--plus a lot of retsina and good Greek food--the board and business meetings did quite a job in Corfu also, discussing and passing both our membership fee regulations and a data protection policy. All of you have received these documents meanwhile to vote on. The data protection policy is a must nowadays for any organization working internationally through the Internet and handling membership data around the globe. The ISA is well aware of this issue and has started to think about it. RC51, however, already has it!

Still missing, but scheduled for next year, is an update of our statutes, which has become necessary but which will concern details, not fundamental issues.

I then do hope very much that I myself as well as the other board members will be able to devote more time to the really scientific and strategic issues of RC51 like the publication of books, about which we had some ideas and discussions too, as well as the scientific side of preparations for the World Congress in Durban.

As a member of the ISA Executive Committee, which was elected in Brisbane, and of the Programme Committee for Durban, which is part of it, I am certainly on the frontline for all of the preparations for the next World Congress of Sociology and the ISA in general. Indeed, you will find inside the Newsletter a report on the first meeting of the ISA Executive Committee, which took place this year in April in Mexico City. To fill all of this with life, however, a committee is not enough and we need the ideas, initiatives, and contributions of each one of you to promote sociocybernetics in particular and sociology in general as a serious, widely acceptable, and moreover practically useful science for shaping a better and more humane world which doubtlessly will be a global knowledge and information society.

Bernd R. Hornung
President, ISA RC51

2. NEW DEVELOPMENTS IN RC 51

2.1 RC51 AND ITS PARENT ORGANIZATION, THE INTERNATIONAL SOCIOLOGICAL ASSOCIATION (ISA)

The ISA Executive Committee (EC) Meeting, Mexico 2003

The first meeting of the Executive Committee of the ISA, which was elected during the World Congress of Sociology in Brisbane, took place in Mexico City from April 7-11. It was combined with an international conference on "Equity, Equality, and Diversity in Globalized Societies". In this conference, which took place at the National Autonomous University of Mexico (UNAM), the participants of the EC meeting presented their scientific work to a largely Mexican audience. In a way, this was a thank you for the Mexican hospitality, which gave us the opportunity to have the ISA administrative meetings right in the heart of Mexico City, close to the big cathedral.

In the meetings of the Executive Committee and its sub-committees a voluminous amount of work had to be accomplished, apart from the conference. In all meetings the ISA

Vice-Presidents and other functionaries put forward very clearly a set of priorities with which RC51 can and does identify itself too, although not necessarily in the same sequence:

- 1) Recruiting new members.
- 2) Promoting the (French and Spanish) language communities.
- 3) Promoting young students.

RC51 Membership Situation, Fees, and Good Standing

An important topic was the membership situation of the RCs and the allocation of grants to the RCs. It turned out that, according to the January 2003 ISA membership count, RC51 had only 4 (FOUR) ISA members in good standing at that time, as the ISA is counting only those members who have effectively paid not only their ISA fees but also their RC membership fees. Having gotten many freshly renewed memberships before Brisbane, hardly anybody had paid his fee since. This, in combination with the fact that the mechanism for transition had not been spelled out clearly beforehand, resulted in a very unfortunate and difficult situation for RC51. To most other RCs this was no problem, as most of them did have RC membership fees already.

The number of ISA members in good standing is crucial for an RC in order to obtain the different advantages the ISA offers to the RCs, in particular time-slots at the World Congresses of Sociology and subsidies. To obtain the maximum it is necessary to have more than 150 ISA members. RC51 had nearly reached this before Brisbane. Currently only 2 RCs are above this limit, RC16 (Sociological Theory) and RC32 (Women in Society).

Before Brisbane, RC51 had around 140 ISA members in good standing, which meant we were the third largest RC.

RC Grant Allocations

The amounts of the subsidies given to the RCs by the ISA also depends on their number of ISA members in good standing. Moreover, grant applications are considered only if the respective RC complies with a whole series of conditions. In particular in view of the difficulties with the membership situation as described above, the grant application of RC51 was withdrawn. After all, out of a total of 13 applications presented, only 4 were accepted.

Membership and Finance of the ISA

A strategy proposed and accepted for a sound long-term financing of the ISA was to finance ISA operations by means of membership contributions only, and not by using income from the congresses. About 20 more participants per RC would already permit achieving this. It would also be facilitated if all the collective members of the ISA, like the National Associations, would fulfill their financial obligations in due time. A special effort to improve the administrative mechanisms with the collective members will be made by the Vice-President for National Associations, newly established in Brisbane, in cooperation with the Vice-President for Finance.

In terms of membership there is a North American/European dominance, which was very clear also in the Brisbane World Congress. In Brisbane the East Asia and Pacific Region

was primarily represented by Australia itself plus Japan and New Zealand. The latter had sent the third largest group of participants after Japan with 64 participants.

The five largest membership groups in the ISA come from:

1. USA 473 members, country category A
2. Canada 180 members, country category A
3. UK 149 members, country category A
4. India 140 members, country category B
5. Germany 135 members, country category A

The only B country with a substantial membership is India.

Program Committee and Durban World Congress

A proportional increase in the different categories of conference fees was considered necessary to neutralize inflation. Hence congress fees for Durban will be slightly higher than in Brisbane. However, it can be expected that the airfares to Durban will be much cheaper than those to Brisbane. Special prices for the international flights of participants will be negotiated. The organizers will also try to reduce the overall costs for the participants by providing enough low cost accommodation, e.g. on the campuses of the two universities involved.

Security concerns, which were formulated in the Brisbane meetings, will be taken into account adequately. All participants will be met at the airport. The conference site can be easily reached by walking from the downtown and seashore hotels. The police will cooperate to ensure full security in this area. Transport to more distant hotels and the campuses will be provided by shuttle buses. All sessions will be in one compound, right and left of a wide street, which will be closed to traffic. This will provide an open space where food and snack stands will be available.

The basic format of the world congress will be maintained, i.e., RCs with a maximum of 18 two hour sessions (including board and business meetings) will have their sessions in the afternoons up to about 20:00h. This will permit avoiding going home after dark. In the mornings there will be parallel (non-RC) sessions of different kinds. These are among others symposia with invited speakers, focused sessions organized jointly by several RCs and/or national associations, special African topics sessions, etc.

An abstracts book, including e-mail addresses of the authors, will be made available, although printed cheaply.

Research Coordinating Committee

Usually the Research Council organizes a mid-term conference during every four-year period. This time the Research Council Conference will be held in late May 2004 in Ottawa, Canada. The proposed topic is "Conflict, Competition, Collaboration; Contemporary Sociological Theory and Empirical Research in the 21st Century".

The next annual EC meeting is planned for Singapore. The third one during the present period is likely to be hosted by the University of Zaragoza, Spain, in cooperation with our

RC51 board member Chaime Marcuello.

An activity which might be highly relevant for RC51 is the Young Scientists Programme of the ISA organized by Kenneth Thompson (UK). This is a worldwide competition of students writing sociological papers.

The members of the Research Coordinating Committee showed great interest in our procedure of dealing with abstracts evaluations and in our draft suggestions for data protection. On both issues the relevant documents of RC51 were meanwhile made available to them.

National Associations Committee

The National Associations Committee was newly established in Brisbane, just like the new Vice-Presidency for this field. Main activities planned by Sujata Patel (India), the Vice-President, are regional workshops/conferences. Such workshops are envisaged for Singapore/Malaysia, Egypt, South Asia, and Spanish speaking areas, possibly Latin America.

Although there is an emphasis on the "South" in this work, another major concern of the ISA is to gain more individual members through the National Associations in a number of European countries, in particular Austria, Belgium, Czech Republic, Denmark, France, Germany, Greece, Ireland, Netherlands, Portugal, and Turkey, but also in Korea, New Zealand, and Taiwan. The European focus of this intention seems to fit very well with the concepts and strategy, which RC51 is following with regard to its International Conferences of Sociocybernetics.

Publications

A very important part of the benefits both the RCs and the individual members can obtain from their ISA membership concerns publications.

The ISA closely cooperates with Sage in the publications of the "Sage Studies in International Sociology" (SSIS). The editorial board consists of all the Presidents of the RCs. SSIS consists of the Current Sociology monograph issues and a book series. In addition, the journal "International Sociology" is published for the ISA by Sage.

Typically, the monograph issues contain about seven or eight papers with a maximum page length of 212 printed journal pages. Efforts are made to speed up the review process for the monographs. Julia Evetts, the editor of the monograph series, was quite interested in the idea of producing something like an "Introduction to Sociocybernetics" on the basis of our Corfu conference.

Another point, which may be of interest to us in connection with our own Journal of Sociocybernetics, is the concept of book review essays. These are not reviews about one book, as we have it in the Journal of Sociocybernetics, but articles, each of which covers several books related to a particular topic. Moreover, they are expected to review important books written in languages that cannot be read easily by many social scientists. The book review essays themselves are in English with abstracts in French and Spanish.

What may not be well known among our members is that:

- All ISA members can receive a 30% discount on all books from SAGE Publications. This can be obtained by means of book orders through the website: <http://www.sagepub.co.uk/home.aspx> or <http://www.sagepub.co.uk/isa/>.

- Institutional subscribers can have electronic access to journals from SAGE and all members of the institution have the right to download articles free of charge.

SAGE is in the process of developing electronic publishing rather massively and apparently in a very efficient and interesting way for the user. Information about cross-referencing of social science publications of different publishers, not only SAGE, can be found under <http://www.crossref.org/>.

2.2 SOCIOCYBERNETICS 2003 IN CORFU, GREECE

2.2.1 A Fresh Impression

by Pavel Luksha

I received an invitation from the Editor of this Newsletter to write about the last conference in Kerkyra, Corfu. First time in Greece and first time in Sociocybernetics conference, I had rather fresh impressions, and so an invitation was pleurably accepted. My purpose is not to justify content of papers presented, but rather to discuss the form and the format.

Location and venues

The conference took place on the island of Corfu, in the northwest of Greece, in the city of Kerkyra. And so the first experience was of the town itself. Since Kerkyra used to be a Venetian colony in old times, it has all the resemblances of Venice itself. You will find narrow streets, typical palazzi with Italian blinds towering above. And yes, quite a few doves, almost as many as one would expect in San Marco square. It is a surprise not to see gleams of water and not to hear romantic singing of gondoliers.

Unlike the rest of Greece, the Ionian Islands have never been occupied by Turks. So it is not possible to see any mosques there (which one will easily find in Crete, for example), and many of the old churches were kept untouched. But since it was part of a Venetian empire for centuries, Corfu appears to have very strong Western impact. It is truly a place where East meets West.

Coming from Russia with a strong Orthodox background, I was very interested in Greek traditions of Christianity. Orthodox churches in Corfu gave a very strange impression. One of the oldest was located near our hotel; it had a hexagonal construction (similar also for early Gothic) and a traditional flat roof that can also be seen around one of the first Christian countries, Armenia. The newer ones may look a touch of Doge's palace. No onion-shaped domes, of course. Inside, one may see obvious influence of Roman Catholic traditions: a pulpit you will never see in Russian Orthodox churches, and chairs for the parish.

A huge fortress rising above the city reminds us that once these places were not so peaceful as they are now. And it was amazing to have one of the conference days in a congress hall located under the fortress bridge, right in the inner mote surrounding the citadel. A very unusual place and a good metaphor, perhaps--we participants, not the combatants, assaulting bastions of traditional social science?

Another venue, where the conference started and where a reception was held one day

later, was Corfu Palace. A somewhat baroque building à la Louvre could be expected, to be located somewhere in the heart of downtown. Luckily, it was 'just' a good hotel--luckily, because apparently a hotel is more suitable for scientific meetings than a museum where one must always be cautious not to break pieces of art when arguing.

Finally, three of five conference days were spent in the Chamber of Industry and Commerce of Kerkyra, with helpful personnel and a much interested Chamber President. And right next door, a very welcoming neighbor, a Greek businessman who always tried to offer us another cup of coffee as his gratitude.

Organization

That the conference received attention from officials of Corfu, was another surprise, which I personally would call pleasant. A field such as sociocybernetics is frequently rather enigmatic to outsiders, even inside the scientific community itself. And it is a pity, because people remain unacquainted with its rather efficient thinking methods. Whenever authorities show their interest in thinking systematically about their everyday problems, whenever they stretch their hands to bring science to their issues, is a good motivation why we scientists do it all. In the end, it is "social science serving society" (Cor van Dijkum also emphasized this; e.g., see Newsletter no. 8).

With his must-be a great hunt for sponsorship assistance, the local organizer, Prof. Philippos Nikolopoulos managed to reduce participants' costs to a minimum. Many participants appreciated reduced hotel rates and special price for our dining place, Rex, which turned out to be one of the best and the oldest restaurants in Corfu (at least, so it was recommended by the locals). This effort should be acknowledged by everyone coming at his or her own expense, fully or partially, as well as by institutions saving money. To me, this aspect was set off even more as the week after Corfu I attended ISSS'03, a rather expensive meeting on Crete, where organizers did not manage to balance their costs and just cancelled a number of events without warnings and without any reimbursements; I thought again that Corfu was a good example of cost management.

I must also mention the efforts of Mr. Nikolopoulos' beautiful assistant, Nadia, who was a facilitator in many practical situations that arose during the days of the conference. Besides, she turned out to be interested in the subject itself, despite her own very different personal field, which was also found inspiring by quite a few participants.

And yes, Rex was a place enjoyed both day and night. A good acquaintance with traditional Greek cuisine, red wine and retsina made by the house, and lots of informal discussions that make part of the story at such a conference.

And too, a social program was provided: Prof. Nikolopoulos who has recently completed his field research in Corfu has become a connoisseur of the old Kerkyra town. As the last event of the six-day-program, he took participants around the island and let them enjoy what they missed during the previous days of rather intense conference meetings. Unfortunately, I had to leave for a ferry-and-ground trip to Crete via Athens; but others who attended expressed their very positive impression.

Summing up, I found the Corfu meeting to have been one of the best conferences that I have attended recently; measured by an indicator we economists love, the ratio of the "level of

organization to cost" (a variant of "value for money"), it was probably the best one. Again, compliments to organizing committee.

Papers and discussions

As a good rule of the Sociocybernetics conference, it should probably continue to avoid parallel sessions. Through that, each speaker is able to receive enough attention, and a proper amount of criticism. It is also good that this criticism comes from scholars of very different schools and even disciplines; thus, sometimes questions may look naïve, but those asking have a privilege that their mind is not restricted by the dominating paradigm in the field of a speaker. Some participants told to me that it is very stimulating to see scientists from completely different areas discussing each other's papers so enthusiastically.

During a day, six to eight papers were presented; that makes a number between thirty and forty papers for a five-day conference. Quite sufficient to present the diversity of views and topics in the field, and to let all high-quality papers be presented. A good remark coming from Felix Geyer (which I also support) was that part of the value of the conference is that people attend the whole conference, and not just jump in to give their own paper.

As for the hot topics of the conference, it appeared that there were none in particular. It is quite evident that sociocybernetics finds many, and often unusual, applications. Yet, to me it was not clear what is a particular method, or subject, of the theory. Sections of particular interest were "From Theory To Practice", "Activity Theory", "Communication modeling" and "Sociocybernetics of Organizations". Of course, other sessions also proposed interesting papers.

It is rather disappointing that almost no participants from a younger generation have attended the conference; it appeared that only a few speakers were under thirty-five. One possible explanation is that when a researcher transcends the boundaries of his discipline (which he may do with scientific maturity), he or she searches for a new paradigmatic community, and then comes to the sociocybernetics field. The other possibility is that the larger scientific community merely cannot form a clear picture of what sociocybernetics is and thus younger researchers tend to stick to more traditional, and more accepted, spheres. Then, it can be assumed that until a clear research program is explicitly formulated, a community cannot become a 'power', and it also will not be able to reproduce itself with "fresh blood".

Hot topic of self-reflectivity

The program of the conference gave me the same impressions as before the conference, when reading publications on sociocybernetics: that sociocybernetics is a very vague field. Coming to the community, I expected to hear from its adepts what sociocybernetics is. My surprise was, that it appeared to be one of the main topics in conference discussions.

Organizers had put on the agenda two brainstorming sessions of several hours each, in order to understand what is sociocybernetics and what is its present and future. The discussions revealed that everyone has "her own", and frequently quite a distinct, version of the discipline. Yet, the fact that all participants stick together, trying to apply similar methods to similar spheres, shows that there is some commonality in the community. Bernd Hornung also reminded participants of the success of RC51, which is the third largest research group in the

International Sociological Association by now. Yet, many agreed that the scope of RC51 goes beyond the scope of the ISA, and that it should not be bounded to sociology only, but to all human/social sciences.

During these discussions, participants came up with several important initiatives:

- Matjaz Mulej proposed to give a definition of sociocybernetics, and even suggested his own as a summary of the discussions;
- Vessela Misheva suggested preparing a book with key texts of the discipline (and possibly commentaries from sociocybernetics community members) to make a sort of Sociocybernetics Testament;
- my own proposal was to formulate what is 'not sociocybernetics' (the boundaries of the field), and to define thus an explicit research program; this could be accomplished, for instance, if invariants of ideas by key sociological (systemically thinking) minds are identified;
- finally, a good suggestion came from Czeslaw Mesjasz, who reminded us that "too much self-reflectivity can be harmful"; he thus hinted that we stop focusing only on self-reflexive practices and turn towards design and implementation of a clear "promotion program".

I think these initiatives should all be executed. As one good opportunity, web boards and mailing lists can be established, to run remote discussions of these issues. Perhaps the RC51 website may become a good starting point then.

Despite all, my image of the sociocybernetics community was very positive. I found a lot of enthusiastic and friendly people, who may indeed, as the title of the conference suggested, make sociocybernetics the future of social sciences.

2.2.2 Corfu, More Than a Report About an Excursion

Experienced and written down by Klaus E. Anders

It is already a tradition that the conferences of RC51 end with an excursion, which permits encounters with characteristic aspects of the host country. In the City of Corfu, however, the immediate conference site already provided impressions that made evident the wealth of traditions of this island. The very opening of the conference was an excellent choice in the first place, combining the contrasts between a modern hotel and an ancient fortress. The geographical history stood in an interesting relation to the contributions and discussions about Second Order Cybernetics and its applications in the social sciences and humanities.

In reality, the City of Corfu, or Kerkyra in Greek, with its old and new fortress, its old and new harbor, its lively old town, and the multitude of all of its romantic corners is an oversized historical museum in which it is quite clearly demonstrated how human action is determined by a linear way of thinking which leads to violence and war. All the more the present administration is making efforts to implement peaceful perspectives and to find a cybernetic view that might ensure the existence of the inhabitants and of the island. With the conference title "Society from Ancient Greece to Cyberspace and Beyond" an anchoring point was set which expresses expectations to be met by a sociocybernetic analysis. From this background difficulties result in deducing the recursion of history from current experience and from a to some extent photographically perceived current state of affairs, to understand it, and

to develop and to apply a new way of thinking.

Also an excursion on the island provides such a photographic experience. The plenitude of impressions hardly permits further analyses. However, it is enough for a description of experiences. On Saturday, June 5, we departed during the best time of the morning with about twenty remaining conference participants from the Esplanade Square, covered with voluptuous green, which separates Kerkyra from the Old Fortress. Of course the bus was air-conditioned as the day already began to show its approaching heat. We passed the colorful nature of the island. Olive groves and cypress woods followed each other. We passed the white dome of an observatory, which had been visible already from the plane when arriving on the island. Steep slopes took turns with tree-covered areas on both sides of the road. At times the bus screwed itself upward through serpentine. In between, the view was open on impressive hilly landscapes in which high and small cypresses, like stalagmites, caught the eye of the observer.

At our first destination, Sinarades, a small village in central Corfu, we had to leave the bus at the entrance of the village. The group was then guided through narrower and narrower alleys to the Historical and Folkloric Museum of Central Corfu.

This house, considered as typical, is situated on the side of a hill densely covered with buildings. The museum can be reached only by foot or by cart. Since 1982 everything of what is suitable to document the past of the island is collected here. The rooms are not only used to present family life. Sleeping and living quarters combine with exhibits from the crafts, fishery, and agriculture. An old chair for childbirth can be found next to the remnants of an old shadow show panopticon--a "TV-alternative" from the 18th century.

The environment of the museum is very charming as well. On the colorful, but partially very faded facades the dominating colors are clay and beige. The electric wires are hanging between the houses like knotted clothes-lines. From uncultivated surfaces and on the exteriors of the houses hibiscus and oleanders are climbing. Corfu, the green island, regenerates its character by a sequence of hot and dry summers and mild and rainy winters on a ground, which is well storing the humidity.

We continued to the southern Agios Georgios, situated on the central west coast of the island. At this popular beach resort we could enjoy the sunshine at the beach and could find refreshment in the sea. Although natural sources of shadow were rare, the beach store provided for sunshades and deck chairs.

One group of participants had to return to Kerkyra early. Another group parted for a stroll along the beach and found food and drinks in a simple, far away beach restaurant. Also here it turned out that in view of the often still-simple conditions on the island hospitality and talent for improvisation offer a good perspective for acceptance by tourists.

In the late afternoon the group returned to Kerkyra, the place where we had spent a successful, productive, and enjoyable week of conference.

3. COMMUNICATIONS ABOUT SOCIOCYBERNETICS

Sociocybernetics is a very promising field, in many ways bearing on the future of the social sciences, and as was made clear in the impression of Pavel Luksha of the Corfu conference,

giving rise to lively discussions. An ever-repeating theme is evaluation of the contribution of Luhmann (see for example: Newsletter 4). To facilitate the understanding and communication of this contribution, members of RC51 such as Loet Leydesdorff and Barry Gibson have participated in different workshops. Below you can find two reports about such workshops.

3.1 THE OPENING OF SYSTEMS THEORY

Luhmann Workshop at the Copenhagen Business School, 23-25 May 2003

Loet Leydesdorff

The newly organized *Center for Corporate Communication* organized a workshop with this title on May 23-25, 2003. The workshop can be considered as a follow-up on a workshop about "Luhmann and Organization Theory" organized in Munich in June 2002. Approximately ninety mostly European scholars presented more than forty papers. The papers in the sessions can be retrieved at <http://www.cbs.dk/ccc>. Four keynote addresses were provided to the conference audience.

The description of the social system

Dirk Bäcker (Sociology, University of Witten, Germany) opened the workshop with a lecture entitled "Niklas Luhmann observing the Computer." In this address he noted Luhmann's fascination with computers and their effects on communication. Bäcker distinguished four dominant modes of communication: oral, literal, print, and computer mediated communication. Four phases of social development were accordingly distinguished and associated with (1) segmentation, (2) stratification, (3) functional differentiation, and (4) a new mode of rewriting complex communications reflexively. Luhmann's theory was characterized by Bäcker as mainly a self-description of the third mode of social organization and differentiation. This description, however, provides us with categories for the analysis of the fourth and currently emerging mode.

In Bäcker's opinion, future research should use elements from older systems theoreticians (Ashby, Von Foerster, Shannon, etc.) in order to move the description of the complex dynamics forward. The development of the semantics lags the development of social structure, but the meaning-providing layer restructures the social reproduction from hindsight. The development of the semantics enables us to solve arising puzzles innovatively. The analytical problem for describing complex communications, however, can be formulated as to provide meaning to a description of the system while it develops further as a function of itself and its relevant environment. Bäcker provided the following formalization for such a system: $S = f(S, E)$. He argued that Spencer-Brown's *The Laws of Form* is helpful for the elaboration of this description (Bäcker 1999; Brown 1969).

In my opinion, what was remarkable about this presentation was not what was in it, but what was left out. There were no references to the theories of scholars working in the so-called Toronto school. These authors have elaborated on the phases of social communication as dependent on the media of communication (Innis 1950; McLuhan 1964; Meyrowitz 1994; Zelman 2002). There were also no references to the tradition of anticipatory systems which uses a formula $S_t = f(S_{t-1}, E_t)$ and $E_t = f(S_t)$ for the computation (Dubois 1998; Rosen 1985).

Anticipatory systems entertain a representation of themselves and by operating they provide this representation also with meaning (Leydesdorff & Dubois 2003). However, the major theoretical themes were brought clearly on the agenda of the workshop by Bäcker's introduction.

In the track sessions understandably there was a large representation of the host institution. In addition to fine papers elaborating on Luhmann's theory of social systems, a number of authors addressed "the opening of systems theory" from the perspective of discourse analysis inspired by Foucault. This finds its origin in the institutional background of the organizing unit with a research focus on corporate communication and management. Niels Åkerstrøm Andersen (CBS, Denmark), for example, elaborated in his keynote address entitled "The Pedagogisation of the Employee" on the communication of power. In the discussion Andersen stated that he wished to combine the analytical power of the analytical apparatus (Luhmann 1984, 1997) with the passion of Foucault. As a management consultant strategy he advocates a reflection that raises impractical questions in existing practices. The counter-intuitive results of the analysis can thus historically be put into action.

The operation of the social system

Urs Stäheli who is currently a visiting scholar at the Copenhagen Business School, provided the conference with a historically informed study about the differences between gambling and speculation, entitled "Contested Boundaries: Financial Speculation and Gambling." The presentation raised interesting issues about "structural coupling" that were further discussed in the track sessions. Stäheli argued that money provides a medium for *different* types of coding. In the historical process speculation has increasingly been appreciated as functional to the economic subsystem, while gambling tends to be outlawed. This further development of the functional differentiation (of the codes of communication) was also discussed in the various track sessions of the conference.

It seems to me that the "coupling" between functional *subsystems* is different from the "structural coupling" between social systems of communication and consciousness systems as different *systems*. While the coupling between different layers can be considered structural (Maturana & Varela 1980), the coupling between subsystems can also be characterized as "operational." The (social) system functions as the next-order level and the subsystems couple if that is functional for the further development of the system. The subsystems belong structurally to the same system and thus don't have to couple structurally. When they don't couple operationally, the subsystems can be expected to perform their own routines asynchronously. In that case, they may disturb one another. However, disturbance takes place at the level of information processing and not at the level of meaning processing.

For example, technology can be considered as a systematic exploitation of science within the economic system generating a feedback of the economic system upon science. Both subsystems develop according to their own logic, but they interact at the system level in the event of a possible coupling. Urs Stäheli noted that such a next-order "translation" from one subsystem into another can not be expected to become complete; it remains unstable. In the track sessions, Michael Hutter (Economics, Witten, Germany) elaborated another example of this coupling between subsystems in his paper "The Pattern of Structural Coupling between

Functional Systems: the case of Economy and Art." The issue of various forms of coupling among systems and subsystems was also raised, among others, by Lars Qvortrup and Stinne Helles (University of Southern Denmark) in a paper entitled "The Dynamics of Organisational Change. In Search of the Secrets of the Organisational Parasite."

The status of social systems theory

In a closing keynote address entitled "What will remain of Niklas Luhmann's Philosophy? A Daring (and Loving) Speculation", Hans Ulrich Gumbrecht (Literature, Stanford University, U.S.A.) distinguished among three genres in Luhmann's work:

- a first period from the early 1970s until the mid-1980s (including the book *Social Systems* of 1984) in which Luhmann had laid the foundations for the theory. The emphasis in these studies is on the environment of the system and how functions can be understood in terms of a reduction of complexity;
- a period from the mid 1980s until the early 1990s when the focus was on developing the ideas about the social system as an *autopoietic* system (sometimes in discussion with Maturana; e.g., Luhmann *et al.* 1990);
- a third period from the early 1990s until 1997 when the emphasis shifted towards the system/environment distinction and the reference was mainly to Spencer-Brown's (1969) *The Laws of Form*.

In Gumbrecht's opinion, the latter period had not been so inspiring while the main new ideas were produced in the second period. He saw the third period as "a streamlined version of hermeneutics". Perhaps, one can consider the main works of this latter period as also an attempt to codify the theory further into an encompassing theory. However, the universalistic aspiration of the self-referential theorizing should not be confused with a philosophical claim of self-grounding à la Hegel. Sociology, however, can be demarcated as an empirical enterprise from philosophy. Let me quote Luhmann on this:

The distinguishing (again: distinguishing!) characteristic of a sociological contribution to a self-description of society seems to be that it cannot neglect the operational and structural level of societal reproduction. In other, more familiar words, sociology has to be an empirical science (2000: 41).

It may be possible to give the oeuvre of the later period a philosophical reading and to study the theory without due attention to sociological questions. This was obviously not Luhmann's intention. I agree with Gumbrecht that the emphasis on Spencer Brown's (1969) *The Laws of Form* in the latter period distracts from a sociological reading. Goguen & Varela (1979), for example, have tried to elaborate these laws into an encompassing calculus, but the applications have hitherto remained very abstract. This approach does not invite sociological operationalization and the measurement of, for example, network data.

How can one open up systems theory in directions other than further theorizing? Theorizing without sufficient feedback from the research process can easily become speculative. How can one answer the question initially raised by the organizers of this conference without returning to discourse analysis or historiography? The natural candidate for the empirical opening, in my opinion, is systems research, which can be considered as an already existing discipline. Sociocybernetics as a specialty functions at the interface between

social systems theory and systems research. The existing journals of the name *Systems Research and Behavioral Science*, for example, is filled with contributions from fields like sociocybernetics in discussion with, for example, "critical systems theory". "Sociocybernetics" is also the name of a Research Committee (51) of the International Sociological Association, which focuses on debating theoretical, empirical and simulation studies related to the issue how society can be considered as a system of communication. This Research Committee publishes its e-journal entitled *Journal of Sociocybernetics*. One can find many references to Niklas Luhmann's systems theory in the contributions to both these journals.

As Dirk Bäcker noted in his opening address to the workshop, scholars working in the tradition of Luhmann's systems theory find their way back to the mainstream tradition of systems theory including such authors as Von Foerster, Maturana, Simon, Shannon, Wiener, etc. Additionally, the interfaces with other branches of sociology (e.g., Giddens 1984; Urry 2000) and communication studies can be elaborated (Leydesdorff 2001; Zelman 2002). How can the perspective of Luhmann's theory add to this body of literature and how one can enroll oneself in this discursive process of empirically informed reformulation? Empirical and simulation studies enrich the semantics if they can be interpreted and appreciated from the new theoretical perspectives. This requires mutual adaptations and that process drives the research process (for example, by providing us with new perspectives and questions).

In my opinion, the relation of the social theory of communication to the mathematical theory of communication provides us with a unique opportunity to develop both theory and methods in a single framework. How are social systems that process meaning different from other anticipatory mechanisms as they are studied in biology and neural networks? For example, how can codes of communication provide us with additional degrees of freedom in an emerging system of communication, while they tend to be stabilized in biological homeostasis? How can such a volatile system be sustained by institutions? Can this be expressed precisely and then also be measured and/or simulated? Can the concepts be operationalized and/or the hypothesized subroutines be (provisionally) formalized algorithmically?

Unlike biological mechanisms of communication, the communication of meaning cannot be observed without theorizing. How does an algorithmic understanding provide us with new semantics for reproducing the social system, for example, in a more sustainable way? At the end of the conference there was an offer by our colleagues from Berlin to organize a workshop in the near future. This next conference may provide us with an opportunity to bring other (research) traditions to the fore and to show how the systems theoretical approach is different and competent in addressing social issues, while competing in terms of the fruitfulness for the explanation.

Works Cited

- Bäcker, D., ed. 1999. *Problems of Form*. Stanford, CA: Stanford University Press.
- Dubois, D. M., ed. 1998. *Computing Anticipatory Systems: CASYS -- First International Conference*, AIP Conference Proceedings 437, American Institute of Physics, New York: Woodbury.

- Giddens, A. 1984. *The Constitution of Society*. Cambridge: Polity Press.
- Goguen, J. A., & F. J. Varela. 1979. "Systems and Distinctions: Duality and Complementarity." *International Journal of General Systems* 5, 31-43.
- Innis, H. A. 1950. *Empire and Communications*. Oxford: Clarendon Press.
- Leydesdorff, L. 2001. *A Sociological Theory of Communication: The Self-Organization of the Knowledge-Based Society*. Parkland, FL: Universal Publishers; at <<http://www.upublish.com/books/leydesdorff.htm>>.
- Leydesdorff, L., & D. Dubois. 2003. "Anticipation in Social Systems." International Conference on Computing Anticipatory Systems Casys'03, Liège, Belgium, August 2003; at <http://www.leydesdorff.net/casys03>.
- Luhmann, N. 1984. *Soziale Systeme. Grundriß einer allgemeinen Theorie*. Frankfurt a. M.: Suhrkamp.
- . 1997. *Die Gesellschaft Der Gesellschaft*. Frankfurt a. M.: Suhrkamp.
- . 2000. "Why does Society Describe Itself as Postmodern? In *Observing Complexity: Systems Theory and Postmodernity*. Edited by William Rasch and Cary Wolfe. Stanford: Stanford University Press, 35-50.
- Luhmann, N., H. Maturana, M. Namiki, V. Redder, & F. Varela. 1990. *Beobachter. Konvergenz Der Erkenntnistheorien?* München: Wilhelm Fink Verlag.
- Maturana, H. R., & F. Varela. 1980. *Autopoiesis and Cognition: The Realization of the Living*. Boston: Reidel.
- McLuhan, M. 1964. *Understanding Media: The Extension of Man*. New York: McGraw-Hill.
- Meyrowitz, J. 1994. "Medium Theory." In *Communication Theory Today*. Edited by D. Crowley & D. Mitchell. Stanford, CA: Stanford University Press, 50-77.
- Rosen, R. 1985. *Anticipatory Systems*. Oxford, etc.: Pergamon Press.
- Spencer-Brown, G. 1969. *The Laws of Form*. London: George Allen and Unwin
- Urry, J. 2000. *Sociology Beyond Societies: Mobilities for the Twenty-First Century*. London and New York: Routledge.
- Zelman, A. 2002. *Mediated Communication and the Evolving Science System: Mapping the Network Architecture of Knowledge Production*. Ph. D. Thesis, University of Amsterdam; at <http://www.rozenbergps.com/files/zelman.pdf>

3.2 THE LEGAL AND POLITICAL SOCIOLOGY OF NIKLAS LUHMANN

Workshop held at The International Institute for the Sociology of Law, Oñati, Spain, 18-19 September, 2003

Barry Gibson

The aims of this workshop were twofold; firstly, to explore Luhmann's ideas on law and politics in the context of his general social theory and secondly, to discuss the relevance and importance of these ideas for today's society. The workshop was initiated by Michael King and Chris Thornhill and hosted by The International Institute for the Sociology of Law (<http://www.iisj.es/webiisl.html>) which is located in the Old University (http://www.iisj.es/images/foto_univ.html) of Oñati (<http://www.iisj.es/aboutonati.html>). Needless to say that the surroundings and hospitality of the Institute were excellent. On arrival

at Oñati, it was not long before we discovered that we were at a very well organized and superbly hosted event. In addition we found the village to be relaxing and welcoming in all aspects of our visit.

The workshop itself included participants from a broad range of international locations including Mexico. There was also a broad range of disciplines and interests present from those studying legal sociology, philosophy and medical systems theory to those studying the relevance of Luhmann for art. The focus of the workshop was on discussion papers, which had been circulated prior to the meeting. At the start of each discussion session the author would summarize the paper in a quick presentation and then several participants would be asked to provide initial queries and discussion points. After these points were raised the author was asked to respond and then there would be a general discussion of various aspects of each presentation. The result was an engaging and lively discussion on many of the crucial aspects of Niklas Luhmann's social and political theory.

After the introduction by Michael King and Chris Thornhill there was a provocative presentation on the "Basic Concepts of Luhmann's Theory of Social Systems" by Bernd Hornung. This presentation stressed the importance of understanding Luhmann's social reality as an emergent reality and the central significance of specifying the reference system for observation. Other aspects of the discussion focused on the epistemological basis of Luhmann's systems theory in radical constructivism and the importance of contingency as a central concept. The paper compared and contrasted Luhmann with other writers like Buckley and discussed the idea of networks of communication. The subsequent discussion was lively and focused on aspects of the relevance of Luhmann's theory, which was so general and not likely to be applicable to over eighty per cent of sociological study.

The next presentation focused on "Niklas Luhmann's Concept of Society" by Anne Friederike Müller. This paper engaged Luhmann's sociology from the perspective of social anthropology and then it engaged some of the 'received wisdom' of anthropology from the perspective of Luhmann's social and political theory. The paper and much of the subsequent discussion focused on the post national nature of Luhmann's approach to society. Many points of convergence were shown between Luhmann's thought and the work of writers like Marcus, Fischer and Clifford. Of particular interest was the interpenetration of psychic and social systems. This point became the issue of some discussion and indeed the relevance of much anthropology was questioned because it was overly concerned with psychic systems. The discussion also focused on the anarchic nature of Luhmann's functionalism and the challenge of his epistemology to a discipline like anthropology since society cannot be studied from the outside.

The first day finished with an extensive paper on "Contingency, Reciprocity, The Other and The Other in The Other - On the Conception of Law and Society in Luhmannian Theory" by Jean Clam. This paper focused on the relationship between law and society where Luhmann was said to have goedelised the main figures of legal thought. This achievement was contrasted to Lacan's similar accomplishment in relation to psychoanalysis. The paper then went on to discuss the nature of contingency as a fundamental break with the old ontological paradigms of western thought. According to these traditions contingency was about limits, lack or deficit whereas in Luhmann it is transformed into something which possesses its own dynamics in terms

of the reproduction of reality towards a post-ontological theory of society. The principal aim of the paper was to demonstrate a complementary understanding of double contingency and to do this through the use of Lacanian psychoanalysis. The subsequent discussion focused on the nature and utility of this comparison.

The workshop finished at 5pm for the day when at seven thirty that evening we were treated to a reception at The International Institute for the Sociology of Law. At this time we had the opportunity to hear about the various possibilities there are to study at the Institute, including their Masters programme (<http://www.iisj.es/mastereng.html>). Finally we went into the village and enjoyed a superb meal. At this time many of the discussions commenced earlier in the day were reconvened.

On the second day the presentations began with a discussion on Chris Thornhill's account of "Niklas Luhmann's political theory: Non-metaphysical Politics". This paper began with a detailed discussion of the ways in which Luhmann marks sociology as being distinct from the first enlightenment. The rationality of the first enlightenment was critically flawed since it was based on the rationality of the human mind. Instead, according to Luhmann the rationality that triggers social evolution does so on the basis of the systems of society in the process of reducing and stabilizing complexity. In addition to these general views on Luhmann's theory this paper went on to discuss the nature of political legitimacy as the realized self-reference of the political system. The paper then compared and contrasted Luhmann's approach with those of Rawls and Habermas. The discussion primarily focused on the nature of power and legitimacy.

What followed from this was a presentation on "Systems theory and the Paradox of Human Rights" by Gert Verschraegen. The aim of this presentation was to show how Luhmann's theory could offer a sophisticated theoretical account of the place of human rights in contemporary society. In this account human rights are seen as a self-protection mechanism of society against de-differentiation. Indeed, this point was picked up in the subsequent debate where positive forms of de-differentiation were discussed, for example the break down between sexes with the gay liberation movement. Additionally, this paper provoked an interesting discussion concerning the nature of the individual in systems theory, which, it was argued, appears almost as a hole in the system. In this way much of the discussion revolved around the distinction between inclusion and exclusion of the person from the various functional sub-systems of society.

The final contribution to the workshop addressed "Luhmann's theory of power" and was written and presented by Samantha Ashenden. This paper began by comparing and contrasting Luhmann's perspective on power to that of more traditional approaches from Hobbes to Habermas, where the predominant models of power are based on the idea of sovereignty. Power for Luhmann was subsequently described as a symbolically generated medium of communication closely related to the nature doubly double contingency. In turn the basic ideas of Luhmann's approach to power were then explored in the context of political sociology. Several concerns about Luhmann's approach to power were subsequently developed. These became the substance of much of the subsequent discussion, in which power was discussed in relation to the distinction between social and organizational systems, the problem of historicity versus evolution and finally the notion of structural coupling between

systems.

The workshop was a chance to make new acquaintances, all of them interested in Luhmann's social and political theory. One of the abiding themes of the discussions was the emergence of a wide variety of interests and perspectives on Luhmann. In turn, the workshop indicated just how much was to be gained by placing that wide variety of interests together in a beautiful setting like Oñati for two and a half days. It was an experience which will not easily be forgotten.

4. BOOK REVIEW

4.1 UP-DATE ON THE BOOK REVIEW

VON FOERSTER, Heinz; POERKSEN, Bernhard: Understanding Systems

by Bernd R. Hornung

In the book review published in the last issue of the Journal of Sociocybernetics this book was quoted as being published by Academic Publishers/Plenum Publishers, New York, Boston, Dordrecht, London, Moscow 2002. Unfortunately we missed indicating that it was in fact produced jointly by Kluwer, New York, and Carl-Auer-Systeme Verlag, Heidelberg, Germany. While Kluwer holds the rights for the US, where the book is available for about 68 USD, Carl-Auer-Systeme Verlag is selling it for 25,50 Euro, which will be of particular interest for our European readers.

4.2 BERND'S TOP CHOICES IN SYSTEMS SOCIOLOGY

Authored Books

BAILEY, Kenneth D.: Social Entropy Theory, State University of New York Press, Albany N.Y. 1990

BAILEY, Kenneth D.: Sociology and the New Systems Theory, Toward a Theoretical Synthesis, State University of New York Press, Albany N.Y. 1994

BUCKLEY, Walter: Society - A Complex Adaptive System, Essays in Social Theory, Gordon & Breach Science Publishers, New York, London, Tokyo 1998

BURNS, Tom R.; BAUMGARTNER, Thomas; DEVILLE, Philippe: Man, Decisions, Society, The Theory of Actor-System Dynamics for Social Scientists, Gordon & Breach Science Publishers, New York, London, Tokyo 1985

BURNS, Tom R.; BUCKLEY, Walter (eds.): Power and Control, Sage Publications, London, New York 1976

ETZIONI, Amitai: The Active Society, Collier Macmillan, New York 1968

GEYER, R. Felix and ZOUWEN Johannes van der (eds.), Sociocybernetics (2 vols.). The Hague: Martinus Nijhoff Social Sciences Division, 1978 (312 p.)

GEYER, R. Felix: Alienation Theory, A General Systems Approach, Pergamon Press, Oxford, New York 1980

MILLER, James G.: Living Systems, McGraw Hill, New York 1978 (Due to sheer size this

major work is not really a readable text.)

WALLERSTEIN, Immanuel: *The Modern World System, Capitalist Agriculture and the Origins of the European World Economy in the Sixteenth Century*, Academic Press, London, New York, Tokyo 1974

Collections

GEYER, R. Felix and ZOUWEN Johannes van der (eds.), *Dependence and Inequality - A Systems Approach to the Problems of Mexico and Other Developing Countries*. Oxford: Pergamon Press, 1982 (326 p.)

GEYER, R. Felix and ZOUWEN Johannes van der (eds.), *Sociocybernetic Paradoxes - Observation, Control and Evolution of Self-steering Systems*. London/Beverly Hills/New Delhi: SAGE, 1986 (224 p.)

GEYER, R. Felix (ed.), *Sociocybernetics: Complexity, Dynamics, and Emergence in Social Science*. Bradford, UK: MCB University Press, 1997. Special double issue of *Kybernetes*, vol. 26, Nos. 6-7

GEYER, R. Felix and ZOUWEN Johannes van der (eds.) *Sociocybernetics: Complexity, Autopoiesis, and Observation of Social Systems*. Westport, CT: Greenwood Publishing Group, 2001

KUHN, Alfred: *The Logic of Social Systems*, Jossey-Bass, San Francisco 1974

5. UPCOMING CONFERENCES

In the following we present as usual some brief information about upcoming conferences that may be of interest. Please note that if you want to participate in some of them, you have to very soon send your abstract.

International Conference on Systems, Man and Cybernetics (SMC-conference)

The Hague, The Netherlands, October 10-13 2004

Traditionally, the SMC conferences provide a forum for presentation and discussion of the state of the art in Systems Engineering. They play, therefore, an important role in shaping the related academic, scientific and higher education programs and, eventually, in shaping a stable world economy. This conference hopes to continue this noble tradition by focusing on Impacts of Emerging Cybernetics and Human-Machine Systems.

Papers relating to this topic are especially solicited, including those in the areas of human/system reliability, mechatronics, bio-mechatronics, alternative man-machine interaction, adaptive and intuitive interfaces, socio-technical systems, and communication among systems of different nature. A special focus will be on transportation and production systems as well.

January 16, 2004: Deadline for submission of proposals for special sessions/tracks.

March 19, 2004: Deadline for submission of extended abstracts for regular papers.

May 14, 2004: Acceptance notification

June 11, 2004: Final camera-ready papers due in electronic form.

See further website: <http://www.ieeesmc2004.tudelft.nl/>

European Meeting on Cybernetics and Systems Research

Vienna, Austria, 2004-04-13 bis 2004-04-16

Cybernetics - "*the study of communication and control in the animal and the machine*" (N.Wiener) - has recently returned to the forefront, not only in cyberspace and cyberpunk, but, even more important, contributing to the corroboration of various scientific theories. Additionally, an ever increasing number of research areas, including social and economic theories, theoretical biology, ecology, computer science, and robotics draw on ideas from second order cybernetics. Artificial intelligence, evolved directly from cybernetics, has not only technological and economic, but also important social impacts. With a marked trend towards interdisciplinary cooperation and global perspectives, this important role of cybernetics is expected to be further strengthened over the next years.

For further information website: <http://www.oefai.at/emcsr/>.

Non Linear Modelling

A session in: RC33 Sixth International Conference on Social Science Methodology.

Recent Developments and Applications in Social Research Methodology

Amsterdam, The Netherlands, August 16-20, 2004

In the struggle of the social sciences to describe and explain the dynamics of human behaviour, theories and models play an important role. Social scientists such as Fechner (1889), Coleman (1964), Forrester (1968) and Blalock (1969) made a plea for theories in which behavior is dynamically understood and as a consequence mathematically modelled in differential equations.

Non-linear models are another step ahead. Linear differential equations are handled in the natural sciences analytically by using adequate methods of solving. But only lately, made possible by advanced hard- and software, natural scientists are able to simulate and handle the complex dynamics of non-linear differential equations. Inspired by this advancement in science, social scientists have discovered that also the dynamics of human behavior can also be better described and understood with non-linear models.

Pioneers in this field (from psychology, sociology, but also economy, medical sciences, etcetera) are requested to present their state of 'the science and art'. They are invited to demonstrate and explain their approach, for example by answering the question:

In what way their non-linear model is inferred from a dynamic theory;

In what their way their model is confronted (falsified and verified) with empirical facts;

In what way the simulated output of their model is compared with time-series of empirical facts;

In what way the model was useful for the practice of their field.

Send abstracts before January 15 to: c.vandijkum@fss.uu.nl.

Further information about the conference itself: <http://www.siswo.uva.nl/rc33/>.

Call for Information about Interesting Conferences:

As editors of the Newsletter we do our best to publish information about interesting upcoming conferences. However we will certainly miss a number of interesting events.

As a reader of the newsletter you can help us with this deficiency of information. Please send your Call for Papers, Announcements of Interesting Conferences, etc. to Cor van Dijkum, c.vandijkum@fss.uu.nl.