JOURNAL OF SOCIOCYBERNETICS

SOCIOCYBERNETICS traces its intellectual roots to the rise of a whole 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.

It is, then, in this context of rich history and exciting possibilities that 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.

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Contents

Managing Organized Knowledge: A Systemic Proposal

Heinrich W. Ahlemeyer

1. Introduction

IF WE LOOK for bridges among past, present, and future, our searchlight will almost inevitably get knowledge into its focus. Knowledge comes from the past; it is presently present; and by changing the presence it points into the future.

Modern organizations and societies are currently observed as going through a time of upheaval towards knowledge based systems. Next to power and money, the traditional communicative media, knowledge is described as increasingly gaining weight as an operational condition and as a resource in steering social systems (Willke 1998a; b).

The current renaissance of knowledge as a topic comes neither from sociology nor from political science but typically from management theory. After Amitai Etzioni's Active Society (1971) and Daniel Bell's Post-Industrial Society (1976), knowledge as a subject was dormant for almost two decades before it was rediscovered by the works of Quinn (1992) on the "Intelligent Organization", Reich's concept of knowledge work by "symbolic analysts" (1991) and Peter Drucker's description of "The Post-Capitalist Society" (1994). The idea of the intelligent organization can presently be observed thriving both in the theory and in the praxis of management (see, for instance, Senge 1990; Chawla and Renesch 1995).

Three recent publications by system thinkers, however, indicate a renewed sociological interest in the subject and promise some challenging views on the way in which organizations deal with knowledge (Willke 1998a; b; Baecker 1999; Luhmann 2000). In this article, we shall take up some of their ideas and concepts and examine them for implications they might have for the practical management of knowledge in organizations. Both the volume and the degree of complexity of the theoretical concepts to which we refer prevent any claim of complete or adequate reproduction of the works we quote. We also accept the responsibility for the practical consequences that we propose in the last section.

Our inquiry indicates that organized knowledge cannot escape self-referentiality: by dealing with knowledge, it is referred to its own ignorance/knowledge. To break this self-reverential circle, we anticipate the concept of knowledge, developed in section three, and describe it as a complex operation of examination. The leading question for this examination asks to what extent results of systemic research on organizations may inform and support a practical management of knowledge? We set out to analyze the implications that an organization as a social system has on the production and use of knowledge, and we inquire in what ways organizations are prepared, in what ways they are structurally restricted in dealing with

knowledge? What do the distinctive features of organized social systems mean for the production, use and spread of knowledge? What is regarded as knowledge within an organization? And finally, what practical consequences can be drawn from a systemically informed analysis for managing knowledge? We suggest that organizations are basically handicapped in dealing with knowledge and for an effective management of knowledge they need to resort to other social system types, such as networks and communities. First, however, we shall to examine the concept of organizations as autopoietic social systems.

2. The Autopoietic Concept of Organized Social Systems

The concept of organizations as autopoietic social systems begins with a circular definition: "An organization is a system which produces itself as an organization" (NL 2000a: 45). Organizations are unpredictable, incalculable, historical systems that proceed from a presence for the constitution of which they themselves have contributed. They are autopoietic to the extent that they produce and reproduce themselves. This implies a self-description as an organization. Otherwise, an external observer would not know whether or not he is dealing with an organization; neither would the organization itself. A system that produces itself has to be able to observe and discriminate itself as different from its environment.

The basic unit of an autopoietic system has the chronological form of an 'event', an incident that makes a difference between 'before' and 'after'. In the very moment of their coming into being, events fade away. The basic units are also called 'operation', and the basic operational mode of organizations is decision. It is by the operation of decision that organizations differ from other autopoietic social systems, such as interaction or society (Luhmann 1997).

In this perspective, organizations are conceived as social systems consisting of decisions (Luhmann 1988). They produce the decisions they consist of by the very decisions they consist of (Ahlemeyer 2001). Organizations have to turn everything that is important for them and their continued existence into an object of their decision. This extends, as we shall see, to knowledge, too. The organization reproduces itself by decisions that go back to past decisions and point to future decisions (Baecker 1999). The operative units are connected recursively. Every decision has to take care of its connectivity to decisions that have previously been made and to those that might follow in the future. The only constancy in the elementary operation mode is to be found in its discontinuity. The ongoing disintegration on the basis of the underlying operative events demands a continued repetition of selections of a following event. In this sense, organizations are inherently restless.

To direct and program this ongoing selection on the level of their elementary units, autopoietic systems have to refer to their self-observation. They use their identity, however, not as a fixed object with certain stationary properties, but rather as a focal point for constantly adopting new qualities and shedding those no longer needed or used (Luhmann 2000: 47).

The theoretical concept of autopoiesis has far reaching consequences for the relationship of system and environment. No doubt: self-referentially closed systems require by necessity an environment and cannot exist without it. They are, however, not determined in any direct or immediate sense by an input of the environment, but they create their own environment by selecting themselves what they receive. The environment always appears according to internal processes of observation. Closure on the operative level does not mean that an organization would not communicate with its social environment. Society provides for these possibilities of

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communication across the borders of subsystems. As a recipient of communication, the organization regulates with its own structures what information may appear on its internal screens and stimulate its internal processes. As a sender, it decides what to communicate and what to keep to itself (Luhmann 2000: 52).

The environment is an internal construction of the system and in this sense specific to the system. Information in the system is always information about the environment, not information from the environment, as there is no direct contact between system and environment. An autopoietic system can thus only inform itself, and information in the system assumes the function of selectively limiting the possibilities for continuing its basic operations. The system uses information to get from one event fading away to the next one coming into being. The connection between the two is achieved by information. Information reproduces the borders of the system, and therefore it cannot transcend them, neither from the outside to the inside nor vice versa (Luhmann 2000: 56ff).

The description of organizations as information processing systems requires an explanation of the notion 'information'. For this, we resort to Gregory Bateson who proposed: "The technical term 'information' can temporarily be defined as any difference that makes a difference at some later event." Or, even shorter, in his famous definition, which is at the core of every systemic methodology: "Information consists of differences which make a difference" (Bateson 1982: 123). It may be useful to add that systems react only on differences that they themselves have produced internally.

One important consequence of the theory of autopoietic systems is a shift of emphasis from adaptation to learning. The operations of the system serve to continue its autopoiesis, not to improve its adaptation to the environment (Luhmann 2000: 74f). Information about the environment is used to create system-internal problems--problems of consistency with what the memory of the system claims. And by working out solutions, the system improves the adaptation to itself. In this sense, learning requires knowledge (Luhmann 1984: 447ff). Furthermore, it is a general prerequisite of learning that the system, that is the organization, is able to tell the difference between success and failure of learning. The system finds this distinction only within itself, as a system-internal construction. And one may add that it then depends on the current state of the system whether or not it allows itself to be impressed by successes or failures on this level (Luhmann 2000). If these are some basic outlines of the systemic concept of organization, how can we grasp and understand the concept of knowledge?

3. Knowledge

Knowledge belongs to the constitutive characteristics of social systems, as communication (by language) requires knowledge: without knowledge, no communication. Knowledge, however, is never made fully explicit in communication.

Luhmann (1990) and Baecker (1999) suggest conceiving knowledge not as something that is principally worth knowing, but as a 'complex operation of examination' (Luhmann 1990: 129) that both individually and socially has its own conditions. According to this concept, knowledge is neither just a storable stock nor a learnable process, but a structure that facilitates dealing with information. This structure allows for accepting information as new or for rejecting it as irrelevant, for comparing it with other information or to combine it to a new, a third kind of, information. Knowledge encompasses and surmounts the difference of informations and, as a

structure, it changes with the information that is currently selected and accepted. These informations are generalized and transformed onto a selective level that then may be observed in respect to its selectivity, its contingency and its stability in time.

The temporalization, which the concept of social system proposes, does not exempt knowledge: knowledge is described as immediately bound to the ongoing operations of its reference system that disappear in the very moment of their coming into existence. Von Foerster (1969) has shown that memory, too, operates only in a topical manner. It consists of momentary examinations of consistency, in which new information is related to information remembered, and in this sense memory implies much more than just a use of things past. There is no timeless cognition. Knowledge assumes an object-related form, but in order to be known, it has to be actualized at a particular moment. Memory operates only when it operates. We hold in mind Luhmann's proposal of conceiving knowledge not as a kind of time resistant stock, but rather as a complex operation of examination of differences (Luhmann 1990: 129; also Baecker 1999).

In this respect, knowledge refers to 'structure', which stands as one of its prerequisites. Structures, too, have their own temporal dimension. They, too, are structures only to the extent that they are used as structures. Their function is to help the autopoiesis get from one event to the next one. Structures reduce the arbitrariness of the ensuing event. They render redundancy possible and thus allow for an accelerated speed in the production of the events that follow. Only that functions as a structure what is used in the current operations to help join another operation. In this way, a system gains an important advantage: the advantage of forgetting, of using a structure no longer.

Every kind of time consistency, and that implies the time consistency of knowledge repositories, is thus the performance of an observer for whose very operations the same holds true (Luhmann 1990: 130). The observer, for his part, is free to use a time pattern thus constructing consistency. He may find the knowledge as having been known in the past and probably continuing to be known in the future. The 'normal' knowledge user does not use a time pattern. He is thirsty and opens the refrigerator, as he knows there is milk inside. Only when he (or some one else) wants to know what he knows, does he transfer structure into the time dimension.

That gives way to a theorem of improbability of knowledge: we can see that every cognition, every kind of integration with eigen states and with the environment disappears immediately after occurring. Without this mechanism of forgetting, the system would soon be overloaded with accumulated considerations.

If knowledge always refers to the operations of a system and only a minimum fraction of potential knowledge can be actualized from moment to moment, the central question an organization faces is less what is known, but how can it provide for appropriate topicalizations of what is known and how can it link knowledge to decisions.

4. Knowledge in Organizations: Certainty and Uncertainty

The notion of knowledge awakens positive connotations with most contemporaries. Knowledge is valuable; the more you know, the better; knowledge seems to promise consensus and certainty. One may question some of these premises and propose, for instance, that organizations have a paradoxical relation to the dimension of certainty/uncertainty. They need uncertainty as much as they need to pretend certainty. They have an equally ambiguous

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relationship to knowledge. For the ongoing production of decisions, ignorance may sometimes be as necessary and functional as knowledge is. And one can argue, as Dirk Baecker does, that the communication of knowledge in organizations runs particular risks of being doubted and raising objections.

Organizations are communication systems that consist of decisions. In contrast to communication in general, which allows for a fairly high tolerance of indeterminacy, decisions have to attach great importance to very specific connections with earlier, but also with future decisions. Organizations achieve this combination of self- specificity and the search for specific connections by concealing their own uncertainty. In their decisions, they refrain from communicating their own uncertainty. March and Simon (1958) have called this premise of every kind of organizational reproduction 'uncertainty absorption'.

The organization leaves its own uncertainty uncommunicated. The system lives off over-estimating itself. It pretends to dispose of more certainty than it actually has. In the ongoing communication of decisions, it conceals its own uncertainty as it assumes that a continued display of its uncertainty would obstruct its members in fulfilling their tasks.

In his latest book on "Organization and Decision", Luhmann has dedicated a whole chapter to the subject of uncertainty absorption (2000: 183ff). He uses this concept to replace what classical organizational theory had termed 'goal orientation'. Luhmann sees uncertainty as resulting from the simultaneous incidence of both knowledge and ignorance, because of this very difference. Both knowledge and ignorance, he contends, are social constructs developed in the system that uses this distinction. In the case of organizations, uncertainty results from the ongoing production of decisions that serve to produce further decisions (2000: 184).

Relating uncertainty to the distinction of knowledge and ignorance, Luhmann emphasizes that uncertainty must not be misunderstood as a dysfunctional state to be remedied as soon as possible, but that--in contrast to what the system itself may perceive--uncertainty constitutes an important resource for the autopoiesis of the system. Without uncertainty there would be nothing left to decide and in a state of complete self-determination the organization would wither and finally cease to exist through lack of activity.

Ignorance can only be produced and fought with the help of knowledge. Therefore each organization, which sets out to invent its own future, has to refer to what it has already achieved. "An organization can never know what it thinks or wants until it sees what it does" (Weick 1977: 195). For an organization, this means that ignorance cannot be reduced by knowledge, but only by decisions. These decisions may, for instance, refer to the direction and method of searching for knowledge. Organizations create their future by help of decisions, not by knowledge. Uncertainty absorption for them is a decision process, not a scientific quest. The distinctions of certainty/uncertainty and knowledge/ignorance are produced recursively, by the system making decisions that are recursively bound to earlier decisions. This implies that knowledge/ignorance and certainty/uncertainty do not exist as such, but only system-specifically (Luhmann 2000: 186-87).

In every operation, in everything that happens in the system, the difference of knowledge and ignorance is reproduced, as a difference. The absorption of uncertainty conveys to this difference just a different form, a less disturbing one. At the same time, one can often observe in organizations that available knowledge is not used in decisions and even that ignorance is intentionally produced or maintained, as an evidence of its innocence, for instance. The management did not know about serious security gaps; therefore, it argues, it cannot be blamed for the accident. Seeing the consequences of knowledge, one may prefer not to know. For

participating in organized social systems as a member a sophisticated art of not knowing may be as much required as the art of getting the right kind of information. Producing and preserving ignorance may be just as functional for making decisions as the production and preservation of knowledge.

5. Knowledge Communication

Does knowledge need to be communicated in the social system in order to manifest itself as knowledge? This is a difficult question. On the one hand, knowledge always refers to the operations of the system, and the operational mode of social systems consists of communication. From this perspective, one would tend to affirm the tie of knowledge to communication. On the other hand, knowledge is never made fully explicit in communication. There is always more to be known than can be communicated. Knowledge may also be acquired by observation, or by experience, or by participation. With reference to Polanyi (1985), we can distinguish explicit knowledge and implicit knowledge. Explicit knowledge is clearly and openly stated, communicated and often even documented as knowledge, while the other typically remains unrevealed, uncommunicated and opaque even to the knowing person who does not know that he/she knows. As observers, we find ourselves referred to two different system levels, which are both undeniably implied when we deal with knowledge: individual psychic systems that process thoughts and perceptions and interpersonal social systems that process communication. One of intriguing questions that ensues is whether or not communication systems also have access to implicit knowledge.

Much knowledge remains implicit. When it is imparted, however, it encounters not just the usual difficulties, which Luhmann has summarized pointedly with his expression of the 'improbability of communication', but because of the impositions implied, communicated knowledge meets even more obstacles.

Communicated knowledge provokes doubt and objection beyond the degree that every other communication act risks being rejected. Each kind of knowledge communication contains for instance a claim of knowledge that may put others into the uncomfortable situation of thinking of themselves as unknowledged. The acceptance of knowledge seems easier, when it is more implicit. To make knowledge explicit in the communicative dimension means exposing it to possible rejections.

The improbability of its acceptance can be observed in all three basic dimensions of the social system. It may be rejected in the object-related dimension, because one has a different view of the matter in question. It may be rejected in the social dimension, because one rejects the imposition to regard something as knowledgeable (or to admit a missing knowledge) where others present themselves as knowing. And it may be rejected in the time dimension because one doubts whether the communicated knowledge is up to date or because one cannot tell the consequences for one's own future (Baecker 1998: 12ff).

Knowledge does not go together easily with the organizational operation of making decisions; often it even disturbs it. By producing doubt and objection, it runs counter to the organizational imperative of uncertainty absorption. Therefore, organizations often find it easier to refute knowledge than to process it. The extent to which a decision uses a specific knowledge must rather be concealed than communicated, as knowledge provokes doubt and objection even when there is a general readiness to accept the decision itself (Baecker 1999: 16). Knowledge

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always plays a precarious part in organizations; in order to become organizationally relevant, it needs to find connections to the ongoing decision-making operations of the system.

6. Dimensions of Knowledge Management

Following Luhmann we have described organizations as autopoietic social systems that process decisions by decisions and we have tried to understand some implications of knowledge for such systems. We have pointed to the temporalized properties of knowledge and memory and identified some basic obstacles to knowledge in the elementary operation of decision-making in the organizational imperative of uncertainty absorption and in the impositions of knowledge communication. In this final section, we are interested in practical implications of this approach for the management of knowledge in organizations. Here, we question Luhmann's claim that systems theory needs no praxis, but is content with containing its own program of amelioration (2000: 474). We advocate, in contrast, an approach that overcomes the alternative between praxeologies void of theory and theories lacking practical relevance. We regard a reflexive view which tries to understand the other side of the difference as a productive form of loose coupling from which both theory and praxis profit.

One instance of the practical relevance of theoretical findings may be found in the very concept of knowledge management itself as it takes up and affirms the distinction between individual and organizational knowledge. Luhmann had opened up his sociology of knowledge by the end of the 1980's by proposing to loosen the hitherto almost unshakable attribution of knowledge to individual systems of consciousness (1990: 11). Chrys Agyris and Donald Schön, the creators of the idea of organizational learning, pointed out how almost unthinkable it was to suggest that there is knowledge and learning beyond the individual level:

> To the distinguished social scientists who were repelled by the idea when we first broached it in the early 70s, organizational learning seemed to smell of some quasi-mystical, Hegelian personification of the collectivity. Surely, they felt, it is individuals who may be said to learn, just as to think, reason, or hold opinions. To them, it seemed paradoxical, if not perverse, to attribute learning to organizations (1996: 4).

In the mean-time, some researchers have shown that the intelligence of organizations may well be distinguished from the individual intelligence of its members so that parliaments, for instance, stand out as rather smart organizations consisting of usually average members in contrast to universities which comprise many intelligent individuals, but gain little praise for their organizational intelligence, in Germany anyway (Willke 1997).

The practical relevance of this distinction of individual and organizational knowledge is obvious: in knowledge-based companies, as in the software industry for instance, or in consulting, one of the most pressing concerns is to prevent core business knowledge from emigrating when key knowledge holders suddenly leave the organization, following perhaps a competitor's offer. For the management of these organizations, building up and taking care of an organized knowledge base that is independent of individual consciousness systems ranks among the top priorities.

Much current knowledge management can be covered and systematized by taking up two

basic systemic distinctions: the distinction of individual/organizational knowledge and the distinction of explicit/implicit knowledge. By cross-tabulating these distinctions, we gain four types of transitional activity that can be used for grasping present activities in the praxis of knowledge management (Aibel and Snowdon 1998a, b).

	Individual	Organizational
explicit	I making tacit individual knowledge explicit	II sharing explicit knowledge
Tacit	III sharing implicit knowledge between individuals apprenticeships, workshops	IV more trusting use of tacit knowledge community of practice

Corresponding to this four-field pattern, there are different tasks to be taken care of in the management of knowledge:

(a) One needs to identify which artifacts hold explicit knowledge (databases, filing cabinets, articles, etc.) and create a strategy for optimizing the use of these artifacts and making them available.

(b) Where the asset is tacit, management must decide whether it should and could be made explicit. It is important to observe the environment carefully for the degree of complexity and uncertainty involved. As a rule of thumb: the more complex and uncertain the environment is, the more it may be advisable to retain knowledge in its tacit form (Cf. also Aibel and Snowdon1998a, b; Ahlemeyer and Königswieser 1997).

(c) Where it has been decided to make the knowledge asset explicit, artifacts need to be created to act as repositories (databases, manuals, articles). With the evidence of the temporalized operation mode of memories in mind, it seems equally crucial to create an awareness in the organization that recalls the existence of these artifacts and encourages their use.

(d) Where the asset is tacit and it has been decided best to be kept in that state, one needs to create and manage communities who assume the function of 'repositories', of personal bearers and producers of knowledge.

Much current knowledge management presently focuses on squares (I) and (II). It is generally assumed that knowledge management is about making tacit knowledge explicit and distributing it widely in the organization by artifacts of modern information technology. Important as these activities are, squares (III) and (IV) must not be neglected. They accept and

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acknowledge the essential role and qualities that knowledge has to offer in the aggregate, implicit form. Especially when gaining competitive advantages by creating new knowledge is at stake, implicit knowledge proves even superior: it is more adaptable, more flexible and much more quickly mobilized. Any effective knowledge management program will involve a balanced portfolio of all four transitional activities.

The creation of communities of competence is one important step in knowledge management. The observations offered above have pointed out the principal difficulties that organizations encounter in dealing with knowledge. Other obstacles appear on the level of decision premises and organizational culture: where career structures and reward systems are geared towards individual gain, there is little structural encouragement for making tacit personal knowledge explicit and sharing it with competitors. In many organizations, members still hold to the deeply internalized norm that you had better treat knowledge like money and invest it only very selectively. The message of knowledge management announces just the opposite: knowledge grows by sharing.

Considering these obstacles in organizations, it may be helpful to remember the difference between organization on the one hand and network and community on the other. Neither notion is by necessity more comprehensive than the other one. There are organizations within and between communities and networks, and there are communities and networks within organizations.

More loosely coupled social systems, such as networks and communities, seem to be better suited for meeting the challenges of knowledge management than organizations are. Liberated from the autopoietic operation of decision-making, they also find it easier to deal with knowledge, particularly in its aggregate, implicit form. To manage knowledge successfully, organizations need networks and communities. As Geyer (1990) demonstrated, these modern communities in high-complexity environments have little in common with communities in the traditional sense. They are more temporary. They do not require normative conformity. They are comprised of people bound by common interests or causes. They allow for, even demand a maximum degree of self-expression and, based on win/win-relationships, they reject collision course patterns of win/lose constellations (Covey 1989). Most of all, these communities develop on the build-up of trust.

In fast changing and complex environments knowledge in general and implicit knowledge in particular become increasingly important assets. Often there is not enough time to wait and rely on processes rendering important knowledge explicit. Tacit knowledge corresponds with the generally temporalized quality of knowledge in autopoietic social systems. Because of its fleeting quality, especially implicit knowledge needs a focal point, 'a system in charge', whose function is to remind the organizations, in its autopoietic operation, of existent knowledge assets and to explain, apply, promote, protect, and develop them. The creation and support of communities of competence as such focal points is one crucial core component of all knowledge management. One does not have to be a prophet to see that knowledge is going to change the form and function of organizations dramatically in the years to come.

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Observing Action *in situ*[*]

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Summary

The conditions necessary for obtaining access to the observation of action *in situ* in a social system are formulated. These conditions entail exercising control over observer-observed interactions in a situation where the observed social actors are recognized to have a capacity for observation of the same sort as that of the outside observing party, *i.e.*, a group of socioanalysts. This control is described in two ways. For one thing, the technical arrangements are presented for a "qualitative simulation"; these arrangements activate actors' cognitive capacities (the presupposition of a link with a collective intentionality) in an intergroup situation. For another, an attempt is made to theoretically describe interactions that, through language, entail two levels of action: latent (the silent processes of language inside each actor) and patent (the public action of speaking out and thus producing contents pertinent for constructing and undertaking action in the social system).

KEY WORDS: observer-observed interactions, qualitative simulation, socioanalyst group, perception, cognition, collective intentionality

SOCIAL SYSTEMS are multi-dimensional. They have: powerful hierarchical and symbolic relations, a regulated production of technologies and practices, an internal dynamics that activates the cognitive capacities of human actors in the system at a given place and time, and, too, boundaries relative to observers. Observing a social system can be conducted in various ways depending on the conditions of access, criteria of delimitation, objectives, methodology, etc. One way to access observation is through the system's formal structure: its forms of organization; arrangements of activities; explicit networks; channels for transmitting goods, property, information, etc; and the boundaries set by rules and regulations (March and Simon 1958; Perrow 1967; Weick 1995).

Observing action supposes obtaining access to the activation of actors' cognitive capacities, *i.e.*, being able to detect the processes whereby action arises and produces its effects (Cicourel 1974, 1994). Human beings are, all at once, actors who design and pursue strategies

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and who act (Goffman 1974). There is no such thing as an actor who, like a robot, unswervingly performs tasks following specified instructions inside absolutely fixed bounds. Such a robot-actor does not exist, not even in cases where rules for executing actions are set by instructions and can be controlled. There is always room for uncertainty about human actors' reliability and inventiveness.

Actors see and conceive their actions in a system wherein they are a part. Their ideas and conceptions are not directly accessible, nor easily communicable. Activating these cognitive representations brings into play mental processes and data that stay in the background but that, once active, are translated in the form of rational, factual descriptions. The contents of these descriptions express a particular view of reality, of how things work in general and from day to day. The observer lacks sufficient bearings for determining the appropriate criteria to use for evaluating the difference between this "translation" and the "facts" of the situation.

Observing action is as much an activity of the actors as of the observers, both being part of the system of observation. The observation of this system of observation performed by the one party involves its ideas about the other party. The observer-observed relationship during research in the social sciences entails interactions between systems of action. In a general way, this game of reciprocity leaves its marks on plans for action. For research in the social sciences, the observer-observed relationship takes the form of an interaction between systems of action.

The way a social system works can be described as a complex chain of causes and effects at different levels involving internal and external elements of various sorts, each of which may be real or symbolic: actors, knowledge, objects, contexts and rules. Actions always occur at a particular time and place where actors' intentions are realized. The processes whereby an action arises gradually set off further actions, which set boundaries and build up defenses. Through this process, the social system identifies and experiences the presence of an outside world. In other words, a system's actions fit into a constantly monitored context. This process defines the limits of access to any established social group or institution.

The first question raised by the observation of action *in situ* is epistemological: **how to obtain access to the observation of action?**

The sociologist observes in order to gain an understanding of social phenomena. His observations refer to a theoretical framework based on knowledge and experience (Campbell 1988). He tries to link phenomena, events, and processes in an explanation; identify categories and classifications; grasp relationships, networks and rules; and communicate his understanding thereof. To do this, he must gain access to the system under analysis.

An external observer is confronted with the many ways in which a social system's members observe the system. This "self-observation", whether spontaneous or planned, enters into play as a function of the stakes of the system. It continually regulates activities and relations at all levels. In order to investigate a chain of actions, social scientists must "observe" their own observation practices as well as those of the actors who talk about their actions: they must observe the observing of both parties.

The question of how to gain access to the observation of action thus takes a pragmatic turn: how to compare the observations of the sociologists who are actors in their own project, to those of actors in the social system under observation who are pursuing their own plans (Burawoy 1998)? Should the sociologist's description and analysis make communicated information coincide with interpretations, or should they keep them separate? Language is the vector common to both parties. But can the action as described and analyzed be accepted as a

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translation true to the facts of the system that the observer is trying to describe and understand? By maintaining a critical distance based on the principle of non-reciprocity (the one party asks questions, the other replies), the observer risks formulating his observations in nearly tautological terms.

The second epistemological question bears on the ways these two parties observe and interact: **how to deal with this "double source" of observation?**

This double source of observation is often thought to be an impediment to research, since it produces unwanted effects that interfere with observation or even mislead the observer. In an attempt to neutralize these effects and their eventual distortions, sociologists closely observe their own practices. In many cases, they try to stand even farther back from their subject of study in order to gain a more objective view. Current sociological methods, such as open interviews, questionnaires or even the study of small groups through the likes of sensitivity training, do not establish the distance appropriate for observation. With them, the reciprocity and reflexivity between the internal observation of the system in action (by the members thereof) and the external observation (by sociologists) remain inaccessible. They are taken for granted or are seldom perceived (Perez de Guzman 1997). Social scientists thus fail to take full notice of the processes at work inside the system and the double source of observation remains a mystery. If the observer fails to take into account the effects of concealment inherent in the observer-observed relationship, he cannot deal with the double source of observation.

Our reserves about using the aforementioned methods to explore actions in social systems have arisen out of our professional experience with experiments as researchers and with interventions in the field as clinical sociologists. Our laboratory experiments explored what we call "intra-intergroup relations", *i.e.*, the relationship between, on the one hand, the relations among subgroups inside the group and, on the other hand, the group's relations with other "outside" groups. This experimentation brought together a small--real--group, made up of two subgroups (a majority and a minority), and two big--not real but virtual--groups who, hooked up by two-way radio, supported or opposed the aforementioned majority or minority. It must be pointed out that the two real subgroups believed that the virtual groups actually existed. These experiments showed that the real subgroups attributed intentions and symbols to these virtual allies or opponents and, also, that feelings, ideas, images and attributes were projected and transferred onto the real minority instead of onto the outside groups (Van Bockstaele *et al*. 1963, 1968). This simulation opened up unexplored ground. As we discovered, the intra-intergroup relationship activates causal forces with effects that, themselves stemming from the experiment's characteristics, could modify perceptions (*e.g.*, of physical size), intentions (*e.g.*, by arousing doubt or reinforcing the certitude about group choices), behaviors (*e.g.*, an increase or decrease in communications with the aim of exerting influence), decisions and judgements (*e.g.*, contradictions or reversals of opinion about subgroups in the minority or majority or in the outside groups) (Van Bockstaele *et al.* 1994*a*, 1994*b*).

We have continued observing intra-intergroup relations in the field when working as clinical sociologists. The principle of face-to-face contacts has been maintained through a quasi-experimental arrangement *in situ* that brings together two parties: an entity representing a social system that decides to undergo an analysis of how it functions, and a professional group of socioanalysts who assumes the responsibility of assisting the former in this task. Once intra-intergroup relations are perceived as such, cognitive responses and behavioral reactions arise. The process whereby a group sets its boundaries separates the inside from the outside, members

from "others", and establishes the conditions for what happens thereafter.

The third question is methodological: **how can the force of interactions between social entities be used for the purposes of analysis?**

The passage from experiments in the laboratory to clinical practice in the field led us to formulate this third question in cybernetic terms: what happens when a group of sociologists intervenes? This formulation reverses the problem of observation. When the relationship with the observed is taken to be an operational necessity, observation comes to focus on interactions both inside each party and, also, between the parties. Observation can no longer focus exclusively on one party, the subject of experimentation, because the observers, themselves a party to the interaction, become privileged actors through a "qualitative" simulation (Van Bockstaele *et al.* 1960) that potentially offers each party, observers as well as the observed, a cognitive representation of the system and access to its operation.

In response to the question "What happens when one intervenes?" the group of socioanalysts, i.e. a collective analyst, can but observe that something does indeed happen in its face-to-face contacts with the social entity wherein it is intervening. Its active presence and the social group's expectations about it are tangible evidence that the collective analyst becomes a substitute for the entity's relations with the outside. This intra-intergroup relation is always activated in an action. The perplexity of the parties in presence sets off cognitive and relational reactions.

What can be observed through such a simulation is neither a projection of a psychological sort whereby one attributes what one thinks to others nor a protective transference whereby one uses others to express what one dares not formulate. Once part of the interaction, the group of socioanalysts becomes responsible for the simulation's effects. It must foresee the consequences. To do this, it must clarify among its own members why it is intervening, how it does so, and what means it will use. It must assume the moral and material responsibility for controlling eventual risks or chance events.

In concrete terms, to tap the force of interactions between the parties involved in the intervention, the group of socioanalysts must see to it that certain preliminary conditions are fulfilled. Four prerequisites have to be met for an intervention to be possible:

a) There must be a request or several compatible requests from one or more complementary, independent entities (*i.e.*, firms, administrations, associations, families, etc.).

b) There must be one or more explicitly formulated projects expressing the will to change things in the system(s).

c) The request must be borne by a group involved in the project(s) and made up of members of the entities occupying various positions and having different but definite responsibilities.

d) This group must accept fundamental rules that recognize: the relativity of viewpoints and positions; equality as to freedom of speech; and the "historicity of action", *i.e.*, the awareness of the need to work and rework the feedback between expectations (at the start of the project) and evaluation (during the course of the project).

By examining these four conditions (a demand, a formulated project, an involved group and basic rules), the socioanalysts can adopt the techniques best suited to the request as formulated.

Such a simulation requires managing time (the frequency and length of meetings, a schedule), determining the composition of groups (size and limits), assigning tasks, working out

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specific rules case by case, and drawing up a contract to define the commitments of both parties (the entity that formulated the request and the group of socioanalysts). Before an agreement is reached on these technical conditions, there is a period of information, clarification and reflexion.

Since the force of interaction in intra-intergroup relations in a simulation can provide leverage for effecting cognitive and relational changes in the way the system works, the question of controlling and regulating this force arises for each group concerned with the simulation. The entity's acceptance of the work of socioanalysis implies confidence and trust. Inside the limits set by the contract and in line with the foregoing technical conditions, the group of socioanalysts, given its technical power, can operate in the stead of formal power holders. The trust and the wager represented by the decision to become involved in a simulation usually reveal the legitimacy of the power of "leaders" and their capacity for integrating into their own actions potential changes, even though the momentum of interactions may lead to changes different from those initially expected (Van Bockstaele *et al.* 1992).

We shall illustrate the foregoing remarks with a qualitative simulation that grew out of an appeal expressed by civil servants "wanting to develop, inside the administration, thought on the state's action with the aim of improving its effectiveness so as to take into account the relations between the state and social or economic actors and favor changes in these relations" (Groupe Méthodes *et al.* 1991: 90). To carry out this intervention, we adopted a socioanalytical approach, which we would later call "simulation-action", that consisted in constructing the four previously mentioned technical conditions. Our initial preoccupation was to delimit the group bearing the request. To this end, we proposed forming, through cooptation, an open group of voluntary civil servants. These volunteers had to want to change their ordinary ways of relating and acting and, moreover, had to be capable of encountering, on an equal footing and over a long period of time, social or economic actors having dealings with the state in one of six fields, each involving several ministries: small industries (1969-1977); industrial safety (1980-1990); regional economies (1982-1990); banks and insurance companies (1986-1990); industry and the environment (since 1991) and finances (since 1991). On the basis of the request received from inside the public administration, encounters between groups of civil servants and outside actors, each made up of several categories of persons, gradually led the latter to also formulate an appeal. By developing "intercategorial" relations, a joint request emerged from two "collective subjects", each delimited by its institutional attachments, and both equally associated in the simulation.

Under this condition, the collective analyst can fulfill its role as an independent third party, in particular by mediating the relation between the state administration and the "administered".

The design and implementation of such a simulation-action protects the actions, institutions and persons involved and, at the same time, helps develop a co-investigation involving several categories of persons. Three rules preside over this co-investigation. The "equality" between persons and between categories keeps participants from justifying themselves with arguments based on authority. Under this rule, participants from all categories, regardless of their affiliation and position, are volunteers; their superiors do not appoint them. In the fields investigated, the "relativity rule" means recognizing that a problem does not have a single solution. Every viewpoint has the right to be voiced and to be received as a percept or concept for discussions. As a practical consequence of this rule, categories are constantly reshuffled during the intervention. The "historicity rule" refers to the management of time and the

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continuity in any program or project. Time is an operator of change. This rule has as a consequence transmission, cooptation and, therefore, evaluation.

What is produced during such an intervention very much depends on the conditions for producing it. The force of interactions between partners in the simulation can be used to help all parties better understand the conceptions of action that each category of actors has, to become aware of what is at stake for each actor, and to better perceive the reciprocal images and judgements that underlie action.

The fourth question is ontological: **what is being simulated?**

What differences exist between the prerequisites for the simulation, as formulated earlier, and the "in-house" procedures that prescribe changes? An initial response might advance the idea that a simulation represents a facsimile containing simple analogies with the usual procedures for delimiting and organizing activities in a social system. Or one might imagine that the technical arrangements for a simulation are formulated in line with the request for an intervention or the project at the center of this request. These responses leave out of the account the momentum set off by a simulation.

As stated at the start, a social system activates human actors' cognitive capacities in the system at a given place and time. Without this dynamics, the system lacks creative energy. What a simulation makes possible is to start this activation. When it does so, it provides the possibility of accessing the processes causing this activation under normal conditions. Behaviors and interactions are spontaneously recognized and can be attributed. Participants' perceptions, the positions they adopt or the words they speak thus provide evidence of how they mentally represent the system, in other words, of how they perceive the simulation. A gradually growing awareness of this activation and of how it works opens up the possibility for participants to deal with their relations and the specific tasks for which they have responsibility.

Such a qualitative simulation relies on two properties that, according to our hypothesis (Van Bockstaele *et al.* 1981), social processes have: they can be reproduced and they can be substituted for one other. These properties become accessible only if there is an "outside" group or object on which judgements, opinions, interpretations, intentions, proposals, etc., "condense".

Once the party requesting the intervention and the collective analyst come face-to-face, nothing happens in a random, arbitrary manner. Visible preferences will not be a matter of psychological empathy. Instead, they will mainly express how participants perceive the power structure--the positions favoring an alliance or risking conflict. The choice of other parties with whom to have contacts will reflect intentions, goals and expectations. The activated intentions with regard to action, and what comes out of them, will be shaped by the state of relations inside the group and the impact of the group's relations with outside parties. This social "pairing", spontaneous and thought out, will open up a way of analyzing the workings of the system and the social processes in intra-intergroup relations.

The first means of access to observation is language and associated forms of expression. An utterance conveys, all at once, information, a relation, an intention and a judgement. This complex vector tends toward multiple interpretations of the message and of its receiver(s), goal(s) and effect(s). An utterance is an act for both speaker and listener. The contents of an utterance and the ways it is produced become accessible thanks to the properties of language whereby an utterance may have several, simultaneous levels of meaning and translate the complexity of processes of self-organization and self-regulation in social systems.

Like an act, it vehicles energy. This energy can be detected through cognitive activation,

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which takes the form of communication, contents, positions, etc. When made in a definite context--here, in the relation between the request for a simulation and the system's project--an utterance reveals, reflects or transposes the complexity of the system's power structure. Aspects of this complexity can be observed during the simulation. Though perceived, they are neither talked about nor described. They are used. This spontaneous use during discussions is proof of the power of social relations--of the vitality of experiences, practices, norms, rules, judgements and interpretations. Through it, one can notice and understand the processes whereby the "remanence" of these forms of behavior reactivates, day after day, beliefs, ways of thought and relations in a situation outside the contexts where these forms took shape--"in real life", during social, technical, economic and political activities.

The first part of this article has examined the requisite conditions for obtaining access to the observation of an action *in situ*. These conditions seek to establish a situation homologous to "live" action. A relational dynamics develops as actions are produced, by actors and the entity (institution, association, or organization) of which they are a part, around a recognized project in the presence of a group of socioanalytical observers. Given the face-to-face presence of actors and observers, a situation of mutual observation arises wherein ordinary processes recur and cognitive activities take place.

Before its conversion into a concrete, observable external act, action is an internal human production. This "exteriorization" does not break the continuity of an active human being's presence. Throughout this process, the orientations and instructions established by actors are translated into acts and plans. Ideas arise, renew practices and open the way to innovations. During the whole internalized part of this process, an actor's abilities, knowledge and experiences become evident only if precise circumstances activate him cognitively and pragmatically so that he spontaneously makes adjustments as need be. The reality or virtuality of this process for producing action contains, in the background, the need to constantly monitor action. And this vigilance implies the actual or potential presence of human actors.

This action-actor, or product-producer, link is so complex and activates such barely accessible processes that observers, unable to cope with it, usually tend to neglect it. The advantage of a qualitative simulation lies in the transposition of this link to the project at the center of the request (a project implying actors, what they say and do), the immanence of the institution (or organization) of which they are a part, and the context.

The context is a set of circumstances. The actors are already familiar with some of them, but other circumstances arise out of unexpected events or situations, or evolve as a function of problems inside or outside the system. The context also refers to the set of learned and assimilated rules of behavior, an organization of physical space, a time frame, bounds, etc., all of which are used for operational purposes during action.

To adapt to this set of circumstances, an actor uses basic human abilities: language, know-how, experience and imagination. Activating these abilities leads to multiple forms of communication and interaction arising out of the goals and projects the actors are pursuing or want to pursue. The movement thus set off is "ordered" in line with informal procedures and practices for "naturally" arranging things, *i.e.*, in a spontaneous way that does not ensue from a purely legal or normative structure.

The first such practice--indeed, the driving force behind action--is mutual observation, in other words, the observer-observed relationship. This social practice can be considered to be an anthropological fact. What characterizes an action as experienced by an individual or group is

the impossibility of escaping from the flux of relations or out of the presence, even if virtual or imaginary, of others. In the observer-observed relationship, there is a constant monitoring of oneself and of others and, too, an ongoing regulation of oneself and of others. This vigilance is a source of cohesion and imagination; it implants "otherness" inside each member of the observer or observed parties. The interplay between the view of oneself by oneself and by others, on the one hand, and, on the other hand, the view of others by oneself and by others sets more or less definite bounds for the purpose of defense, dissuasion or even, more simply, coexistence.

The observer-observed relationship becomes more clearly evident once, in addition to this interaction, actors group together on the basis of spontaneous affinities or of common interests and a solidarity that has stood the test of time. The thus formed "kernels" of actors are informal entities consubstantial with action.

Institutional structures distribute in the system all the categories of actors necessary for satisfying the system's production requirements. This assignment of duties and positions leaves enough room for informal social activities to develop. This undefined "degree" of freedom allows for interpersonal relations to arise out of a complex cooptation without any clear-cut criteria, with no aim at being a permanent organization and without internal stability. This cooptation can be understood as the effect of institutional resonance, *i.e.*, as an echo in response to the system's rigidity, to the formalism of social control, and to restrictions on responsibility and innovation. Given their informal nature, these "kernels" of actors have a conditional, shifting existence. Such networks of relations cannot be inventoried; they have no assignment, no program.

The effectiveness of cognitive activities is partly based on interactions between the formal structure and these informal networks. As can be seen during a qualitative simulation, the ability and force of certain actors often are unappreciated because they are unusual or do not seem legitimate. Judgements and interpretations give voice to a tension that, depending on the case, can serve as a means of regulation or as a provocation in the relations between formal structures and informal networks.

The existence of a social relation does not depend on the agreement or disagreement subjectively expected by actors. Even at a level of what seems to be fully subjective interpersonal relations, a social relation is not intrinsically the outcome of an actor's personal decision. In the case of collectively experienced issues, a social relation exists independent of an actor's subjectivity. The images an actor sets off in the mind of other actors do not belong to the actor himself. He has but a relative degree of *hic et nunc* control over them. They can exist prior to his presence and persist despite his absence.

Of course, a strong interaction may emerge between an actor's images of himself and the images of others, but a just as strong an interaction exists between the contents of activities and the finalities of projects. Relations between persons and relations between activities/finalities have different facets depending on whether individuals or instituted groups are involved. Conflicts or settlements counter or balance each other depending on the recourse that is possible, desired or denied. The networks of actors who know or come to know each other implicitly share a conception of their actions and positions.

The actors' "world-views"--or, might we not say, "system-views"?--are a means of action for them. A world-view sets off acts and serves to orient and evaluate acts. It is not at all a description drawn up by an observer who, for a short while, abandons his position and sees his acts as independent of the determinants of his observation. Observation is constantly mixed up with action. It works as a means of measurement, a means that, integrated in an action, regulates

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acts. The purpose of this feedback loop is to make experience useable by seeing to it that acts are adjusted to the surrounding world.

Mobilizing actors and generating acts, observing and processing observed data, all this activates each party's ability to observe the other party and, by doing so, causes actors and their acts to interact. This provides the basis for reciprocity in the observer-observed relationship. But reciprocity is not equality. The ways in which the observer-observed relationship emerges adjust "naturally" to the society's hierarchical operation. The duties assigned or the powers deriving from them determine positions, distances and possibilities for acting. Adjustments come about at different levels and paces. At the institutional level, the disparity among actors sets limitations on behaviors, activates and reinforces beliefs, stimulates the production of judgements and interpretations. In a hierarchy, holding power confers a right to observe subordinates. But in terms of cognition, any human observer has the natural ability to form ideas about any other human being really or virtually present in his field of action.

Since a field of action is also a field of force, a relation during the course of an action always implies a line-up of forces. For this reason, the observer-observed relationship takes on quite specific forms. Actors experience and test the rules, reference-marks and history of the social structures in which they are inserted. They perceive each other, judge each other and form groups as a function of the system of power and of the degree of cohesion or dissension inside the group to which they belong or as a function of relations with outside groups. They assess the strategies implemented at various levels of decision-making and see their position in terms of their relations inside and outside the system. They discern the social distance separating those who make decisions from those who execute them. They evaluate the degree of cohesion and sharing as experienced by themselves and by other parties.

This gauging of the morale, pride, satisfaction and performances of various parties produces behaviors, acts and judgements that affect the social climate and the willingness to cooperate. However, the aim at this point in a simulation is not to describe a state of morale or measure a level of satisfaction. Affective states and the forms in which they are expressed relate directly to the complex processes involved in implementing an action.

Nothing backs up the claim that a perfectly localized source exists to which we can attribute this capacity for observation and action. Does the fact that every individual gives evidence of having it imply that only individuals are able to feel, observe and act? Groups also "use" world-views that do not amount to the sum of the world-views of the individual members. Are the world-views attributed to social groups, organizations, etc. acquired any differently than those that condition the individual's perceptions, experiences and descriptions thereof? Can we, without anthropomorphizing, attribute to groups, such as the aforementioned kernels of actors, properties like those ascribed to individual actors-observers? Must we not question the boundary defining and separating the individual and the collective spheres (Knorr-Cetina 1981)?

Our experience with qualitative simulations has led us to design a model for describing and interpreting the processes whereby the action of a human entity develops. Several approaches have been made to this problem in the developments that led from post-WW II cybernetics up to the present-day cognitive sciences (Dupuy 1994). Current debate about this mainly occurs between philosophers, neuroscientists and psychologists or inside these disciplines.

The question is open of whether cognitive capacities have their source in the individual or whether a group activates cognitive capacities that, lacking any material localization, come out

of relations and interactions. Human interaction founds and organizes society. Speech, as a capability (or competence), usage and act, is acquired only through intense interactions (Bruner 1990), since learning a language entails learning how to do things with words, to borrow Austin's formula (1962). In any social group involved in action, the processes activating cognitive capacities stay active, often silently so.

We hypothesize that levels of cognitive activity are differentiated in two classes, the one having to do with latent action and the other with patent action. A latent action is the set of background processes that silently prepare for a patent action and amplify cognitive activation so as to shape a public language. An actor's bodily involvement--gestures, postures, movements, etc.--during interactions provide evidence of these silent processes.

A latent act turns patent through an activation of cognitive capacities. But the latter can be fully activated only if the silent background processes of latent action have been activated. These processes mainly involve perception and intentionality. Perception mobilizes the body as a whole: the body, and not just the brain, reacts to what it perceives. When a percept is felt to be immediately pertinent, the person has, we may suppose, formed an image of what has triggered the percept and has expectations about how to use it (Berthoz 1997). Intentionality thus transforms the percept so as to open the way to cognition, to concepts and actions through the use of a public language.

When actors, inserted in a formal structure and involved in a common project, work together, this transformation occurs through speaking up. Speaking occurs in an "order", expected or not, known or ignored. Silences and utterances are phases always out of rhythm; accelerations and decelerations come about unforeseeably. Speaking triggers judgements or interpretations that, whether formulated or not, are vented through gestures or mimics. Silences play a major role in observation, imagination and adjustment. A ceaseless flux of signs runs through the mind, but the selection of certain signs as pertinent depends on the circumstances (Chauviré 1989). This temporal process generates a relational process. The observer-observed relation becomes a driving force behind a collective intentionality (Searle 1983), the force that creates potential projects (Atlan 1995).

Intentionality is collective because it depends on interpersonal relations (Searle 1995). At the level of latent action, language is still an inner voice, as the individual talks to himself, and speech, an idiolect. This exercise in self-communication prepares what will be a "cognition-action". In other words, it "anticipates" that this idiolect will be translated into the "dialect" characteristic of the group to be addressed. Differences in group membership are managed as a function of distances between the respective parties and of their positions. What comes literally "out" of these silent processes is expressed as a function of rules that are put to use and meaning in preparing plans of action, which implies a will to act and a common heritage.

The diagram of the processes and regulation of action produced below presents the dynamic relation between latent and patent actions and its consequences. Far from representing a break, the zone for making what is latent patent and vice-versa is the place of an unspoken intersubjective negotiation based on an awareness of rules and boundaries and on a monitoring of signals (Van Bockstaele *et al.* 1971).

The emergence of a public language creates a field of interactivity between the parties present. Each actor has his own rhythm, history, and experiences--in brief, his idiosyncrasies. Once actors are all involved in a collective action, the characteristics of individuals become interrelated. Actors have the talent of feeling, through empathy, the perceptive situation of others (Quine 1990). Compared with public language, an actor's inner language is silent but can be

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activated at any time. Public language does not just announce contents. The speaker expresses his more or less evident intentions and marks his position in an order for speaking aloud. This "speaking order" is as much act as content. The succession of instances of speaking out changes the relational system. Rearranging relations inside a group leads to readjustments in the inner language. In other words, the determinants of the contents transmitted in a patent action modify the form and substance of the contents prepared for through latent action.

Thinking out action is a fundamental task for which actors are physically and mentally equipped. The work undertaken to think out an action taps resources at the most constructed level of cognition. Language plays a major role in this work. What is required of language cannot be reduced to a demand for a rational or technical discourse isolated from the relational world, disconnected or cut off from actors' bodily and sensory involvement. In Quine's words (1990), the requirement of intersubjectivity is what makes science objective.

In such a complex flux, noticing a causal link between elements or processes is uncertain. Drawing the conclusion that a particular belief or frame of mind is a cause of a particular action is merely a mechanistic way to link desire (or belief) to action (Engel 1997). Replacing the idea of causality with the notion of propensity provides a finer, livelier interpretation of how situations produce effects. Since this notion is tantamount to the idea of force, we can see propensity in terms of the properties inherent in a situation (Popper 1990). Rational discourse fails to notice or take account of many of the processes underlying social and interpersonal relations. The processes analyzed herein and presented in the foregoing diagram become accessible, as our professional practice *in situ* has shown, through qualitative simulation.

Diagram
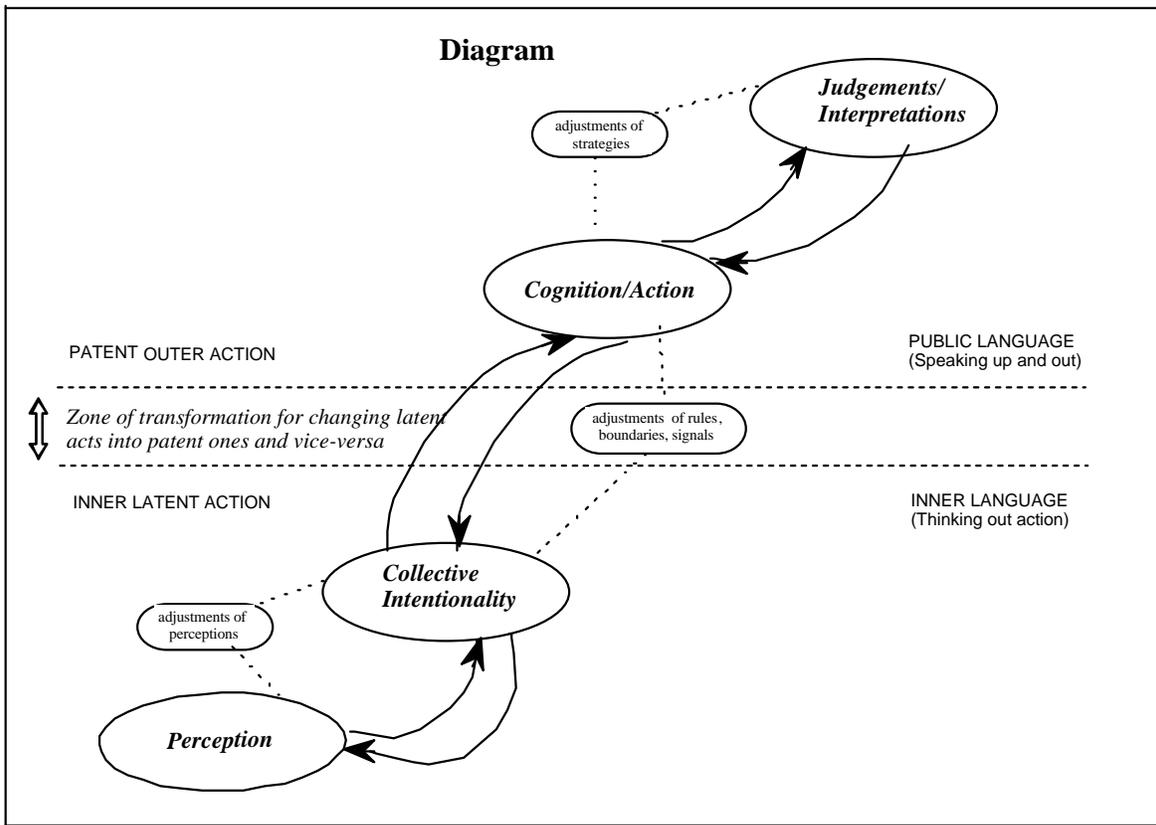
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Reviews

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

Chapter 1 - New, Chapter 2 - 1972, Chapter 3 - 1988, Chapter 4 - 1967,
Chapter 5 - 1979, Chapter 6 - 1968, Chapter 7 - 1968, Chapter 8 - 1972,
Chapter 9 - 1996, Chapter 10 - 1977, Chapter 11 - 1982, Chapter 12 - 1967,
Chapter 13 - 1958, Chapter 14 - 1974

1. Author and Book

This new book of Walter Buckley appeared in 1998, just in time for the 14th World Congress of Sociology. It coincided with the firm institutionalization of systems science in the International Sociological Association (ISA) as Research Committee 51 (RC 51) on Sociocybernetics. The author, both a real sociologist and an authoritative writer in systems science, has contributed to shaping systems science since an early stage. Hence we can expect from a book entitled "Society - A Complex Adaptive System" a full treatment of social and sociological issues concerning society as a whole and pertinent to all kinds of social systems. In fact, Buckley fully meets this expectation. After a short introduction he presents, in a first part in Chapters 2 to 9, "General Theory" and, in a second part in Chapters 10 to 14, the application of such general sociological systems theory to a particular classical problem of sociology: "Social Control: Power and Stratification".

Nevertheless, after a first impression inciting enthusiasm and high expectations, a second look may result in disappointment, when the reader becomes aware that this is not a newly written text but a collection of revised essays. These were originally written over a period of thirty years, the oldest one dating from 1958. Disappointment, however, will not last very long, once the reader begins working through the texts. An important goal made explicit in the introduction and which, I think, is well achieved in what follows, is not to throw out all previous systems theory and create something new and revolutionary. Instead, Buckley intends to critically test the heritage of systems theory for what is scientifically sound and to show how to build on this. Again and again he insists on the necessity of removing the misunderstandings and confusions that are so frequently found in this field. Indeed, Buckley himself manages to provide orientation and to create a synthesis of systems theoretical findings from very different disciplines based on clear definitions and well-defined concepts. Buckley succeeds in formulating in an understandable language a coherent and consistent body of theory. In this way the author accomplishes well and convincingly his programme of working on cumulative theory and not simply discarding previous findings.

He also reaffirms tradition with his plea for reasoned, i.e. scientific, and engaged social science, a quest that no longer seems to be self-evident.

2. Contents

Buckley states very clearly, that his kind of sociological systems theory has nothing to do with the Parsonian approach, which frequently is wrongly identified with "social systems theory" (or functionalism). Instead, his work is grounded in the much wider context of General System Theory, which developed in the tradition of Ludwig von Bertalanffy.

Important topics of the first part of the book are reflections on a fundamental societal theory, on methodology, and on evolution and sociocultural evolution. The analysis of the latter integrates the sociological view with other disciplines. The phenomenon of emergence, often evoked by other authors without further analysis, is treated in quite some detail in its evolutionary context. In Chapter 8 epistemological issues are discussed. Buckley concludes the theoretical part of the book with a chapter on mind, mental behaviorism, and their relations to brain and body. With regard to the mind-body problem, the author argues that recent research, e.g. in neurophysiology, has not yet convincingly resolved this issue, whereas still a lot can be learned about this topic from the classical work of George Herbert Mead, which is by no means obsolete.

The second part of the book demonstrates the application of the theoretical framework to sociological questions. A central role in this is played by the concept of control, originally a key concept of so-called first order cybernetics. Buckley shows convincingly how productive the use of this concept can be in a sociological context far away from the engineering paradigm of technical cybernetics. Whether Buckley himself would consider his theory as "2nd order cybernetics" in the way this term is used currently might be questionable.

In this second part systems theory is applied to traditional sociological concepts like social control, deviance, power, authority, social stratification, and social differentiation. The concluding chapter on science, policy, and values provides a systems view of practical action, which is not possible without goals and values that have to be taken into account adequately by a sociological theory.

3. Strengths

The author addresses and clarifies a number of important issues in systems science in general and its application to sociology in particular.

In his basic approach to social systems, Buckley stresses computer modelling and simulation as an important method of systems science. Yet, being a sociologist, he makes very clear that this does not necessarily imply a preference for quantification, which in many fields of social research is not realistic. He tries to resolve or at least relativize some of the dichotomies of sociological theory like the micro-macro gap. While recognizing that such a gap exists, Buckley urges that it be bridged. His kind of theory seems to be predestined for this task, as it stresses a hierarchical multi-level approach, the openness of systems, and in particular the phenomenon of emergence. This, in combination with his strategy to combine and integrate instead of dichotomize structure and process or structure (resp. "system") and agency within the same theoretical framework, should very well contribute to reconciling and integrating these dichotomies.

By no means neglecting structure, his basic orientation is dynamic, i.e. morphogenetic and evolutionary. Talking about evolution, however, he is not biologizing but accurately developing what evolution means in social and socio-cultural systems. This is embedded in an overall view of our present world as being the result of an evolution that has brought forth a series of emergent layers, our sociocultural reality being only one of them. Consequently and carefully he establishes the relationships with non-sociological levels of emergence.

Buckley tries to make clear that when dealing with emergent layers of reality influence and causality are not only bottom-up in a way still compatible with a reductionist view, but also top down, e.g., social mechanisms influencing the biological level of life.

The author aims at systematically integrating information and communication into an open-systems framework. In this regard he works with a mapping approach, which not necessarily fully fits

with all of what is called 2nd order cybernetics, but which, in my opinion, is fully adequate for his approach to actors and social systems while not claiming to take an epistemological or philosophical perspective but a sociological one. While opinions may be controversial about mapping, his plea and his efforts for conceptual integration of cognitive, evaluative, and affective phenomena deserve full support. In this context Buckley discusses the mind-body problem. Although he cannot resolve it, of course, he has the great merit, in contrast to other authors, of putting his finger on it and making the problem explicit.

On the whole, Buckley works towards a sociology of process, without ignoring structure, and a holistic view of the total system of organisms and their environments which after all constitutes society in the context of nature. This is quite different from Luhmann's communicational isolationism.

4. Weaknesses

Of course, Buckley's theory is not perfect. It is, on the whole, convincing, but there are also several problems which would need further elaboration and which may, in part, be due to the character of the book as a collection of updated essays written over a period of three decades.

The weakest part of the book is perhaps the chapter on epistemology. In particular this chapter would require a substantial updating with regard to recent developments, especially the rise of constructivism. My impression is, however, that this chapter is not very tightly integrated with the rest of Buckley's theory as presented in the book anyway. Therefore, this does not justify questioning his sociological theory. Moreover, he draws a very clear line between science, i.e. sociology, and philosophy on the first pages of the introduction emphasizing that his own writings are about sociology, not philosophy. On the other hand, Buckley does make quite a number of remarks and reflections in different contexts that suggest affinity and maybe compatibility with a constructivist epistemology.

A second point, which can be seen in a similar way, is Buckley's concept of information. Understandably he is more or less inspired by Shannon and Weaver, a concept of information developed in a technical context and meanwhile widely recognized as inadequate for non-technical applications. Nevertheless, what Buckley says about information in social systems should not be incompatible with more recent developments of information theory like those of Stonier who has developed a more general theory of information in the framework of his information physics.

5. Final Assessment

While the contents are perfectly up-to-date, at least for non-autopoietic systems scientists, and there is a clarification of many frequent misunderstandings and confusions, the reader would have wished for an updated bibliography.

The book reflects the state-of-the-art of systems theory and its application to social systems, at least with regard to non-autopoietic systems theory. The challenge to members of RC 51 might be to answer the question, how or to what extent Buckley's theory might be compatible with the autopoietic sociological theory of Luhmann.

This book can be recommended wholeheartedly as an authoritative textbook and overview of current non-autopoietic social systems theory. It should be very valuable in particular, but of course not only, for readers from the sociological community who may be more familiar with the theories of Parsons or even Luhmann, which also figure under "social systems theory".

Bernd R. Hornung
Philipps-University Marburg

Cybernetics and Systems. Proceedings of the Tenth International Congress. **Volumes 1, 2, 3. Bucharest: BREN, 1998.**

The 10th World Congress of Systems and Cybernetics took place in Bucharest in August 1996 and the Working Group of Sociocybernetics of the International Sociological Association was a co - organizer. The most important papers from this meeting have now been published, in three volumes, under the title *Cybernetics and Systems. Proceedings of the 10th International Congress*.

Volume one of the set under review includes papers that refer to basic elements of cybernetic theory and their relationships with other scientific fields. Robert Vallée develops his thesis about an "epistemo-praxeology" based on the connection between the observation-decision process and the perception process and its subjective parameters. S. Brier writes about cybersemiotics, where second-order cybernetics is combined with linguistics and the triadic semiotics of C.S. Peirce. J.L. Elohim tries to show how systems theory and cybernetics can improve a synergetic alternative. Other authors focus on issues such as information theory (e.g., "The information, the missing parameter in Einstein's equation" by P.J. Querinjean), education (e.g., "The paradigm of auto-organization in the French educational system" by R. Ortali, which includes interesting suggestions having to do with the notion of "self-steering"), ecology (e.g., "Ecofactory, ecoproducts, ecotechnologies, ecobusiness, ecoexploitation, ecoinformatics" by Raluca Ogrezeanu and "Ecology of man" by Yuri G. Antonomov), cultural processes (e.g., "European cultural integration: communication, mobility and dissemination in the context of informatics" by R. Homescu, where informatics is portrayed as a crucial means for the dissemination of knowledge concerning cultural artifacts at the pan-European level) and inderdisciplinarity (e.g., "Upon a common language related to interdisciplinarity and knowledge transfer" by N . Bulz).

In the third volume the focus is on various technical applications of Cybernetics, issues related to artificial intelligence and what is called biocybernetics, where homeostasis is accepted as a positive property (e.g., L. Volkov's paper, Y.M Gorsky's and A.M. Stepanov's suggestions about "homeostatics" as a new scientific paradigm in which priority is given to the systematic study of the mechanisms of harmony at every level of the hierarchy of living beings).

It is volume two, however, that may prove most interesting to readers of this journal. One can say that any theoretical approach, thesis, or line of reasoning belongs to so-called "post-Wienerian" cybernetics if the importance of actors, meaning-based communication, the world of values and the progress of change are underscored. Papers exhibiting a "post-Wienerian" perspective and demonstrating particularly innovative developments were mainly concerned with social systems and phenomena and these were presented, for the most part, in the sociocybernetics section of the Congress. This section was recognized as the largest and the most significant, as the academician Constantin Balaceanu remarks in his preface to this collection, and its papers are included in the 2nd volume. This volume includes works from the following sessions: "Conceptual Bridges between Sociocybernetics and Sociological Theory", "Constructive Realism and Cybernetics", "Sociocybernetics and the Question of Quality in a Democratic Regime", "Systems Theory in Applications," "Sociocybernetic Modelling and Information Technology Assessment".

As regards the convergence of cybernetics and social sciences--and not only sociology--the 2nd Volume is rich in new ideas, views and research accounts. Here, to an extent, the static or better, mechanistic models of Easton, Almond, Deutsch and others of the decade of 60s are considered as old fashioned, although respect for them is always retained as this work constituted the initial attempts to apply cybernetic principles and methods in the field of social and political phenomena. Nowadays, however, sociocyberneticians pay attention primarily to the dynamics of human interaction and communication and all the parameters that characterize humans as social beings.

Felix Geyer speaks of the convergence of sociocybernetics and complexity science, which deals with non-equilibrium conditions, and the phenomenon of emergence that can be observed, beyond any strict sense of determinism, even under these conditions. Geyer believes that new creative roads are

opening up in the social sciences under the influence of second-order cybernetics and describes the main orientations of this new scientific trend. Bernd R. Hornung and Fatima T. Adilova present an innovative way of assessing "information technological systems", which are considered as socio-technical systems based on sociocybernetic principles. Using empirical data from case studies in the health care sector, their sociocybernetic "problem functionalist" conceptual modelling technique takes into account the qualitative dimensions of social phenomena in a qualitative cognitive approach. Heinrich Ahlemeyer also gives priority to empirical research to show that the success of AIDS prevention campaigns depends on self-steering of the participants of intimate systems (applied sociocybernetics).

Vessela Misheva attempts a systemic explanation of the problem of alienation drawing on the intellectual riches of ancient Greece. In another paper she explores an important tendency to blend sociology with the humanities as she tries to achieve a "sociological intervention" in the diachronic quarrel between poetry and philosophy using notions and terms from systems theory. Torcuato Perez de Guzman presents views about the reflexive abilities of humans as systems in combination with the notion of "feed-before". Juan M.Aguado Terron writes about the influence of cultural context on the perspectives of observers and on the observations made by them, while Juan Antonio Gutiererrez-Fernandez poses some questions about how sociocybernetics can be combined with the spirit of self-observation. Tom. R. Burns and Erik Engdahl deal with the social terms of human consciousness and mind, rejecting an absolute reductionist approach based on biological components of human beings. Bruce Buchanan insists on the significance of values in the whole negative feedback process in human systems. Bai Guohua is interested in the relationship between systems theory and ethics, trying to point out that systemic reductionism, e.g. a mathematical model, does not fit the world of ethics. The value issue, especially the values of "civil society", are also the concern of Philippos Nicolopoulos, who presents his views about how sociocybernetics can contribute to the better functioning of "civil society" and in another paper how the efficiency of a political organization in a changing social environment should be assessed.

The efficiency of systems is a main concern of F. Parra-Luna. He considers systems theory a scientific bridge between the sociology of organizations and "organizational efficiency". For him, efficiency can not be defined and measured if systems theory and cybernetics are not used, namely if the notions of "inputs" and "outputs" and the ratio of the former to the latter are not encompassed in the whole assessment. Theoretical and methodological interest can also be found in R. Henshel's paper about hypothesis testing for positive feedback models, as for example in self-fulfilling prophecy. The same thing can be said for Bernard Scott's paper about "the inadvertent pathologies" of communication in human systems. The author uses the framework of second-order cybernetics to shed light on some negative dimensions of communicative practices.

Some other interesting papers in the same volume are: "On belief systems, meaning and sustainable future" by Paul Maiteny; "The construction of modern science by cybernetics in a process of interdisciplinary cooperation" by Cor Van Dijkum, showing specific interest for issues connected with the philosophy of science; "Sociophychologics: a cybernetic model of human personality" by Otto van Nieuwenhuijze; "Of magic beams and science: In search of a supportive 'wedge'" by Dimitrios Tsagdis; "The role of complementarity for social integration" by Helmut K. Reich; and "Crisis driven evolutionary learning: conceptual foundations and systemic modeling" by Michael P. Byron

The above-mentioned papers offer a wealth of material to draw on as sources or examples of sociocybernetic approaches. In them, one finds broad interdisciplinarity in the form of applications of a sociocybernetic spirit in various fields and many attempts to improve the initial cybernetics principles always in recognition of the singular attributes of humans as beings with consciousness, mind, and the capability for decision-making and meaningful communication.

Cybernetics calls for effective communication and cooperation among many scientific disciplines. Second-order cybernetics converges on complexity science and enhances its capabilities in understanding human dynamics with unstable parameters. The absolute distinction between observing system and observed system disappears and the point becomes how to perceive the interdependence and the interaction between them. The activities of individuals, the processes of change, the impact of

contingencies, even chaotic conditions are taken into consideration, going beyond the classical notions of systems theory and the cybernetic modelling of the mechanistic "input-output-feedback" scheme. Generally speaking, when one studies the three volumes of these proceedings, he or she will come to appreciate the new anti-mechanistic, post-positivist tendencies that prevail in the field of cybernetics, especially when applied to human systems.

The three volumes can be ordered from the Ecological University, Bucharest or from BREN publication office (str. Lucacesti 12, sector 6. Bucharest, tel/Fax 2234347 - 6372155.)

Philip Nicolopoulos
University of Crete

NEWSLETTER 10

1. LETTER OF THE PRESIDENT

Dear Members of RC 51,

It is a great pleasure for me to present the first regular issue of our new electronic journal. This shows that sociocybernetics is gradually growing up. As you know, an important part in the development of a science to maturity is its institutionalization, in which we are advancing another step at this moment.

Having gained full recognition for Sociocybernetics, i.e. systems science dealing with social phenomena, by our promotion to a Research Committee of the ISA during the 14th World Congress of Sociology in 1998, we now take a second important step with this first regular issue of the Journal of Sociocybernetics.

This new journal is evidently to supplement our newsletter - which will now form part of the journal - and take over the task of keeping our membership informed and to provide to some extent a forum for discussion of our own concerns and activities as RC 51. For this purpose, however, it would not have been necessary to found a new journal. Another and more important task is to reach a larger audience beyond our own in-group.

It will hopefully spread the name of sociocybernetics among colleagues who previously did not have access to our special conferences and sessions or who did not want to get involved in an organization like RC 51. The new journal will hopefully contribute to the teaching of sociocybernetics and even be used for lectures and courses. This, however, requires spreading information about research in sociocybernetics and about its contents, not so much about the concerns of our own scientific association.

A Journal, in particular a non-profit journal of a scientific association like ISA-RC 51, lives certainly for and from the community which supports it. We clearly wish that not only the distribution but also the sources of contributions will not be limited to RC 51 and hopefully reach far beyond our own group and even beyond the social science community. Nevertheless, the core of scientific contributions will have to come from you, who have written sociocybernetics on their banners and who have decided to be members of RC 51 as part of the International Sociological Association.

This means that the Journal of Sociocybernetics should not just provide reading material but rather be a very personal challenge to each one of you to make a special effort to formulate and write up your research findings and your theories, and also your research questions and your doubts to be published in our new journal. In this way you can share them with our friends and colleagues from RC 51 and hopefully well beyond.

Here let me thank all those who have so far devoted their time, efforts, and creativity to

the preparation of this new journal. In particular I want to thank the editors, Richard Lee, Felix Geyer and Cor van Dijkum as well as our webmaster Chaime Marcuello. On top of the numerous hours of work he has given to us, Chaime again and again impressed us with his tremendous patience in the face of apparently never-ending requests for "... just a few more little changes ...".

The editors and our webmaster, however, can publish only what you, our members, write and produce. So I hope that many excellent papers will compete for publication and I wish a lot of success to this new instrument in spreading and promoting sociocybernetics.

Bernd R. Hornung
RC51 President

2. MESSAGE FROM THE SECRETARY

Surely, the design and development of the Journal of Sociocybernetics has required an on-going commitment in terms of time and energy from all concerned with its establishment. Nonetheless, RC51 has been involved in a number of other recent activities. The three detailed below are especially significant. The first was the RC51 Annual Meeting, the Second International Conference on Sociocybernetics in Panticosa, Spain, 25 June-1 July 2000. The second was the World Congress of the Systems Sciences in Toronto, Canada, 16-22 July 2000. The third was the Research Council meeting of the International Sociological Association in Montreal, 28-30 July 2000.

2.1 RC51 ANNUAL MEETING, 2000
Second International Conference on Sociocybernetics:
Sociocybernetic Designs for Globalization and Sustainability, Self-organization and Management of Complex Evolving Systems

The Annual Meeting of the Research Committee on Sociocybernetics, RC51 of the International Sociological Association, took place at the Balneario de Panticosa, Spain, June 25th - July 1st, 2000. The Balneario de Panticosa is situated at an altitude of 1600 meters in the Spanish Pyrenees, with a mountain lake nearby. The environment was particularly conducive to concentrated, creative work and besides that, many took advantage or the clear air and beautiful scenery on long mountain walks. Felix Geyer and Chaime Marcuello managed the organization of the conference and an Abstracts Committee vetted paper proposals by the same process used in 1999. The program of the conference is reproduced below. A few sessions and/or papers had to be switched for practical reasons to different time slots; the paper by Philip Nicolopoulos could unfortunately not be delivered due to his last-minute inability to come, while instead a paper by Nicolae Bulz, "Nemesis – 'Design' for a Systemic and Non-Systemic Welfare" was delivered.

Sunday, June 25
Arrival of participants and meeting of the organizing committee

Monday, June 26
Opening session with welcoming speeches by Bernd Hornung, Chaime Marcuello and the Panticosa management**.**

Morning: SUBJECT-ORIENTED APPROACHES
Capitolina Diaz: "Conversational Heuristic as a Reflexive Method for Feminist Research."
Arne Kjellman: "The Subject-Oriented Approach to Science and Some of its Pedagogical and Ethical Consequences."

Afternoon: CYCLICAL AND EVOLUTIONARY PROCESSES
Tessaleno Devezas: "Learning Dynamics of Technological Progress" and **James T. Corredine:** "The Aggregate Female Fecundity Interval - The Biological Origin of the Periodicity of 'Losch' Birth Waves."
Mohamed Nemiche & Rafael Pla-Lopez: "A Model of Dual Evolution of Humanity."
Otto van Nieuwenhuijze: "'Sustainability': Control Politics in Disguise - Overturning, not Overhauling, the Paradigm."

Evening: Board meeting

Tuesday, June 27
Morning: FUTURE DEVELOPMENTS
Juan Miguel Aguado Terron: "The Making of Social Subject: The Role of Theory and Technology in Social Emergence."
Pablo Navarro: "A Meta-Information Society? The Increasing Differentiation Between Information and Communication in the Digital Age."
Bob Hodge: "Mexico in Cyber-space: Neural Networks and a Postmodern Science of Language and Culture."

Afternoon: GLOBALIZATION PERSPECTIVES - 1
Felix Geyer: "Globalization and Sustainability: The Cynics, the Romantics and the Realists."
Dario Menanteau: "Globalization and Development: Challenges and Opportunities for Sociocybernetics."
Richard E. Lee: "The Contradictory Effects of a 'Globalization' Perspective: Methods and their Unanticipated Consequences."

Evening: BRAINSTORMING for the Third International Conference on Sociocybernetics (Leon, Mexico, 2001) and RC51 sessions at the World Congress of Sociology (Brisbane, July 7-13, 2002).

Wednesday, June 28
Morning: GLOBALIZATION PERSPECTIVES - 2
Bernd R. Hornung: "World, World System, and Globalization - Theoretical Problems in Luhmann's Theory of Communication."
Stephen Schecter: "Globalization is not the Tyranny of the Market."
Chaime Marcuello: "Global Governance for One Planet: Humanity as a Whole Social System."

Afternoon: METHODOLOGICAL ISSUES AND MODELS
Nils O. Larsson: "Various System Levels Need Various Scientific Methods."
Marilena Lunca: "N-Valued Semantics for Undecided Agents."
Philip Nikolopoulos: "Complexity Theory, Circular Causality and the Change of Social Systems."

Evening: BUSINESS MEETING

Thursday, June 29
Morning: MODELING AND SYSTEMS THINKING
John Raven: "The Development and Use of Systems Diagrams to Improve Educational and Social Policy, with Particular Reference to Sustainability."
Vyacheslav Navrotsky: "The Application of General Systems Theory to Understanding Societal Change in Russia."
Bernd R. Hornung: "Minimal Conceptual Modelling (Mincomod) - From Theory of Society to IT-Systems in Hospitals."

Afternoon: SOCIAL COMPLEXITY AND SUSTAINABILITY
Vladimir Dimitrov, Robert Woog: "The Danger of System Thinking when Applied for Managing Social Complexity."
John Wood: "(Un)Managing the Butterfly: Ecology and the Grammar of 'Self'."
Dmitriy Chistilin: "Problems of Self-organization in the Transition Economies."

Evening: BRAINSTORMING for the Journal of Sociocybernetics, Sociocybernet, and a logo for RC51

Friday, June 30
Morning: SOCIOCYBERNETICS AND THE SOCIAL SCIENCES
Cor van Dijkum: "Sociocybernetics: Going Beyond the Logic of the Human Sciences."
Alessandra Lippucci: "The Effects of Observation and Self-Observation on Social Scientific Thinking."
Bernard Scott: "A Design for the Recursive Construction of Learning Communities."

Afternoon: AUTOPOIESIS
Frans Birrer: "Environmental Values, Subliminal Enticement, and Autopoietic Neurosis."
Vessela Misheva: "The Theory of Autopoietic Systems and Globalization."
Mário Vieira de Carvalho: "Art as Autopoiesis? A Critical Approach Starting from European Avant-garde in the early 1950s."

Saturday, July 1
Excursion

2.2 WORLD CONGRESS OF THE SYSTEMS SCIENCES
In conjunction with the 44th ANNUAL MEETING, INTERNATIONAL SOCIETY FOR THE SYSTEMS SCIENCES
Understanding Complexity: The Systems Sciences in the New Millennium

In celebration of the new millennium, RC51, along with some 20-odd other "co-host" organizations in the systems fields, joined with the International Society for the Systems Sciences (ISSS) to organize a three-day World Congress of the Systems Sciences in Toronto, Canada, 16-22 July 2000. The Research Committee on Sociocybernetics participated in this World Congress with three paper-presentation sessions and a Plenary Address webcast via the internet in streaming video. The program of the RC51 sessions is reproduced below.

Monday, July 17, 15.50-17.50
Chair: Richard E. Lee
Tessaleno Devezas and **James Corredine:** "The Biological Determinants of Long Wave Behavior in Socioeconomic Growth and Development."
Gerard De Zeeuw: "On Constructivism: Complete Collectives and the Evolution of Research."
Diane Laflamme: "The Attestation of Ethical Ability and Intention: An Autopoietic Process?"

Tuesday, July 18, 11.45-12.00
Richard E. Lee: Plenary Address, "The History, Goals, Accomplishments and Future Plans of RC51."

Tuesday, July 18, 15.50-17.50
Chair: Gerard de Zeeuw
John Little: "Using Luhmann: Assessing the Utility of Luhmann's Social Systems Theory."
Richard E. Lee: "Local Action, Global Consequences? Agency and Structure in Contemporary Social Change."
Loet Leydesdorff: "A Model Engine for 'Lock-in', 'Lock-out', and the Non-linear Dynamics of Network Configurations."

Wednesday, July 19, 15.50-17.50
Chair: John Little
Bernard Scott: "Cybernetics and the Social Sciences."
Karl-Heinz Simon: "Systems Research and the Issue of Man-Environment Interactions."

Wednesday, July 19, 20.00-21.30
Chair: Bernard Scott
Friedrich Wallner: "Application as a Circular Process on Self-reflective Science."
Donald O. Rudin: "The Formal Theory of Sociopsychology - Beyond Parsons to Mature Sociocybernetics."
Richard E. Lee: Closing Statement

2.3 ISA RESEARCH COUNCIL MEETING

The biennial meeting of the Research Council of the International sociological Association was convened for July 28th through July 30th, 2000, in Montréal, Canada. It consisted of a conference whose theme was **Transformations at the Turn of the Millennium: Sociological Theory and Current Empirical Research** and a Business Meeting. RC51 participated in the Conference with the paper "Sociocybernetic Approaches to Social Change" delivered by Secretary, Richard E. Lee. A synopsis of the Business Meeting follows:

ISA projects and mid-term evaluation by Alberto Martinelli, President.
The President made two points of particular interest to RC51: ISA, in conjunction with other International Organizations, now conducts a summer school for young sociologists from "new societies". There is no age limit but the admission criteria seem to point to ABD's. Secondly, the President exhorted RC's to raise the quality of their own work and to promote high standards within their own overall areas. Martinelli advocated writing textbooks.

ISARC developments and RC performance evaluation by Research Council Chairperson, Arnaud Sales, Vice-President for Research.
The Vice-President pushed for more integration and an "academic approach" and announced the publication of the *International Handbook of Sociology*. Evidently only about 40 RC's have submitted an activity report and even these seem to be uneven in quality. It was at this point that the necessity of officers being members of ISA was reiterated and a discussion of the structure of ISA and the RC's was initiated. The problem, of course, that everyone has is how to convince RC members to become ISA members. They simply don't "see" their dues at work. The RC51 secretary came out strongly in favor of kicking back 10% of dues to RC's as non-earmarked funds for RC activities. Also, evidently very few RC's apply for newsletter grants. [Thus, perhaps it is time that RC51 avail itself of those funds, REL.]

2002 World Congress of Sociology, Brisbane.
The main orientations of the 2002 World Congress have been finalized by the program committee (see below). The overview prompted discussion to the extent that RC's felt that they had been left out of what seems to be an overly top-down, closed-door process. Several suggestions were made to correct the situation. During the discussion of types of RC sessions, Arnaud Sales mentioned RC51 President Bernd Hornung's exhaustive piece and a number of RC representatives expressed interest. There will be no *Sociological Abstracts* listing.
- The annual Dogan Prize for a lifetime of distinguished work in comparative or interdisciplinary sociology was accepted and a committee to recommend a short list of possible recipients was set up.
- In the future there will be two extra issues of *Current Sociology* each year devoted to SSIS monograph book issues dedicated especially to edited collections from ISA RC's and WC's. Commercially viable single or jointly authored monographs may be proposed for the SSIS book series. Jennifer Platt asked RC's to suggest books worth reviewing for *International Sociology*.
- Various other issues were dealt with including the call for the circulation of the drafts of the new code of ethics and statute revisions, inclusion of members from less developed areas and a motion supporting a jailed Egyptian colleague.

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3. THIRD INTERNATIONAL CONFERENCE ON SOCIOCYBERNETICS: LEON, MEXICO, JUNE 24 - JULY 1, 2001

Our Third International Conference on Sociocybernetics will be held June 24 - July 1, 2001 in Leon, capital of the state of Guajanato, Mexico. These dates turned out to be the dates most preferred by the majority of the prospective participants, and they were also preferred by the conference organizer, Hector Gomez, hgomez@amoxcalli.leon.uia.mx. Leon is only a short flight from Mexico City, and can also be conveniently reached by bus. Considerable interest has already been expressed in this meeting. At the moment, the following 38 persons have indicated, in principle, that they are interested in delivering papers on the designated topics:

Aguado:	Theory and Modelization as a Procedure (Technology) for Socially Relevant Knowledge
Ahlemeyer:	Knowledge Management: The Sociocybernetic View
Andreewsky	Language Understanding in the Sociocybernetic Cognitive Space
Biggiero:	Cybernetic View of Decision Making
Bockstaele:	Connaître $\Rightarrow$ Simuler, Simuler $\Rightarrow$ Connaitre
Brier:	The Relation between Luhmann and Peirce on the Production of Social Signification when Viewed from a Cybersemiotic Foundation
Bulz:	The Possible World with a Non-Systemic Poverty and Welfare
Contreras:	Cyberculture & Postmodernism
De Tombe:	Traffic Problems and Self-Organisation.
Devezas:	The Nonlinear Dynamics of Long Waves: An Informational Interpretation
Diaz:	Cybernetics and Gender and/or Education
Van Dijkum:	Modelling the World: A Sociocybernetic Perspective
Earls:	Cybernetic War: A "Non-Destructive" Alternative for S21?
Finquelievich:	Cyberargentina: When the Untouchable Meets the Unspeakable
Frolova:	On the Stability Edge …
Gao:	Knowledge-Worker's Role in the 21st Century
Kjellman:	The Subject Oriented Approach to Science – Conceptualization of the Social Domain.
Korobitsin:	A Multilevel Model of Human Individuals
Laflamme:	The Capacity to Distinguish Distinctions According to Niklas Luhmann
Larsson:	How to Combine the Need for a Wider Global Perspective with the Tendency for Decreasing Individual Perspective.
Maiteny:	Comparing the Visions, Fantasies and Anxieties about Future Well-Being, Development, and how to Achieve it of People in Economically Rich and Poor Countries, Focussing On Personal/Psychological, Social and Ecological Dimensions
Marcuello:	1. Evaluating the Social Efficiency
	2. Global Agreement, Global Eutopia: Regulating Globalization
Menanteau:	The Possible Worlds of Hispanics in the United States: Issues of System's Acceptance and Exclusion
Mens-Verhulst:	Medically Unexplained Complaints in a Sociocybernetic Perspective.
Misheva:	The World of the ICT-User

Mesjasz:	Images of Organization and Development of the Information Society: Moving beyond Metaphors
Navrotsky:	The Division of the World in the 21st Century
Paetau:	The Role of ICT-Based Networks for the Emergence of Knowledge (Exemplified for Community-Networks, Cooperating in the Process of the Local-Agenda-21)
Pinuel:	Autopoiesis and Communication
Qvortrup:	The Hypercomplexity of Society
Rudin:	Metatheoretical Foundations of Sociology and Science Unification.
Scott:	Learning Environments for Learning Communities: A Report on the University for the Highlands and Islands Project
Shamov:	Physicalistic Concept of Natural System Sustainability: To Ethics of Nature-Society Relations
Terpstra:	Illness as a Relationship: Applying Luhmann's Theory
Umbach:	Linking the Micro-, Meso-, Macro-Levels in Analysis and Synthesis to Optimize Innovative Results in the Direction of Sustainability.
Vahl:	Research Methods to Improve Self-Organisation of Social Collectives
Voitsekhovich:	The World-Outlook of the Third Millennium and the Evolution of Western Society in the 21st Century".
De Zeeuw:	Community Development: Research Designs

These expressions of interest are highly tentative, as actual participation will in many cases depend on the availability of travel grants. Moreover, following the usual procedure of RC51, 250-word abstracts will be required (to be used for an abstracts booklet to be distributed during our meetings) and 1000-word abridged papers will be reviewed by an abstracts committee. Definitive participants will be those with approved paper proposals who are moreover able to obtain a travel grant or are self-financing. Deadlines for submitting abstracts and abridged papers will soon be announced. Those not mentioned above who would still like to participate should email Richard E. Lee, rlee@binghamton.edu and Felix Geyer, geyer@xs4all.nl.

Leon can be reached from Mexico City:
- *by plane*: normal roundtrip price $160, but appreciably cheaper in conjunction with international and especially intercontinental flights; see Bienvenidos a Aeroméxico/Welcome to Aeromexico);
- *by bus*, see website of with Enlaces Terrestres Nacionales (ETN), BIENVENIDO - ETN, La Línea más Cómoda, for about $60 roundtrip. More information will be available on our website by early next year. Hotels, without breakfast, will be in the $50-65 range; transport to and from the university, as well as luncheons, and coffee and tea breaks will be provided free of charge by the university.

After arrival on Sunday, June 24, the actual conference will take place Monday, June 25 through Friday, June 29, with the last day, June 30, in principle intended for a one-day excursion. Departure is then foreseen for Sunday, July 1, although evidently participants will be able to sign up for post-congress tours to other parts of Mexico.

4. 15th WORLD CONGRESS OF SOCIOLOGY, BRISBANE, JULY 8 - 13, 2002

The World Congress of Sociology is the big quadrennial event of the international sociological community. Two documents with information from the ISA secretariat follow in the appendices to give a better idea of the scope and organization of this congress. The ISA secretariat has opened some new web pages for the XV World Congress of Sociology at http://www.ucm.es/info/isa/congress2002/. The most important points are:

1. The World Congress will be held in three different locations: 1) The Brisbane Convention Centre, 2) The Queensland University of Technology, 3) The University of Queensland.

2. Accommodation costs vary between US$38 and US$127 per night and booking forms will be available on line in early 2001.

3. Registration fees are in Australian dollars and vary according to three criteria:

a) ISA-members versus non-ISA members: non-ISA members pay Aus$ 100-55 more than ISA members;

b) Date of registration: late registration, after January 1, 2002, is Aus$ 75 to 55 more;

c) Rich versus poor countries: according to the above two criteria, the rich countries (category A) pay most, while the poor countries (category C) pay least.

Assuming that all our participants will register before January 1, 2002 and are all ISA members, the congress fees for categories A, B and C are respectively Aus$ 525, Aus$ 220 and Aus$ 145, while students from all three categories also pay Aus$145.

4.1 Sessions proposed for Brisbane

At the moment, some 20 RC51 members have indicated that, in principle, they want to organize a session in Brisbane. Many of them have already sent their 300-500-word session proposal, according to the guidelines they have received in the meantime. These proposals are presently being reviewed by the international organizing committee (President Bernd Hornung, Vice-president Vessela Misheva, Secretary Richard E. Lee, Brisbane Session Coordinator Bernard Scott and Honorary President Felix Geyer) that will decide on acceptance. From early next year onward the approved session proposals will appear on our website as Calls for Papers. Obviously, no more than 16 sessions can be organized, while some of the session proposals may not be accepted. However, even if a session proposal is accepted, there is a possibility that the session will be cancelled if not enough accepted papers are proposed for that session. Another possibility is that in such a case two sessions might be combined. Alternatively, if some 8 papers would be accepted for a session, that session might obtain a double time slot. Since all 16 sessions will have 105 minutes, the advice of the ISA-secretariat is to have no more than four papers per session. The following proposals are in principle already approved at this stage, in some cases pending a reformulation. In view of the fact that French and Spanish are official languages of the ISA, a French and a Spanish session will also be organized:

Devezas: Chaos Theory in Economics and Social Sciences
Van Dijkum: Modeling the Social World Using Computers
Hornung: Goal-Rientation, Self-Steering, and Self-Organization - Towards a Sociocybernetic Theory

Hornung:	*Les aquis de la systémique et sociocybernétique dans le monde Francophone* (Achievements of Systems Science and Sociocybernetics in the French Speaking World)
Kaltenborn:	Knowledge and Inequality - Inequality in the Production, Access and Use of Knowledge and the Consequences
Kjellman:	The Subject-Oriented Approaches to Science
Lee:	World-Systems Analysis in the 21st Century
Marcuello/	*Un Enfoque Sociocibernético Al Los Retos Del Siglo XXI*
Menanteau:	(A Sociocybernetic Approach to the Challenges of the 21st Century)
Mulej/Potocan:	Systemic Consideration of Culture in Transforming of Transitional Countries
Schecter:	The Pertinence of Luhmann's Theory for Sociological Analysis
Scott:	The Impact of ICT Developments on Educational Institutions, Business Organizations and Communities
Simon:	Modelling Society-Environment Interactions

If there are others, including non-RC51 members, who would like to propose a session, they should immediately inform Richard E. Lee, rlee@binghamton.edu, Felix Geyer geyer@xs4all.nl, and Bernard Scott, bernard.scott@groupwise.uhi.ac.uk. They will then receive the "Guidelines for session proposals". All proposals should be received before January 31, 2001.

4.2 Papers proposed to date

For Brisbane, the following tentative paper proposals have been received so far.

Anderson:	Cybernetics and the Social Transformation of Health Care: Social and Ethical Issues
Blanc:	Links between Social Change and Other Changes - A Bioethism Modeling
Boyd:	Quality Attention-Time Commitment Tokens and Tokens of Recognition for Contribution Exchanges at Various Cybersystemic Levels as Mediating Mechanisms for Community Sustainability.
Bulz:	Systemic and Non-Systemic Thinking; Inter- and Transdisciplinary Approaches
Devezas:	Some Topic Related With Long Waves And Technological Forecasting
Dimitrov:	Title As Yet Unknown
Earls:	Global Warming: Impact on Global Society in the 21stCentury
Elohim:	A Particular Appraisal of a Homosphere Ethically, Ethologically and Ecologically Motivated, Conceived as a Global System Based on Civilizing Principles Cybernetically Integrated
Gao:	Knowledge Management and Environmental Knowledge Systems
Heselmans:	Socio-Techno-Foresight Methodologies Coping with the Epistemology of Social Complexity
Hornung:	Emergence - A Key Concept for Sociocybernetic Theory
Imada:	Self-Organization and Deconstruction of Modernity
Kjellman:	A Theory of Feelings - The Conceptual Basis of Scientific Modeling
Leydesdorff:	A Sociological Theory of Communication
Marcuello:	Subject A: Looking for a Global Agreement for the People of Planet Earth: A

	Proposal
	Subject B: Social Accountability and Social Efficiency in the Third Sector
Mingers:	Autopoiesis and Social Systems
Parra-Luna:	Axiological Systems Theory
Romm:	Setting up an Accountability System in Sociocybernetics
Rudin:	Axiomatic Foundations of Knowledge and Sociology: Realizing Parson's Goal
Schecter:	The Power and Beauty of Luhmann's Theory in Sociological Analysis
Scott:	The Sociocybernetics of Educational Systems
Simon:	Modelling Social-Ecological Transformations (Findings of a State-of-the Art Study in Germany)
Starkermann:	Only One Aggressor at a Time. A Mathematical-Social Study. and/or: The Quarrelsome Clerics become United about the Heretics Hair. A Mathematical-Psychological Study.
	And/Or Faith: The Symbol of God Provides Help. A Mathematical-Theological Study.
Terpstra:	Geo-Political Factors that may Contribute to a Practical Application on Niklas Luhmann's Systems Theory
Vanderstraeten:	On Organized Social Systems
Voitsekhovich:	Social Forecasting and Prevision - The Attractors of the Evolution of a Society in Cosmic, Biological And Spiritual Relations

The same procedure as used for Bucharest (1996), Montréal (1998), Kolimbari (1999) and Panticosa (2000) will be followed also for these proposals. In due time, participants will be asked for a 250-word abstract, again to be reproduced in an abstract booklet, that will be distributed during sessions in Brisbane, and for a 1000-word abridged paper on the basis of which an abstracts committee will decide on the acceptability of paper proposals. At a later stage, when all approved session proposals will be available on our website as Calls for Papers, the above persons, and anyone submitting a paper proposal at a later stage, can then choose - provided their paper proposal is approved - in which session they would like to deliver their paper. If refused for the session concerned, session coordinator Bernard Scott will then arrange for presentation in another more suitable session.

4.3 Plans for Tutorial Sessions

Quite apart from the official activities of the World Congress, RC51 plans a number of tutorial sessions, to be held the weekend before the congress. These tutorials have both a "missionary" purpose, i.e. to bring especially the other World Congress participants from outside our Research Committee up to date on recent developments in sociocybernetics, and they certainly also have financial implications. On the one hand, they could bring some highly needed cash to our zero-budget RC; on the other hand, room rental etc. would have to be paid for. Whether these tutorial sessions will actually materialize will therefore depend largely on a cost-benefit analysis for which the necessary background material is not yet available. Moreover, while the following five proposals for tutorial sessions have been received, they still have to be worked out in more detail and eventually approved:

Hartmut Bossel:	Systems approach to orientation, values, and indicators
Cor van Dijkum:	A Tutorial in Socio-Cybernetic Model Building - A one-day course with exercises
Bernd Hornung:	Niklas Luhmann's theory of social systems
Arne Kjellman:	The organizational view on mind and society – a visual workshop.
Richard Lee:	World-Systems Analysis in the Twenty-first Century
Bernard Scott:	Introduction to Systems Theory and Cybernetics

5. RC51 PUBLICATIONS

5.1 *Sociocybernetics: Complexity, Autopoiesis, and Observation of Social Systems*

A selection of thirteen papers from our sessions at the 14th World Congress of Sociology in Montreal will be published January 30, 2001 by Greenwood Publishing Group in Westport, Connecticut, USA. These papers were edited by Felix Geyer and Johannes van der Zouwen; the contents are as follows:

Felix Geyer and Johannes van der Zouwen: Introduction to the Main Themes in Sociocybernetics

PART I: SOCIOCYBERNETICS AND THEORIES OF INCREASING COMPLEXITY:
1. *Paris Arnopoulos:* "Sociophysics & Sociocybernetics - An Essay on the Natural Basis & Limits of Political Control"
2. *Walter Buckley:* "Mind and Brain: A Dynamic System Model"
3. *Heinrich W. Ahlemeyer:* "Complexity and Organizational Change"
4. *Robert Artigiani:* "Human Values and Social Complexity"
5. *Michael Rempel:* On the Interpenetration of Social Systems: Toward a Critical Reconstruction of Parsons and Luhmann"

PART II: THE USEFULNESS OF THE CONCEPT OF AUTOPOIESIS:
6. *John Mingers:* "Embodied Cognition: Information, Meaning, and Communication "
7. *Lucio Biggiero***:** "Are Firms Autopoietic Systems?"
8. *Colin Dougall:* "The Autopoiesis of Social Systems - An Outline of an Aristotelian Model"
9. *John H. Little:* "Autopoiesis and Governance: Societal Steering and Control in Democratic Societies"

PART III: EMPIRICAL APPLICATIONS - MODELING AND SIMULATION IN SOCIOCYBERNETICS:
10. *Bernd R. Hornung and Charo Hornung:* "Implications of Autopoiesis and Cognitive Mapping for a Methodology of Comparative Cross-cultural Research - Unity of Science and the Etics-Emics Controversy"
11. *Juergen Kluever and Jörn Schmidt:* "The Geometry and Dimensions of Social Systems"
12. *Cor van Dijkum and Niek Lam:* The complexity of educational systems"
13. *Johannes van der Zouwen and Cor van Dijkum:* "Towards a Methodology for the Empirical Testing of Complex Social (Cybernetic) Models"

The volume will be published January 30, 2001, and is priced at $62,50. In the US and Canada it can be ordered already through the Greenwood website at Greenwood Publishing Group Welcome page, or it can be ordered by phone: 1-800-225-5800 - but NOT by email. European orders should be sent to Greenwood Publishing Group, C/o EDS, 3 Henrietta Street, Covent Garden, London WC2E 8LU, UK, Tel: +44 (0)20 7240 0856, Fax: +44 (0)20 7379 0609, or can be ordered by e-mail: orders@edspubs.co.uk. Visa, Mastercard or American Express accepted. See also http://www.eurospan.co.uk/.

Bibliographic data: *Sociocybernetics: Complexity, Autopoiesis, and Observation of Social Systems*, Edited by Felix Geyer and Johannes van der Zouwen. Series: Contributions in Sociology, No. 132 (ISSN: 0084-9278), Greenwood Press. Westport, Conn. 2001. 264 pages - LC 00-058713. ISBN 0-313-31418-7. GM1418

5.2 Publication of WCSS Plenary Address

The Plenary Address, "The History, Goals, Accomplishments and Future Plans of the Research Committee on Sociocybernetics, RC51 of the International Sociological Association", by Richard E. Lee at the World Congress of the Systems Sciences, Toronto, 18 July 2000, will appear in the collection *Understanding Complexity*, edited by Jennifer Wilby and Gillian Ragsdell and published by Plenum Press, 2001.

5.3 Publication of a Selection of RC51 papers

An agreement has been made in principle with Mino Vianello, editor of the *International Review of Sociology*, to publish a selection of papers from RC51 conferences in a double issue of this journal.

5.4 Publication of a Selection of Panticosa papers

A more tentative agreement has also been made with the Instituto Fernando el Catolico (IFC), involved in the organization of the Second International Conference on Sociocybernetics in Panticosa (June 2000) to publish a selection of papers from that meeting. The editor in this case will be our local conference organizer and webmaster, Chaime Marcuello, while the selection still has to be made and must be approved by the IFC.

6. UPCOMING CONFERENCES AND ACTIVITIES REPORT

Here follows a report from RC51 Membership Drive Director, Mike Byron:

Greetings and best wishes for a happy and productive new year 2001 to all! The first two conferences mentioned here have already been extensively dealt with in the foregoing:

1. If there is ONE conference that we all should be planning on attending it is our own *Third International Conference on Sociocybernetics*. It will be held between June 24th and July 1st. The location will be in Leon, Guanajato, Mexico. For more information please refer to our RC 51 website located at: http://www.unizar.es/sociocybernetics/. Specific information relating to this conference may be found at: http://www.unizar.es/sociocybernetics/leon.html.

2. Another conference that we should all be considering attending is the *XVth World Congress of Sociology*. This conference will be held in Brisbane, Australia between July 7th and 13th, 2002. For additional information please consult the RC 51 website, or for specific information related to this conference: http://unizar.es/sociocybernetics/brisbane.html and http://www.ucm.es/info/isa/congress2002/.

Other upcoming conferences and events that may be of interest to RC 51 members and interested non-members are listed below. Would anyone planning to attend any of these events please contact me at: mpbyron1@home.com? I would like to arrange for you to receive RC51 membership forms to bring to these conferences.

3. *Workshop 2001 Agent Based Simulation II* to be held in Passau, Germany. Conference dates are April 2-4, 2001. For additional information please go to: http://www.or.uni-passau.de/workshop2001/.

4. *Problems of Individual Emergence*. One of my personal favorite bi-annual conferences. This year's theme is "Problems of Individual Emergence." The location is given as Agnietenkapel, Oudezijds Voorburgwal 231, Amsterdam, the Netherlands. Conference dates are April 16th - 20th, 2001. For additional information (I personally recommend this conference!) please check out the conference website located at: http://www.cict.demon.co.uk/.
Detailed information available in PDF format: http://www.cict.demon.co.uk/Pr2001.pdf.
Registration form: http://www.cict.demon.co.uk/Form2001.pdf.
Conference website: http://www.cict.demon.co.uk/confproblof.html.

5. *JSAI-Synsophy International Workshop on Social Intelligence Design*. Conference dates are May 22-23. The conference will take place in Matsue, Shimane, Japan. For further information please go to: http://www.synsophy.go.jp/sid2001/.

6. *Cybernetics Praxis and the Praxis of Cybernetics*. The American Cybernetics Society sponsors this conference. Conference dates are between May 26th and 28th of 2001. There will be "extended activities" occurring in conjunction with this conference between the dates of May 23rd and May 29th. The location is given as the UBC Conference Center located in Vancouver, Canada. For additional information please go to:

http://www.asc-cybernetics.org/2001/index.htm.

7. The *Ninth Annual Conference on Social Dilemmas* will be held between June 29th and July 3rd, 2001. The location will be the Palmer House Hilton Hotel located in Chicago, Illinois, USA. Conference information may be found at: http://www.msu.edu/user/kerr/sdconf.

8. Finally, the Santa Fe Institute is offering two *Complex Systems Summer Schools*. The first of these summer schools will be held between June 10 and July 7th in Santa Fe, New Mexico, USA on the campus of Saint John's College. It will be administered by the Santa Fe Institute. The second of these summer schools will be held between July 16th and August 10th, 2001. The location will be the campus of the Central European University in Budapest, Hungary. It too will be administered by the Santa Fe Institute. Further information may be obtained at: http://www.santafe.edu/sfi/education/indexCSSS.html; or from: summerschool@santafe.edu.

I would like to encourage all of our readers to forward news about upcoming relevant conferences and activities to me at: mpbyron1@home.com. Further I encourage all of our members to join or renew their ISA memberships. I further encourage all interested non-member readers to join RC51 by filling out a membership form and a questionnaire at http://www.unizar.es/newmembers.html (no membership dues required!) and to consider eventual membership in the (membership dues required) ISA as well – see http://www.ucm.es/info/isa/members.htm. As a political scientist, I can attest that RC51 and ISA membership is open to and relevant for ALL interested persons. If anyone has any questions about membership, or has contact information for "lost" members of RC-51, as well as potential new members, please contact me!

END OF NEWSLETTER 10

As this issue of the *Journal of Sociocybernetics* goes to press, we learn to our sorrow that our colleague John Little passed away on December 20, 2000. We shall miss John. He had found out two weeks previously that he had a cancerous tumor. It spread very quickly and his body shut down. He went peacefully with his family present at the time of his passing. RC51 extends its sincere condolences. If you would like to make contributions, send them to the American Cancer society at 800-ACS-2345 or mail them to 124 Park St. S.E., Vienna, VA 22180.

APPENDIX TO NEWSLETTER 10:
INFORMATION FROM THE ISA ABOUT THE BRISBANE WORLD CONGRESS

For those who are not individual members of the ISA, we reproduce here two ISA documents (in the form received) pertaining to the organization of the World Congress that have just been published in ISA Bulletin 81-82. The first document will give an idea of the general setup of the World Congress. The second one gives some idea of the "sessions allocation rule". A proposal by our president, Bernd Hornung, which unfortunately could not be implemented, is mentioned there. When looking at the second document, you will realize that we are among the largest of the Research Committees. Obviously, we need to keep that position. Therefore, we urge all of you once more to sign up for individual ISA membership at the ISA website if you are not an ISA member already http://www.ucm.es/info/isa/members.html, or to renew your membership when it is about to expire.

DOCUMENT I: PREVIEW OF THE ORGANIZATION OF THE WORLD CONGRESS PROGRAM

1. **Date of the Congress** : The Brisbane World Congress will be held from Monday, July 8 to Saturday, July 13, 2002.

2. **The theme of the Congress** is: THE SOCIAL WORLD IN THE TWENTY FIRST CENTURY: AMBIVALENT LEGACIES AND RISING CHALLENGES
Monday is devoted to the Presidential Session titled "GLOBAL SOCIETY OR FRAGMENTED WORLD: TRENDS IN ECONOMY, CULTURE AND POLITICS" convened and chaired by Alberto Martinelli.

Tuesday, Wednesday and Thursday are the days of the "thematic sessions", five of which are running parallel each morning. Each congress theme is divided into three symposia, which run in sequence over three days, first part on Tuesday, second on Wednesday and Third on Thursday. (see below item 3. Specific Themes).

Friday is devoted to "special sessions" which accomodate variety of significant topics not immediately related to the Congress theme, but important enough to give them high semi-plenary status and schedule them in the morning hours. There will be six such sessions running parallel on Friday from 9-12 a.m. The "special sessions" (to be run parallel on Friday) will have the following topics:
A. FOCUSING ON ASIA-PACIFIC.
B. NATIONAL AND REGIONAL SOCIOLOGIES IN THE ERA OF GLOBALIZATION.
C. WOMEN'S MOVEMENT AT THE VERGE OF THE XXI CENTURY: ACHIEVEMENTS AND NEW CHALLENGES.
D. NEW WAVE OF RADICAL MOBILIZATION: ANTI-GLOBALIZATION MOVEMENTS.
E. LINKING TEACHING AND RESEARCH: INNOVATIVE EXPERIENCES.
F. LEGAL INSTITUTIONS IN CRISIS.

On Saturday there will be the second Presidential Session devoted to "THE USES OF SOCIOLOGY" convened and chaired by Alberto Martinelli, combined with the closing ceremony and the installation of the new President. If needed, the RC sessions may still be running in the afternoon of Saturday.

3. Specific Themes of the Congress Symposia (to be held in the morning)
Every theme is related to three consecutive symposia.

I. INEQUALITY AND EXCLUSION: A. Markets and inequality, B. Knowledge and inequality, C. Cultures of exclusion.

II. KNOWLEDGE, CREATIVITY AND COMMUNICATION: A. Knowledge and social change in contemporary societies, B. The social processes of creativity, C. New information technologies, communication and networks: towards new forms of communities?

III. SEXUALITY, FAMILY AND FORMS OF INTIMACY

IV. TRAUMA: THE AMBIVALENCE OF SOCIAL CHANGE: A. The evolving theory of social and cultural trauma, B. Traumatic perceptions and experiences, C. Coping with and overcoming traumatic conditions.

V. DIFFERENCE AND POLITICS: A. Towards a sociology of difference, B. Identity and difference, C. Pluralism and difference.

4 – Schedule and guidelines for the RCs, WGs, TGs Sessions during the Brisbane World Congress

a) Schedule of the RCs Sessions
Afternoons and evenings will be reserved for the activities of the Research Committees, Working Groups, Thematic Groups and Ad Hoc Groups. However, the sessions of some National Associations will have to be held during the same periods.

The RCs, WGs, and TGs sessions will last 1 hour 45 minutes and each will be held at the following times from July 8 to July 13, 2002:

1:30 p.m. - 3:15 p.m.   .
3:30 p.m. - 5:15 p.m.
5:30 p.m. - 7:15 p.m.
8:00 p.m. - 9:45 p.m.

b) *The maximum amount of sessions* allocated to RCs, WGs, and TGs will be 16 sessions and 2 optional sessions. This includes time for a **business meeting** and for a **RC, WG or TG dinner**.

c) *The number of sessions* will be allocated based on the number of the ISA members in good standing, according to a scheme adopted by the ISA Executive Committee (see new proposition below).

d) *Diversification of the form of RCs, WGs, TGs Sessions.*
The Program Committee and the RCC are hoping that the committees will diversify the form of their sessions to enhance the often-monotonous format of the RCs' sessions. Consequently, we will encourage the RCs, WGs, and TGs to organize the following types of sessions during the Congress:

• **Featured or Keynote Speaker**
A session featuring a leading researcher in one of the RCs' fields (between 35 and 60 minutes duration);

• **Regular Sessions**
 More than four or five papers in one session tend to be frustrating for the speakers and the audience because it doesn't allow sufficient time for the presentation and discussion. It is therefore recommended that each RC, WG or TG regular session uses its 1 hour 45 minutes in order to accommodate four 20-minute presentations and 20 to 25 minutes of collective discussion. It is strongly recommended that Regular Sessions accommodate four speakers only. All other papers should be listed as distributed papers in their relevant sessions (as done by several Research Committees in Montreal) or included in the Poster Sessions.

• **Special Integrative Sessions**
During the 1994-1998 term, Past President Immanuel Wallerstein opened a debate on the fragmentation of our discipline. Even if specialization is unavoidable, it creates "islands" of specialized networks giving rise sometimes to overlapping areas of work and consequently, redundancy in research subjects and findings. We need to create more

favorable conditions for intellectual exchange among committees working in closely related fields. Several Research Committees already work in collaboration through joint sessions in world congresses or joint conferences. This time, we would like to go a little bit further and encourage the organization of Special Integrative Sessions connecting three to five RCs around a debate on a common theme. **RCs organizing a session of this kind will be allocated one extra regular session**. The Montreal Research Council meeting will give an opportunity to help plan such sessions between the RCs Representatives.

• **Special Session on the Specific Themes of the Congress**
If relevant, RCs organizing a special session focusing on one of the specific themes of the Congress symposia will be allocated **one extra regular session**.

• **Round Tables and "Author Meets their Critics" sessions.**
A stimulating formula might be to have a debate around a current issue of particular importance to the area of research. The debate may also be organized around an important recent publication that could be presented by the author(s), with commentators then opening the floor to the audience

• **Panel sessions**
Some RCs are used to organize Panel sessions, which can accommodate a large number of papers around a special theme.

• **Poster sessions** allow the participants to present their poster and paper with small groups of persons interested into the subject.

• **Dinner of the Committee**

• **Business Meeting of the Committee**.

These kinds of sessions enhance the quality of a meeting, especially if the organizers find the right people to participate in them.

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DOCUMENT II: ON THE SESSIONS ALLOCATION RULE

1 – The organism responsible for the final decision on this point
It is the Executive Committee of the ISA, made up of representatives of the Research Council and the National Associations Council, which is, in the final analysis, responsible for the decision on the issue of sessions allocation. However, the Research Council must be consulted on this rule.

2 – Must the number of sessions be allocated according to the number of paid-up ISA members?
a)   Research Committee Membership. The RCs are international research networks specialized in an area of study. ISA statutes distinguish between **regular members,** that is, those who have paid dues to the RC and to ISA, and **affiliated member**, those who pay dues to the RC, but who are not members of ISA, especially people belonging to other disciplines. RCs membership fluctuates, in particular, according to the scope and "popularity" of the area of specialization, the dynamism of its academic activities and the commitment of its officers. While the membership of a Research Committee is not the best measure of its activities or its scientific quality, it does tend to reflect the "popularity" of the field, the interest in the scientific activities organized by the particular RC and the dynamism of its directing team.
b)   Over the years, ISA has recognized more than 50 RCs so as to enable scientific exchanges on new fields and issues. The contribution of these research committees is remarkable. At the same time, however, this considerable growth has led to a very marked fragmentation of the discipline based on specialization, which is disquieting. If each of the committees manifested an enormous amount of dynamism in the community, on an international scale, around its specialization (together with exchanges with committees in related areas), the problem would be less intense. But, there are currently several committees in which the number of members in ISA, after being in existence for several years, is less that 30 and even down to 15. The Executive Committee has every right to be concerned. Would it not be reasonable to give committees whose membership includes less than, not 25, but 50 ISA members the status of

Working Group or Thematic Group within ISA?

Of course, allocation criteria other than that based on membership could be determined. **Bernd Hornung of RC 51 on Sociocybernetics has suggested several interesting solutions, but he recognizes how difficult it could be to implement them.** In the medium term, we should all examine whether evaluation of the scientific quality of the RCs' activities is applicable criteria (and by whom) without creating heavy bureaucratic controls.

3 - Proposal
Listening to the RCs Officers, the Research Coordinating Committee has proposed to the Executive Committee that the principle of allocating sessions based on ISA membership be retained, but with a relaxing of the rule by two means: on one hand, allocating special supplementary sessions enabling diversification of the RCs general program, as proposed in Document 1 on the form of the Brisbane World Congress program; on the other hand, making the sessions allocation process more progressive than set out in the rule initially adopted by the Executive Committee.

NEW RULE: MORE PROGRESSIVE SESSIONS ALLOCATION AND ADDITION OF SPECIAL SESSIONS

ISA Membership	Number of Sessions Under the Previous Rule	Number of Regular Sessions under the New Rule	Additional Special Sessions	Total Number of Sessions
Over 100 members	16	16	2	18
> 85 -100 members	12	14	2	16
> 70 - 85 members	12	12	2	14
> 55- 70 members	8	10	2	12
> 40 - 55 members	4	8	2	10
> 25 - 40 members	4	6	2	8

This new rule adopted by the ISA Executive Committee is, in the view of the Research Coordinating Committee, a reasonable one which, I strongly hope, will reconcile the interests of the RCs and those of ISA as a whole. I look forward to your comments and opinion before the Montreal Meeting.

Arnaud Sales
Vice-President for Research, International Sociological Association

END OF APPENDIX, NEWSLETTER 10