Systemic Actions in Complex Scenarios

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Prologue

Systemic Actions in Complex Scenarios: A Research Program

Emilia Ferone

Systemic Actions in Complex scenarios is essentially a research program focused on some key ideas and concepts developed by the authors of this book:

1. It is meaningless to talk about complexity without a systemic epistemology turned into a strategic theory and then into viable policy models (Pitasi).
2. It is a mere illusion to think that, in complexity scenarios, the "renaissance spirit" might come back. No integrated knowledge is possible now and the basic simplistic cognitive saving techniques such as ideologies are coming back (Šubrt).
3. Ignorance is increasing and especially ignorance about ignorance (Ruzzeddu).
4. That is why the organization of knowledge becomes pivotal, implying a double contingency challenge: how to make knowledge more and more accessible worldwide (through the Internet, for example) and how to avoid the trap of mistrusted, faceless knowledge (Fabó).
5. The re-setting (or not) of the academic system on a more global scale will probably be a key crossroads for implementing problem solving before oversimplification and the triumph of ignorance as the shaping of isotropic standards is the mainstream for checking the validity and reliability of knowledge (Ferone).
6. From this point of view, the matter of theoretical sources becomes vital as in the case of Luhmann's work, a neo- and anti-humanistic paradigm takes shape: neo-humanistic, as the psychic system acquires in Luhmann's work a special autonomy in terms of self-

reference in its small-scale world; anti-humanistic, as Luhmann's work denies the psychic system autonomy and action to impact on the macro social system directly and effectively, micro actions might eventually generate noise and irritation for the social system, with no meaning or communication (Cossi).

7. This implies that the Renaissance spirit has gone forever and that the key systemic challenge is to focus on the differences which really make the difference; thus, the systemic toolkit for navigating complex scenarios describes two convergent levels of formalized and highly expandable knowledge:

    7.1 the mathematical–statistical (Kaszowska; De Sanctis et al.), and

    7.2 the legal, as the localization/globalization of law and of its frames of mind is a step toward the effective formalization of reliable global standards (Cáceres Nieto; Segundo Mancha Romero et al.)

In brief, systemic action is the sole reliable and viable kind of action in global and complex scenarios. It means macro-systemic, high-impact action by macro players and, at the same time, an increasing fragmentation and contingency of micro behaviors by psychic systems trying to make sense of their own experiences, often living trapped as in a Skinner Box.

CHAPTER ONE

SYSTEMIC RESEARCH DESIGN AND KEY GLOBAL CHANGES IN BUSINESS, POLITICS, AND SOCIETY

ANDREA PITASI, MICHELE BONAZZI, EMILIA FERONE

Introduction

This paper represents a strategic reflection on the changing world in which we live and on the goals that the World Complexity Science Academy aims at for the coming years.

The World Complexity Science Academy (WCSA) is a cultural association whose mission is purely scientific and oriented to knowledge-sharing from the point of view of systems theory and complexity science.

The association aims to conceive, plan, organize, evaluate, and promote basic and applied scientific research, especially in the field of interdisciplinary systemic science. WCSA believes the systemic approach is pivotal for intensive and high added-value knowledge-sharing on a global scale, enabling all entrepreneurs, professionals, scholars, and policymakers to cooperate, as world citizens, to facilitate the free circulation of intellectual and strategic capital. WCSA is also focused on strategic problem solving concerning the fields of energy, ecology, and biotechnology in order to propose innovative responses to the fundamental challenges that the human society is currently facing. WCSA's mission involves strong support for both Italian and foreign scholars' education in every field related to the systemic approach in order to promote collaboration and exchange among researchers from different scientific disciplines. In this sense, one of its objectives is to create an interdisciplinary approach involving different fields of scientific analysis: from engineering to biology, from mathematics to sociology, from pedagogy to economics,

from cybernetics to architecture, etc., basing the analysis of these connections on a systemic approach.

The complexity of the digital society age (Lupton 2015) and of the digitalization process (Bonazzi 2014 and 2015b) pushes us to find new hermeneutic models based on an interdisciplinarity approach: "The digital and the convergence of knowledge are linked to the necessity to propose a vision that goes beyond the boundaries between different areas of study for a comprehensive and interdisciplinary view that can help us understand a world in constant evolution […]." "From this perspective, the importance of the contribution provided by Luhmann (1996) regarding originality and cultural and sociological depth, in the social sciences in general and in systems theory in particular, is emphasized once again. It is no longer allowed to analyze the different social, economic, cultural and political components as compartmentalized: the connections and the underlying dynamics, whether express or submerged, must be analyzed and understood through the synergies that are created, which influence each other and autopoietically regenerate themselves" (Bonazzi 2015b, 205).

For this reason, we can delineate a sophisticated epistemology that aims to face the challenge of the future in different but interconnected fields: business, politics, and society.

A sophisticated epistemology: strengths

We would like to underline the inner strengths of an interconnected, supranational, globalized and cosmopolitan epistemology:

- An interdisciplinary vision exactly as seen in the EU and Further Supranational Research Programs.
- A very abstract, dematerialized evolution of concepts "beyond space and time" just as in Supranational Policy Programs (UN, EU, and more).
- A great skill in mapping the differences which make the differences at the macro level, negatively selecting micro sources of outer noise thus producing the most viable "Epistemology for Presidents."
- It is the most viable epistemology, both for big data research and to link theory and practice for top professionals in any field (lawyers, accountants, policy modelers, policymakers, business people, entrepreneurs, investors, and more, and the list might be much longer).

Opportunities

As for the strengths, we are able to identify the opportunities offered by a world in which we are ready to overcome the boundaries and the bonds of modernity:

- Globalization in economic, social, political, institutional, and legal affairs fits closely with the complex system epistemology.
- Great technological change with global impact in genetics, robotics, nanotechnology, and informatics fits ideally with the complex system epistemology (Nowotny 2008; Kurzweil 2005 and 2008).
- Paradoxically, twofold matters like energy, ecology, and terrorism clearly show there can be no local policy independent from a global, planetary strategic, and systemic setting: $L= (f)G$ also for leveraging.

In this peculiar scenario, the role of hypercitizenship assumes pivotal importance (Pitasi 2012, 2013, 2014a, 2014b, 2014c, and 2015) as the hermeneutic model for understanding these paradigm shifts.

The pivotal role of a cosmopolitan citizenship

The issue of citizenship assumes fundamental importance in a composite universe where the local and the global interface with unpredictable outcomes, and in which only those who become the masters of strategic skills can move deliberately and build their own destiny as a result of conscious choices.

The concept of citizenship becomes multilevel. It represents and describes a type of citizenship no longer uniformly understood as belonging to a single, exclusive community or state, but refers to the possibility of multiple memberships in a rapport of coexistence with each other, based on a dissolution of the idea of a boundary and on the assertion of a multicultural and interdisciplinary approach.

This type of citizenship is the effect and product of the progressive disjointedness of the state structure, in its classical form, which has lost its nineteenth-century rigidity in order to evolve and express the idea of a global corporate citizenship. In this sense, this emerging concept of citizenship addresses the urgent need to reflect on citizenship as a construction of political and legal practices and territorial affiliations that are not limited by physical boundaries.

The idea of multilevel citizenship originates, then, from the realization of the inevitable twilight and the dismantling of citizenship defined in terms of a single nationality that can be described as "strong" in that it is characterized by a very pronounced sense of belonging, both ethnic and territorial, in relation to a population and a nation.

This process is linked to the idea that the relationship between the individual and public authorities has evolved significantly. In previous periods of history, with the role of the nation state as an exclusive embodiment of public power, the concept of the individual as a subject, that is, a person seeking state protection and services for their personal safety (e.g. military institutions) and social safety (provision of some common public goods, for example, education, health, justice) in exchange for the payment of a number of taxes has been reinforced.

The growing interdependence and complexity that characterizes the current phase of globalization has challenged the existence of a unique relationship between the individual and the nation state. Multilevel citizenship responds to the need of the individual to be considered a cosmopolitan citizen of the world, free to make their own choices. The loss of the central role played by the state in favor of supranational and sub-national entities has determined the progressive weakening of state citizenship, the so-called citizenship-membership, in favor of new forms of citizenship based on participation, both European and regional.

This evolution implies a new role for the citizen as part of a concentric system of collective decisions that affect local communities as well as supranational organizations. Citizenship, therefore, loses the exclusive dimension of allegiance to the state and becomes instead a complex concept of active participation at various levels of collective decisions, from local to global, transitioning therefore from being static, as in the past, to a more fluid concept today.

The importance of this issue then becomes crucial for both the concept of civil and social identity, as well as for the central role it assumes for the European Union as an institutional body, and this development leads us to consider what is a real paradigm shift whose translation and understanding can be identified thanks to the four dimensions of hypercitizenship: entrepreneurship, cosmopolitanism, science, and social autonomies (Pitasi 2012).

As Pitasi affirmed:

> My key theoretical assumption is that the multidimensional conceptualization of hypercitizenship is the autopoietic and self-referential way in which the organized and globalized social system is redesigning and reconfiguring itself beyond the old neofeudal scenario of social actions mirrored by the

methodological nationalism of old fashion social sciences. (Pitasi 2015, 185)

The scenarios in which the individual is called to action are strongly marked by the phenomena of globalization, cosmopolitanism, and turbo-capitalism and thus require systemic knowledge with high added value.

The approach taken involves a concept of the world as Globus Mundus, namely a global platform on which to build a highly varied catalog in which citizens, aware of their own needs and possibilities, choose selectively and self-referentially on a sort of global shopping spree.

Only if the individual acquires this competence will they be able to take on an active and decisive role in the dynamics implemented by the global platforms (Globus) and the worldwide memetic catalogs (Mundus) (Ibidem).

The informed citizen tends to become a hypercitizen, a global player able to play a role in an articulated and changing reality due to their knowledge that has the globe as its horizon and the world as its catalog.

Threats

Every important revolution brings with it potential threats or weaknesses, negative externalities to which we are accountable and which we have to face conscious of our means and capabilities:

- The high noise of the Triffin's Dilemma and of the Malthus Trap (Rosina and Tanturri 2011) might, in the very short term, focus on a misleading local perspective increasing crowd noise. This noise would nonetheless simply empower the "master and commander" systemic settings.
- The Liquidity Trap: a systemic vision and strategy is not for all. High volumes in education come from cheap, low-cost degree programs which are too cheap to accommodate systemic sets. As a result, systemic education either shapes its repositioning as an "elite program," (as I usually say, "for Presidents") or, in the short term, it might almost disappear from academic degree programs as the cheap and low-cost ones cannot afford to invest in systemics.

Weaknesses

At first glance, non-systemic scholars and policymakers might see the systemic approach as methodologically weak.

That is why, when non-systemic people talk about systems, they assume they are "things" *in se* which can be observed by any different paradigm or method. This can be dramatically misleading, generating, research that is neither valid nor viable, based, for example, on the idea of the "Italian political system" and providing first hand empirical data about its environment rather than about the system itself.

The systemic toolkit is methodologically and technically complex and financially expensive and many low quality scholars who want to appear very scientific label themselves as systemic scholars. But they merely damage the systemic image through what Pitasi call the "new age craftspeople drift."

For example, in terms of the systemic toolkit, the original research by the Club of Rome in 1972 into the limits of growth,[1] was based on very complex equations in software written in the STELLA code.[2]

The challenge of the future

WCSA, with its cosmopolitan and open-to-the-future vision, aims to become a strategic center in a society oriented to a knowledge paradigm.

As Ferone affirmed:

> The assumption in a knowledge society, as well argued by Rullani (in his book, *La fabbrica dell'immateriale*, 2005), is that knowledge becomes the primary key factor of production, so human resources truly become strategic resources if they are able to become intellectual capital. This fact is more evident if you analyze the university as a complex organization; the academic world becomes a "laboratory" full of case studies.

And the author continues:

> Our current scenario is so-called academic capitalism, meant as a spinoff and accelerator of intellectual capitalism at large. By academic capitalism, we refer here to the global scenario in which the legal and managerial standards of socio-economic development depend on the making and evolution of a wider and wider portfolio of intangible assets and intellectual property aimed at evolving highly strategic, added-value knowledge intensity, featuring a reconfiguration of power to manage the key bifurcational challenges of our times through general and applied research. (Pitasi 2012; Ferone 2015, 90–91)

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[1] For more information: http://www.clubofrome.org/flash/limits_to_growth.html.
[2] For more information: http://www.chelseagreen.com/limits-to-growth-the-30-year-update-book-cd-rom-bundle.

The pivotal importance of academic capital (Ferone 2013), and of a knowledge society, is an input to be followed in order to imagine and plan the World Complexity Science Academy as a strategic research center to shape and formalize a "Complex System Standard Interdisciplinary Research Design" (CSSIRD) to serve as a compass for supranational organizations both in their research and policy agenda settings, skipping the ideological trap of the "world taken for granted."

From this point of view, we are delighted to involve all WCSA members interested in formalizing CSSIRD to join a task force with the association both to author papers for our partner journal, *Systems Research and Behavioral Science*, and to develop the *Limitless Horizons* book focused on the systemic toolkit to link research and high-level professional practice to educate and train *Reflexive Practitioners*.[3]

Luhmann, in his work dedicated to the analysis of risk sociology, outlines how the future is no longer a divine plan, a destiny to be fulfilled but, rather, it depends on the decisions taken at the present time (Luhmann 1996) so, through this essay, we would like to underline the importance of time to start the CSSIRD PROJECT and to link it more and more to supranational, world class organizations in a virtuous circle based on a systemic approach to acquire the tools to face the challenges of the future with awareness.

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[3] For more information: http://www.amazon.co.uk/The-Reflective-Practitioner-Professionals-Action/dp/0465068782.

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CHAPTER TWO

THE PROBLEM OF COMPLEXITY
IN LUHMANN'S WORK:
THE NEO-HUMANISTIC PERSPECTIVE

GIANUGO M. COSSI

Foreword

Niklas Luhmann was an author who combined the history of European sociology with originality. Today it is difficult to determine which aspect of his paradigm left a deeper mark. His contribution to the conceptualization of some processes—such as the autopoiesis of the social system and the notion, now perhaps overused, of self-referentiality—maintains significant topicality. His collaboration (even if in conflict) with Frankfurt School's Habermas on the outcomes of technology in social systems attests to the ideological neutrality of his systemic approach.

This paper will deal with the sociological context in which Luhmann's research has been developed and disseminated. The work focuses on specific characteristics of Luhmann's themes: the concept of system; the behaviorist dynamics of the first and second orders; the structure of contingency (both single and double); and the fundamental problems of complexity.

The purposes and theoretical methods discussed here are condensed in the *summa* of his thought, "Social Systems." The subjects of the extensive discussion below are disputes and reflections of such relevance that they have influenced every prestigious environment of German and Italian sociology, at least until the second half of the 1990s. Those works were part of the "Second Luhmann" period (1985–2000), being axiomatically cybernetic. The maturation of his paradigm is in the second half of its production (the first phase ran from 1963 to 1984), which changed from the previous method, being iterative, toward a fully cybernetic hermeneutics.

This transition takes place in the discussion of major issues (definition of complexity, relations between complexity and contingency, significance and customization), which proceeds from a notion of a system (which in this paper is taken for granted) of Parsonsian origin, and arrives at "theories of balance" of the second order, where the environment is seen as a source of interference. Finally, in its maturity, the theory concerns the approach of "systems open to the environment," characterized by important exchanges between the environment and the system.

The phase we deal with here relates to cybernetic theories of the system "which conceive the relationship between system and environment as a difference of complexity." Problems already partially explored in the 1970s (Habermas and Luhmann 1971).[1]

Beyond the paradigms of the seventies

In "Social Systems," nearly a decade after the publication of his pioneering "Sociological Enlightenment" (1983), Luhmann's logical syntax arrived at exactly the right moment. In a phase where, in some ways, German and Italian academies were ready for a change of course in the analysis of society.

Luhmann operated in the period after the splitting of the School of Frankfurt. That school ceased to exist when, during the 1960s, Adorno dissociated himself from the line in favor of the "cultural revolution" held by some of his colleagues. The European season of youth protests (especially in France, Italy, and West Germany) has in Marcuse its principal reference, with the backing of Habermas. Adorno considered this vast phenomenon of the popularization of a strange kind of Marxism to be unhelpful for the emancipation of the proletarian and working classes. Rather, he sees it as a socio-cultural mystification of the original aims of the critical paradigm. Therefore, upon the death of Marcuse (1979), the important and prolific critical season gravitating around (except in rare cases) the undisputed nature of dialectical and Marxist assumptions was already in decline.

Luhmann interpreted better than others the growing interest in adding complexity to the old system of logical linearity still dominant in vast and heterogeneous areas of the Humanities. The *ipse dixit* of some kind of orthodoxy then counted less and less, whether it was antagonistic or alternative. Luhmann crossed the ford of 1989 unharmed, which, also for

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[1] Luhmann N. and J. Habermas. 1971. *Theorie der Gesellschaft oder Sozialtechnologie—Was leistet die Systemforschung?* Suhrkamp, Frankfurt.

sociology, was a destructive, revolutionary watershed, being unpredictable in its consequences. An irreversible singularity (a term dear to the author) which, however, did not invalidate the consistency of the Luhmann cognitive edifice. An edifice that leans on coherent relativist bases, such as the processes of the system-environment difference and the self-referential system. The sociological attention provoked by Luhmann contributed to the end of the juxtaposition in the paradigm between harmony and conflict, which in Germany and Italy, as stated in the preface to the Italian edition of "Social Systems,"

> …had produced, through each of its terms, two often maddeningly opposed schools of sociological thought, and a vast literature aimed at taking partisan positions for only one of them. In this context, one can explain the polarisation between Marxian materialism and Parsonsian functionalism as well as the so-called "rebirth" of the Weberian school which, since the sixties, offered arguments for both a constructively critical reading of the first and a better understanding of the second, which anticipated essential reasons. In this context Luhmann's thinking is well collocated, aiming, in effect, to define *naturaliter* not only as progress from the alternative Parsons/Marx [i.e. a Marxism without Marx, as has been written] but also further progress, in a Weberian sense. Luhmann uses in fact the key concept of system, to which we will return later, in a way that manages to be, at the same time, "post-Parsonsian" given that, unlike the structural functionalism of Parsons, it claims to focus attention on the dynamic element of the case of function rather than the static one of command structure. It is "post-Marxist" because it considers the evolution of social systems, not necessarily in a conflictual perspective opening into a predetermined outcome, but in a probabilistic perspective, aimed at identifying a number of conditions of social reality both contingent and highly unlikely. "Post-Weberian" because it considers the purpose of social systems in an open perspective, without a subject and then, at least in appearance, detached from the intentions and orientations typical of the social actor. (Febbrajo, op cit.; Luhmann 1990, 13. Author's translation)

The Luhmann innovation involves a theory and a new use of the term "system." With this paradigm the system has become a way to deal with the operation and the systemic problems to an approach called upon to solve. Luhmann calls for a steady increase of communicative varieties, generated by constant self-differentiation processes. There is, at the base of Luhmann's paradigm, a techno-humanistic expectation, important and not surprising: it would be achieved as the result of significant complexity reduction processes. Trust is therefore placed in the subsystems of self-determination capacity. These include the necessary potential to solve the

problems of intrasystemic connections that affect the interchangeability of important informational packages with the environment, while remaining distinct from them.

What system?

For Luhmann there are four types of systems: machines and devices; organisms; social systems; and psychic systems. In turn, social systems are divided into: interaction systems; organizations; and the social system, designed as a unit. Social systems operate with the structure of reduction of complexity, while psychic systems work according to the interest in the meaning (Sinn). Interpreting Luhmann, it could be argued that a system can be called that if and only if it is characterized by: a border, both physical and relational/informational, which separates it from the environment; its own code, which sets it apart from other systems, or from the environment; in addition, within it somewhere, there must operate a device in degrees of regenerating the information and parts of the system, including the possibility of replicating it entirely. Except for energy, the system has all the elements, interpersonal and informational, to constitute by itself what it needs to function (Autopoiesis by Maturana and Varela 1973; to understand this, it is relevant to consider the opposite concept of Allopoiesis[2]). Social systems receive stimuli and suggestions (irritation[3]) from the outside, they respond by treating the reduction of complexity within the incessant flows coming from outside the boundaries of the system. A social system is, by definition, self-organized, has its own autopoiesis and is self-referential. Social systems are always self-referential.

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[2] The analyst of social cybernetics, and Industrial Network expert, Rob Dekkers, explains the procedural structure of allopoiesis as "the process whereby a system produces something other than the system itself. Social organisations, like manufacturing facilities, are examples of allopoietic systems. [Allopoiesis is] an ideal construction of a non-autopoietic system. [...] The main difference between autopoietic and allopoietic systems appears to be the differences in their structures. While the former have the structure that is defined by the relationship between processes of production of elements and subsystems, the latter thus have a structure that is defined by the spatial relations between elements and subsystems" (Dekkers 2015: 161–162).

[3] Irritability can be produced in two main ways: 1) engendering horizons of expectations; or 2) formalizing uncertainty points. These problems are thus perceived as something that the irritated system must resolve continuously (Luhmann 2000, first published 1996, 104. Author's translation).

Another systemic law states that a system cannot operate outside its borders, both relational and, more generally, operational.

The political context during the East-West polarity

To contextualize the reactions and the interest Luhmann provoked, it is appropriate to step back a bit. The sociological profile of Luhmann occupied a definite space in political science processing-ideological hegemony in West Germany. There were two macro-theoretical lines in political science and social hegemony during the Cold War: the first, Western; and then, those opposed to endorsing the socio-cultural model of planned economies.

First of all, on the left, there was the heterogeneous consortium of Socialist and Social Democratic theorists who, in considering the topic of socio-cultural self-reference, expressed skepticism (if not aversion) concerning what came out of the intellectual "workshops" of automation. Functionalist approaches seemed to prove the advent of the mechanization of the observable human being, an actor artificially adapted and emotionally not proactive in terms of sociability. Put another way: the virtual city of Fritz Lang's Metropolis became reality, in many ways, a stranger to the struggle for the emancipation of the socio-cultural and economic life of those who were vulnerable or discriminated against. Through the ruthless lens of the systemic, the plots of sociability disappeared into the background of the fragmentation of meanings. Society seemed to respond to the beehive-only program (endogenous to the system) of self-preservation, de-humanizing and non-partisan. In short, in the robotization of society he feared a nihilistic drift, being also technocratic and totalitarian. What stood out clearly was the deliberate maintenance of divergence with the progressivism of historical movements. The multifaceted vitality of social formations could only be considered threatened by a rigidly closed scheme with a regulatory apparatus completely and independently functional only to itself.

Secondly, the opposition was not much different from the humanists, being of multiple orientations. The views of the liberal and moderate were, also, of opposite tendencies. It was believed that the functionalist theories were polluted (compromised) by technocracy and simplifications, a sociographic reification of the inter-individual. In other words, harbingers of a low index of communitarianism and of an insufficient sense of civic duty. Then, Marxists and non-Marxists converged in the common judgment, given the difficulty of content of these families of theories, which slowed live policy. In fact, forcing the potential of activist

subgroups to over-critical review, a descriptive-mastering difficulty with conceptual problems, even before developing answers that were politically coordinated, economic and incisive.

Such were the substantial criticisms advanced by Habermas and political scientists such as Naschold[4] and the neo-Marxist Offe. These authors believed that the rules and objectives of social harmony in the *agora* would discover citizenship through cooperation and the dialectic of partisan groups and trade unionism. Therefore, these rules were negotiated "on the basis of considerations and values from sectors outside the system [of production] such as, for example, public ethics." On the other hand, as is easily imaginable, there were the systemic sociologists, the most important Anglo-Saxons, read by German experts in their faculties (among others, let us mention Forrester, Deutsch, and the communitarian Etzioni[5]), dedicated, each in his own way, to the first order of closed systems. In particular, Etzioni was an important source of inspiration for the renewed sociology of law, the first specialty of Luhmann.

For the serious sociologist of organizations, social order is not born from the internalization of values and ethical precepts. Order, as a project of power, is obtained through three purely different types of organizational control, which are: 1) the subject of coercion; 2) utilitarian bargaining with

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[4] The well-known political scientist, while not sharing the restrictive nature of the concept of Luhmann's self-controlled democracy, welcomed with great interest "the systemic problem of the notion of power," which Luhmann proposed. In fact, although Luhmann considered Marxism an epistemologically limited doctrine, he manifested functionalist disenchantment, akin to the critical considerations offered by socialist materialism, regarding the "institutions of Western democracy." For this, Luhmann firmly rejected the accusation of being a reactionary conservative. We might include collaboration entertained between critical and systemic thinkers. This convention collocated, albeit for a short time, fruitful dialogue between theoretical and experimental debates and publications. Then there are Naschold's converging interests and various theoretical cybernetic analyses of the relationship between "democracy and social complexity." In this way, the exponents of automation found a connection with the Marxist perspective of "planning policy" (Zolo 1986, X. Author's translation).

[5] See Etzioni, A. 1968. *The Active Society: A Theory of Societal and Political Processes*. New York: New York Free Press; Forrester, J. W. 1969. *Principles of Systems*. Waltham: Pegasus Communications; Naschold, F. 1971. *Organisation und Demokratie. Untersuchung zum Demokratisierungspotential in komplexen Organisationen*. Stuttgart: Kohlhammer; Deutsch, K.W. 1974. *Politics and government. How People Decide Their Fate*. Boston: Houghton Mifflin Company; Offe, C. 1976. *Industry and Inequality. The Achievement Principle in Work and Social Status*. London: Edward Arnold Ltd.

employees; and 3) the involvement of voluntary and altruistic members. As a sociologist of organization, and Etzioni's connoisseur, Bonazzi writes the hypothesis is that there is:

> …a congruent trend between the type of organizational control and the orientation of the subject: a coercive power is likely to match a negative attitude and alienate those who suffer; a power that uses material incentives is likely to match the members' orientation inspired by the calculation of their interests; and finally, a power that includes mostly symbolic resources and regulations is likely to match a commitment by the members of the prevailing moral nature. (Bonazzi 2008, 351–352. Author's translation.)

Yet, like Etzioni, Luhmann is convinced that for the strategies of power there is no need to postulate a consensus on prevailing values. On the contrary, coercive power is based precisely on the assumption that it is only immediate and profitable power that results from the assumption that there is only convenience for all parties, regardless of the values of the societal reference. The abandonment of the nineteenth-century conception of universal consensus based on ethical values recognized (as in De Tocqueville's conception of democracy) makes Etzioni's approach congenial to political theory that includes a structure of the second order. For example, observation of observation is very effective in analyzing the functions of the phenomena of antagonism and dissent, internal to the system. Etzioni writes,

> My main difference with Parsons, however, concerns collective actions. Parsons is a natural scientist in the limited sense that he recognises system links and formations, but not the way these may be restructured by the deliberate actions of social groups and their organized expression, which is my main focus. (Etzioni 2006, 338)

For Luhmann, power is a kind of social subsystem, with its power-code.[6] In general, for the specific purpose of producing outcomes, it is not

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[6] "Therefore we have to begin from the fact that power is recognisable and practicable only if the behaviour of the participants is ascribed to a symbolic code that describes the situation as one of power. Thus, power is present only when the participants define their behavior in reference to a corresponding medium of communication. Accordingly, the theory of power would then have to concern itself primarily with the conditions and consequences of institutionalization [systematization] of such a power-code that is available for typical situations and

useful to develop the main theme opposed to the legitimate or illegitimate. It should be analyzed in reference to its complexity and in relation to the needs and faculties aimed at increasing it.

Even a despotic power can process the resources it needs (including the informational) without its hegemony having to resort to coercive measures. This is neither necessary nor inevitable, at least while the control action is effective in placing the subsystems in a position to cope with the increasing asynchrony between catalysis (acceleration) of change in the system and the even stronger environment. The function of power does not evolve to counteract widespread customary rules or fixations that are surprising, aesthetic or otherwise. Power, defined in various semantic constructs that are often elitist, is most interested in motivating individuals and groups to participate within the different lines of available complexity. It would be idealistic and inaccurate to claim that the main function of power, whether corporatist or oligarchic, can be translated obligatorily in the decrease of social complexity, evident in the limitation of some fundamental freedoms. If anything, the only thing to which it looks, regards the risk of the occurrence of an antagonistic force. The increase of informational entropy, inserted in appropriate contexts of mass consumption, can act as a deterrent for the organization of the challenge to the status quo.

Therefore, one of the purposes of the most underestimated elitist system is functionally equivalent to what is described in Marcuse's famous expression of "repressive tolerance" (1965). This results in a watchful *laissez-faire*, indifferent to everything that does not materially threaten travelers in the driver's seat of society. These travelers untouchable and indifferent to any kind of provocation, especially if formal, nihilistic and/or self-destructive. Tolerance in this sense favors the complexity of social behavior, especially if there are no prospects of radical change.

Luhmann, an observer of postmodernity

Already in his early work, Luhmann stands out as one of the intellectual architects who are more sensitive to social utopias of self-organization. As stated in "Social Systems," his goal is not to counter the materialization of postmodernism, but to observe it as result of systemic complexity: a result of the probabilistic framework of contingencies, both single and double.

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regulates the attribution of causality." (Luhmann 1990, 157. First published 1981. Author's translation.)

In simple terms, going against common sense, the social balance is developed as one of the contingent results of instability. Stability and instability co-evolve systemic evolution. Not only is one indescribable conventionally, if not as the opposite of the other, but both conditions combine to create a permanent contingency. This trend most often proves to be beneficial to social changes considered positive: a better quality of life, balanced foreign trade, etc. Stability, however, is not a fixed point, but rather corresponds to a partial point of view of instability—from which to observe, usually in binary form, systemic products of the upcoming, emerging contingencies. Absolute stability (or finally achieved) is thus a myth, although useful, so that society can describe itself uniquely, without having to know exact data and information relevant to its history, or its real prospects for the future.

The myth of stability is the strategy most used to say, based on indicators taken as reasonable and shared, that "we are now out of the crisis." More often than not, this determines precisely who or what would be situated within, or outside, this ideal condition. But this is not sufficient. Luhmann takes this background process of the complexity of the conflict and, unlike the classical functionalists (especially Parsons), considers it to be a prerequisite to redefining boundaries and interdependencies between systems and environments. It is not the myth of generative chaos that interests him, but rather the interaction of contingencies within the system. Functionalists, in order to describe the status in which they find themselves, frequently use narrative stress and bipolar models (stability/instability, trust/mistrust), which are all self-preservative in their purpose, that is to say, mostly self-reported and seeking justification. Conversely, as has been written elsewhere (for example, by sociologist of political phenomena like Segatori), Parsons, with his rigid logic-conceptual apparatus, has difficulty in coping with the

> …hypothesis of change in non-gradualist and acute conflicts, the functional-structuralist approach for Luhmann seems made to predict how physiological evolution is also more complex, guaranteed by self-modifying systems and two-way interaction with the environment. Whereas, in Parsons, instability is always a nuisance, in Luhmann it is as necessary as stability, because the system reproduces itself not against it, but because of its changes. (Segatori 1999, 107. Author's translation.)

In the interconnectedness of politics, a sense of the personal, professional, and political interpretation of theories, we can say that in the critical school, in its heuristic contrast between classes, the problem is represented by the diffusion of the conflict between classes and by

dialectical strategies put in place to affect the endogenous tendency to exploitation. For Parsons one of the trump cards is the socialization of the values of the state, supported by good reformist practices. However, at the same time there are for Parsons many forces in the field of such magnitude, that it seems strange that society could mutate and coordinate them at the same time. Socialization and education are used, pragmatically, to understand (and encourage) the "miracle of social equilibrium." For Luhmann, on the contrary, there is no sense of mystery to drive his observation of social phenomena as they arise. For that, conflicts and destabilizations are not considerable convoluted processes in themselves: "One must guard against the widespread error of thinking that destabilization as such is dysfunctional. Instead, complex systems require a high degree of instability to enable on-going reaction to themselves and their environment" (Luhmann 1995, 367. First published 1986).

For this reason, the sociologist of Bielefeld can be considered one of the most lucid and detached theorists of late modernity, from whom to extract (as recognized by Habermas himself) conceptual tools adapted to a culture of communication that seems in the midst of a process of abstraction (virtualization) due to the development of technology and the media: a prodigious German sophist. It will be in this version, that of the pure mechanistic exponent of a kind of third way, available between democracy and socialist theories of economic optimization, that will attract the attention of his interpreters, more or less current, to the ideological neutrality of his path.[7]

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[7] Among well-known examples that have appeared in Germany since its unification are: the sociologist of law Gunter Teubner, *Law As an Autopoietic System,* Blackwell Publishers, Oxford, 1993; the historian and sociologist Marie Theres Fögen, *Römische Rechtsgeschichten* (*Religion Entdecken—Verstehen—Gestalten*), Vandenhoeck & Ruprecht, Göttingen, 2002; and the sociologist of cultural management Dirk Baeker, *Form und Formen der Kommunikation*, Suhrkamp Verlag KG, Frankfurt, Berlin, 2005. In France: the systemic philosopher Jean Joseph Clam, *Droit et société chez Niklas Luhmann. La contingence des normes*, (with a preface by Niklas Luhmann), Presses Universitaires de France, Paris, 1997. In the UK, the umpteenth sociologist of law and political commentator of Czech origin, Jiří Přibáň, *The Self-Referential European Polity, its legal context and systemic differentiation: theoretical reflections on the emergence of the EU's political and legal autopoiesis*, in the European Law Journal, 15, 4, 2009:442–461. In Italy, among others, the authors of an important glossary of Luhmann's terminology: Elena Esposito, Giancarlo Corsi, and Claudio Baraldi; *Luhmann in glossario. I concetti fondamentali della teoria dei sistemi*. Milan, Franco Angeli, 1996.

Social cybernetics. A postmodern sociological tradition

The functionalism of autopoietic systems, upon closer inspection, appears to be a special sociological ordering. As neo-tradition is not definable according to the nucleus of a single representative element and not even by a precise, unambiguous correlation between the principal elements that compose it. In contemporary sociological paradigms, there are sets of intellectual choices made on multiple levels of analysis, ranging from abstract elements of order, generally, to elements of concrete order. Between these two terms we have included other elements of institutional ideologies: counter-concepts; metaphor models; modal concepts; abstract laws and a paradoxical contextualization of multiple meanings; methodological assumptions; and observational distinctions. The new systemic wave, therefore, can be understood as a meta-tradition, created and historically defined through peculiar (but also individual) theoretical choices made at every level of research: the conceptual; the methodological; and departmental organization, as was the case in the example of the Faculties of Bielefeld. So, for Luhmann's meta-tradition, the basic theoretical innovation consists of replacing the

> …traditional difference between whole and part with that between system and environment. This transformation, of which Ludwig von Bertalanffy is the leading author, enabled one to interrelate the theory of the organism, thermodynamics, and evolutionary theory. (Luhmann, op. cit., 6–7)

If Weber and Simmel, to define the social unit, used the definition of interaction, Luhmann shifts direct fundamentals of terminology within a progressive socio-cybernetic domain (cybernetics—control theory). In the adoption of a self-organized *episteme*, a neo-Cartesian paradigm is broken, reduced by now to an obsolete *limes*, hitherto impossible to cross even for Parsonians. Except that social cybernetics, for the systemic author Pardi,

> …offers a circular logic, based on observations of observations. The basic principle is that there is never a direct observation of reality: every observation is always a product of an observer who builds knowledge of this reality. [...] Therefore, it becomes a key imperative to focus on the observer and the observation criteria, rather than on observed reality. [...] [Then] the first contribution to systemic epistemology and sociological knowledge regards the very definition of epistemology. Epistemology can be understood as the result of reflection on itself by a discipline. [...] Epistemology is not imported from the outside (for example, from general system theory) but is a part of sociological theory, and therefore also of