The Systemic Approach in Sociology and Niklas Luhmann

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The Systemic Approach in Sociology and Niklas Luhmann: Expectations, Discussions, Doubts

BY

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Contents

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Chapter 1

Introduction: Dream or Myth?

This book is devoted to systems theory, one of the themes of contemporary theoretical sociology. A theory, as we know, tries to offer a rational explanation for phenomena in some area of interest (outer space, nature, society and human beings), and makes use of very general, abstract forms of thought, such as concepts, statements, hypotheses, and laws. These abstractions are used to build logically integrated systems of interpretation that in the true sense of the word can be called theories. The important point is that a theory is not a direct and unmediated description of phenomena in the real world, but rather an attempt to identify and interpret a phenomenon's basic characteristics in idealised and abstract form. Because every instance of scientific research is inherently selective (no research can encompass every aspect of the real world), it is also impossible for any one theory to capture the full complexity of phenomena to which it applies. A theory must therefore somehow manage to reduce this complexity, which is exactly what systems theory, the subject which follows, does.

While today it might seem that systems theory's greatest fame and glory in sociology are long past, it cannot be considered passé, obsolete, and no longer of interest. There is still a relatively broad community of researchers across the world who see systems theory as the best method to understand the complexity of the contemporary world and the various aspects of it. Indeed, as author of this book I must admit that in the past I, too, was deeply attracted to the systems' conceptions of Talcott Parsons and Niklas Luhmann, fascinated in fact, and that it was only over time that a more critical view prevailed. This book is the outcome of that combination of fascination and criticism. The word "dream", used in various chapter titles, is meant to highlight that since it was first formulated systems theory has been tied to certain expectations and visions – most notably, the dream of creating some kind of superconception standing above other scientific conceptions to capture the full complexity of phenomena studied in the most adequate way possible, and unite the natural and social sciences. The dream was to discover a perspective to allow scrutiny of things that had hitherto been hidden, but also to provide a tool leading to a new type of knowledge and, in the spirit of "knowledge is power", to more effectively grasp the natural and social world.

The Systemic Approach in Sociology and Niklas Luhmann: Expectations, Discussions, Doubts, 1–3

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We can also talk of systems theory not just as a "dream" but as a "myth" – as American sociologist Alfred McClung Lee (1965) did in the mid-1960s. Lee claimed that the systems myth reflects the deep human tendency to anthropomorphise society and social entities. An important role in this is played by the belief in popular imagination that human affairs take place in a kind of social organism, a belief that gives people a sense of being integrated with something stable and supportive. This myth acquires the character of a logical plan, giving the impression of being part of some divine project that encompasses everything created. Despite his relatively sharp criticism of the systems concept, McClung Lee realised that sociology needed the right terminology to articulate social reality in all its breadth, complexity, and layeredness. In his view, the concepts that made this possible included society, culture, and process, but not systems.

Being by no means as deeply critical and fundamentally apprehensive of systems theory as McClung Lee was, I do not consider "myth" – at least in the sense that he used it – the appropriate word. After all, "system" has become an expression so at home in our language today, encountered in many writings of sociologists who do not espouse systems theory at all, and found in contexts where it would be difficult to replace it with any other term.

What can be considered the most important, but also the most problematic, aspect of the systems concept, is that it seeks to capture processes that occur on the macrolevel of social reality. In contemporary sociological theory, where most attention is directed at the sphere of methodological individualism and different branches of interpretative sociology, this kind of theoretical analysis of processes on the macro-social level is seriously lacking (leaving aside certain methods used in historical sociology). Consequently, it is not unusual to come across what are essentially systems-type (or functionalist) arguments even among researchers who on the surface distance themselves from these concepts but in their (creative) work essentially have nothing else with which to replace it.

It is often said that philosophers like systems, but that before they start studying them they want to dictate the rules of their nature. In order to avoid this temptation and problem, we will examine our subject from a historical and sociological perspective and with a certain critical detachment. This book comprises several chapters that successively build on each other. The first chapter focusses briefly on developments leading to the emergence of a general theory of systems and the circumstances in which it began to advance more dramatically after the Second World War. Because many researchers associate the starting point of thinking concerning systems with holism, the second chapter will remind us of the holistic perspective in sociology and what kind of conceptual opposite it forms in relation to the individualist line of thinking. In trying to resolve the relationship between individualism and holism we follow the path traced out by the twentieth century American sociologist Talcott Parsons, who popularised and addressed the subject of social systems in sociology in significant detail. The fourth and most comprehensive chapter represents the focal point of this study, an in-depth treatise on the systems sociology of German scholar Niklas Luhmann and its individual aspects. A critical engagement with Luhmann's ideas serves as the primary point of orientation for the thoughts presented in the book's final chapter, where the

fundamental importance of macro-sociological analysis will be highlighted while demonstrating how the approach applied to date to systems theory on the macro-sociological level has been problematic, simplistic, and unsatisfactory, and, in contrast, how new thinking in macro-sociology could help overcome existing simplifications and lead to a new and revised way of formulating a sociological theory of social systems.

The content of this book in many respects ties in with the recently published *Individualism, Holism and the Central Dilemma of Sociological Theory*. The approach explored further in this book was there referred to as "critical reconfigurationism" (Šubrt, 2019, p. 16). It is important to note here that this is a conception of sociology that seeks to overcome the traditional theoretical dualism tied to the opposition between the individualist and holistic approaches. What is distinctive in this is that it understands sociology as the science of social processes, with the term social process applied to a whole array of social actions that occur on every level of social reality, varying not only spatially but also temporally. This conception of sociology is dynamic, not static, but that does not mean we cannot look for structural principles in dynamically occurring processes. It is worth reminding ourselves that our attention is centred on the kinds of processes that unfold on the macrolevel of social reality.

In conclusion, it remains only to voice the hope that this book will be both informative and entertaining for readers, and that they will find on its pages many new and meaningful viewpoints, ideas, and sources of inspiration for their own ruminations on the processes that shape contemporary society.

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Chapter 2

The Dream of a United Conception of Science

The germs of sociological thinking existed even before sociology emerged as an autonomous scientific field. Both in its early stages and later, it often developed under the influence of certain metaphors that served as meaningful inspiration and acted as important heuristic tools. Since the time of Aristotle, for instance, attributes of living organisms have been projected onto the world and its various parts. This can also be seen in the approach taken to society, understood as a living creature. In medieval thought, analogies were made between the individual components of society and various parts of the human body. As well as physical metaphors, in early literature we also find the ideas of a building, city, or castle being used as metaphors for society, and later came the emergence of the metaphor of a machine.

2.1. The Rise of Systems Theory

At the end of the nineteenth century Herbert Spencer (1896) introduced a conception that gained influence, in which he made an analogy between biological and social organisms in terms of an evolutionary process through which these become more and more internally differentiated and complex over time. Albert Schäffle, the author of the four-volume study *Bau und Leben des sozialen Körpers* (Schäffle, 1875–1878), also made use of an analogy between society and the body. Other proponents of this line of sociological thinking included René Worms (1896), who published *Organisme et société*, Jacques Novicow, and, most notably, Paul von Lilienfeld. The term organism was then replaced over the course of the twentieth century with the term system. An instrumental role in this was played by the biologist Ludwig von Bertalanffy, who was the first to describe biological organisms as open systems. He then gradually elaborated systems thinking into a general theory of systems – a theory that made it possible to view the biological body, a machine, or even society and its individual components, as systems.

This style of sociological thinking typically understands social reality as similar to the natural reality studied by hard sciences. The term "system" can be roughly illustrated by analogy with the human organism, whose structure is made up of

The Systemic Approach in Sociology and Niklas Luhmann: Expectations, Discussions, Doubts, 5–13

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individual organs that perform specific functions designed to preserve and benefit the organism as a whole. Analogously, sociology deals with the social structure by breaking down society (the system) into the parts which create the whole entity through reciprocal ties, connections, and interactions. Examples of this include the stratification model, where society is broken down into social classes and strata (the concept of stratification was itself drawn from the natural sciences and applied metaphorically in sociology), and Ernest Burgess's model of concentric urban zones (in name and appearance resembling early models of the cosmos). The usual explanation for the formation of these structures is through processes of differentiation (social differentiation in Herbert Spencer's case, functional differentiation in the cases of Talcott Parsons and Niklas Luhmann), which occur as a result of a spontaneous process of evolution that occurs in similar (though not identical) ways in both nature and society.[1] This type of explanation is typical for positivism in particular, but also common in functionalism, which was linked in its development to positivism.

The early stages of functionalism tend to be associated with the ideas of August Comte, Herbert Spencer, and Emil Durkheim (1997 [1893]). However, an instrumental role was played in the formation and spread of functionalism in the social sciences by British cultural anthropology and two of its most prominent figures, Bronislaw Malinowski and Alfred R. Radcliffe-Brown, whose approaches draw analogy between social functions and human needs (Malinowski, 1990 [1939], pp. 5–7; Radcliffe-Brown, 1990 [1935], p. 30). Just as humans, to survive, must ensure that certain needs are met, certain functions in society must be executed and are essential if a society is to continue to exist, work well, and evolve; a function is understood here as the contribution of one part of a system to the maintenance of the system as a whole. Applying functionalist methodology thus involves examining the individual parts of a system (subsystems) from the perspective of their specific contributions (i.e. functions) to maintaining the whole.[2] The emphasis here is on integrity and equilibrium.[3]

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[1]In some cases, however, consideration is given to the conscious, deliberate formation of social bodies, that can then be understood and explained analogically to the construction of a building or a shared house – the construction of the nation or the nation-state, for example, can be viewed in this way.

[2]We should add that it was the revised version of functionalism, developed by Robert K. Merton that led to functionalism becoming influential in sociology. Merton set out from the viewpoint that small cultures, which are studied by cultural anthropologists, tend to be more integrated and exhibit greater solidarity than industrial societies, which are sociologists' main subject of interest. When studying modern societies, however, it is necessary to take into consideration even those tendencies that lead towards disintegration. For this reason, Merton critically examined the principles of anthropological functionalism and classed their functions based on what consequences they have for the social system into two groups: (1) he called those actions that lead to positive consequences for the system positive "functions" – these functions are conducive to the stability of the social system; and (2) he called those actions that have negative consequences 'dysfunctions' – these functions are disintegrative in nature, engender disharmony and social tension, and thus anomic phenomena (Merton, 1967, p. 51).

[3]With Parsons, as we shall see further below, this imbalance is viewed analogically to the biological concept of homeostasis.

2.2. A General Theory of Systems and Related Disciplines

The original Greek word *systéma* meant a grouping, a uniting or whole. The idea of a system as a kind of order or orderly arrangement arose much later. Systems conceptions and thinking advanced in the eighteenth and nineteenth centuries with the effort to create classifications of phenomena in the sciences. These classification processes involved arranging factual material into a certain organised "system", examples including Linnés system of plants and organisms (1735) and Mendeleev's periodic table of elements (1871).

Closer in sense to the current conception of system is the understanding that appeared in the eighteenth century with the rise of so-called "mechanical materialism", advanced by Julien Offray de La Mettrie, the author of *L'homme machine* (1748), Étienne Bonnot de Condillac, the author of *Traité des systèmes* (1749), and Baron d'Holbach and his book *Le Système de la nature* (1770).

It was in the twentieth century, however, that use of the term "system" truly took off, with the development of a general systems theory, cybernetics, and mathematical modelling, all of which examine systems as complex, dynamic entities. General systems theory, associated with the name of Ludwig von Bertalanffy, began developing in the 1930s, initially in the field of biology. Shortly afterwards, however, it became a universal scientific conception and methodology to be utilised not just in the natural sciences but also in sciences with humans and society as their focus. After the Second World War, references to social systems emerged, primarily influenced by the sociology of Talcott Parsons (1966b [1951]). Niklas Luhmann (1984) elaborated and developed this further and popularised it in many of his writings.[4] Even before Parsons, however, the term "system" appeared in the work of the Russian-American sociologist Pitirim A. Sorokin, a former colleague of Parsons' at Harvard University, who in his four-volume *Social and Cultural Dynamics* (Sorokin, 1937–1941) worked with the idea of sociocultural super-systems and their individual subsystems.[5]

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[4]In Germany, Parsons' ideas were taken up not just by Luhmann, but most notably by Richard Münch (1987), who was more faithful to Parsons' theoretical legacy and did not depart from it as markedly as Luhmann did.

[5]P. A. Sorokin (1937–1941) distinguishes three general types of culture, which he calls cultural super-systems. Each of these super-systems is internally divided into five main subsystems: language, religion, ethics, science and fine arts. The first type is Ideational culture, the second is Sensate culture, and the third is Idealistic culture. Ideational culture has a spiritual nature and its highest value is grounded in God. The primary cultural needs of the people are spiritually oriented. The Sensate culture has a materialistic character. It puts emphasis on material needs, whose satisfaction is achieved by transforming the outside world and nature. The Idealistic culture is multidimensional and represents a synthesis of ideational and sensate culture. It is a culture in which spiritual and material needs both have their place and which therefore develops not only on spiritual but also material levels. Sorokin considers the alternation of the mentioned three types of culture the most general tendency of historical development. It must be emphasised that according to Sorokin this rotation has neither

The founder of general systems theory, Ludwig von Bertalanffy, was born in 1901 in Austria, in the municipality of Atzgersdorf, not far from Vienna, and died in 1972 in Buffalo, in the United States. He studied at universities in Innsbruck and Vienna. As a biologist he specialised in physiology and was especially interested in the general characteristics of living organisms. At the start of his career he attempted to develop a general theory of biological organisms, conceived of as organised entities. He then proceeded to envision each living organism as an open system, that is, a system in a constant process of exchange with its environment[6] (the term was first used in 1929 by chemist Raymond Defay in the context of reflections on thermodynamics, and began to be used in biology thanks to Bertalanffy in the early 1930s).

After the Second World War Bertalanffy worked at universities in England, Canada, and the United States. He based his approach on the assumption that living organisms are open systems that exchange matter, energy, and information. Consequently, they cannot be described using ordinary physical models created for closed systems (such as factory machines). Bertalanffy gradually progressed from this viewpoint towards a more general goal, which was to create a *general theory of systems* (Bertalanffy, 1968; Buriánek 1983, pp. 34–40).[7] This was first developed as a branch of mathematical logic focussed on deducing and formulating principles that apply to systems in general. The studies that Bertalanffy wrote are thus replete with mathematical symbols, equations, and formulae. Conceived in this way, it was intended as a kind of transdisciplinary super-conception, a theoretical and methodological starting point not just for biology but for a whole range of fields – the social sciences and humanities as well as the natural sciences.

One of the essential ideas of Bertalanffy's general theory was holism (from the Greek *holos* – whole),[8] according to which a system – as a kind of structured and organised whole – is more than just the sum of its components and parts, with specific qualities as a whole that cannot be reduced to individual parts.[9]

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legitimate course nor a historically binding logic of successions. Fluctuation does not have a rhythmic nature and the duration of each type of culture may be very different.

[6]While closed systems, such as those dealt with, for example, by thermodynamics, tend to develop towards entropy, open systems are, thanks to the exchange of matter, able to avoid this and to evolve in the direction of increasing internal complexity.

[7]Room only opened up for Bertalanffy to develop this theory after the Second World War and on the American continent. In 1954 the Society for General Systems Research was founded, and in 1956 the *General Systems* series edited by L. v. Bertalanffy began to be published.

[8]Holism is a branch of thought that has its own tradition in philosophy and the sciences, a tradition often associated with the name of statesman and philosopher Jan Christiaan Smuts, who in the 1920s published *Holism and Evolution* (Smuts, 1961 [1926]), and physiologist John Scott Haldane, who several years later published *The Philosophical Basis of Biology* (Haldane, 1931).

[9]Water is often used as an illustrative example: under ordinary conditions it is a liquid, even though both of its components – oxygen and hydrogen – are gasses.