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Contents

FRITSCH, Johannes: Introduction and Short Summary of the Workshop	7
Evening Lecture / Abendvortrag	
HACKER, Jörg: Eröffnung des Abendvortrags	13
SCHUSTER, Peter: Vom Modell zur Steuerung – Sind wir überfordert von der Komplexität der Welt?	15
Diskussion	26
FRIEDRICH, Bärbel: Opening Remarks	29
Session 1	
NÜSSLEIN-VOLHARD, Christiane: Gradient Models in Developmental Biology: A Historical Perspective	33
FIGGE, Marc Thilo: Systems Biology of Infection	45
Session 2	
SINGER, Wolf: Real Neuronal Networks: Resilience Despite or Because of Complexity?	55
BURGARD, Wolfram: Autonomous Intelligent Systems in Robotics	63
Discussion of Session 2	68
Session 3	
ELINAV, Eran: Host Microbiome Interactions in Health and Disease	75
WIEGAND, Thorsten: Modelling Ecosystems – From Plant to Animal Communities	83
Discussion of Session 3	92
Session 4	
COUZIN, Iain: Modelling Biodiversity and Collective Behaviour	97
STICHWEH, Rudolf: Evolution and Control of Society	109
Discussion of Session 4	116

Session 5

LENGAUER, Thomas: Modelling Viral Infections and the Development of Drug Resistance	121
BROCKMANN, Dirk: Global Connectivity and the Spread of Infectious Diseases	129
Discussion of Session 5	137

Session 6

KIRMAN, Alan: Modelling the Economy as a Complex Interactive System: Unintended Consequences	141
HELBING, Dirk: The Dream of Controlling the World – And Why It Is Failing	149
Discussion of Session 6	162
LENGAUER, Thomas: Closing Remarks	165
Short CVs (Speakers and Chairs)	167

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The presentations and discussions were edited for readability and summarised (FRITSCH and BORCHERT). They therefore do not appear in direct speech.

Evolution and Control of Society

Rudolf STICHWEH (Bonn)¹

Abstract

The history of human social systems illustrates that societies can be small or large social systems, from hunter-gatherer societies to states, civilisations and, finally, to contemporary world society. However, they all share common defining features such as self-sufficiency and self-reproductive closure. In sociology, descriptions and analyses of society are primarily based on two analytics: different forms of differentiation of society and different modes of sociocultural evolution. The interplay of differentiation and evolution in the history of human society shows that there are also different types of societal control: control by structures/memories resulting from evolution, control by goals, and control by normative and cognitive expectations. Society obviously consists of billions of control projects which reciprocally limit their probabilities of success. Therefore, it is much more probable that actors are controlled by society than that some individual or collective actor may be able to control society. Sociology is a historical science, like evolutionary biology, and as such is not about anticipatory control but explaining how and why things happen.

1. What is Society?

For sociologists, society is a very important concept. In the last 2,500 years, from ARISTOTLE to Niklas LUHMANN, there has been a remarkable consensus on the principal characteristics of societies. Of course, words change; during the antiquity the word ‘society’ did not yet exist. Instead, *koinonia politike* was the term used. ARISTOTLE characterised society as self-sufficient, meaning that to exist, a society does not require any external input, such as resources or information. This is probably the most traditional definition of society. In our days, sociologists and social theorists characterise society as a system of self-reproductive closure: whatever societal structures and processes exist, they are produced not from outside but always from within society.

What is happening in a conference room is clearly a social system. But nobody would call it a society. The city of Weimar, where this conference is held, is also a social system, but again, Weimar is not and never was a society. Society always seems to be the most encompassing social system, comprising all the other social systems.² Furthermore, a society always has a spatial dimension; we understand society as the spatially most extensive social system.

¹ University of Bonn.

² Cf. the first edition of the *Encyclopaedia Britannica*: Art. Society, Vol. III, p. 614: “The social principle in man is of such an expansive nature, that it cannot be confined within the circuit of a family, of friends, of a neighbourhood: it spreads into wider systems, and draws men into larger communities and commonwealths; since it is in these only, that the more sublime powers of our nature attain the highest improvement and perfection of which they are capable.”

2. Types of Societies

There are four major types of society in the history of human social systems:

- Hunter-gatherer societies,
- States,
- Empires and civilisations,
- World society.

Human societies can be very small indeed and can consist of only a few dozen individuals. These small societies often live in self-sufficient ways, self-reproducing all the constitutive social structures and processes. Tens of thousands of years ago, hunter-gatherer societies were the only type of society, with thousands of small bands distributed over the earth. They were self-sufficient and did not have intensive contact with others. For this reason, it is adequate to call them societies.

Then, eight to ten thousand years ago, the second autonomous type of society arose. Anthropologists call them states. This anthropological concept of ‘state’ differs significantly from the way historians conceive states. For most historians, states are the territorial, mostly monarchical states of medieval and early modern Europe, and this implies the later global diffusion of this form. For anthropologists, though, states are coupled to the rise of agriculture and to political and religious role structures arising in agricultural societies.

Over the last four to six thousand years, two new kinds of society arose, called empires and civilisations. Empires integrate numerous other societies (states and hunter-gatherer societies) based on political and military means and empires are often of short duration as wars are going on in them all the time. Civilisations are primarily defined by cultural boundaries. China is a remarkable example of a civilisation existing for at least 2,500 years. And Europe became a civilisation around 800 A. D. in defining itself as *res publica christiana* in contrast to the Islamic world and adding ever new social and cultural structures in the following centuries.

Today, sociologists advocate the hypothesis that the societies of the world have merged into one large world society, consisting of 7.5 billion human individuals and billions of social systems (families, interactions, networks, organisations, function systems) in which these individuals participate by being partially included in them. If the hypothesis of world society is correct, then there is no sociality and no socially relevant information outside of this one system. In some respects, one could say that this world society obviously is a very risky social structure, because if something goes wrong in this large social system (climate problems, nuclear war), it cannot be corrected by other societies evading these problems and finding better solutions. In any case, the idea of world society appears to be the most promising hypothesis for describing the present-day social world (STICHWEH 2000, 2007).

3. Describing Human Societies by their Structures of Differentiation

In sociology, social theory, anthropology, and history, there are many theories and methods for describing and analysing social systems. In the cognitive traditions of sociology as a discipline, there are two major approaches for the description and analysis of (whole) societies: differentiation theory and the theory of sociocultural evolution.

Looking at the forms and processes of internal differentiation of society (= building of systems internal to systems) has functioned for 150 years now as one of the most prominent strains of social theorising LUHMANN (1982). There are different forms of differentiation of society. The earliest and most elementary form of differentiation is segmentation. At the end of the 19th century, Herbert SPENCER and Émile DURKHEIM agreed that segmentation is the form of differentiation of hunter-gatherer societies. On the one hand, there are loose associations of several very similar segments (similar role-sets with a small number of different roles) forming one society. But, with circumstances and ecological conditions changing, segments can be separated again and one segment is then able to exist as one autonomous, self-sufficient society.

The second form of differentiation is called stratification, a social form characteristic of states, empires and civilisations. It is one of the major principles in the history of human social systems. Stratification means that the whole population is divided hierarchically into large collectivities. Such collectivities can be estates, classes and castes. Inequalities among these collectivities are the most important feature of social structure. For individual members of society, these collectivities are total systems encompassing all aspects of their way of life in the respective collectivity.

In India, for instance, there are still castes based on lineage, creating a very complex stratified society which, besides hundreds of castes, consists of hundreds of tribes. It is still customary to marry into your caste or your tribe. But India erected a super-structure that contains the system of castes and tribes, a democracy which in its strategic roles in politics and administration is based on selective participation of members of castes and tribes. In this respect, India seems to be unique among the world's countries. In Europe there never were castes, but instead estates, or what is in French *états* or in German *Stände*. Whereas castes are based in ethnicity and regional origins, estates combine hierarchical rank with societal functions. There are the clergy, the aristocracy bound to military and political functions, the bourgeoisie and finally the agrarian groups in society. This is the typical set of estates in early modern Europe.

The third type of differentiation in the history of society is a centre-periphery structure, which is complementary to stratification. You can find it all over the world. There are centres of social life, which function as centres in the emergence of societal systems. With growing spatial distance from the centre, the degree of integration into society decreases. For example, if you look at 16th-century Russia, it was not really an empire yet. There, the state was built around one major city, Moscow, and the laws of Russia were primarily meant for and sanctioned in Moscow. The peripheries were very weakly integrated into this early modern Russian society. Only from the 17th century on were the peripheries slowly integrated into the emerging Russian empire (RAEFF 1983).

In present-day world society, we live in neither a segmentary system nor in a stratified society nor in a centre/periphery structure, although all these differentiation forms exist as secondary structures in the present-day world. India is a good example for the continuities of stratification; families and states illustrate the continuity of segmentation as a principle; and there are centre/periphery-relations to be observed as internal differentiations of the economy and of other function systems of world society. But all the mentioned cases of differentiation are not the first order, dominant structures of contemporary society.

For the first time in the history of human social systems, we live in world society as an everyday, non-negotiable reality. World society is characterised by something which sociolo-

gists call functional differentiation.³ It consists neither of strata nor of social collectivities, but of communication systems to which individuals contribute but do not belong: communication systems such as the economy, the polity, science, education, religion, law, and art, to name just a few. The economy is a function system that comprises all communications which are related to prizes, payments and other structural components. The polity is a wholly different system comprising states, elections, referenda, and in democracies the universal inclusion of everyone as voter and in some respects even as a potential political actor in a responsible position (STICHWEH 2016). Science is yet another function system which is completely different from the polity and the economy. Functional differentiation is the primary form of differentiation of world society. All the function systems are clearly world systems.

4. Describing Human Social Systems as Being Based in Sociocultural Evolution

Describing a society by its structure of differentiation seems somewhat static. Indeed, looking at structures of differentiation means looking at stabilised results of sociocultural evolution. Therefore, social differentiation is only a part of a more encompassing social process which we call sociocultural evolution. Sociocultural evolution must be distinguished from biological evolution. Biological evolution is responsible for the diversity of plant and animal life on earth and this includes the emergence of hominids and finally *Homo sapiens* and insofar the anthropological preconditions of human social systems. Darwinian biological evolution may in some very limited form still be relevant for a few aspects of behaviour in contemporary society. But at some point in history, some ten thousand years ago, sociocultural evolution took over, realising a completely new type of information transfer that transformed the history of human social systems.

Looking at (transgenerational) information transfer or information inheritance, we speak with regard to the distinction of biological evolution and sociocultural evolution from a duality of inheritance theories (BOYD and RICHERSON 1985, RICHERSON and BOYD 2005). Both theories are about transferring and storing information. But the mechanisms of transferral and storage are radically different in the two cases. In sociocultural evolution, transfer is always based on communication, and there are many forms of communication, all of which are relevant, for example teaching and learning, persuasion, and the more indirect forms of communication and observation, which then induce imitation in others. Sociocultural information is stored in expectations, rules, institutions, and other kinds of social memories. All of these storage mechanisms are somehow sets of condensed information and in sociocultural evolution they take the place which is claimed by the (human, animal) genome in biological evolution.

In looking at structures and transformations of sociocultural evolution, learning and education are especially interesting institutions. Simple and complex forms of learning function as memories in sociocultural evolution. And education specialises on the transfer of this stored information. This happens in everyday living in the educational practices in families, but it is intensified in the educational activities of schools and universities. And when schools and even universities in the last 250 years became near universal institutions that included everyone, this established a more extended availability of plural forms of sociocultural memory.

³ On different theories of functional differentiation: STICHWEH 2013, THOMAS 2013.

But the near universal replication of the ‘same’ memories doesn’t function as a safeguard against changes in these memory elements. Instead, it makes it much more probable that in these processes of transfer changes of variations occur and some of these variations are positively selected and institutionalised.

There is an obvious coupling of sociocultural evolution and differentiation. Differentiated social systems are the most stable forms of storage of sociocultural information. In segmentary systems, the whole society as a relatively undifferentiated unit functions as the storage of the information structures from which these societies are built. In stratified societies, there are very different cultures of information which distinguish the strata from one another. And, of course, in stratified societies, there must exist some semantics, institutions (e.g. property and forms of servitude), personal mobility and interactional practices which guarantee that the strata are still part of the same society.

In functionally differentiated societies, there is again a need for societal semantics which integrate society and for techniques and institutions which are orthogonal to functional differentiation. Nonetheless, most relevant sociocultural information is built into the structures of highly autonomous and highly complex function systems. And, in some respects, the autonomy of function systems is so advanced that it becomes realistic to postulate evolutionary processes of their own for many of the function systems of contemporary world society. We can observe economic evolution (NELSON and WINTER 1982), the evolution of science (CAMPBELL 1988), legal evolution (STEIN 2009) and the evolution of art (LUHMANN 1995). These autonomous evolutionary processes bring about their own mechanisms of variation and their own selection environments, all of them internal to the respective function systems.

5. Modes of Control of Society

Is it possible to control society – a society described on the basis of structures of differentiation and processes of sociocultural evolution? First of all, we have to know what the concept of control means. If you look at an organisation, you may have a controlling interest in this organisation. This will normally mean that if in a conflict situation in this organisation a vote on a certain decision should become necessary, you will be in a position to enforce your will. However, this may be true in an organisation but would be an unrealistic understanding for a society or a functional subsystem of a society where no actor will ever have a controlling interest. Therefore, we need a more modest concept of control in looking at society. We could speak of limitations of possibility and of a space of alternative courses for a system which is definitely limited by control positions in society.⁴

In this understanding, all structures of a system and all selective features of internal and external environments have a somehow controlling influence on society. It is never about determination which looks only at one solution and enforces this one solution, but only about a selectivity which limits the space of possibilities.

⁴ The most systematic concept of control in sociology has been formulated by Talcott PARSONS. He works with a binary distinction of ‘information’ and ‘energy’ (which he took from Norbert WIENER) and understands control as the use of information for controlling energetic aspects of the realities of systems. This understanding is well compatible with our understanding here, to look at control as something which resides in structures and memories (= stabilised information); PARSONS 1977.

Under these premises, there are many modes of control. One can try to control a system with goals and then one will select actions and strategies of which one believes that they allow approximations to these goals. It is, again, not direct determination but a selection among alternative options. And one can try to control society by expectations. There are normative expectations and cognitive expectations. In the case of normative expectations, one will normally announce these normative expectations and will threaten some sanctions which one will use if these expectations are not met. Regarding cognitive expectations, somehow it is the other way around. Cognitive expectations regard states of the world and formulate how one expects these states of the world to be. But in formulating them one makes clear that one will change cognitive expectations if the respective states of the world prove to be otherwise. Therefore, cognitive expectations are no way to control society. It is exactly the other way around. By formulating cognitive expectations, one makes clear that one is willing to be controlled by society and one will change one's own state depending on the changes of state occurring in society.

To be controlled by society is nearly always much more realistic than to hypothesise that one can somehow control society. And there is one last remark which should be made. There are always control projects which accept the limitations and fulfil the conditions stipulated in these few remarks. But there are always many of them instituted by many individual and collective actors. And in this plurality of control projects lies at the same time their most important limitation. What none of these individual and collective actors can anticipate are the many other control projects which are instituted concurrently. And this is the point where sociocultural evolution takes over once more and is selective and determinative in shaping the conditions of success for these competing projects in a way that no one can anticipate. Therefore, in the end, sociocultural evolution is the force which brings about results which nobody anticipates or predicts and which can only be understood when they are realised and cognitive expectations are restructured. Sociology as the science of sociocultural evolution then becomes – like evolutionary biology (MAYR 2004) – a historical science which does not know how to control society but mainly has to wait until something has come about and then – retrospectively – often is able to explain why it happened. And historical explanation does not mean explanation by one reason or cause, but explanation by a long and useful list of conditions (DIAMOND 2017) which participated in bringing about something relevant.

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