

“Systems Theory, Societal Contexts, and Organizational Heterogeneity”

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Introduction

From the outset, attention to the embeddedness of organizations in wider societal contexts has been a trademark of the new institutionalism in organizational analysis. Different strands of neo-institutional analysis converge in continuing this Weberian approach to the study of organizations by focusing on the co-evolution of organizations and their societal environments. This general point of departure is shared by both the macro-sociological and the inter-organizational perspectives on organizations. The former, which has been elaborated by John Meyer and his students, assumes that organizations are shaped by the broader social and cultural forces of a global society. The latter, which has become most prominent in the concept of organizational fields, sees organizational behavior as intimately bound to other organizations in their field. Both approaches differ with regard to many aspects, most notably the level of abstraction and the role attributed to organizational agency. Nevertheless, they both lead to an overemphasis on homogeneity and convergence, triggered by world societal forces or by those forces operating within an organizational field. As organizational research has increasingly begun to question this overemphasis and to allow for more heterogeneity and variety, more and more neo-institutional scholars have looked for conceptual remedies against this bias. The concept of the institutional entrepreneur seems to play a crucial role here, as it helps explain why organizations which operate under the same circumstances do not always become similar. By focusing on the micro-level of individual actors, however, the basic feature of the new institutionalism in organizational analysis, i.e., the analysis of interrelations between organizations and their broader societal environments, becomes less pronounced. We clearly see both the necessity of allowing for more heterogeneity and variety in neo-institutional research and the conceptual problems revolving around analyses highlighting the role of institutional entrepreneurs. Therefore, we would like to present a macro-sociological alternative to the currently debated micro-level approach to heterogeneity and variety.

In contemporary European macro-sociological theories, the argument that modern society can only be perceived as being composed of different, at times conflicting spheres, and not as a homogeneous set of principles is well established. Pierre Bourdieu has distinguished between different societal fields (for example, economy, education, arts, mass media, and politics). Albeit these fields may both overlap and be composed of diverse subfields, they are characterized by distinct norms, values, and rationalities. Bourdieu's fields are conceptualized as arenas for competition whose "rules of the game" can be modified by powerful actors. It is important to notice, however, that success in one field cannot easily be translated into other fields. In his much cited book "Distinction: A Social Critique of the Judgment of Taste" (Bourdieu 1984), these limits to convertibility become obvious as Bourdieu delineates cultural barriers to the new rich, whose possession of economic capital does not lead to a similarly developed distinction of taste. Not unlike Bourdieu, Anthony Giddens (1984) has distinguished between different social institutions based on their modularities of structuration. Specific combinations of rules and resources constitute political, economic, legal and other institutional domains on the societal macro-level. Though Bourdieu and Giddens could be of great help in developing a theoretical perspective for organizational institutionalism, in which differences, not homogeneity on the societal level are highlighted, we will focus on Niklas Luhmann's systems theory for this purpose.¹ Luhmann has placed a much greater emphasis than the other authors on the fact that modern society is defined through autonomous, functionally differentiated societal systems (economics, science, politics, religion etc.), which follow a very distinct logic (Luhmann 1995, 1997). To point out precisely this characteristic of his theory, an American collection of some of his articles appeared under the title "The Differentiation of Society" (1982). In addition, and in contrast to Bourdieu and Giddens, from his early writings up to his later work Luhmann has also been an organizational sociologist (Luhmann 1964, 2000). According to Luhmann, modern society

¹ But see Hasse/Krücken (2005a: 85-94) for a closer look at Bourdieu and Giddens from a neo-institutional point of view.

can only be fully understood when taking into account the expansion of formal organizations – in all societal systems over time and on a global scale (see Hasse/Krücken 2005b).²

We would like to develop our argument in four steps. First, we will reconstruct both the macro-perspective and the field approach in neo-institutionalism. According to our analysis, they both lead to a similar overemphasis on homogeneity. Only in this context can the search for concepts allowing for heterogeneity and variety be understood. As we will see at the end of part 1, the neo-institutional figure of the institutional entrepreneur could be seen as a result of that search process. Second, we will reconstruct Luhmann's perspective on society with its strong emphasis on differences between societal systems. As we will argue, from this perspective modern society can only be reconstructed as a multidimensional project. This orientation could counterbalance both the bias towards convergence inherent in neo-institutional analysis and the recent emphasis on institutional entrepreneurs. Third, and in order to fully grasp the interrelatedness of societal and organizational trajectories in Luhmann's work, we will discuss the basic tenets of his contributions to organizational sociology. In the fourth part, we will then demonstrate that Luhmann's macro-perspective can offer insights into societal differentiation, which are also valuable for the concrete analysis of organizations in society. With the help of two examples we will exemplify the similarities and differences between the macro-sociological perspective in the new institutionalism and Luhmann's systems theory. In the end we will briefly discuss the implications of our analysis.

1. The new institutionalism: homogenizing forces in society and organizational fields

1.1. The macro-perspective: global diffusion processes and the rationalization of society

² It should be noted that Luhmann has also developed a specific micro-foundation of organizational theory, which offers further perspectives for a comparison with the new institutionalism (see Hasse 2005).

The macro-sociological strand of the new institutionalism has been elaborated mainly by John Meyer over the last thirty years (Krücken/Drori 2007). He assumes that modern society is not a concrete and hard-wired structure composed of actors. It is rather a broader and imagined cultural system, in which the main cultural patterns of Western society – like universalism, progress, and equality – are embedded. This cultural system is inherently globalizing. The driving forces of societal development are, therefore, not actors and interests as typically assumed. The causality is not “bottom up”, but rather “top down”. Society as the embodiment of broader cultural norms constitutes its actors. With its strong phenomenological and “culturalist” emphasis, the macro-perspective in neo-institutional research is a strong antidote against all kinds of realist, individualistic and actor-centered social theories, currently prevailing in American sociology (Jepperson 2002; Krücken 2002).

According to Meyer, the cultural system of society constitutes three types of modern actors: nation-states, organizations, and individuals. Though organizations are of paramount importance in Meyer’s macro-sociological institutionalism, from the perspective of organizational research it is striking that they mainly have the status of a dependent variable in this theory context. The cultural shaping of organizations is mostly emphasized in Meyer et al. (1997). Here, the authors criticize dominant interpretations of globalization in which (a) globalization processes are interpreted as an aggregate effect of state activities, and (b) state activities are considered as an outcome of individual and organizational action within nation states. Against this perspective, Meyer et al. (1997) argue that organizations are considered to be shaped by their wider socio-cultural environment.

Though Boli/Thomas (1997) have put more emphasis on the effects of organizations, they take a similar view. Their main argument is that organizations of a specific type – international ones of the third sector (i.e., non-governmental and non-profit) – serve as agents of world culture. The norms and cognitive schemes of the latter, then, are supposed

to profoundly affect any modern state and organizations of all types. The legitimacy and power of international organizations, so the argument goes, stems from their status as institutions which are driven by universal ideals instead of utilitarian interests.³ As in the case of Meyer et al. (1997), the authors identify a cause/effect-relationship between states, organizations, and individuals on the one hand and a broader global culture and its organizational representatives on the other. According to this perspective, the former is the outcome of the latter. In addition, even the most influential organizations are seen as carriers of broader cultural norms, enacting and enforcing them, but not as independent actors in society.

This macro-perspective on the relation between society and organizations has led to one of the most fascinating contemporary research programs in sociology, which has been highly influential for the development of organizational institutionalism. Over the last thirty years Meyer's approach has proved its originality and fruitfulness when addressing the global diffusion of cultural and structural features of Western society, which cross-cut different regions and sectors of world society. In this, the spread of formal organizations, which are the central embodiment of these features, figures most prominently (for a most recent and systematic account see Drori et al. 2006). The neo-institutional approach of Meyer and his students has also proved its innovative character by exploring new lines of theoretical and empirical research. Closer links to other research traditions have been looked for, like, for example, social movements research (Khagram et al. 2002; Tsutsui 2004). Furthermore, the more recent focus on science in the ongoing rationalization of society (Drori et al. 2003) and theoretical reflections on the constitution of individual actorhood in modern society (Meyer/Jepperson 2000; Frank/Meyer 2002) have opened up whole new lines of investigation and made similarities to other ways of theorizing visible, which have hardly

³ See Meyer/Jepperson (2000) for further details on status differences between individual and organizational actors with respect to non-utilitarian ends.

been explored yet.⁴ Nevertheless, and this point is central for the argument we will develop here, the macro-approach in neo-institutional research does not systematically account for heterogeneity and differences in society. Despite all theoretical developments and refinements the approach has undergone over the last thirty years, the underlying assumptions on homogenizing forces in global society have remained stable und unchanged. Even critics who generally sympathize with that approach point to the inherent limitations of its overemphasis on homogeneity and convergence (for a most comprehensive critique see Schneiberg/Clemens 2006).

1.2. The meso-perspective: from inter-organizational relations to institutional entrepreneurship

DiMaggio/Powell (1983) have offered a starting point, which is different from the macro-perspective discussed above. Their contribution does not refer to an all-encompassing world culture or to other kinds of broader societal contexts. Instead, DiMaggio/Powell considered organizations as being deeply shaped by those other organizations which serve as “significant others” in the sense of Berger/Luckmann (1967). Conceptually, organizational and inter-organizational parameters gained status as independent variables, and in this respect the perspective has been meso-sociological. The basic units were organizational fields (not a single organization); and any organization was considered to be embedded in a distinct setting of organizations (Greenwood/Hinnings 1996: 1026-7). DiMaggio/Powell’s well-known “three pillars of isomorphism” (Scott 2001) thus can be used to classify the shaping of organizations by other organizations: Coercion results from regulatory agencies (predominantly state organizations); normative isomorphism is based upon professional

⁴ Here we think in particular of the work of Michel Foucault. Though from very different angles and despite Foucault’s rejection of the idea of a coherent narrative of society, with regard to the role of science and, in particular, to the constitution of individual actorhood, both approaches display some remarkable similarities (Krücken 2002: 248-53). As Foucault has become one of the intellectual points of reference for broader organizational theorizing, especially in the European context, also the field of organizational research might benefit from exploring how Foucauldian and neo-institutional thinking relate to each other.

associations, consulting firms and educational institutions; and mimicry stems from the ongoing observation of peers, competitors and collaborators.

DiMaggio/Powell's (1983) notion of organizational fields has expanded the scope of organizational analysis profoundly. For the argument to be developed here it is most crucial to note that the concept of organizational fields and its focus on isomorphism within fields has, implicitly, offered an understanding for persistent differences between fields. To the extent to which organizations are shaped by other significant organizations (such as state organizations, regulatory agencies, professional associations, consultants, competitors and collaborators), they are exposed to rather specific influences. It thus may be concluded that organizations differ according to their field membership which, for example, results from their embeddedness in national regimes (Orrù et al. 1991; Dobbin 1994).

Assumptions regarding the differentiation of organized contexts also can be found in other contributions from the founding phase of the new institutionalism. Scott (1983) distinguished between two sectors – technical and institutional – and argued that a focal organization either is embedded in a technical or in an institutional environment. This assumption soon was replaced by the insight that most organizations have to deal with both technical and institutional requirements (Hasse/Krücken 2005a: 33-4). Additionally, it seemed that such a distinction was too rigid to account for differences within these two sectors. Scott/Meyer (1991) thus developed a more differentiated concept of societal sectors. Sectors were conceptualized as functional domains which are composed of diverse organizations as well as corresponding non-organizational features such as meaning and belief systems or governance structures and other “rules of the game”. In a similar vein, Scott (1991) has emphasized characteristic features of organizational fields. Not unlike DiMaggio/Powell (1983), organizations appear to be deeply influenced by “their” field – and to a much lesser extent by an all-encompassing world culture.

To summarize, the field approach is characterized by the assumption that organizational fields mediate between a single organization and broader societal contexts. The implication of such a conceptualization is that global impacts tend to be devaluated because such impacts need to be enacted by field-specific institutions. Such an understanding of organizational fields fits nicely to observations of robust differences because isomorphism within fields corresponds with diversity among organizational fields. It thus can be argued that clusters of interacting organizations can be considered as institutional barriers against homogenizing trends on a global scale.

Based on the organizational fields-approach some new institutionalists have argued from the 1990s onwards that, to a certain extent, organizations can also actively intervene in their contexts. This implies a farewell to sharply distinguishing between environmental causes and corresponding effects on a focal organization. Instead, the notion of organizational fields highlights processes of mutual adaptation. As compared with the top down-perspective of the macro-sociological approach, organizations are thus considered to be more actively involved in the overall development of society. According to this perspective, organizations negotiate with other organizations and they may also try to actively manipulate those organizations and other institutional factors. Analytically, the crucial shift is from “environment” to “context” (respectively “network”) because this shift implies that a focal organization appears to be an integral part of its institutional setting.⁵

Two basic questions emerge from this perspective: (1) What determines whether or not organizations can be successful in actively intervening into their context, and (2) what determines how organizations may use their potential for active intervention? In order to deal with these questions, it should be noted that neo-institutionalists ever since have described

⁵ John Child made a similar point in order to argue in favor of his strategic choice-analysis: “The concept of an organizational environment as a social network ... raises doubts about how externalized it really is from its constituent organizations” (Child 1997: 57). In order to emphasize this, Child rigorously identifies “inner structuration” (related to organizational parameters) and “outer structuration” (related to the organizational context) as objects of strategic choice (Child 1997: 70-1).

the constitution of fields and the socialization of single organizations as an open and ongoing process. In this respect, references were made to the social constructivism of Berger/Luckmann (1967) (DiMaggio/Powell 1983; Meyer 1992). The legacy of this theory also has sensitized for the potential of organizations to active handling of institutional constraints. Accordingly, the processing of environmental constraints is open for variation, and this deeply affects the reproduction of the institutional context. Fligstein (1996), for example, even has described organizational fields as political arenas – arguing that there are striking imbalances of power at work (see also Greenwood et al. 2002). While some organizations may experience their field context as being out of control, others may be in a position that allows for an institutional engineering of fields.

The idea of organizations being actively involved in their context does not just imply imbalances of power. It also raises questions about how organizations may utilize their potential and to what extent they handle issues of power strategically. These questions have led to a rediscovery of purposive agencies, being conceptualized as something which is not covered by institutional factors (Beckert 1999). The concept of agency, however, is not taken from economic approaches such as rational choice or principal/agency-theory. Instead, new institutionalists have incorporated insights from those theories of practice which have been developed in late 20th-century European sociology (Bourdieu 1977, 1990; Giddens 1984; Joas 1996). Agency, then, includes the potential for actively making choices and for reflexive self-monitoring, but it is not assumed that decisions and actions are determined by fixed preferences (cf. Feldman/Pentland 2003: 95-6; Child 1997).

Institutions, from this perspective, may constrain or enable to act in accordance with given interests, and they may thus become objects of strategic modifications. However, it is not just organizations (and, of course, not heroic individuals) which can serve as “institutional entrepreneurs” (Thornton 1999; Greenwood et al. 2002). Instead, professions, standard setters (Hwang/Powell 2005) and social movements (Roa et al. 2003) can get involved in the

engineering of institutions. As a consequence, institutions can be considered as the outcome of a broad array of institutional entrepreneurship (DiMaggio 1988) – either because actors are supposed “to escape the determining power of institutions (...) [or because of, RH/GK] (...) multiple institutional referents that overlap and conflict” (Dorado 2005: 385). This requires that institutional forces have to be handled actively (Barley/Tolbert 1997; Friedland/Alford 1991). In any case, the issue of institutional entrepreneurship has led to a rediscovery of agency (Emirbayer/Mische 1997). It has let researchers deal with the entire range of cognitive, social and material resources which are needed for successful interventions in the institutional setup (Rao 1998; Lounsbury 2001), and it has led to the identification of contingency factors which determine the opportunity structures to do so (Seo/Creed 2002).⁶

Due to the theoretical significance of entrepreneurship it comes as no surprise that new institutionalists debate the issue controversially. While some “stress at the outset that an institutional perspective is more ‘constructivist’ than ‘agentic’” (Hwang/Powell 2005: 180), others argue that “the discourse of institutional entrepreneurship has helped to usefully redirect neoinstitutional analyses towards the study of actors and their role in catalyzing institutional change” (Lounsbury 2005: 30). From the latter point of view, this discourse has attracted a great bulk of attention, because it offers an explanation for the dynamic character of institutional contexts (Greenwood/Hinnings 1996). There is also the potential to end quasi-paradigmatic disputes with old institutionalists, with institutional economics and with those social theories which put more emphasis on voluntary action and rational decision making (Blom-Hansen 1997; Abbell 1995). Finally, there are profound non-academic considerations which support the emphasis on active entrepreneurship, because as compared to macro-

⁶ To some extent, the contemporary emphasis on agency and institutional entrepreneurship seems to be a “forward to the past”. There are striking resemblances to theoretical discussions many decades ago when old institutionalists such as Philip Selznick (1949) and Arthur Stinchcombe (1965) were highlighting issues of power and conflict (Greenwood/Hinnings 1996: 103-4). In doing so, they joined a broad coalition of researchers which criticized the prevailing Parsonian approach as being far too static and sterile. Among these critics was S.N. Eisenstadt (1964, 1965), who considered elites and leadership roles as carriers of institutional entrepreneurship. Not unlike many contemporary

sociological top down-explanations the focus on institutional entrepreneurs offers better perspectives for decision makers and consultants (Sahlin-Andersson/Engvall 2002). One may thus expect a high degree of cultural legitimacy and support for developing such a perspective – and, ironically, this is quite in line with basic insights of the macro-sociological approach in neo-institutionalism (see Hwang/Powell 2005: 182 for the same argument).

While such pragmatic reasons for bringing actors back in have been discussed broadly, a more critical reflection of the theoretical impact of putting interests and entrepreneurship at center stage has been neglected. In order to compensate for this one-sidedness it needs to be taken into consideration that the outlined trend affects the aspiration to explain what otherwise most often is taken for granted - i.e., rational action and our understanding thereof. In some cases, the focus on institutional entrepreneurs has led to a reversal of the traditional neo-institutional perspective because actors' preferences and their choices are assumed to explain institutional structures. The advantage of such a perspective seems to be that one can more easily focus on issues of variation and differentiation – the Achilles heel in both the macro-approach (“global society”) and the organizational meso-perspective (“institutional isomorphism”) in neo-institutional theorizing. The disadvantage, however, is that the quest for less situational and for other than actor-based causes of persistent differences tends to be neglected. In particular, this applies to causes which might be inscribed in the social structure of modern society – and which are experienced as external social realities.

We assume that the quest for such causes is less developed because the institutional context programmatically has been equated either with a uniform and homogenizing world culture or with homogeneous institutional configurations at the field level. Both world culture-explanations at the macro-level and field-concepts of isomorphism at the meso-level did not allow for an explanation of persistent differences, be they at the level of society or within organizational fields. In order to emphasize differences and heterogeneity, for many neo-

researchers of entrepreneurship, Eisenstadt also argued that reference to other institutions and the

institutional researchers there appeared to be no alternative to referring to the micro-level and to bring purposive actors and their interests and strategies back in. In what follows we will present an alternative explanation by referring to Luhmann's systems theory. It is based on a concept of social structure which is more sensitive to differences – and which considers such differences to be deeply inscribed into the macro-structure of modern society. Our brief account of the basic tenets is structured around issues of modern society's internally differentiated character (2.1.), and the role organizations play in that macro-sociological approach (2.3.).

2. Luhmann's Systems Theory: Modern Society, Differentiation, and Organizations

2.1. Modern society as a differentiated and multi-dimensional project

Luhmann's theory of social systems is one of the most comprehensive projects in social theory of the 20th century. The approach is unique in combining a grand historical perspective with an in-depth analysis of dominant features of contemporary society.⁷ At its core one can find a scheme that outlines the evolution of human society from the beginning onwards. In this respect, there are some resemblances with Durkheim's remarks on simple forms of social life as the starting point (Durkheim 1933). When it comes to Luhmann's reflection on more recent forms of societal evolution, one may also identify similarities with another founding father of social theory: Max Weber. Not unlike Weber (1958), Luhmann refers to a unique set of circumstances in the Western world which triggered the take off of modernity.

ability to mobilize support were preconditions for institutional change.

⁷ We deliberately leave out the epistemological underpinnings of Luhmann's work, which are based on more recent discussions in general systems theory, neuroscience, and logics. For an attempt to link these highly sophisticated arguments, which lead to a theory of social systems' self-reference (Luhmann 1995) and self-observation (Luhmann 1998), to organizational theory see Seidl/Becker (2005).

In a broad socio-historical perspective, Luhmann has stressed that sophisticated forms of societal stratification emerged before the advent of modernity, particularly in ancient high cultures as for example in China, Egypt, Greece, and India (Luhmann 1982, 1997). Here, the differentiation is strictly vertical, and societal order is structured in a clear-cut and hierarchical way. Characteristic features of stratified societies can be illustrated with respect to the traditional caste system in India. First, there are strict rules which affect every facet of social life. Second, mobility via economic achievement or via marriage is restricted. Third, hierarchy is legitimized by religion. As a consequence, status differences and positions in the societal strata are experienced as destiny, and no legitimate alternative form of social order is taken into consideration.

Historically, the disappearance of vertical stratification as the main principle of societal differentiation was triggered by challenging the status of religion as an authority that determines social life in general. This process began in Europe in the 16th century, when politics began to claim autonomy from religion. At the end of this process, a political order was to be found, which no longer was subordinated to any other order. Since then, politics can be described as a distinct field which follows an inner logic that is independent of religious and other authorities. Likewise, the birth of the modern sciences is marked by their emancipation from religious beliefs and wider social norms. In comparison with its ancestors which were embedded in guilds and monasteries, science defined itself as an enterprise which is based on the rigorous observation of facts. Since then, social conditions, such as political regulation or religious dogma may constrain or support scientific research, but they do no longer directly affect the direction of scientific progress. Luhmann has thus stressed that the sciences have matured to an autonomous sphere of modern society, just as politics. A similar development could be observed with regard to the economy. In this respect, Luhmann's contribution is in line with Max Weber (1968), Karl Polanyi (1944), Jürgen Habermas (1985/1989), Anthony Giddens (1984), and many others. The common ground of these sociologists is to assume that economic relations, which traditionally used to be

embedded in wider social bonds, are increasingly characterized by the specific logic and rationality of the economic field.

The economy may serve as the paradigmatic case for the emergence and lock-in of specific rationalities. It neither can be derived from wider frames of non-economic criteria nor can it be reduced to the motives and preferences of individual actors. While this basic idea was already at the heart of Karl Marx's analysis, Luhmann expands it to a more general statement on the horizontal differentiation of society. That type of societal differentiation, which has substituted vertical stratification as the dominant mode of differentiation, is called "functional differentiation" as societal systems are considered to fulfil functions that cannot be substituted for by other systems.⁸ The economy as a societal or functional system regulates the production and distribution of scarce products and services; science generates new knowledge; and the political system is unique in producing collectively binding decisions which affect the entire society. From this point of view, both politics and science, for example, are distinct societal systems with characteristic rationalities that cannot be subordinated to the logic of other systems. Furthermore, the historical appearance of other societal systems has been described. Among them are the nuclear family and the ideal of romantic love, which both are no longer primarily based upon political or economic or any other external reference. In a similar vein, the emergence of an art system, of mass media and of sports has been described as a historical process. The fundamental characteristic of any such system is that it is based on a distinct logic, which implies that it develops specific criteria for success. As a consequence, what is politically feasible may not be true according to scientific standards; real love cannot be affected by economic considerations, and arts are not necessarily in line with religion.

⁸ There is a certain tension in Luhmann's work between the early emphasis on societal functions as the driving-force of differentiation processes and the later emphasis on processes of internal self-reproduction. While the early period is marked by the influence of Talcott Parsons, the later one is linked to the "autopoietic turn" in general systems theory, i.e., the assumption that the elements of a system are linked to other elements of the same system, but not to external references. As we will focus on the distinct logics of individual societal systems, through which they constitute themselves in difference to other societal systems, the functional aspects of Luhmann's work are only to be seen against that backdrop.

Analytically, Luhmann has argued that most societal systems, which came into being with the turn towards the functional differentiation of society, are based on a binary scheme of information processing (i.e., 0 or 1, plus or minus, yes or no). Binary codes are all-encompassing constructions as they allow to process everything that happens in society by assigning one value or the other. As everything can be processed according to the binary coding of information, societal systems actively scan their environments for opportunities to apply their codes. The technical advantage of such a mode of information processing is its reductionism: Any information is either “0” or “1”. For example, the application of the binary code “true” or “false” is assumed to be at the core of science. Science can thus be defined as that specific form of information processing which strictly refers to whether or not something is considered as true or false. Binary coding not only allows for the expansion of the system. It also safeguards against the claims of other systems. Monetary payments, for example, are an important prerequisite for science. A direct interference with the code of scientific truth and falsity, however, is labelled as a scandalous distortion. The same logic is to be found in other systems as well. In the economy, monetary transactions are related to each other. The code is “payment” versus “non-payment”, and the economic system only can be activated to the extent to which this code can be applied. In a similar vein, the political system is about the power to make collectively binding decisions, and the code is “power” vs. “lack of power”. The legal system strictly distinguishes between “legal” and “illegal”, regardless of material effects and issues of social norms; mass media are about attracting the attention of the public according to what is regarded as news-worthy or not; and sports is based on the code “winning vs. losing”. To summarize, most systems on the macro-level of society represent a specific and highly reductionist binary logic of information processing, and concerns relevant for other systems or overall societal norms have to be transformed according to that very logic.

Coded information processing provides societal systems with an identity which distinguishes them from each other. This identity is not open for change. But these systems are not only based on codes, but also on programs that, by contrast, can and do change. Programs provide societal systems with information on how the code is to be applied. According to Luhmann, the dynamic character of societal systems is thus inscribed into the variation of their programs. In order to illustrate the dynamics of systems, one may again refer to science. There is the state of the art of a research field, there are modifications with respect to theories and accepted research methods, and there is variation of research agendas – all of which indicate how the scientific code is to be applied. Likewise, economic rationality can only be applied to the extent to which scarcity, demand and corresponding price signalling can be identified; in politics there are thematic issues, agendas, and political programs; the legal system is based on legal norms as inscribed into constitutional law and into court decisions; in mass media there are schemes which serve as providers of information about what to select and how to present what has been selected; in sports there are plenty of regulations which limit and specify competition. Combining the selectivity and robustness of binary information processing with the openness and flexibility of programs has provided societal systems with a degree of complexity which historically was never experienced before. The consequence is unprecedented growth: Today, there is more science than ever; politics is more all-encompassing and regulates many facets of society; legal issues can be related to almost anything, economic activities have exploded etc.

Societal dynamics, however, are not limited to the dynamics of its individual systems. Any societal system is dependent on the contributions of other systems, and modern society is characterized by an extraordinary high degree of mutual dependency. The economy, for example, is in permanent need of scientific knowledge in order to be innovative; it is dependent on legal norms, in particular with respect to property rights; it needs mass media in order to attract attention (via advertisement and product placement); and it is in need for political decision making and implementation, for example in order to regulate competition or

with respect to anti-trust norms. Without such outputs of other systems, the economy would be substantially less efficient. Vice versa, the same holds true for other systems, all of which are dependent on economic and other outputs. Due to the high degree of mutual dependency, a crisis in any system may negatively affect other systems. Societal evolution is thus described as a risky enterprise. As Luhmann has shown in particular in his work on risk and the environment (Luhmann 1989, 1993) as well as in his “Observations on Modernity” (Luhmann 1998), the polycentric and highly interrelated character of modern society is both a strength and a permanent source of vulnerability of modern society.

Compared with the macro-sociological perspective in neo-institutional theory, it is obvious that Luhmann’s perspective emphasizes the multidimensional and internally differentiated character of modern society. The basic argument is that neither an hierarchical, stratified order nor a clearly identifiable center remains after the advent of modernity. In the polycentric society as described by Luhmann, no unifying system or common coordinating principle exists. Neither religion or politics, nor science or the economy determine modern society as a whole. From this perspective, societal integration or homogenization on the basis of universal norms and cultural principles cannot be achieved. Instead, modern society is shaped by very distinct societal logics and their interrelatedness. Before we compare basic tenets of both macro-approaches with the help of two examples, we will focus on Luhmann’s organizational theory.

2.2. Bringing organizations back in

In Luhmann’s grand theory of societal evolution organizations are of pivotal importance as societal macro-structures and organizations co-evolve. Historically, organizations emerged in ancient high cultures which were characterized by the prevalence of an hierarchical and stratified societal order. However, due to shortcomings in the social preconditions of these societies – literacy, money economy, and technologies of accounting were still not given on a

larger scale – the diffusion of organizations was rather restricted both geographically (close to the leaders in the centers) and functionally (public administration and larger military and construction projects). While this constellation remained rather stable for a long time, the transition from stratified to functionally differentiated societies witnessed the spread of formal organizations. Luhmann has described this initial phase of modernity as a co-evolutionary process of functional differentiation and organization building. According to this interpretation, functional differentiation requires formal organizations, and it stimulates the further spread of organizations which, again, allow for further differentiation. This process of mutual self-enforcement begins with the institutionalization of guilds and crafts, and it is later related to religious organizations, scientific associations, business enterprises, political parties and so forth. The 19th century is crucial for the spread of the organizational form, when club membership of very diverse sorts gained status as an integral part of a modern life style.⁹

Today, most societal systems are represented by specific organizations, and, vice versa, most organizations are related to a societal system. For organizations, this implies copying and reproducing those forms of rationality which are represented by the codes of the system in which they are embedded. The business firm, for example, is characterized by subordinating any of its diverse activities under monetary aspects, i.e., issues of payments. Likewise, political parties and their candidates strive for positions of political power; scientific institutions and universities aim at the discovery of truths, sports clubs aim at being champions, publishing houses and TV stations try to gain the attention of a mass audience, and so forth. Exceptionally, organizations may alter their primary orientation. For example, a

⁹ It should be noted that close linkages between organization building on the one hand and the development of specific forms of rationality have been observed by other social scientists as well. Michel Foucault, for example, has emphasized the significance of the “birth of the clinic” (Foucault 1973) for the development of the modern medical system; Richard Whitley (1984) convincingly has shown that the transformation of more or less sporadic “amateur sciences” into the modern science system was based on the re-organization of universities which specialized with respect to academic disciplines and corresponding scientific associations; the modern political system has been considered to be based on the formation of competitive political parties and the incorporation of various interest groups (Evans 1999); and according to Max Weber (1968) modern capitalism revolutionized the economy on the basis of the institutionalization of the business firm which is different from a traditional economy based on households. For a more general account on the importance of the 19th century for the spread of formal organizations in society see also Türk (1995).

research institute may transform itself into an economic organization. Additionally, few organizations may not be strictly related to exactly one systemic logic (for example, private hospitals), and there are still organizations which cannot be related to any societal system at all (for example, leisure clubs). Nevertheless, most organizations in society strictly accept one societal system and its binary code as their main frame of reference.

Organization research has found profound evidence for the fact that organizations tend to grow. It has also been shown that growth and increasing complexity are parameters which stimulate organizational differentiation. According to Luhmann's systems theory, these processes strikingly reflect the functional differentiation of society. Many organizations, for example, have established research departments, some of them have set up offices that deal with legal issues, large organizations often engage in political lobbying, economic criteria have to be considered by organizations of all kinds, and deviance from legal norms can seriously threaten any organization. Organizations thus differentiate themselves into departments or offices that concentrate on economic issues, legal norms, research, and so on. A major task for management then is to adjust such diverse rationalities to the identity of an organization, which, as we pointed out before, is defined through the specific rationality of the societal system in which the organization is embedded. To some extent, systems theory would thus support the basic idea of the new institutionalism that organizations are well advised to copy the prevailing norms of their wider societal context. In contrast to the new institutionalism, however, systems theory would stress that these norms are copied only to the extent that they support the realization of ends which constitute the specific identity of an organization as a business firm, as a research institute, or as a political party, for example.

From the perspective of Luhmann's macro-sociological approach, organizations are not just crucial for the reproduction of the differentiation of society into distinct societal systems. They may also compensate for the sharp differences in the logic of societal systems because organizations of any type are able to interact with each other (Hasse/Krücken 2005b: 189-

190). While economic and scientific rationalities, for example, cannot be synthesized at the macro-level of society, which is characterized by very different societal systems, economic and scientific organizations quite frequently set up inter-organizational relations. Depending on their absorptive capacity, economic organizations can deal with research issues, they can collaborate with academic partners, and they may translate and re-translate economic considerations into research issues. Because something similar may be said with respect to all other types of organizations and with respect to references to any societal system, heterogeneous inter-organizational relations have the potential of mediating between different social spheres and rationalities.

3. Accounting for heterogeneity: two examples

In the following section we will briefly discuss the implications of Luhmann's systems theory for the analysis of two general topics, which also figure prominently in neo-institutional research: the expansion and transformation of the modern welfare state (3.1.) and recent trends towards academic entrepreneurship (3.2.). Both examples show the fruitfulness of a theoretical perspective, which assumes that the sources of societal and organizational heterogeneity are to be found at the macro-level of society. Against the backdrop of the macro-approach in neo-institutional theory, we will argue that the trajectories of the welfare state do not necessarily follow the enactment of broader societal norms, but rather the distinct inner logic and dynamics of the political system of society and its organizations. In our second example we will focus on an issue which involves different societal systems, hence triggering inter-organizational collaboration. Instead of assuming homogenizing forces which lead to the evaporation of institutional boundaries, from the perspective of sociological systems theory distinct logics of information processing and related identity concepts prevail.

3.1. The expansion and transformation of the modern welfare state

The modern welfare state seems to be a good example for pointing out similarities and differences between the macro-approach in neo-institutional theory and sociological systems theory. Both converge on highlighting the relevance of the welfare state for the understanding of modern society. But while for Meyer the development is driven by the diffusion of general societal norms, Luhmann emphasizes the specific rationality of the political system as its driving-force.

From the macro-perspective both approaches take, welfare state dynamics cannot be grasped by a comparative perspective, which emphasizes national differences and different types of modern welfare states. From the comparative perspective, which has been most convincingly elaborated by Esping-Anderson (1990), specific institutional configurations and power relations on the one hand and varying functional requirements on the other hand are of central importance here. As a consequence, many parameters have to be taken into account as potential determinants of welfare state dynamics like the degree of industrialization, family structures and demographic trends, economic growth and prosperity, as well as unionization and the strength of social democrats.

From both a neo-institutionalist and a systems theory perspective, it is striking that comparative welfare state researchers mainly refer to national differences and functional requirements. In contrast, both macro-approaches focus on causes which can neither be limited to individual nation-states nor to functional requirements of societal reproduction.

Following the neo-institutional approach by John W. Meyer and others one rather stresses the embeddedness of modern nation states in a global society (McNeely 1995; Meyer et al. 1997). The emphasis is clearly on the significance of a global culture and its representation by international organizations, and the impact of other welfare states as models or at least as significant others is central (Hasse 2003). From this point of view, social policy has become

an integral part of the agenda of modern nation states (Strang/Chang 1993; Meyer 2007). They have to adhere to broader societal norms of justice and progress and enact related scripts of social policy in order to be regarded as a legitimate actor in society. Global standards of social policy were codified by the UN declaration of human rights in 1948. Since then, international authorities such as the UNESCO, the International Labor Organization (ILO) and others address welfare issues to any modern nation state (Marshall 1981). Additionally, welfare state issues are tackled by scientific experts and social movements both of which are organized in international associations and networks. It thus may be concluded that these institutions develop a standardized frame of reference, and any state risks its social legitimacy, if it tends to ignore these contextual parameters. The driving-forces of the expansion of the welfare state are to be found at the level of societal macro-structures, i.e., broader societal norms which mainly diffuse through international organizations. Different degrees of exposure to the world culture and its internationally organized agents as well as differences of power between those institutions which are not in accordance with global cultural scripts may account for differences among nation-states.

A similar perspective may be applied when it comes to the transformation of the welfare state which has been taking place since the 1980s.¹⁰ Historical data give evidence of a rather uniform expansion of welfare state-expenditures until the end of the 1970s (Flora 1986). Since then, however, the development seems to be more contingent. On the one hand, there are factors which forcefully support the extrapolation of this trend. On the other hand, serious concern about the sustainability of such a dynamic gained wide attention. As a consequence, substantial changes have been observed - in some cases materializing as sudden quasi-

¹⁰ As both neo-institutionalism and systems theory focus on the long-term development of the welfare state, they rather emphasize its expansion. The more recent experiences mentioned below, however, could be seen as strong indicators for the "retreat of the state" (Strange 1996) and the expansion of economic rationality in society. From the perspective of neo-institutionalism and systems theory one could argue that these experiences could only be fully understood against the backdrop of a more macro-historical and macro-sociological account. In addition, current discourses and practices could be analyzed without altering the main conceptual tools and premises of both approaches. From a neo-institutional point of view, Lee/Strang (2006) analyze public-sector downsizing in 26 OECD countries as a global diffusion process. In a similar vein, one could argue from the point of view of Luhmann's

paradigmatic shifts (Sweden at the end of the 1980s), in others lasting decades (Germany from the 1970s until the present time). Sometimes these changes were implemented as consensual projects (Finland in the 1990s); sometimes they were highly controversial (England at the beginning of the 1980s). From a neo-institutional point of view, however, it does not suffice to observe these transformations at the nation-state level. Instead, the historical development of the welfare-state as well as more recent transformations have to be seen as a globally orchestrated process, in which trans-national organizations, world-wide diffusing role models, experts and consultants are of pivotal importance (Hasse 2003). The OECD, for example, issued a dramatic report in 1981 on the limits of welfare state policies (OECD 1981). Based on critical assessments like this, substantial re-definitions took place: "Administration as Service" (OECD 1987) was established as a new "Leitbild"; issues of service delivery were tackled; private alternatives to public bureaucracies were favoured; and reforms were driven by new best practices such as "new public management" or "non profits for hire". This paradigmatic change was accompanied by a replacement of models (from Germany to New Zealand), international organizations (from ILO to IMF), and experts acting on global scale (from Keynesian social engineers to more practically inclined political consultants).

While neo-institutionalism conceptualizes welfare state developments as trans-national processes, in which global models and scripts diffuse through a variety of channels, systems theory emphasizes the effects of the functional differentiation of society. As a consequence, its political system appears to be a distinct field which is based on a specific logic or rationality, i.e., the application of the binary code "power/not in power". In this, the political system sharply differs from those of other societal systems. In addition, the internal differentiation of the political system has to be taken into account. Internally, the system is composed of (a) political decision makers (governments and office holders), (b) administration and service deliverers, and (c) the public (as both voters and clients). Any of

systems theory that we can currently witness variation in political programs, while the code of the

these institutions of the political system contributes to the expansion of the welfare state.

Other societal systems are only relevant to the political system as an external resource for its continuous reproduction. It is thus not surprising that systems theory puts a strong emphasis on the societal risks of systems dynamics.

Following Luhmann's "Political Theory in the Welfare State" (Luhmann 1990), the expansion of the welfare state appears to be an inevitable consequence of the evolution of the political system. The welfare state predominantly aims at the inclusion of persons and groups. On the basis of political power law and money are used as means of effectuating the welfare state. Structurally, its expansion is pushed by the interplay of the core institutions of the political system and by referring to other societal systems: First, dense competition for scarce offices is assumed to result in political programs, in which the societal environment is actively scanned for themes and organized interests, which might offer opportunities to apply the principle of welfare state politics. Mass media is considered here as an important mediator between organized interests on the one hand and political parties and politicians on the other hand. Second, administrative agencies and their experts actively support the identification of needs due to their professional knowledge and due to micro-political interests. Third, legal claims affect the relation between the public administration and the public. This fosters the trend towards an expansion of welfare politics, too. As a consequence of this unprecedented growth, severe problems occur in other parts of society. In particular, Luhmann has highlighted negative economic side effects (due to the extensive use of money, but also due to attempts at actively regulating the economy), the risk of overloading the law system (due to the extensive use of law resulting in shortcomings of application and implementation), and the expansion of state bureaucracies and professionals (as service deliverers and as experts).

political system, in which the dominant rationality of the system is to be found, remains unchanged.

It should be noted that the starting-point of Luhmann's analysis of the welfare state is quite similar to the neo-institutional perspective. Instead of highlighting national variations, both approaches emphasize structural features of modern society, which affect very different nation-states. However, two very basic differences may be identified:

First, Luhmann refers to very general characteristics of the political system, its internal logic and core institutions as driving forces of welfare state developments, which are to be found in very different nation-states. Neo-institutionalism, instead, emphasizes trans-national, "external" causes as triggering these developments. Though national differences are not of prime theoretical concern for both approaches, they could either be explained through specific national configurations of political institutions and their relevant societal environment (systems theory) or through linkages of nation-states to trans-national discourses and organizations (neo-institutionalism).

Second, the trend towards the transformation of the welfare state, which has occurred in very different countries and which has been briefly discussed above, has to be conceptualized very differently. While neo-institutionalists focus on the role agents of diffusion such as trans-national organizations, experts and consultants play, from the point of view of systems theory one has to stress that the discourses and concepts of these agents do not diffuse easily. Instead, they have to be translated into the political system, and this happens according to the logic and rationality of that very system, and not according to broader societal norms and scripts. Therefore, the focus is rather on internal factors triggering change. Following the distinction between codes and programs, one should assume that aspects related to the former are a source of structural stability. Societal differentiation, competitive features of the political system, and the interplay of its core institutions are not considered as objects of change. However, there is a permanent variation of programs as they provide the political system with information about how to apply its basic principles. Programs may vary profoundly across time and space, and organizations, both within the political system and in

its relevant environment (like media organizations, business firms, and courts) do not simply enact broader societal scripts. Instead, they play a very active and contingent role in the variation of programs, for example those concerning the welfare state.

3.4 Academic entrepreneurship

Academic entrepreneurship is embedded in a more general reappraisal of the role entrepreneurial activities should play in society. Entrepreneurship has increasingly been seen as being beneficial with respect to broader socio-economic impacts; in particular, start ups companies which contribute to the transfer of new knowledge are highly appreciated (Thornton 1999). Universities figure most prominently in this broader discourse on entrepreneurship. All over the world, their new economic responsibilities have become visible. Economic parameters such as start up founding rates or the commodification of new knowledge via patenting and licensing have become new evaluation criteria, and universities have begun to actively get involved in these activities (OECD 2003). Though direct links between academic researchers and industry have a long history in many fields, carried out in addition to the main tasks of the individual researcher, it has now become an institutional mission of the university as an organization. Based on the assumption that a direct contribution to economic development has become a third academic mission of universities, on a par with the traditional missions of teaching and research, academic entrepreneurship seems to be at the core of a new, globally diffusing model for universities (see, for example, Etzkowitz et al. 1998; Krücken et al. 2007).

While the new institutionalism emphasizes the match between academic entrepreneurship on the one hand and wider social norms and expectations on the other, systems theory puts more emphasis on aspects of societal differentiation and the distinct logics of societal systems. The former perspective is well established in the context of this handbook. Here one should mention neo-institutional research on entrepreneurship (Hwang/Powell 2005), on

inter-organizational networks among academia and industry (Powell et al. 2005), and on universities and their embeddedness in wider social norms and expectations (Meyer/Schofer 2007). Therefore, we will only focus on how academic entrepreneurship might be conceived from the point of view of systems theory. From that point of view one would assume that distinct systems – in particular: economics, politics, and science – with distinct logics are involved, which cannot be transcended.

First, systems theory considers business firms as a specific kind of organization, which is to be characterized by the fact that normative expectations are directed towards economic efficiency. Here, efficiency is a means to achieve legitimacy, and any business firm which does not meet economic criteria in the longer run had to be evaluated as a problematic case. This does not deny that the initial economic difficulties of an academic start up can be accepted for some time, or that start ups may aim at new markets or at attracting new investors instead of achieving short-term profits. However, systems theory assumes that start up companies get into serious problems, if they are evaluated as hybrid organizations which serve rather general and diffuse societal needs and expectations, instead of aiming at economic success in the longer run. Start ups from academia may thus be characterized by a specific economic program (i.e., the marketing of new knowledge which is genuinely risky), but they can be considered as being rather conventionally related to the binary coding of economic activities through money.

Likewise, systems theory emphasizes that the political dynamics fostering academic entrepreneurship have to be analyzed like those of any other political field. These dynamics are related to power issues and are characterized by the pursuit of a specific rationality, which differentiates the political system from other parts of society. In addition, one would not expect that innovation politics and policies are breaking away from the traditional means of effectuating the welfare state, i.e., law and money. Actively contributing to academic entrepreneurship is thus a supplement of political programs, which inform the political system

and its organizations about where, when and how to apply the binary code of politics.

Systems theory would stress that politics and policies fostering academic entrepreneurship are exclusively determined by political considerations. It assumes that negative side effects with respect to science and the economy only affect political decision making to the extent that they make a political difference. For example, the political promotion of start ups may have adverse economic implications. Financial subsidies by the state may negatively affect the development of a venture capital market, and state-funded start ups find it harder to attain an economic reputation, which is important in order to attract funding from venture capitalists. In a similar vein one may expect long-term negative effects on science if short-term socio-economic effects, which can be labelled as the outcome of political decision-making and thus be converted into political power, become the dominant goal of science politics and policies.

Finally, the same perspective can be applied to research organizations, which are assumed to process information along the binary code “true” vs. “false”. Issues of academic entrepreneurship are framed with regard to the code and programs of the science system, while material effects of start ups and positive socio-economic impacts are considered to be less important. This implies two things: First, at the level of the individual researcher one should assume that the specific incentive structure of that very system makes him or her more prone to conducting activities which can be mapped by conventional indicators of successful scientific action such as peer-reviewed publications. Publications have no direct equivalent in other parts of society. On the other hand, broader societal norms and the criteria of other systems – like the general and, in particular, political emphasis on entrepreneurial activities – have to pass this bottleneck in order to become relevant among scientists. Second, also at the organizational level one has to take a rather skeptical view of the repercussions of the current trend towards academic entrepreneurship. Most studies on technology transfer offices at universities suggest only very moderate effects on entrepreneurial activities, and following Meyer/Rowan (1977) transfer offices could be seen

as a prime example of the loose coupling between formal and activity structures of university organizations (Krücken 2003). According to systems analysis, however, referring to “loose coupling” does not suffice as it does not explain why most university organizations do not fully embrace academic entrepreneurship. Following that type of analysis, one would rather assume that the degree of coupling is closely related to the identity of an organization, which itself is a function of the specific societal system, in which it is embedded.

To summarize, from the point of view of systems analysis academic entrepreneurship has to be considered as creating an opportunity for societal systems and their organizations. Within different systems, academic entrepreneurship might lead to variations at the level of their programs. The hypothesis, however, is, that variations at the level of programs can hardly affect the identity of any of the systems involved. For system theorists, the mutual adjustment of societal systems through dense inter-organizational collaboration between scientific, political and economic organizations cannot be equated with the evaporation of systemic boundaries. Though such collaborations are important as they mediate between different systems and make their specific rationalities visible, they need to be conceptualized primarily as opportunity structures, which can be exploited by any of its participants. While new institutionalists might expect processes of mutual adjustment and isomorphic tendencies, which may alter organizations profoundly, systems theorists would rather assume that the impact of such collaborations will lead to new avenues for exploring the dominant rationalities of the organizations involved.

4. Conclusion

Sociological systems theory in the way it has been developed by Niklas Luhmann can play a crucial role in coming to terms with the heterogeneity and variety at the macro-level of society. In this, it is a relevant antidote to the traditional neo-institutional emphasis on

homogenizing forces. Instead of recurring to the role of purposive actors as in the concept of institutional entrepreneurs, sociological systems theory stresses the conceptual links between organizational analysis and wider societal fields and their developments, and so refers to the very starting-point of organizational institutionalism. With the help of two examples we tried to exemplify the fruitfulness of that approach. One could see, first, that the neo-institutional emphasis on broader societal norms and their diffusion in the development of the welfare state has to be complemented by a perspective, in which the distinct logic of one societal system, i.e., politics, and the role of political organizations is highlighted. With our second example we enlarged the perspective by focussing on how one issue, academic entrepreneurship, is perceived and processed according to the distinct logics of different societal systems and their organizations. This, again, complements the traditional neo-institutional emphasis on homogenizing forces in society.

According to our analysis, though both approaches can hardly be integrated at a meta-theoretical level, they can be used as guidelines for re-establishing a macro-perspective on the interconnectedness of societal and organizational developments. While neo-institutional theory is particularly good at analyzing diffusion processes, which transcend sectoral boundaries of society and shape all units of analysis, systems theory instead focuses on differences between societal systems and their organizations, which cannot be transcended. At the interface of these very different paradigms a fascinating agenda for future research on the societal embeddedness of organizations might evolve. As we tried to show, accounting for heterogeneity does not necessarily lead to a reappraisal of individual agency. By referring to sociological systems theory, organizational institutionalism might do better as we can combine the more recent emphasis on heterogeneity with the traditional strength of organizational institutionalism which lies in its focus on the co-evolution of organizations and their societal environments.

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