

System Theorizing and Environmental Governance in the EU

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Introduction

Although the conceptualization of society as a system has a long history in sociology, system theorizing has achieved sound scientific developments in approaches like functionalism and neo-functionalism, historical and Marxian theories, and actor-oriented dynamic system theories. When addressing governance issues, this conceptual complex allows sociological research to unveil and explore the social dynamics that underlie agential strategies, structural arrangements and systemic change. Although it is not the purpose of this paper to comprehensively review all the major contributions to system theories in sociology, it will attempt to draw on their most relevant aspects in order to adequately frame the issue of governance, especially in the case of European environmental governance networks.

This paper first explores how system theories conceptualize and contribute to explain governance arrangements in the field of environmental policy-making processes. It then draws on the results of a cross-national research project (Paraskevopoulos, Getimis and Rees, 2006) on adaptation to EU multi-level governance to provide insights on how different national socio-political frameworks interact with the European polity model and bring about diverse institutional learning patterns and governance arrangements in the field of environmental policy.

System theories

Tom R. Burns' (2006) entry on System Theories in the Blackwell Encyclopaedia of Sociology defines "a system [as] a set of objects together with relationships among the objects, [which] implies that a system has properties, functions, and dynamics distinct from its constituent objects and relationships." The author then goes on to note that the

two core and interconnected elements common to all system theories in sociology are, on the one hand, complexity and interdependency, and, on the other, the “burning ambition” to achieve a metatheory (or supertheory, in the words of Niklas Luhmann) of social phenomena.

Within the three main schools of system theories identified by Burns — functionalism and neo-functionalism, historical and Marxian theories, and actor-oriented dynamic system theories — five particular contributions will be discussed: Parsons’ AGIL model and power theory; Luhmann’s ecological communication approach; Wallerstein’s world system theory; Buckley’s morphogenetic program; and Burn’s actor-system dynamics and rule system theory.

Building on the continuum from acts to action to action system to social system, Parsons’ AGIL conceptual model¹ constitutes an analytical instrument based on the premise that any given system incorporates four functions — adaptation, goal-attainment, integration and latency. In social systems, these are assigned to specific sub-systems, respectively economy, polity, societal community and socialization. Adaptation refers to the need to manage the relation between the system’s needs and the resources it can access; Goal-attainment relates to the need to set a common direction for the system and to manage priorities; Integration mediates conflict and ensures conformity to social norms; and Latency relates to the need of perpetuating values and basic principles across society.

On the other hand, the author suggests that four media of interchange flow within and between the sub-systems — money, power, influence and value commitments. Parsons (1963 and 1964) conceptualizes power as a commodity that can be traded for other commodities, e.g. votes for political commitments in representative democracies. The fact is that power «behaves» much like money value as it can assume the form of a deposit or a loan; hereon, there is an equilibrium issue between deposited (or existent) power and assumed commitments. Moreover, in modern societies, all social actors have some degree of power, insofar as rights have been institutionalized. However, Parsons points out two types of power dynamics in social systems, namely, the economic and the political. Economic power is, in our interpretation, closely related to the Marxian concept of capital, to the extent that it “is focused on the possession of means to

¹ Cf. Parsons (1967 and 1970)

maximize advantage in a range of alternatively possible exchange transactions” (Parsons, 1991: 85). Political power, contrastively, relates to the degree a system can control relationships within it, thus having a more qualitative, hierarchical character than quantitative.

With this «frame of reference» in mind, it is of particular interest to analyse how the sustainable development paradigm is incorporated into the social system. One can trace back the emergence of environmental concern in society to the values system, as it has been inspired by scientific disciplines such as philosophy, geography, anthropology and ecology. In fact, a directional flow is identifiable in the system integration process of environmental issues across the AGIL conceptual frame. From its formation as a value in specific socialization settings (L), it evolves into the integration system by way of social movements and actors striving to institutionalize it through normative arrangements (I). As environmental values grow more and more as a societal imperative, the polity structure has to further accommodate them, thus rearranging the goal-attainment system (G). This new arrangement then compels the economy to adapt to these new system priorities, commitments, norms and values and such adaptational dynamics take form, generically, in new strategies, new production models and new markets (A).

However, one can unveil the exact opposite direction of flow by intersecting this analytical perspective with that of power systems. As Parsons points out, economic power is systemically prevented from *undue influence* over political power. But since social structure entails dysfunction and conflict, in situations of diminished community power, economic interests (A) are able to contaminate the polity system (G) by influencing the original set of common goals. In turn, this rearrangement eventually leads to more or less extensive institutionalization of cognate normative frames (I). Ultimately, the combination of the three media of interchange — money (as marketing strategies), power (as political decisions) and influence (as norms of conduct) will carry changes to the fourth media — value commitment.

Parsons’ multi-level multi-factor analytical complex, namely the AGIL frame — theory of power intersection, represents a useful tool to address contemporary political and social issues, such as the environment and sustainable development, which rest to a large extent in the sphere of contention between economic and political power. According to Hewson and Sinclair (1999: 32), Parsons’ legacy to global governance approaches rests on the attention paid to patterns of societal decision-making and its

interdependency with shared values, in a way that “order emerges out of consensus regarding governing rather than the legitimation of a top-down authoritative government.”

Whereas Parsons saw individuals and their actions as the fundamental units of social systems, for Luhmann (1995), the indivisible social element is communication. The author’s theory of society comprises four different epistemological and theoretical complexes — *autopoiesis*, a biology-fathered concept which here refers to the reproduction of the system’s elements, the maintenance of its boundaries and the informational interaction with its environment; *communication theory*, which aims at analysing the social dimension of the system; *evolution theory*, in a Neo-Darwinist perspective, which concerns structural changes over time; and *differentiation theory*, which is related to the process of formation of new systems.

Communication is therefore the most important element in this theoretical design. A system is defined by the boundaries it has with its environment and, by selecting and processing only meaningful information they reduce overall complexity. In this sense, interaction between different systems occurs in the form of information exchange. This is particularly important for sustaining the macro-system, as each part depends on the functioning of the others, not in a material sense but by incorporating no other elements than information from them. In this sense, society is the most inclusive system formation, unlike the simpler types (interactional and organizational systems), and is hence conceived as a unique «world society».

In the process of system differentiation, new communicational needs arise, bringing about new generalized symbolic media in order to «translate» meanings across systems. If language is considered the traditional «semantic device», its counterparts in modern society, the author claims, are such as power, money, love and truth. Moreover, differentiation is a systemic response to increasing complexity in dealing with the environment, and it occurs in the form of either “a series, an order of rank, the difference between centre and periphery or the differentiation of function systems” (Luhmann, 1995: 19). Modern society is in this respect defined by functionally differentiated worldwide macro-systems, such as law, science, mass media, the polity or the economy.

In this context, it is important to note the essential divide between environment, which encompasses all material existence, including human individuals, and social systems,

which are solely made of communicational activity. According to Mathur (2003), ecological communication² is defined as social communication about “exposure to ecological dangers”, which is to say that only socially meaningful, «resonant» ecological phenomena are in fact processed — as information — by society and therefore bare an impact on the social system. This approach to the natural realm is however (re)produced by a society dialectically changing the definition of itself and of its environment. It so happens that natural activity forces society to respond and in this sense, ecological menaces are but a socially dysfunctional response to this activity. In light of Luhmann’s Neo-Darwinist evolutionary theory, the incapacity of society to resolve a system/environment clash represents an adaptational by-pass, a dismissive selection process.

On the other hand, society is composed of subsystems, which in turn represent environments for one another, as they define themselves as being unique and different from all externalities. The question is then that of the difference in claims about the environment made by different subsystems and in different communication media and codes. This sheds light onto the contemporary contradiction between the continuously sustained anthropocentric view of the world and its scientific disclaiming. This led Luhmann to develop the concept of «second-order cybernetics», by which he means modern social systems develop multi-level systemic self-reflexivity in order to improve communication and thus enabling society to more accurately and holistically address ecological challenges.

The problem is also relevant in inter-system communication, as Luhmann (1989: 48) observes: “the internal dynamics and sensitivity of function systems like politics, economy, science, or law are disturbed by environmental problems. Sometimes this happens directly as when resources dry up or catastrophes threaten. But it also occurs indirectly via socially mediated interdependencies when, for example, the economy is forced to react to legal precepts even if it would attain better results following its own ideas.”

The rise and consolidation of the sustainable development paradigm within global governance patterns are better grasped by thoroughly examining the dialectics between different appropriations of the environment that different, opposing or conflicting

² Cf. Mathur’s Chapter IV on “Niklas Luhmann’s Communicative Systems Theory Framework”

segments of society make, and by observing the dynamics and mechanisms of interest, influence and power at play.

One theoretical approach to social, cultural, economic and political worldwide macro-dynamics has been developed and structured into the form of Immanuel Wallerstein's World System Theory (Wallerstein, 1974, 1980 and 1989). World System Theory envisages the world-system as an interactive system with "all of the economic, political, social, and cultural relations among the people of the earth" (Chase-Dunn and Grimes, 1995: 389), setting the distinction between three types of countries — core, peripheral and semi-peripheral. As a theoretical construct, it is strongly based on historical analysis of world-wide evolution of nations, states, economies and civilizations, looking deeply into issues such as modes of accumulation; core-periphery mobility; population, technology, market and labour-capital relations trends; and long- and short-term economic cycles.

Despite the magnitude of the current globalization trend, its equalitarian pledge is denied by the sensible disparities in human welfare both in different parts of the world and inside the same nation. World System Theory's comprehensive interpretation pinpoints the power hierarchy that allows core states to continuously control peripheral ones, under seemingly fair market rules that in fact exploit labour in weak countries, thus transferring surplus wealth to the core.

Amidst this influence network, there is some degree of mobility, as some states have been able to move upwards (the US being the paradigmatic example). In a market economy/consumer society paradigm, the core, formerly grounded on military superiority, is nowadays sustained by technological, industrial, marketing and military innovation. Moreover, in-between the two extremities, this approach places semi-peripheral states that combine aspects of both. According to Wallerstein (1976), acting both as the periphery for the core and the core for the periphery, these states are considered transitory stages between the two, and are characterized by a mix of particular labour composition, economic position and political instability. Situations of oversupply in the core provide semi-peripheries an advantage in power of choice as buyers, which entails political adaptation, and often agitation.

More recently, Tayfur (2003: 17) notices that "state policies in the semiperiphery can immediately and directly affect the accumulation of capital by controlling the flows of goods and capital across frontiers, controlling the internal work force, taxation,

redistributive expenditures and expenditures on social overheads, etc.”, which leads economic actors to greatly depend on governmental action. On the other hand, Chase-Dunn’s approach considers semi-peripheries to be “fertile locations for the emergence of new innovations and transformational actors” (Chase-Dunn, 2001: 594).

In Walter Buckley’s modern systems theory and morphogenetic program (Buckley, 1967 and 1998), society appears as a complex adaptive system where agency and structure are interrelated in an uninterrupted dialectical process. Drawing on such diverse scientific disciplines as cybernetics, thermodynamics or generalized Darwinism, modern system theory focuses on socio-cultural regulation and control in terms of structural change (*morphogenesis*) and structural stability (*morphostasis*) processes. Social structure emerges from, and is sustained by, “patterned regularities of interaction” (Buckley, 1998: 175) based on rules and institutions that somewhat relate to the Parsonian AGIL systems of latency and integration. Generically, *morphogenesis* has historically evolved from a destructive type (violent conflict) into a more democratic type (self-regulative competition). However, one can argue that, as societies attain higher complexity levels, the increasing institutionalization of regulatory mechanisms and accommodation of more and more “information and motivational forces” (Buckley, 1998: 178) weaken change processes and strengthen *morphostasis*.

Social control is conceptualized as depending on two simultaneous processes, structural pre-programming and informational feedback error-regulation. The latter is of particular importance for understanding the dynamics involved in social goal-seeking, which again brings to mind the polity realm of the Parsonian system of goal attainment.

Power, authority and legitimacy are particularly important when focusing on institutionalization processes. One synthesizing approach to this is to define a continuum between authority and power, respectively defined as patterns of social control *with* and *without* general consent and informed understanding, and involving different degrees of consensus or dissent. Moreover, whereas power often refers to competitive goal orientation, authority is usually associated with cooperative goal orientation. Legitimacy, on the other hand, is itself an emergence of this complex systemic process, as a function of the existent structure, the pattern of individual and collective goal promotion and the social consensus, and is commonly found to be closer to authority than power.

Power, however, is not legitimized into authority by its mere institutionalization, as rules can be followed and roles played in very diverse manners, from the totally upholding to the unmindful to the totally antagonistic. In this sense, any given social system in any given moment can be perceived as a system of authority by some and as a system of power by others. Similarly, one system can simultaneously have power-based and authority-based subsystems. This is easily recognized in the history of class struggles or in current public policy-making processes. One example provided by Buckley (1998: 232) is the influential role played by private corporations in today's polity. While some consider it the expression of institutionalized power, others see institutionalized authority. In fact, the types of goals pursued in these two processes are quite different, as power is driven by private interest and authority by collective goals.

Margaret Archer (1995 and 1996), on the other hand, when distinguishing cultural system from socio-cultural interaction, argues that however open or inconsistent the system is (and therefore vulnerable to change), transformation is ultimately determined by the distribution of power. If it is mainly held by «conservative» elements, actors or groups, change will not come about (*morphostasis*); if «progressive» or «revolutionary» forces prevail within socio-cultural interaction, the system is more likely — or even bound — to be transformed (*morphogenesis*). The author also develops the notion of agency *morphogenesis*, by which corporate agents (powerful and influential) and primary agents (powerless and uninfluential) interact, compelling the latter to «corporatize», and causing new social roles to emerge.

These analytical complexes ascribed to Modern System Theory lead previous approaches towards the understanding of action processes inside the social system, and of how these can influence either *morphogenic* or *morphostatic* systemic behaviour.

As a conceptual complex, Actor-System Dynamics Theory³ distinguishes two major structural elements in social systems — social structures and physical or ecosystem structures, and a mid-way element between these two — socio-technical systems. On the agential side, it discriminates social agents from social action, as the former refers to reflective individual or collective agents in determined social positions or roles, and the latter to structured interaction processes. By synthesizing structure and agency in this manner, human activity is considered as being simultaneously a product and a producer

³ Cf. Dietz, Burns and Buttel, 1990; Burns and Dietz, 1992; Dietz and Burns, 1992; Burns, Baumgartner and DeVillé, 2002

of social and physical structures, as they create, reproduce, transform, and destroy them. This interaction is mediated by social rule systems, which are dynamic social constructs that organize and regulate social activity, through institutionalized media and systems like values and laws, or family and social organizations.

Actor-System Dynamics Theory provides a framework for interpreting the dynamic social arrangements and forces at play, enabling an integrated approach of the multiple systems that influence and are influenced by social agents. Political regime, institutional structures, economic organization, scientific and technical knowledge, ecological environment as well as social movements are in fact both structuring of, and structured by, human action. Moreover, it is clear that the resulting configuration of society, as a set of «emergent properties», is not exactly the one social agents intended in the first place, but instead the result of complex interactions — ultimately, a compromise between different *agencies* that continuously struggle to reproduce or transform the *structure*.

Within the Actor-System-Dynamics theoretical complex, Rule System Theory⁴ holds centre-stage, as it addresses the dialectic role of, and processes involved in, interacting human agency within a structural configuration. Rules provide guidelines for behaviour, as they constrain and promote action, thus structuring a meaningful, recognizable and shared set of patterns of social interaction. On the basis of this set, actors are able to perceive, interpret and apprehend social phenomena, in a reflective process, and accordingly adapting their reactions and responses. On the other hand, these same actors are the formers and reformers of rules, thus raising the issue of rule change, where power plays a central role in organizing, regulating and enforcing them. Besides power struggles, rule change can come about from continuous adaptation to the social situation, the overriding of formal by informal rules, the institutionalization process of abstract rules, ineffective performance of the current rule system, ecological material pressures or perceived advantages in incorporating new rules, even if dissonant with the established cultural system.

Agency also reveals itself by the selective (voluntary) adherence to and (socially enforced) compliance with the rule system or specific rules and norms. Adherence and compliance are normally distinguished in terms of voluntaristic and customary respect for rules, actors' social identity dependence on rules, acceptance of authoritative

⁴ Cf. Burns, and Dietz, 1992; Burns and Flam, 1987

legitimacy, shared expectations, as well as material, social and situational benefits or losses.

As an evolutionary perspective within new institutionalism, Rule System Theory identifies the structure-agency-environment triangle as the essential frame in order to understand and to explain *morphostasis* and *morphogenesis* processes. Modern societies have complex rule systems that structure its activity, and individual or collective social actors occupying specific positions only have deep knowledge of particular parts of them. Elites have a more comprehensive understanding of the whole system, although only to some extent, or can more easily access information to that end. This entails the coexistence and overlapping of societal segments with different rule systems and institutional arrangements — *structural incoherence*.

Institutional transformation is then in part determined by the *agential power* that specific actors in the political, economic and social spheres exert on the established arrangement. *Institutional power*, on the other hand, refers to the top-down implementation of new rule systems, which is highly dependent on legitimacy conditions. Finally, *selective-environment power* determines the institutional arrangement inasmuch as existent material, ideal, legal and social resources simultaneously constrain the possibilities of action and are constrained, in terms of accessibility, by the rule system in place. Non resolved overlapping structural incoherence or structural competition can lead to institutional change, as actors conveying different rule systems will struggle to enforce their perspective. However, the change produced by these processes is not as linear or straightforward as it may seem, as only part of the result of actions is intended. In fact, in addressing isolated elements of structural inefficiency or ineffectiveness, small changes can result, in the long run, in major transformation.

Environmental governance in the EU

Although governance may be considered as old as governing itself, during the two last decades it has been the focus of particular attention by both the political realm and the scientific community. According to Kohler-Koch and Eising (1999: 5), within European political science, governance “is about the structured ways and means in which the divergent preferences of interdependent actors are translated into policy choices ‘to allocate values’, so that the plurality of interests is transformed into co-ordinated action and the compliance of actors is achieved.”

One of the main governance arrangements is found in the form of networks, whereby actors demonstrate a pragmatic vision of politics as a means for problem-solving and organized social subsystems participate in policy decision-making processes. On the other hand, the State is not conceived as authority, referee or mediator, but mostly as an activator of state and social actors, coordinating their diverse interests. Interaction is therefore characterized by multilateral negotiation and is confined to specific functional domains of policy, although encompassing different geographical levels (local, regional, national and supranational). According to Klijn (2008), governance networks represent the locus of formulation and implementation of policies, through a web of relations between state, private and societal actors.

At the European level, environmental governance has changed its pattern from a fragmented and legalist perspective to a network mode. Lenschow (1999: 46) states that “on the basis of the globally emerging new understanding of environmental protection as constituting the basis for economic development, the governance problem became identified as one of policy integration and learning”. This trend has pushed governments to broaden policy boundaries and to create networks that connect authorities and society. This in turn has had implications both in legitimacy and accountability of actors, as well as in facilitating and sustaining the policy-making process.

Globally, the field of environmental polity has acquired considerable attention and has led to major transformations in institutional and normative configurations. Within the European Union polity model, environmental governance arrangements have been influenced by the shift from national to supra-national regulatory scope, the increasing participation of public interest organizations and social movements, and the complexity and multiplicity of interests and values in society. On the other hand, national corporatist and neo-corporatist social systems, with different approaches to governance arrangements and policy-making processes, both influence and are influenced by the European model, which is arguably neither a pluralist nor a corporatist one.

Within the context of the European Union, a cross-national research project (Paraskevopoulos, Getimis and Rees, 2006) was undertaken to address institutional and policy-making adaptation to EU multi-level governance in the fields of regional and environmental policy, involving three Cohesion and two Central and Eastern European countries. One important assumption underlying this work is that despite the bearing of the Europeanization process on national transformation of governance systems, the

implementation of EU public policy is significantly dependent on the learning capacity of the pre-existing institutional infrastructure” (Paraskevopoulos, 2006: 3). Multi-level governance implies a dual interaction process within sub-regional, regional, national and supra-national authorities: *vertical interaction* refers to connections between different levels of government; *horizontal interaction* involves actors within the same level. On the other hand, Europeanization is here conceived as the process of institutional and policy-making practices’ adaptation to EU policies and governance model.

In the field of environmental policy, the process involves both the national contributions to EU policy formulation and the adoption of existent and more advanced regulations and directives. This is particularly important during the intergovernmental bargaining processes prior to accession, as it affects and challenges well-established domestic policy-making structures in environmental policy. “Given the distinctive character of the policy-making structures at the European level on the one hand, and the fact that Europeanization is fundamentally conceived of as a system of continuous interactions between EU policy-making rules and regulations and domestic policy structures on the other, the better the ‘goodness of fit’ between EU rules and domestic practices the weaker the adaptational pressures will be for the domestic institutional structures” (Paraskevopoulos, 2006: 7). Within the new institutionalist perspective, two main approaches to the policy change and learning process have been brought forward. The *rational choice* logic underlines the importance of resource distribution and differential empowerment of national actors, and the role of multiple veto points and formal institutions as mediating factors. This process has been conceptualised as «single-loop learning», whereby actors acquire new information, alter strategies but they pursue given, fixed interests. The *sociological* approach stresses the importance of social learning in the adaptation process and of networks, informal institutions and social norms as mediating mechanisms of change in priorities of actors’ interests. Although not dismissing aspects of the first approach, the actor-centred, sociological institutionalism approach was central to the theoretical and conceptual framework for the empirical development of the research, as it is considered a more powerful analytical tool for grasping the actor-structure interaction process.

The main issues involved in the analysis were (1) central state policy-making (formal institutional) structures, (2) patterns of interest intermediation/representation and identification of veto points, (3) relevant forms of governance (epistemic, advocacy,

issue and policy networks), and (4) social capital, as crucial informal norm/institution playing a key role in the creation of cooperative (political and/or organizational) culture. The methodological strategy was based on comparative public policy research methods in order to measure the impact of the Europeanization process on domestic institutional structures and governance arrangements. The national case studies involved quantitative and qualitative analysis and the domestic levels of governance were investigated on the basis of Social Network Analysis procedures. The following remarks are drawn from the results of these analyses.

Greece. Despite the fact that institution building is considered as the main outcome of the learning process, the strengthening and the stability of institutions remained a key challenge for Greece's public policy arena within the EU multi-level governance structure. Indeed, institution building was significantly absent from the political agenda during both the post-authoritarianism and the post-accession periods. Additionally, in the early 1990s, institution building was substantially misconceived as almost synonymous to «marketization». Thus, arguably, the serious process of institution building, albeit mostly reluctant and not always successful, started in the mid-1990s.

Environmental policy formulation remained strongly influenced by the need for harmonization of national legislation with EU rules, involving transposition of directives, implementation of programs and accomplishment of policy targets. An insufficient level of trans-ministerial decision-making practices was found, as well as a significant delay in EU rules adoption, which has entailed a weak enforcement of broader environmental policies.

Due to the relative novelty environmental policy represented in Greece, the learning process resulted mainly in extensive institutional creation and unclear, often contradictory policy choices. Pressured by EU regulations, environmental policy implementation was developed on the basis of problem solving instead of a holistic approach. At the administrative level, there is a lack of policy coordination and a large number of agencies involved in the environmental domain which, allied to the traditionally hierarchical nature of Greek public administration, has hindered the formulation and implementation of an integrated environmental policy.

The domestic institutional infrastructure is characterized by a low level of expertise involvement in policy formulation and consultation, a relatively strong resistance to change, closely linked to the patterns of interest intermediation, low levels of social

capital and cooperative culture, weakness of civil society, along with predominance of political parties and «clientelism» in the policy process, and limited, problematic and not fully institutionalized fora for dialogue and negotiation.

Ireland. The learning process in Ireland has significantly affected the centralized Westminster-like institutional and policy-making structure. However, its primary impact has been the transformation, rather than the expansion of the existing institutional structure. Thus, institutional innovation has taken place especially at the central state level and the building of new institutions has been rather limited.

Adaptation to the EU environmental regime has been pragmatic and piecemeal with the central government incorporating EU policy, as well as requiring local authorities to comply with these new directives. Pressures from the EU have certainly provided a critical impetus to Ireland in adapting existing and, in some cases, creating new structures; Ireland has remained slow to implement EU policy in this area. There are, however, examples of developments at local level where new community initiatives and networks involving individuals, commercial enterprises, and NGOs. On the other hand, there is trend pointing to an enhanced role of expertise in the policy process

With regard to the specifics of the domestic institutional structure in public policy, Ireland is characterised by some experts' involvement in the policy process, primarily at the central state level, the presence of NGOs, albeit fragmented and limited over time, a relatively overall high level of resistance to change, especially at the local level, a relatively high level of social capital and strong civil society, presence of fora for dialogue and consultation, and significant presence of the private sector.

Portugal. In a similar vein to Greece, the learning process in Portugal has resulted in significant and rather extensive institution building at the central state and regional levels since the early 1990s. It is debatable to what extent this process should be exclusively attributed to the influence of the EU. The main insight offered by the implementation of environmental policy is that it refutes the principle of «one size fits all» in comparative public policy, demonstrating that there may be variation in policy-making between one policy area to another even within the same country and/or contextual framework. The policy environment is characterised by appropriate regulation since all the relevant EU legislation has been transposed.

Successful institution building, based on a relatively good quality of institutional infrastructure, is the main outcome of the learning process in Portugal. The national-level system of governance is reinforced by regional directorates that ensure the coordination of policy in conjunction with the environmental ministry. There is, however, limited coordination at a national level between ministries, and at a regional level between municipalities, given the lack of a regional tier of administrative governance.

The specific features of Portugal's policy-making structure point to some presence of expertise in the policy process, primarily in the form of experts' associations and from the academic community, significant resistance to change, primarily at the local level, a relatively high level of social capital, especially with regard to trust in public institutions/civil service, a significant presence of fora for dialogue at the both the central and regional levels of government, and a significant presence public-private arrangements.

Hungary. In Hungary, there is some evidence of significant, although not very extensive, institution building at the central state level, given in particular the collapse of the pre-existing institutional infrastructure. Nonetheless, this remains a crucial challenge with regard to the content of the learning process. In practice, the country's environmental policy has been formulated by EU standards. Varying transitional periods for the implementation of the environmental *acquis* and some institutional innovation are the main features of waste management policy implementation in Hungary, in a policy environment characterized, for obvious reasons, by decrease in hazardous and agricultural waste and, simultaneously, significant increase in solid waste.

Institutional innovation and relatively significant presence of new forms of governance are the main characteristics of the learning process in environmental policy. Various tasks and responsibilities, which were previously carried out by the national government, have been transferred to the sub-national level of government, although its administrative capacity is limited, both in terms of resources and expertise.

With regard to institutional infrastructure, Hungary demonstrates a very limited involvement of expertise in policy making, some limited involvement of NGOs, a relatively significant presence of the private sector, a limited level of resistance to change, a relatively low level of social capital and cooperative culture, considerable

presence of political party-dominated «clientelism» and corruption, and some presence of EU-driven fora for dialogue primarily at the national level.

Poland. Although there was limited evidence on the outcomes of the learning process, there has been some institution building at the both the national and sub-national levels. Institutional reforms are linked to the collapse of the pre-existing structures and the extensive administrative restructuring is strongly influenced by the need for compliance with the EU.

Generally long transitional periods for the implementation of the environmental *acquis* and rather extensive institutional creation are the main features of environmental policy in Poland. There is also evidence of improvement in the state of environment, although it may be attributable to changes in the development process rather than to specific policy measures. Extensive institutional creation, albeit with serious concerns about effectiveness and efficiency, has been the dominant feature of learning in the environmental policy in Poland. With regard to social participation in decision-making and implementation of environment policy, some observations point to the influence of factors such as the distrust in political institutions and weak co-operation and co-ordination links between various levels and types of authorities.

Global trends found in Poland include very limited experts' involvement in the policy process, some significant presence of the private sector, limited role of NGOs, despite the strong tradition of active NGOs, a rather strong resistance to change, low overall level of social capital and a civic culture dominated by distrust in political institutions, extremely weak civil society, «clientelism» and corruption, some presence of fora for dialogue, primarily at the central state level, mainly related to consultation for policy formulation under the EU pressure, and some presence of public-private arrangements at the regional level.

Conclusions

In summary, «single-loop learning» seems to be the dominant pattern of the learning process in all the countries studied, while there has been only little and sporadic evidence of social learning. This is an important finding with regard to the impact of Europeanization on domestic institutional and policy-making structures. Europeanization may open up *exit and voice* options for actors in the domestic level of governance through the redistribution of resources and power, but the changing of

actors' preferences or identity seems to be a much more difficult exercise and less readily amenable to pressures from Europeanization. This points to the limits of the impact that the supranational level of governance can have on the transformation of domestic governance and policy-making structures and emphasises the crucial role of pre-existing institutional infrastructure in the learning and adaptation processes in public policy.

A crucial variable that explains different degrees of adaptational pressures across the countries may be the duration of authoritarianism, although other variables, such as culture and pre-existing institutional infrastructure, must also be considered. In the field of environmental policy-making, all countries can be characterized as being «laggards», with considerable policy misfits. Europeanization has led to significant legal harmonization but this has not been successfully followed by the necessary institution-building and the establishment of the required implementation and enforcement mechanisms. On the other hand, the gate-keeping role of the central state has remained unchallenged and prominent in almost all of the cases. A possible explanation may be the underestimation of the crucial role of state-society relations, and particularly of civic culture and identity as important components of the local institutional infrastructure.

Greece, Hungary and Poland demonstrate low levels of non-state actors' participation in the policy process, and a corresponding relevant role of political parties. In contrast, primarily Ireland and, to a lesser degree, Portugal exhibit a more positive policy environment and hence governance structures, characterized by varying but increasing levels of non-state actors' participation in the policy process.

From a system theory perspective, environmental governance in the European Union has suffered from both *morphostasis* and *morphogenesis*. New governance features have been introduced at the supranational and the national levels, although with different impacts. Values and ideas seem to have been the most successful domain in penetrating all political and social discourse and practice, which may be seen as an effect not only of EU integration but also of a global scale increase in awareness and commitment.

The influence of the European Commission is mostly felt in the field of policy instruments, as institution building remains restrained by domestic organizational and mediation structures. Differences in national culture, political and socio-economic systems, as well as material problems facing each country, determine to a large extent the governance arrangements put in place. According to Lenschow (1999: 59), this in

turn suggests that, more than a uniform new model of governance, we should be aiming at a “wide *repertoire* of governance strategies”

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