(Virtual) P07 / Problem structures and the policy process

Topic : POLICY DESIGN, POLICY ANALYSIS, EXPERTISE AND EVALUATION

Chair : Sabrina Kirschke (University of Copenhagen)

Second Chair : Hannah Kosow (Universität Stuttgart)

GENERAL OBJECTIVES, RESEARCH QUESTIONS AND SCIENTIFIC RELEVANCE

Public policy problems are increasingly described along with structural characteristics as a starting point for further theory building and empirical analysis (Peters, 2005; Hoppe, 2011; Peters & Pierre 2015). One particularly prominent example is the wickedness of problems (e.g., Rittel & Webber, 1973; Head, 2019), which likely influences the solvability of problems and the choice of relevant instruments and tools in policy design. Related approaches are the uncertainty (e.g., Dewulf & Biesbroek, 2018) or the complexity of problems (e.g., Pahl-Wostl et al., 2012; Kirschke and Newig, 2017), highlighting specific aspects of wicked problems as a starting point for discussing participatory and legal instruments for their solution.

In sum, these studies have contributed to a systematic analytical understanding of public policy problems beyond traditional policy field distinctions; they have also strongly stimulated the discussion of new design approaches in public policy analysis. But while structural approaches have advanced debates in public policy analysis, recent analyses correctly ask for better aligning structural approaches with public policy literature throughout the policy process (e.g., Roberts, 2018; Head, 2019). This includes a better understanding of how different characteristics of policy problems influence the agenda-setting processes, policy design, implementation, and also the possibility for evaluating public policies (ex-ante).

This panel aims at a more advanced understanding of the role of problem structures throughout the policy process. Key questions are

1) What are the potential structural characteristics of public policy problems, and how do policy problems differ along with these structures?

2) Which potential impact have these problem structures on the policy process from different theoretical angles? How could, for instance, different structural characteristics of problems influence policy design and implementation?

3) What are the actual effects of problem structures on policy processes across specific policy fields, such as environmental, health, and agricultural studies?

Addressing these questions shall advance our understanding of the role of structures in the analysis of public policy analysis, and therefore also support the generation of lessons learned across policy fields.

References

Dewulf, A., & Biesbroek, R. (2018). Nine lives of uncertainty in decision-making: strategies for dealing with uncertainty in environmental governance. Policy and Society, 37(4), 441-458.

Head, B. W. (2019). Forty years of wicked problems literature: Forging closer links to policy studies. Policy and Society, 38(2), 180-197.

Hoppe, R. (2011). The governance of problems: Puzzling, powering, participation. Policy Press.

Kirschke, S., & Newig, J. (2017). Addressing complexity in environmental management and governance. Sustainability, 9(6), 983.

Pahl-Wostl C., Lebel L., Knieper C., Nikitina E. (2012). From applying panaceas to mastering complexity: towards adaptive water governance in river basins. Environmental Science and Policy, 23, 24-34.

Peters, G. B. (2005). The problem of policy problems. Journal of Comparative Policy Analysis, 7(4), 349-370.

Peters, B. G., Pierre, J. (2015). Governance and policy problems: instruments as unitary and mixed modes

of policy intervention. Asia Pacific Journal of Public Administration, 37(4), 224-235.

Rittel, H. W., & Webber, M. M. (1973). Dilemmas in a general theory of planning. Policy sciences, 4(2), 155-169.

Roberts, N. (2018). Wicked Problem Territory and the Design Strategy. https://www.ippapublicpolicy.org/file/paper/5b0f3d2a167fe.pdf

CALL FOR PAPERS

The panel welcomes contributions that directly link the structure of public policy problems and their effects throughout the policy process. Contributions should address at least one of the key research questions of

1) What are the potential structural characteristics of public policy problems, and how do policy problems differ along with these structures?

2) Which potential impact have these problem structures on the policy process from different theoretical angles? How could, for instance, different structural characteristics of problems influence policy design and implementation?

3) What are the actual effects of problem structures on policy processes across specific policy fields, such as environmental, health, and agricultural studies?

Given the panel's synthetizing nature, we welcome contributions that focus on different steps of the policy process such as policy design or implementation, and that include different theoretical angles, such as rational or constructivist approaches. Empirically, we invite contributions related to various policy fields such as environmental policy, health, technology, or agricultural studies. Comparative analyses that go beyond single case studies and cover more than one policy field are particularly welcome.

To synthesize knowledge and to encourage discussion, all presenters will be asked to provide short answers to two key questions before the conference:

1) Which problem characteristics are critical to public policy analyses in your field of research?

2) How do/could these problem characteristics influence the policy process, e.g., at the design or implementation stage?

The panel chairs will summarize the answers at the beginning of the session to set the stage for the research papers' presentations and discussions.

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Session 1Morning SESSION, Part 1

Thursday, July 8th 10:00 to 12:00 (Virtual 07)

(Virtual) Policies and Processes of Resource Governance: Anticommons property and institutionalized conflict in India's forests

Priyanshu Gupta (Indian Institute of Management Calcutta)

Rajesh Bhattacharya (Indian Institute of Management Calcutta)

Forest policy is often required to navigate several stakeholders and balance a multitude of conflictual objectives – conservation of carbon stock and biodiversity, sustainable extraction of forest produce, making land and mineral available for development, and protecting forest dwellers' rights and livelihoods. India's policy response to the consequent "wicked problem" has been the fragmentation of property rights across actors and a pluralistic institutional framework, characterized as anticommons in the property theory. Even as the typical anticommons property (multiple exclusion rights and no exclusive use privileges) is seen as a "tragedy" of resource "under-use", it has become ubiquitous across several resource contexts across the world. This paper analyzes how the structural characteristics - a contested resource and anticommons property - shape resource governance across the scales of policy design and implementation.

We examine the implications of de-jure anticommons (created and negotiated in policy design) in influencing de-facto resource governance (navigated in policy implementation) with specific regard to resource conflict dynamics. Our empirical analysis comes from the case of Hasdeo Aranya forests in central India that have rich biodiversity and conservation potential, vast mineral reserves, and a substantial forest-dwelling tribal population. Our data collection approach comprised of three main components: (i) detailed review of government records of policy deliberations, (ii) ethnographic, and (iii) interviews with senior policymakers at the center and state level. We explicate the interlinkages between the institutional design and architecture, resource-use outcomes, and the forces impacting the creation and resolution of anticommons (both de facto and de jure).

We find that the mere existence of de jure anticommons does not exhaust resource contestations in practice that remain laden with power asymmetries. Nevertheless, the fragmentation of rights enshrined in the resource policy provides a legal, institutional, and discursive foundation for resistance by the marginalized actors. Thus, the existence of anticommons leads to contingent resource-use outcomes in practice – sometimes, we find an aggregation of property rights to enable a clear resource-use. In contrast, in other cases, we see a protracted conflict. However, both these outcomes could lead to a shift in the scale of conflict from the policy-implementation to the policy design scale. We find the State plays an important role in mediating rather than necessarily resolving conflict in any specific context.

Our findings represent a radical rethinking of the role of anticommons in resource governance – rather than a problem of inefficiency; they represent an institutionalized contestation among multiple use-values and stakeholders in the modern economy and society. Mediated conflict does not end the conflict; neither does it result in stasis. It implies changes — fast or slow, in one direction or the other, to a greater or lesser extent, provisional or relatively permanent — in the resource-use. Based on our findings, we argue for the usefulness of the anticommons construct and the conflict frame as essential tools to analyze policy processes around "wicked problems" in resource governance. Finally, our conclusions point towards the importance of structural characteristics – a multi-dimensional resource, departmentalized governance architecture, fragmentation of property rights – in shaping resource governance policy.

(Virtual) What Kind of Wicked Problem: Applying Uncertainty Typology in Livestock Wastewater Management Practice Analysis

Herlin Chien (National Pingtung University of Science and Technology)

River pollution is a complex environmental issue or so called a wicked problem involving multiple inputs of anthropogenic activities, constantly straggling between needs of economic development and ecosystem conservation. To successfully mitigate river pollution problem, one has to tackle with the complex river management process fraught with different types of uncertainties, including institutional, strategic or substantive. This research aims to use an empirical case study in Pingtung, Taiwan to answer the main research question: what kind of wicked problem is livestock wastewater management. By conducting a series of in-depth interviews with multiple stakeholders and applying the nine lives of uncertainty typology developed by Dewulf and Biesbroek in 2018 in the data analysis, the analytical findings contribute to better understand the ranges of uncertainties. This study argues that once we have an improved knowledge on the nature of livestock wastewater management as a wicked problem, policies and governance can be designed more robustly to integratively solve the problem, rather than solving one problem while creating more associated problems.

The nine lives of uncertainty is built upon a three by three matrix with the associated go-alone and collective strategies actors can use to manage the uncertainty. What is the lacking knowledge about the livestock wastewater management, what are different unpredictabilities and framings about this policy problem, who are main and subordinating actors in the strategic game of decision making and what are rules of the game are all what this study are concerned with.

(Virtual) Designing policy mixes for emerging wicked problems. The case of pharmaceutical residues in freshwaters.

Sabrina Kirschke (University of Copenhagen)

Hannah Kosow (Universität Stuttgart)

Wicked problems continuously emerge in the field of environmental governance. Characterized by goal conflicts, complexity, and uncertainty, wicked problems typically call for participatory policy designs. However, the effects of participation are widely unclear, given the indefinite nature of solutions to wicked problems. This presentation sheds light on this debate by developing and applying a systematic structural approach to assess policy mixes for emerging wicked problems. Based on a review of literature in the field of public policy and environmental governance, we identify eight assessment criteria matching three dimensions of wicked problems: coherence, consistency, congruence to address conflicts; comprehensiveness and diversity to address complexity; and adaptability, reversibility, and robustness to address informational uncertainty. The concept is demonstrated taking as an example two recently proposed policy mixes to address pharmaceutical freshwater pollution in Germany. This concept demonstration suggests that policy mixes resulting from desk research and participatory processes differ in the way they address wicked problems, hinting to a more diverse effect of participatory processes on designing policy mixes for addressing wicked problems: While the stakeholder mix seems to perform slightly better concerning conflict-related assessment criteria (here congruence), the desk research mix shows clear signs for dealing better with complexity (comprehensiveness and diversity). In terms of uncertainty, we found mixed results for both mixes and opposite strengths and weaknesses. These results contribute to systematically assess the role of participation in designing policy mixes for emerging wicked policy problems and open up for more advanced discussions on the role of structural approaches in public policy analyses.

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Session 2Afternoon SESSION, VIRTUAL part 2

Thursday, July 8th 14:00 to 16:00 (Virtual 07)

(Virtual) A case for constructivist perspectives on 'wickedness': problem structure as essential characteristic versus political tool

Johanna Lönngren (Umeå University, Sweden)

KATRIEN VAN POECK (Universiteit Gent)

In this paper, we engage with the question whether problem structure, particularly 'wickedness', should be approached as something that is inherent in the problem as an essential characteristic versus something that is constructed in practice, as a result of how a problem is approached (presented or experienced). We do so by drawing on (1) a review of literature on wicked problems (WP) and (2) empirical research on engineering students' approaches to WP in the context of sustainability education.

The term WP is today widely used in policy research, but also in many other disciplines, such as sustainability and sustainability education research. However, there is no consensus on the term's theoretical underpinnings nor on its utility for research. Since Rittel and Webber's (1973) seminal paper, the number of research publications in which the term is used has grown exponentially (Head 2019), but the research community remains divided with regard to its definition and value. Some researchers argue that WP is a useful concept since it can be used to highlight limitations of reductionistic approaches for addressing complex societal and environmental problems (Xiang 2013; Lönngren 2017). Others argue that the term is ambiguous and often used rhetorically rather than analytically (Noordegraaf et al. 2019; Peters and Tarpey 2019; Termeer et al. 2019; Turnbull and Hoppe 2019). These debates inspired a review of WP literature (Lönngren & Van Poeck 2020), in which we found that the concept can be used to perform two overarching rhetorical functions: 1. challenging existing, dominant approaches to addressing wicked problems, and 2. supporting alternative approaches. These findings indicate that problem structure should not only be viewed in essentialist terms, as inherent characteristics of problems; it should also be explored from constructivist perspectives since problems can be described as "wicked" to achieve certain political goals.

In another study, , Lönngren et al. (2016) explored how engineering students approach a sustainability problem which the researchers had constructed as wicked. They identified four qualitatively different approaches: A. Simplify and avoid, B. Divide and control, C. Isolate and succumb, and D. Integrate and balance. Notably, approaches A through C involve "taming" the problem, i.e. constructing it as well-structured rather than wicked. These findings suggest that problem structure may be constantly contested in sustainability education that aims to prepare students for addressing wicked problems. The findings also highlight the close connection between problem construction and ways of approaching a problem: when problems are constructed as not wicked, more reductionistic approaches are often used. This phenomenon has also been described in the leadership (Grint, 2005) and environmental policy (Ison, Collins, & Wallis, 2015) literature.

Based on the findings from the above described studies, we argue that problem structure should not only be understood as a characteristic of policy problems. It should also be explored as a political tool that can serve rhetorical functions and influence how policy problems are approached in practice.

(Virtual) Problem ‘structure’ and policy ‘design’ as verbs: Implications for the governance of wicked problems

Vanessa Schweizer (University of Waterloo)

Christina Comeau (Royal Roads University)

Natalya Siddhantakar (University of Waterloo)

Naresh Singh (Jindal School of Government and Public Policy)

This paper addresses the structural characteristics of wicked problems and their attendant demands on leadership, policy design, and implementation for effective resolution and governance. We focus on the multi-faceted (i.e. complex) nature of wicked problems as well as the reality of decision making under uncertainty. For many complex policy problems (especially those that are long lived), multi-facetedness and imperfect information should be considered as structural characteristics rather than quirks or ‘flaws’. The implication of such characteristics is that policymaking for wicked problems must be more than management; leaders and institutions must create and foster spaces for governance that are complex-adaptive and problem-based (CAPB). Further implications of CAPB governance are that policy *design* should be understood as a verb (i.e. creative process) rather than noun (i.e. product). The field of *design thinking* systematizes how designers solve problems (e.g. Ulrich 2011), and this paper discusses its implications for policy design and governance when applied to wicked problems. Design thinking can be contrasted to linear thinking, which relies heavily on expertise for top-down planning and execution (Chang 2019). Instead, design thinking employs an amalgamation of evidence and vision (Berger 2009) to explore-test-iterate multiple generations of possible implementations before adopting any particular implementation longer-term (Ulrich 2011, Chang 2019). In design thinking, *problem structure* is both noun and verb: An initial characterization of the problem is made to kick-start problem solving. However, first impressions are not presumed to be sufficiently accurate, and the design-thinking process -- which includes regular consultation with stakeholders on the desired outcomes of policy or governance -- feeds back into making sense of what the problem truly is. Such iterative feedback to understand problem structure is a necessity when one aims to do more good than harm with policy interventions on complex systems. Furthermore, human-centred design (Brown 2009) calls on designers to ground their problem-solving in empathy for stakeholders (see also Chang 2019). We argue further that the empathic core of human-centred design has implications for the problem-solving process itself. To truly be human-centered, design thinking must engage a larger matrix of human capacity for problem solving (e.g. policy co-design with stakeholders). However, too often, policy is treated as a sequence of predetermined steps (Brown & Wyatt 2010). We conclude that problem structure matters for achieving desired policy outcomes. However, for wicked problems, problem structure may be multi-faceted or hidden. Under such conditions, what is equally important to problem structure is the problem-solving process of policy analysts, policymakers, and those who govern implementation. In the context of wicked and/or complex problems, linear thinking is likely to lead to sub-optimal policy or outright failure due to underdeveloped (or simply incorrect) problem structuring. Wicked problems should be approached with humility, and leaders must be committed to learning, which will be most effective when a diversity of human perspectives are leveraged. In order to address wicked problems effectively, leaders must become adept at convening and leveraging a diversity of human relationships within a system of interactions committed to sustained problem-based learning.

(Virtual) Understanding problem structure and problem perception

Sonia Gatchair (University of the West Indies, Mona)

ERIS SCHOBURGH (THE UNIVERSITY OF THE WEST INDIES, MONA CAMPUS)

Multiple approaches have been proposed in the literature to characterize the structure of problems as part of efforts to improve the tractability of developing and implementing policy solutions. The complexity makes it difficult to prescribe a single “one size fits all” approach to frame policy problems and engage in policy design. This study examines the question, how does problem structure influence perceptions on problems and policy design. Drawing on different perspectives in the literature, the study synthesizes a framework to characterize the structure of policy problems, which includes the dimensions of values/beliefs, complexity, knowledge, potential solutions, and outcomes. Given that the relative importance of each dimension will vary for different problems, it is anticipated that a continuum of problem types will emerge with the extremes characterized as structured or ill-structured problems. The study applies the framework to characterize the problem of public financial reforms in a small developing state focusing specifically on accountability for fiscal responsibility. The country’s poor management of its public finances (PFM) in part contributed to growing deficits, ballooning debt, and anemic growth. Consequently, the country required fiscal support from the International Monetary Fund (IMF), which came with strict conditionalities to reform its PFM systems to

improve fiscal responsibility. While much of public financial management reform can be classified as technical problems, increasingly a trend has emerged, which incorporates the broader participation of non-state actors in areas such as budgeting and accountability. Increased participation and collaboration have the potential to generate conflicts on values and expectations leading to different perceptions on the problem and desirable solutions. Given that the concepts of collaborative governance are often used to elucidate the interactions among actors in the policy process, the study incorporates these concepts to increase understanding of the relationships and interactions among actors, different articulations of the problem, the dominant perspective, and actual or anticipated policies to resolve the problem. The study is based on a qualitative case study methodology with data collected using document analyses, interviews, and observations of the reform process. The study contributes to theoretical development in the characterization of problem structures, the influence of structural characteristics on problem definition, and to practical recommendations to improve fiscal policy oversight using participatory governance mechanisms.

(Virtual) The effects of policy and functional (in)coherence on coordination – A comparative analysis of cross-sectoral water management problems

Ines Dombrowsky (German Development Institute)

Andrea Lenschow (Universität Osnabrück)

Coherence and coordination among interdependent policy sectors are considered key for the successful implementation of the 2030 Agenda for Sustainable Development. Literature on policy coherence argues that a lack of coordination may lead to policy incoherence. However, literature on coordination also sometimes points to the reversed causality that incoherencies in policies or governance functions may hinder coordinated policy outcomes. However, so far these assumptions have rarely been further theorized or tested empirically. Therefore, we examine the effects of (in)coherence on coordination, distinguishing incoherencies due to overlaps or gaps in governance functions and incoherencies in policies. Coordination is studied at process and outcome level. Empirically, we present a comparative study on cross-sectoral coordination challenges among different water using sectors in six different basins located in Germany, Iran, Mongolia, Spain and South Africa. About half of the cases seem to confirm our first hypothesis that coherence of governance functions supports coordination. However, this holds only at process and not necessarily at outcome level and causality can only be established for one case. This shows that functional coherence is if at all a necessary, but not a sufficient condition for coordination. We furthermore find evidence for our second hypothesis that policy incoherencies increase coordination problems at the outcome level. However, contrary to our expections, policy incoherencies do not necessarily reduce coordination at process level. Instead, we find several incidences where policy incoherencies were a starting point for coordination at the process level, possibly in order to compensate for incoherencies. Overall, the cases suggest that coordination deficits can only be partly explained by functional or policy incoherence. Therefore, other potential explanatory factors, such as implementation capacity, should be further investigated.