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Review

Governing protected areas to fulfil biodiversity conservation obligations: from Habermasian ideals to a more instrumental reality

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Abstract This paper considers the implications of the growing recognition of scale challenges, with a particular focus on those concerning the governance of protected areas (PAs), through a critical literature review. Two key scale challenges raised by PAs are considered: (1) the divergence of objectives between resource exploitation and biodiversity conservation; (2) the requirement to fulfil biodiversity conservation obligations. These are explored through a review of a UK marine PA case study which found that though even though the state had adopted a controlling role that had created tensions by undermining the authority and livelihoods of some stakeholders, the partnership had been sufficiently strengthened to withstand these tensions through the instrumental development of 'bracing social capital'. Four conclusions for governance research with a particular reference to PA governance are drawn and it is argued that presumptions based on Habermasian ideals should not constrain governance analyses, in that they should constructively incorporate the instrumental roles of the state.

Key words: scale challenges; protected area governance; bracing social capital; communicative rationality; instrumental approaches.

1 Introduction

Governance can be defined as “the involvement of a wide range of institutions and actors in the production of policy outcomes..... involving coordination through networks and partnerships” (Johnston et al., 2000, 317). A protected area is a “clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values” (Dudley 2008, 8). The governance of protected areas raises many questions and challenges.

Debates about how to govern human uses of protected areas are taking place in the much wider context of debates about how we should go about managing people and the social, economic, political and bureaucratic systems of which they are a part. These debates are not confined to recent times, Plato long ago (*The Republic*, 360BC) having discussed the role of the state in ‘steering’ human affairs, the word ‘governance’ being derived from his use of the Greek verb ‘to steer’. Since Plato, many other seminal thinkers have put forward various observations, ideals and theories concerning the relative importance of the roles of states, markets and civil society as sources of governance steer. A full consideration of these debates about where governance steer should come from is beyond the scope of this paper, but they can be considered in terms of three perspectives (Table 1).

Table 1 Three perspectives on sources of governance steer (discourses after Dryzek 2005)

<i>Steer type</i>	<i>Decisions taken by</i>	<i>Characteristics</i>	<i>Discourse</i>
State steer	Governments and regulatory agencies	Top-down decisions by state through laws and regulations, drawing on expert advice	Administrative rationality: ‘leaving it to the experts’
Market steer	Markets and economic systems	Decisions on basis of economic rationality through markets and/or implemented through economic incentives, including property rights	Economic rationality: ‘leaving it to the markets’
Civil society steer	People, social networks and related organisations	Bottom-up decisions through deliberations amongst individuals, community/non-governmental organisations and social/family networks	Deliberative pragmatism: ‘leaving it to the people’

Many social and political scientists have taken these debates forward through studies of natural resource governance issues. However, many governance analyses, particularly those from a common-pool resource (CPR) perspective, drawing on neo-institutional theories, remain primarily focused on the role of people and civil society in self-organising social-ecological systems e.g. Ostrom (2009), and resistant to the potential role of some degree and form of state coordination, control and/or regulation. This is consistent with Kjær’s (2004) observation that whilst governance analyses should consider the role of the government and state steer, since the 1980’s governance has increasingly been considered by many analysts as being distinct from government in its focus on people and civil society.

This paper critically reviews CPR theoretical perspectives on protected area governance, particularly those related to two key scale challenges posed by initiatives to promote the collaborative management of protected areas. These critical perspectives are explored further, drawing on the findings of recent research on the co-management of a marine protected area (MPA) in the UK, focusing on the concept of ‘bracing social capital’ as a means of addressing these two scale challenges. Bracing social capital consists of strategic links instrumentally developed by the state between key actors at different levels and in different sectors in order to reinforce partnerships and promote the fulfilment of strategic policy obligations (after Rydin & Holman 2004). Four key implications for research on protected area governance are discussed, including a critique of some related perspectives amongst CPR governance researchers. These critiques focus on the influence of Habermasian ideals, particularly communicative rationality, that is, that actors can reach a common understanding through

reasoned arguments and deliberations, and thereby agree coordinated actions based on consensus and cooperation, rather than strategically pursuing pre-conceived goals (Habermas, 1984, 86). Instead, it is argued that the 'instrumental' role of the state in strategically pursuing wider societal goals in protected area governance initiatives, including a degree of coordination/control, is critically important to address scale challenges posed by protected area governance, especially if growing societal concerns about declines in biodiversity are to be addressed.

2 The growing recognition of scale challenges

It is increasingly recognised that research into natural resource governance issues needs to move on from its focus on community-based case studies characterised by self-organised local actors governing the exploitation of relatively contained natural resources (Agrawal 2001; Berkes 2002, 2006; Edwards & Steins 1999; Jones & Burgess 2005; Stern et al. 2002). Such research needs to recognise that linkages amongst fragmented institutions in complex governance structures go beyond local civil society (Rydin 2006) in an increasingly multi-level, globalised world (Berkes 2008), and to recognise the scale challenges that these linkages present (Cash et al. 2006).

There has been a long standing recognition of the challenges posed by such linkages. Dryzek (1987, 96-100) discussed the coordination difficulties inherent in hierarchical approaches, in that higher levels may have a wider and more strategic perspective on ecological problems, and lower levels may have a better conception of the complexities of the local "spatially bounded" level at which ecological problems must ultimately be addressed, but that it is very difficult to decompose such problems to an appropriate level of detail to be addressed at lower levels and to ensure that the different levels will act in concert to address such problems. He subsequently discusses this as the central dilemma of environmental governance, that is, that problems of any complexity defy centralisation but that decentralisation can undermine the integration required to accommodate such linkages (Dryzek 2005: 92-94). He rejects inflexible 'administered hierarchies' as a means of addressing this dilemma and proposes an approach termed 'negotiated compliance', whereby central agencies set standards and compliance is negotiated locally on a 'learning by doing' adaptive management basis, with such learnings ideally being transferred through more flexible and ecologically rational hierarchies for application in other contexts (Dryzek 2005, 95-98; 1987, 108-109).

Governance researchers analyse such dilemmas on a broadly similar basis. Cash et al. (2006) recognise that environmental governance outcomes are likely to be negotiated amongst actors at different scales/levels. More typically, CPR governance researchers discuss such dilemmas in terms of the need for horizontal and vertical linkages (Berkes 2002). Until recently, however, most of the empirical case studies on which CPR governance theories have built have been purposefully selected to represent contexts where the emphasis is on self-governance by self-organised local actors. This provides for governance analyses to focus on deliberation and decision-making 'agency' dynamics amongst self-organised local actors in civil society. Such research aims to identify combinations of enabling conditions that support the evolution of institutions for sustainable natural resource governance amongst local actors (Agrawal 2001).

McCay (2002), on the other hand, recognises that such local actors are 'embedded' in supra-individual 'structures' that operate at local and wider scales, for example, wider policy frameworks and markets, and that the influence of these structures on the evolution of governance institutions needs to be integrated into CPR governance analyses. McCay also recognises that not only are people influenced by such structures, but that they can also influence and alter these structures. This more balanced approach, that recognises the interactions between structure and agency, is consistent with the theory of structuration (Giddens 1984), in keeping with which it could be argued that structure and agency are inextricably intertwined and co-evolve. Raik et al. (2008) stress the need for more research that takes such a 'realist' perspective on power and the interactions between structure and agency in natural resource governance.

So what are the implications of these developments for the theories underpinning governance research and related empirical studies? The most immediately obvious is that some of the ‘critical enabling conditions’ developed by CPR governance researchers and synthesised by Agrawal (2001) do not map well to case studies where structural factors have a significant influence. For instance, in relation to both resource system and group characteristics, *small size* and *well defined boundaries* are identified as enabling conditions, but these conditions are not well met in many contexts given increasing recognition of the wide scale and dynamic nature of ecosystem and demographic factors. The condition of *locally devised access and management rules* will not be well met where the state and related legal institutions have a significant role. Similarly, the condition that *central governments should not undermine local authority* will often not be well fulfilled, whilst the condition of *low levels of articulation with external markets* is increasingly unlikely to be fulfilled given the growing influence of global markets. One conclusion could be that such theoretically motivated comparative case study analyses are actually very limited in terms of their transferability, as they are confined to contexts only where these conditions are fulfilled.

More constructively, the increasingly common contexts where such conditions are not fulfilled can be regarded as representing ‘scale challenges’ (Cash et al. 2006), whereby comparative case study analyses take account of structural factors such as state policies, demographic shifts, new technologies and increasingly global markets (Agrawal 2001). The incorporation of such factors into such analyses does not preclude the quest for causal links that appear to lead to the evolution of sustainable and effective natural resource governance institutions. Whilst it increases the complexity of such analyses and raises some major methodological challenges, more importantly it also increases the validity and transferability of the findings to contexts that are becoming more common in an increasingly globalised and multilevel World. Accordingly, Ostrom (2007, 2009) proposes a diagnostic approach for going beyond panaceas to provide for the development of systematic analyses of the attributes of different case studies, recognising their linkages with larger socio-economic, political and ecological structures. However, as is discussed below, the emphasis remains on self-governing social-ecological systems.

3 Scale challenges posed by protected area co-management

A social-ecological context of particular interest is that represented by protected areas designated to conserve/restore biodiversity, as these are important and interesting case studies within which to analyse scale challenges. An increasing proportion of the world’s surface is designated as protected areas, ~13% of the total terrestrial area and ~5.5% of the total marine area under national jurisdiction being designated as such. At the 10th Conference of the Parties to the Convention on Biological Diversity, it was agreed that 17% of the global terrestrial and inland water area and 10% of the global coastal and marine area should be effectively conserved through protected area designations by 2020 (CBD 2010). We are therefore likely to see a greater proportion of the world’s surface area designated and governed under protected area legislation, including requirements to achieve biodiversity conservation and restoration obligations. This raises some major scale challenges that governance analysts must engage with, given the significant and growing proportion of the global area that is designated as protected and that such areas often cover the most productive and diverse habitats where human development and biodiversity conservation interests coincide, leading to complex governance challenges (Brechin et al. 2002).

Many governance researchers have focused on the scale challenges posed by the governance of protected areas, e.g. Berkes (2004, 2007), Jones & Burgess (2005), Mascia (2003), Pretty & Smith (2006). In a more applied policy context, recognition has grown over the last two decades that local people affected by protected areas should be involved in their planning and management to increase the fairness of decisions and promote local ownership and cooperation. This key aspect of the new paradigm for protected areas was recognised at the IUCN’s 5th World Parks Congress (Phillips 2003). The term ‘collaborative management’ (hereafter referred to as ‘co-management’) describes a range of

approaches to provide for the participation of different actors in protected area management. It is recognised as a “broad concept spanning a variety of ways by which the agency in charge and other stakeholders develop and implement a management partnership” (Borrini-Feyerabend 1999, 228).

There has been a tendency in some quarters, e.g. Murphree (1994), for co-management to be considered as synonymous with community-based management, whereby the emphasis is on empowering local people in protected areas through reinforcing their proprietorship of these areas, which the intervention of the government body ‘in charge’ is considered to undermine (Geisler 2002). Such approaches are a response to the recognition of the ‘risks of imposition’, such as alienation, apathy and defiance amongst local people whose rights are displaced through the designation as ‘protected’ of the area in which they undertake their activities (Jones & Burgess 2005). Such risks of imposition are a key driver for the present dominance of the co-management paradigm, as an alternative to the previous ‘fortress conservation’ paradigm that dominated until the 1970’s .

However, in recent years there have been a growing number of papers that question the view that ‘the more community-based protected area management is, the better’. These focus on what might be termed the ‘risks of parochialism’ (Jones & Burgess 2005), such as that biodiversity conservation objectives will be undermined by local resource exploitation objectives (McClanahan 2004, Saunders et al. 2008, Walters 2004) and that inequities amongst local people will be reinforced (Lane & Corbett 2005, Ostrom 1999, Platteau 2004).

Against this background, Berkes (2002, 293) notes that “the balance of evidence from the commons literature of the past few decades is that neither purely local-level management nor purely higher level management works well by itself”. The focus of CPR governance analysts has accordingly shifted to looking beyond single ‘panacea’ approaches (Ostrom 2007). The challenge, then, is to achieve an appropriate balance between top-down and bottom-up approaches (Jones & Burgess 2005), or what Cash et al. (2006) refer to as the ‘middle path’ approach, leading to a more progressive definition of co-management: “power-sharing in the exercise of resource management between a government agency and a community or organization of stakeholders” (Pinkerton 1992). The challenges raised by sharing power in protected area co-management are being addressed amongst governance researchers, e.g. Adger et al. (2006), Raik et al. (2008), Young (2006), and policy communities, e.g. Borrini-Feyerabend et al. (2004), but this remains an under-researched area (Adger et al. 2006).

There are two key scale challenges related to the challenges of sharing power that are posed by protected area governance:-

The divergence of objectives between sustainable resource exploitation and biodiversity conservation: accepting that resource exploitation objectives will, at best, be focused on sustainability, basic conflicts will be generated in protected area governance due to the emphasis of the state on biodiversity conservation objectives where most local users are focused on (hopefully sustainable) resource exploitation (Jones & Burgess 2005). The majority of CPR governance case studies are focused on sustainable resource exploitation objectives, so the divergence of objectives and the related value pluralities can present particular challenges for protected area governance.

It is particularly important to recognise that natural resource governance initiatives, including in protected areas, can be considered to be successful from a sustainable resource exploitation perspective but a failure from a biodiversity conservation perspective, as high diversity natural habitats are displaced by lower diversity habitats that yield a higher economic return from the harvesting of particular commercially important species (Saunders et al. 2008; Walters 2004). Some of the risks of parochialism discussed above might thus be considered to be the result of focusing efforts on providing for livelihoods through sustainable resource exploitation as a laudable means of promoting the economic wellbeing of local people, at a cost in terms of declines in biodiversity. Such declines do not only undermine the fulfilment of the obligations discussed below, they may also undermine the ecological resilience of the ecosystems in question and thereby their ability to deliver

ecosystem services that support human well-being (MEA 2005). The divergence between the objectives of sustainable resource exploitation and biodiversity conservation is therefore very significant in protected area governance.

The requirement to fulfil biodiversity conservation obligations to higher statutory authorities, given which the state arguably cannot shift from being a controller to a facilitator, allowing considerable local autonomy whilst providing a supportive framework, which it has been implicitly argued is necessary for successful governance (Ostrom 1990, 1998, 1999), as the state has a duty to ensure the fulfilment of these obligations, so must maintain a degree of control. This also means that the enabling conditions of *locally devised access and management rules* and *central governments should not undermine local authority* (Agrawal 2001) will be challenging to fulfil or they may be considered to be inappropriate (Jones & Burgess 2005).

It is frequently argued that the risks of imposing biodiversity conservation obligations often outweigh the benefits and that imposed protected areas are often less effective than wider scale natural resource governance institutions; therefore, efforts should also be focused on developing wider scale systems of rights and conservation policies that link state and local conservation efforts (Hayes & Ostrom 2005). Analyses such as that by Hayes & Ostrom (2005) are generally focused on less economically developed countries where the state often lacks the capacity to monitor and enforce protected area regulations (Pearce 2005), so it could be argued that it is the lack of such state capacity that is the problem that needs to be addressed, rather than the pursuance of compliance with imposed obligations through protected areas per se.

Whilst such arguments could be interpreted as representing those of ‘ecological Hobbesians’ (Dryzek 1987: 91), it is important to recognise that they do not necessarily represent a return to the inflexible hierarchies rightfully rejected by Dryzek (1987, 108); rather, they represent a recognition of the importance of strategic biodiversity conservation objectives, without which parochial and economic development priorities could continue to lead to further declines in biodiversity, which is a problem that many consider is reaching critical levels (MEA 2005).

The extreme challenges of devising vertically linked institutions to implement international agreements on global biodiversity are highlighted by Stern et al. (2002) as a priority for further research, particularly linkages below the nation-state level to meet management objectives set internationally, recognising that there are different objectives at different levels. However, to date very few CPR governance case studies have focused on protected areas and even fewer, if any, explicitly take account of these two key challenges. Given the significant and growing proportion of the land and sea that is designated as protected area it is argued that analyses of related governance issues through case studies that take specific account of these two key challenges is a critical priority.

4 Scale challenges posed by marine protected area co-management

The co-management of marine protected areas (MPAs) poses several particular scale challenges from a governance perspective, and my associates and I focus on empirical research on such challenges (Jones & Burgess 2005). Jones (2001) argues for a ‘middle ground’ approach which balances local and national perspectives and concerns, whilst Kelleher (1999) stresses that the design and management of MPAs must be both top-down and bottom-up, but what do these statements mean in the context of the complex realities that the governance of any given MPA represents? Roberts & Jones (2009) address this question, building on Jones & Burgess (2005), through a case study of an MPA on the north-east coast of England: the Wash & North Norfolk Coast European Marine Site (EMS), which is subject to statutory biodiversity conservation obligations to the European Commission. A key premise of this research is that the ‘statutory partnership’ model under which EMSs are managed might be considered as an oxymoron, in that the statutory obligations and powers remain with the state; therefore, the asymmetrical distribution of power precludes a partnership where stakes, responsibilities and powers are shared between local users and the state.

This research was focused on a public inquiry that had upheld the refusal of the state conservation body to grant mussel cultivators permission to scare eider ducks that feed on cultivated mussels off their lays using sonic bird-scaring devices. The research found that this statutory intervention by the state, in order to ensure the fulfilment of statutory conservation obligations, had created tensions between local resource exploitation and strategic conservation objectives, and there had been a breakdown of trust between some stakeholders and state representatives. Fortunately, however, the extent and degree of the tensions was limited and the partnership was strong enough to resist fracturing or even collapse. Subsequent research has found that the partnership has actually been strengthened by other factors, particularly the official recognition that the mudflats of the EMS were recovering from the previous over-exploitation of shellfish and the coincidence of this with a combination of high shellfish prices, high shellfish catches and the discovery of local sources of mussel spat for the cultivators.

5 Bracing social capital as a means of addressing scale challenges

This case study supports arguments that co-management through a ‘statutory partnership’ between the state and civil society can be effective in overcoming significant governance challenges, even though statutory interventions by the state necessary to fulfil imposed biodiversity conservation obligations undermined the authority of some actors and the partnership has an asymmetrical distribution of power. As well as the emerging factors related to high shellfish catches/prices, our research indicates that ‘bracing social capital’ developed through the Wash EMS partnership was a key factor in enabling it to address the governance challenges faced.

Bracing social capital is “a kind of social scaffolding” that is “primarily concerned to strengthen links across and between scales and sectors but only operates within a limited set of actors” (Rydin & Holman 2004). It is driven by the increasing need for partnerships to deliver on policy goals; therefore, bracing social capital is developed through strategic, selective, focused and instrumental processes, and its development is often guided by the state in order to reinforce partnerships in such a way that they can fulfil specific policy obligations (Rydin & Holman 2004). Rydin (2006) discusses how bracing social capital is a concept that considers the horizontal and vertical linkages between the state and civil society that go beyond the locality and are necessary to achieve strategic policy objectives that are increasingly prevalent in natural resource governance contexts. As such, bracing social capital is similar to what Jones & Burgess (2005) discuss in terms of ‘partnership capacity’, or what Raik et al. (2008) discuss in terms of “enduring structural preconditions that shape contingent human interactions”. In the context of this paper bracing social capital is a key means of addressing the scale challenges posed by protected area governance.

6 The implications of addressing scale challenges for governance research

Given the increasing recognition that CPR governance analyses need to move beyond focusing on the institutional interactions amongst local civil society actors, what are the implications for research related to, for instance, the governance of protected areas?

Firstly, it is argued that the focus of analyses should be on the complex dynamics of the agency and structure processes in question, through which different powers are expressed in different ways, rather than on attempting to categorise regimes or devise rules. There is a tendency amongst some CPR analysts to attempt to categorise cases in a way that does not reflect their complexity and dynamism. For example, Young (2006) outlines a typology of ‘interplay patterns’ but it is argued that few, if any, networks represent static regimes which can be categorised using schemes such as this as they are likely to display a complex combination of interplays at different times in different contexts.

The responses to scale challenges outlined by Cash et al. (2006) also tend towards being too categorical, in that the three categories of responses essentially represent different elements of most natural resource governance networks. Whilst they recognise that CPR governance models can involve an integration of all three responses, it is argued that the response ‘institutional interplay’ describes the vertical and horizontal linkages and the processes that occur across them, and ‘boundary or bridging organisations’ describes the actors that facilitate these linking processes, ‘co-management’ being the name given to the sum of these processes. Rather than being separate categories of responses, they actually represent the processes, nodes and whole network, respectively.

Similarly, it is argued that there is increasingly little to be gained from employing context specific ‘critical enabling conditions’ or developing ever more complicated sets of such conditions to encompass contexts characterised by scale challenges. Whilst we should continue to strive to identify combinations of causal links that appear to lead to the evolution of sustainable and effective natural resource governance institutions in a given context, the focus should be on more ‘middle range’ approaches such as bracing social capital, institutional capacity (Rydin 2006), partnership capacity (Jones & Burgess 2005) and combined incentives (Jones et al. 2011), rather than on developing more theoretically abstract categorisation schemes and normative systems of critical enabling conditions.

The emphasis should be on observing and analysing the dynamics of processes and structures in a given case study, recognising that they represent components of hierarchical complex adaptive systems, and then seeking approaches that appear to be successful in addressing scale challenges, such as bracing social capital, which can be adapted and applied in similar case study contexts. This represents an argument to go back to a more basic and realist institutional analysis approach rather than developing more theoretically, idealistically and normatively abstract approaches in our quest to address the complexities of scale challenges.

Secondly, accepting the importance of higher level organisational and regulatory structures for providing monitoring, assessment and enforcement, and fostering local management at a community level (Berkes 2006; Rydin 2006), protected area governance analyses must explicitly integrate the effects of top-down institutions and interventions, recognising their positive contribution to governance. A level of particular importance and interest in this respect is the interface between local communities and higher level state and civil institutions, and it is argued that the concept of bracing social capital is a particularly useful means of analysing the linkages at this critical interface that appear to be key to the development of resilient and effective natural resource governance institutions.

Thirdly, it is argued that if the linkages at the interface between local communities and higher level state and civil institutions are accepted as critical, governance analyses that seek approaches that appear to be successful in addressing scale challenges should be focused at this level, including analysing the potential to transfer what appears to be effective in one context to another. As such, it is argued that addressing scale challenges is as much about ‘transferring across’ as it is about ‘scaling up’.

Fourthly and finally, it is argued that whilst special issues of journals such as those introduced by Cash et al. (2006), Ostrom (2007) and Berkes (2008) are focused on integrating scale challenges into governance analyses, most CPR analyses continue to be implicitly or explicitly influenced by Habermasian ideals of communicative rationality (Habermas 1984, 86). Such analyses are thus very ‘agency’ focused, that is, premised on assumptions such as that the facilitation of rational deliberations amongst local actors unencumbered by imposed agendas can be effective in developing norms, etc., that lead to sustainable governance regimes. Raik et al. (2008) observe that such analyses represent efforts to address power asymmetries through the promotion of decentralization, and that they are pervasive in the field of natural resource management. Many of the critical enabling conditions synthesised by Agrawal (2001), for example, arguably reflect Habermasian ideals, as do many of the related arguments put forward by Berkes (2007).

Many such papers are introduced and contextualised in terms of addressing scale challenges, moving beyond panaceas, etc., but a close reading of them reveals that they remain constrained by an underlying commitment to Habermasian ideals, according to which, for instance, the state and other external actors should facilitate and support deliberations amongst local actors, and assist in enforcing decisions, but they should not instrumentally interfere with or undermine such deliberations. As governance analysts become more focused on addressing scale challenges, including explicit recognition of the potential positive contributions of top-down structures, institutions and interventions, it is important that presumptions based on Habermasian ideals do not constrain governance analyses.

It must be recognised that the state has important roles to play in protected area governance and that these roles will often be more strategic, instrumental and, to a degree, controlling in nature, in order to ensure the fulfilment of obligations to legal institutions such as the Convention on Biological Diversity and related regional and national policies, as well as related obligations to wider society and future generations. Governance analyses will be limited in their potential to address scale challenges if this recognition is undermined by Habermasian ideals that presume that strategic, instrumental approaches are inappropriate. For example, Steins & Edwards (1999) argue that negotiations amongst actors are obstructed if strategic narratives are adopted. However, state representatives are bound to strategically participate in such discussions in order to ensure that their statutory obligations are fulfilled. Buck (1999) accordingly stresses that the institutional imperatives of the state should be incorporated into governance analyses whilst Jones & Burgess (2005) discuss the need for the state to sometimes 'temper' its facilitation role. Such initiatives to incorporate the role of the state into governance analyses, including a sometimes controlling role, will be undermined by adherence to Habermasian ideals. Such adherence would certainly preclude, for instance, the search for strategic and instrumental processes that are often guided by the state in order to reinforce partnerships through bracing social capital, in such a way that desired policy goals can be fulfilled (Rydin 2006).

It is therefore important that governance case study analyses are focused on addressing scale challenges, including through the sometimes instrumental and controlling role of the state and related structures, as such roles represent both important forces for the evolution of sustainable and effective natural resource governance institutions and important elements of such institutions. As such, this paper is strongly aligned with Raik et al.'s (2008) argument for more realist analyses of the links between structure and agency and related power issues in natural resource governance research. In particular, it is arguing for the recognition of the importance of instrumental approaches in addressing the challenges of biodiversity loss, and for a balanced approach in empirical governance analyses that recognises the importance of both bottom-up (agency) and top-down (structure) approaches, rather than adherence to Habermasian or Hobbesian ideals. This argument is of particular importance given the need for more realist analyses that reflect real and growing concerns about the human consequences of biodiversity losses.

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