

The promise of common pool resource theory and the reality of commons projects

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Abstract: Commons projects, such as community-based natural resource management, have widespread appeal, which has enabled them to shrug off a mixed performance in practice. This paper discusses how the theoretical assumptions of common pool resource (CPR) theory may have inadvertently contributed to the unfulfilled expectations of commons projects. The paper argues that the individual ‘rational resource user’, encapsulated in the CPR design principles, struggles to provide clear direction for meaningful consideration of local norms, values and interests in commons projects. The focus of CPR theory on efficiency and functionality results in a tendency in commons projects to overlook how local conditions are forged through relations at multiple scales. Commonly politically complex and changing relations are reduced to institutional design problems based on deriving the incentives and disincentives of ‘rational resource users. The corollary is that CPR theory oversimplifies the project context that it is seeking to change because it offers little or no direction to deal with the social embeddedness of resource use or implications of different stratifications.

Keywords: Africa, collective action, common pool resources, commons, governance, institutions

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I. Introduction

Over the past 20–25 years small-scale, localised commons projects have been a prominent rural development strategy in developing countries. These projects commonly combine conservation and development ambitions and are promoted as strategies that give local people more control over resources that are important for their livelihoods. Important underpinning assumptions that drive the continued dissemination of this natural resource model are that rural communities are motivated by beneficial opportunities to cooperate and are best placed to make decisions about resource management and use.¹

Despite the continuing popularity of these projects, they have generated disappointing outcomes in practice (Blaikie 2006; Shackleton et al. 2010). This article discusses how common pool resource (CPR) theory may have contributed to the poor performance of commons projects. The ‘problem’ of commons projects has recently been debated, with key contributions by Roe and Nelson (2009), Murphree (2001, 2009), Nelson and Agrawal (2008) and Blaikie (2006), as well as, several articles in two special issues on commons projects in *Environmental Conservation* (most notably by Dressler et al. 2010; Shackleton et al. 2010). Almost exclusively these publications have interrogated the empirical rather than abstract or theoretical dimensions of commons projects, which have been left largely unexamined in this debate. Dealing critically with such an influential body of work like CPR theory is not a task taken lightly. This paper responds to this challenge by discussing the relationship between CPR as a theoretical framework and commons projects as a policy strategy through the illustration of intervention practices.

It should be noted that throughout the paper a distinction is made between situations of long enduring ‘self governance’ and commons projects/interventions. This distinction is made because this paper is concerned with examining the deliberate design of formalised institutions in commons projects. Much of the criticism of commons projects, such as community-based natural resource management is of the oversimplified adaptations by some non-governmental organizations and development agencies about the widespread acceptability and promise of giving control of resources to those groups and individuals depending on them. These communities may, in many cases, also have customary rights or claims over the resources or territory in question. In many of examples of commons projects, resources have been managed for decades, if not centuries, before coming under government control or in some instances private ownership. The key argument made in this paper is that if, at some later time, the areas/resources are handed back (usually through a conditional agreement), this presents

¹ Commons projects encompass a large amount of variation in labelling and perhaps substance (e.g. community-based forest management, community-based natural resource management (CBNRM), community conservation, co-management etc.) but for the purposes of this paper the core features of these projects are defined above.

an entirely different setting than when they were organized by a community in the first place.² In addition to the specific institutional design principles identified in Ostrom's work, the complex contextual concepts inherent within CPR theory such as participation, social capital, social learning and empowerment have proved difficult to craft into commons projects. So despite the recognition that communities can manage common pool resources effectively, transposing this knowledge into projects has encountered difficulties. Thus this paper dwells on the challenges presented by this problem by examining how CPR theory relates to the messy world of commons projects and their implementation.

The article is structured in the following way. First of all evidence is presented that establishes the relationship between CPR theory and commons policy and projects, such as CBNRM. This is followed by a discussion that examines the role of rationality and institutional evolutionary thinking in CPR theory and the implications of this for commons projects. This paper focuses mainly, but not solely, on Elinor Ostrom's work on CPR theory because of its iconic and influential status and its explicit concern with praxis (Ostrom 2010a, 2011; Ghate et al. 2013).

2. Tying the knot – firming up the relationship between CPR theory and CBNRM projects

In as much as colonial and post-colonial politics set the agenda for centralist institutional control over large tracts of forest in developing countries, commons projects, such as CBNRM and co-management have provided the anecdote in support of community conservation (Agrawal 2007). While it is argued throughout this paper that CPR theory has been important to the institutional design of commons projects, there were a myriad of other internally and externally derived political and economic influences that led to the widespread adoption of this approach in Africa during the 1990s (Pinkney 2001). These projects sought to shift conservation from the centralist state to civil society at the local level. They asserted the compatibility of conservation and development aims and commonly emphasised market mechanisms to achieve goals (Murphree 2001). During this time, Ostrom's (and others) formulation of CPR theory, as a 'package of knowledge', also became available to resource management and conservation practitioners. This included guidelines on how to design CBNRM institutions, which increased and strengthened the direction and confidence of policy interventions. Importantly, these influential policy resources were complemented by early evaluations of Zimbabwe's development of the Communal Areas Management Program for Indigenous Resources (CAMPFIRE). This experience showed that commons projects could work in Southern and East Africa (DeGeorges and Reilly 2009).

² I largely owe the importance of pointing this distinction out early on in the paper to an anonymous reviewer.

In the policy realm, influential actors such as environmental NGOs, government agencies and international development organisations widely promote commons projects as the way to deliver local sustainability and development by putting secure rights over resources in the hands of local, downwardly accountable, collective institutions (Roe and Nelson 2009). Although commons projects' contexts and aims vary, they are defined here as deliberate interventions usually in the form of resource and time bound projects aimed to enact localised institutional change around resource use rules. They are invariably mediated by government, as the arbiter and guarantor of legalised property rights, often in collaboration with NGOs and funders (Levine 2007). In Africa, at least, they are rarely, if ever, entirely initiated or endogenously managed and usually involve some form of management agreement between government and local communities (Roe and Nelson 2009). At this stage it is also important to distinguish CBNRM projects from Integrated Conservation and Development Projects (ICDPs), which tend to be larger in scale and finances (Horwich and Lyon 2007), place less focus on community-based institutional change and give greater priority to conservation aims (Saunders 2011). Although the distinction made here between these two types of interventions is not watertight, it will suffice for the purposes of the paper.

To inform the design of these commons projects, a huge body of research has been undertaken to identify the institutional attributes underlying effective collective action. As a key part of this research effort, Ostrom (1990), in a seminal study, examined rules in use across a broad range of historical and contemporary common pool resource user communities. Combining an analysis of these extensive (secondary) empirical data with experimental evidence, Ostrom (1990) and others showed that endogenous institutions were often successful in managing common pool resources. From these studies of endogenous institutions, principles associated with enduring commons institutions were derived (see Table 1). Since this work, these design principles have been applied both to commons project interventions by planners and as analytical and diagnostic tools by researchers (Johnson 2004; Cleaver 2012, xv). Schlager and Ostrom (1992) argue that these rules, with accountable authority structures, need to be developed and operated

Table 1: Ostrom's design principles of enduring commons institutions.

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1. Clearly defined boundaries (membership and physical boundaries of resource are clear)
 2. Congruence between appropriation and provision rules and local conditions (rules are congruent with local conditions)
 3. Collective choice arrangements (individuals affected can participate in modifying operational rules)
 4. Monitors are accountable to the resource users
 5. Graduated sanctions against violators
 6. Ready access to conflict-resolution mechanisms
 7. Recognition of rights to organize, by external government authorities
 8. Nested enterprises (where the resource is part of a larger system)
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Source: Ostrom (1990, 90)

transparently and consistently to achieve ‘successful’ commons institutions, leading to achieving desirable environmental conditions. Ostrom’s work has therefore been pivotal in excavating and packaging up the knowledge to craft local natural resource institutions through commons projects.

Following Long (2001), Rondinelli (1993), and Alexander (2005) this paper argues that there is an intimate relationship between theory informed institutional analysis and institutional design; in that theory derived analysis can influence policy design. As Sager (2009) notes, theorists bear the obligation to examine if there are some intrinsic features of theorization and theory that render these susceptible to misinterpretation either in analysis or as guidelines to inform policy. If it is acknowledged that CPR theory has been influential as an institutional model for the management of commons, then it follows that CPR theory has been influential in ‘crafting’³ CBNRM institutions. The design principles have been drawn on widely to craft institutions in support of commons projects and their traces can be found in community conservation management programmes and plans throughout Africa. The evidence presented below, which establishes firm links between the design principles and examples of commons policy initiatives, is clearly not a comprehensive review, but merely illustrative of, what I argue, is a wider phenomenon.

To support the ‘crafting’ of commons institutions via projects, the CPR design principles have been adopted by important and far reaching international assistance agencies as the United Nations and World Bank (Esmail 1997; Agrawal and Gibson 1999; Steins et al. 2000). Common property theorists including Ostrom have been heavily involved in the Food and Agriculture Organization’s, Forests, Trees and People Programme, which was closely linked to the heavily CPR theory influenced, International Forestry Resources and Institutions research program. Both of which are concerned with how commons scholarship can enhance institutional crafting in forestry conservation projects. NGOs advocating community conservation from around the world also take the role of how to design commons institutions and governance arrangements seriously. This is evidenced by the production of CBNRM manuals that explicitly cite the design principles to inform project interventions (e.g. WWF 2006). Other examples of guidelines, technical notes and legislation have provisions either explicitly referencing Ostrom’s design principles or implicitly mirroring them are the Community Based Forest Management Guidelines For the establishment of Village Land Forest Reserves and Community Forest Reserves in mainland Tanzania; the development aid oriented, DANIDA published Community Based Natural Resource Management New Technical Note (Ministry of Foreign Affairs of Denmark 2007) and the Zanzibar Forest Resource Management and Conservation Act (No.10 of 1996). In addition, a recent issue of *Policy Matters* (Robson et al. 2014 eds.) dedicated to the legacy of Elinor Ostrom’s

³ Crafting – implying institutional design, is a term used by Ostrom (1992, 3) and others prominent commons scholars (Meinzen-Dick 2009).

work provides a rich account of its influence on many diverse fields of natural resource management policy throughout the world.

Ostrom's (2010a) presentation to the World Bank, where she has conducted extension work on numerous occasions, is also evidence of her rather direct engagement with commons policy. The importance and relevance of this work was also underlined when Elinor Ostrom was awarded the 2009 Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel. NGOs and practitioners from different parts of the world in celebrating the award have also emphasised Ostrom's valuable contribution to the theory and practice of crafting commons institutions (Dam 2009; Schramm 2009). It is clear that a wide range of influential commons policy actors actively look to CPR theory to inform development and conservation projects (Mehta 2000). This is because theory that informs policy can be a powerful tool. It helps capture and simplify complex information and because of the efficiency of replication or scaling-up potential (Li 2002) – often discussed in the commons literature. So from a public policy perspective, the focus on design principles is explicable as bureaucracies want institutional designs that are simple and that they can repeat and sell to prospective supporters and donors.

While Ostrom (2005, 275; Nagendra and Ostrom 2012) has explicitly shied away from a 'cookie cutter' approach to institutional design implied in discussion above, some commentators argue that the CPR design principles have been used as an institutional blueprint for commons projects (Steins and Edwards 1999; Cleaver and Franks 2003; Evans 2004; Husain and Bhattacharya 2004; Agrawal 2005; Li 2007; Quinn et al. 2007). These commentators variously argue that there are such a vast number of factors that may influence any one commons project that engaging in simplifications or pre-scripting in planning and design of these institutions is fraught with problems. While Ostrom has been careful to emphasise the importance of local context, she has also argued that the CPR design principles are universal and predictive in that they can distinguish 'successful' from 'unsuccessful' cases of commons projects, regardless of the conditions faced (Ostrom 2008, 2010a).⁴ I will now turn to examining some of the theoretical underpinnings of CPR theory in light of commons practice.

3. CPR theory – pertinent methodological and theoretical issues

3.1. The relationship between CPR theory, rationality and the complexity of Commons' environments

CPR theory sees the individual as the unit of analysis and her rational choices under a set of constraints that must be explained or controlled (Bardhan and Ray 2006). Calculation of individual preferences provides the logic supporting commons

⁴ Arguably, Ostrom's recent work is aimed at synthesizing the institutional design principles work with resilience theory (i.e. SES), rather than re-conceptualising or theorizing the institutional work (see Ostrom 2007; Ostrom and Cox 2010).

projects with the assumption that rational actors influenced by constraints of resource institutions (enforced rules) will make calculated decisions based on their own best interest (Ostrom 1990; Baldwin 2003). Following this logic, the task of commons projects is to craft the CPR design principles into locally suited rules to build or link into norms (what is permitted and what is not) of compliance and cooperation in order to meet desired resource conservation objectives. Whether the project objectives themselves are open to discussion varies from case to case. However, key from an institutional theory view, is to alter the structure of informal and formal constraints and incentives that actors face to produce the simultaneous production of individually rational and collectively successful environmental outcomes (North 1990).

Experience from anthropology suggests that this may be more difficult in practice than it appears in theory. The type of political economy, which is typical of many commons situations, is built up by face to face relations that characterise the micro-power relations of rural communities (Hyden 2006). These interdependencies include different kinship and networks, which provide numerous functions, including economic and political opportunities, land tenure and inheritance mechanisms, labour relations, food security, religious practices and general support in times of ill-health (Walley 2004). In these situations actors, instead of automatically complying with formal institutions, are more likely to make decisions in the context of relations of dependence in which people invest to get things done (Cleaver 2002). This was affirmed through a CBNRM project at Jozani-Pete Village, which is part of Jozani Chwaka Bay Conservation Area in Zanzibar, where community members vested with enforcement authority were reluctant to use formal institutional guidelines because they were concerned to avoid generating overt conflict and divisions over conservation within the village (Saunders 2011). Cases where resource rules were contravened were handled informally through face to face discussion and negotiation. Preference in this case was given to maintaining kinship and other social relations and obligations rather than formal compliance with the CBNRM institutional rules. This conclusion echoes findings elsewhere. Actors commonly cooperate not just on the basis of narrow economic motives but to maintain an overall interdependence (Kurian 2000). Mosse (2003) and Cleaver (2000) have found similar motivations in different cultural settings in India and Zimbabwe respectively, while de la Torre-Castro (2006) has observed this in the context of community fishing regulation in Zanzibar. These findings support the view that actors commonly cooperate not just on the basis of narrow economic motives (i.e. resource use) but to maintain an overall interdependence (Cleaver 2000, 2012; Mosse 2003). So despite the allowance to incorporate social norms (in terms of values, attitudes, behaviours) into project design, through a process of 'local contextualisation', how this aspect of CPR theory is operationalised in the complex multi-institutional sites of practice is less clear.

Assumptions of community homogeneity have been implicated in problems of commons practice (Tsing et al. 2005). To illustrate this problem more clearly, we

can take the case of forest resources as a common pool resource. The values put on specific uses will vary depending on the use or interest of the various community actors. Forests provide multiple common goods and services to a diverse range of local users (e.g. firewood, fodder, medicines, etc.) and remote beneficiaries (e.g. biodiversity conservation, carbon sequestration). Leach et al. (1999) developed the environmental entitlements framework to describe the entanglement of local forest resource institutions and interests. The findings of this study are illustrative of the complexity that faces commons projects. In practice, the 'collective choice' of CPR is implemented in commons contexts where variegated values and interests cross-cut with other stratifications to create complexities that need to be integrated into workable institutions. Other stratifications may include age, gender, wealth and kinship status and personal history, among others. In these extremely uncertain and uneven conditions, project planners seek to find collaborative agreement among local actors on the 'right' mix of incentives and sanctions to invoke 'new' CPR institutional norms to direct collective action towards common pool resource goals.

While the commons theory literature has dealt quite extensively with the question of community heterogeneity (Bardhan and Dayton-Johnson 2002; Baland and Platteau 2003; Poteete and Ostrom 2004; Naidu 2009) within the confines of setting standardised signals to influence behaviour it is difficult to see opportunities to perceive individuals according to their place in the social structure (Cleaver 1999; King 2007). Therefore heterogeneity, such as that described above, even in small-scale projects, would seem exceedingly difficult to consider and manage in practice through crafting institutions set up through commons projects (Murombedzi 1998). Nevertheless, CPR theory proponents argue that one way to handle it is by taking more time to draft better rules (Varughese and Ostrom 2001). As Dressler et al. (2010) contend, it is also doubtful whether the local participants, many whom are poor, can afford the 'extra time' associated with rule design and maintenance, without considerable and ongoing 'external support' or additional hardship. However, in most interventions this is problematic, as commons project planners commonly have time and budget imperatives that work against a long process of rule refinements in project situations.

The new institutional economics inspired, 'thin' CPR theory interpretation of individuals as autonomous rational actors contrasts with an alternative 'thick' perspective,⁵ which combines perspectives from anthropology and political economy. A thick perspective sees the same actors embedded and situated in numerous relations of interests and reciprocal commitments at different scales (Benjaminsen and Lund 2002; Bardhan and Ray 2006). The argument is that

⁵ While this might take different forms, as political ecology is a diverse field, what I mean here has been aptly described by Peet and Watts (1996) as, 'nuanced, richly textured empirical work (a sort of political-ecological thick description) which matches the nuanced beliefs and practices of the world' (p. 38). Other political ecology takes alluded to here are more structural, interrogating conflicts, interests and the workings of power at multiple scales (Blaikie 1999).

without understanding the specific and broader socio-economic setting or context (historically and spatially) in which actors are 'embedded' it is unlikely that we can know the circumstances that affect individual decision-making over resource use (Agrawal 2003; Johnson 2004). The implication of this conclusion is that we cannot therefore give specific projects local meaning and content if norms governing individual choice are not understood.⁶ This perspective implies that that we will not be able to better understand these complex and interrelated phenomena unless in-depth social science research is undertaken prior to project design and planning.

Political ecologists adopting a 'thick' approach, challenge the assumption that through the careful design of rules, collective action at the local level can be achieved without examining or challenging power structures that these collectives have to contend with (Mohan and Stokke 2000; Robbins 2004). A key critique of commons projects forwarded by these commentators has been a failure to deal with wider structures of injustice that impinge on project beneficiaries. Prominent factors cited are *limited property rights or weak tenure* (Murombedzi 1998; DeGeorges and Reilly 2009; Hatcher et al. 2009); *communities only granted access to low value forest resources* (Agrawal and Ribot 1999, 22; Jones 2004); *an inability to benefit from tourism because of poor infrastructure, structural exclusion or control by remote based tourism interests* (Britton 2004; Grossman and Holden 2007; Saunders 2011); *government resistance to devolving power* (Murombedzi, 1997; Lind and Cappon 2001; Saunders et al. 2010). A 'thick' approach focuses more on disclosing asymmetrical power relations around rights of access and situations of poverty. It also explores how diverse social institutions influence rights to, and uses of, resources dependent on economic status, gender, ethnicity, religion, and political power, among other stratifications. While this approach provides valuable insights into how historical and wider scale structural constraints interact with, and influence, local rationalities and choice, its results are concerned with broader moral and political questions not so easily linked to existing policy frames. Therefore this approach may be more suited to providing complex explanations of specific cases rather than offering a standardised methodology useful for commons policy intervention.

This section has discussed a range of factors that go some way to explaining why commons projects, following CPR institutional design formats, have struggled to cope with the complexity and uncertainty of their implementation settings. The next section explores this more fully by examining how the evolutionary assumptions of long evolving commons institutions have been too easily transposed to commons projects.

⁶ Although just because a commons project may not have local origins does not mean it will necessarily fail. As Baldus (2009, 21) writes they fail when they are poorly conceived or they fail to negotiate existing social structures, cultures or beliefs.

3.2. Packaging of CPR design principles into commons projects

This section discusses the problems of transferring assumptions of long-evolving, efficient resource institutions to deliberately designed commons projects.

Ostrom (1990, 34) argues that natural resource institutions evolve through social learning processes. This view combines aspects of rational choice with communicative planning theories and implies some sort of unfolding and intentionally positive adaptation through trial and error to progressively more effective and efficient institutions – thereby describing a process of ‘self-organising’. It also holds that over time, the repeated benefits of cooperation facilitated with enforcement will weed out ‘rational egotists’, thereby resulting in an evolutionary projection of collective action and therefore increasing efficiency of institutional arrangements (Ostrom 2000).⁷ Presumably, this assumes that institutional evolution occurs in interaction with resources and on its own terms – with mostly ‘endogenous’ influences – although this is unclear. This interpretation would at least provide an explanation as to why CPR theory assumes relatively isolated, homogeneous and small-sized rural communities as the objects of analysis or diagnosis. Poteete and Ostrom (2002) sum up this view when they describe how CPR theory assumes a trajectory of increasing institutional functionality and efficiency, as norms converge over time around resource use and cooperation is enhanced.⁸ More recently polycentricity has gained popularity as an analytical and normative concept that reflects an emphasis on the ability of groups of individuals to work out problems for themselves while embedded in complexes of diverse institutional arrangements, including the coordinating structures of government (Ostrom 2010b). In some ways this concept reinforces the existing assumptions of CPR theory by emphasising that small localised governance units are vital for designing institutions that are relevant and able to adapt to changing institutional and environmental conditions. While the implications of this concept for the commons are still being worked through, questions remain about how to achieve a ‘balance’ between steering policy and local autonomy in projects. In the commons literature more elaborated ideas are beginning to emerge about polycentricity with the dominant interpretation being to link community level action to other levels of governance through systems of representation (Cleaver 2012). However, there is still considerable doubt whether heterogeneous community interests can be strengthened in such multi-scale institutional arrangements (Nelson and Agrawal 2008). For example, Ribot et al. (2006, 18) show that decentralization of forest

⁷ Although more recently Ostrom has acknowledged that, ‘Microsituational and broader contextual variables can influence levels of trust and cooperation in managing common resources such as forests.’ (Vollan and Ostrom 2010, 923).

⁸ How efficiency is determined is questionable and related to a previous point concerning the ambiguity of ‘success’. Arguably, efficiency here means optimal use in terms of effort contributed, but questions remain, such as: how does this relate to notions of empowerment and fairness? Are efficiency and fairness interrelated and if so, how?

institutions, in nested institutional arrangements, in a number of Central African case studies have not resulted increased decision-making capacity at local levels.

In CPR theory, and by extension commons projects, the creation of conditions to support collective action to generate social learning and institutional evolution, largely revolve around the creation of trust. The democratic creation and enforcement of formalised resource rules are seen as the keys to motivate resource users not to 'free ride' with the result of increasing trust (through the building of social capital) and enhanced bonds of reciprocity. This view builds on Axelrod's (1984) argument that changed pay-offs will enhance reciprocity and cooperation between actors and therefore develop collective aims consistent with actors' goals. The formation of trust, facilitated through institutional certainty (or of other actors' likely actions) and increasing homogeneity of interests in support of resource use goals, is seen to be central in controlling the 'free rider problem'. There are at least three fundamental reasons why CPR theorists believe that building of trust and cooperation is more likely in small and isolated commons settings: (1) when people are few it is more conducive for individuals to reveal and signal their intended plans of action and to learn about others' intentions; (2) because of the usual presence of social ostracization mechanisms and (3) presence of a collective identity or closely shared roles (Baland and Platteau 1996, 77; Platteau and Abraham 2002, 5).

As discussed throughout the paper, the crafting of institutions is dramatically different from the *in situ* evolution or the self-organisation of commons institutions through a 'social learning process'. Norms around resource use have not been developed in isolation – they are socially embedded and mingle and interact with other local and less proximate institutions (Cleverly 2002). As Li (2002, 279) points out, there is a deep but unacknowledged tension between the assertion that sustainable resource-managing communities have existed since eternity (thus proving their effectiveness and viability), and the idea that communities or groups need to be created, their social capital developed and institutions crafted by outside stimulation and investment by the State or NGOs. The heavy reliance on rational choice linked to building social capital as a means of 'constructing' community support oversimplifies the complexity of organic processes of community formation that influence the way people in these communities can and do act. To understand the distinction between institutional evolution and deliberate design more clearly we need to revisit how Ostrom (1990) formulated the institutional design principles.

Ostrom's (1990) methodology to derive the design principles involved extracting rules from concrete practical experience (the empirical data of deemed 'successful' cases of enduring institutions) and then abstracting them from the specificity of their context to form more generalised principles that represents a theoretical model of institutional robustness (Uphoff in Blackmore 2007). Ostrom's (1990) conception of the evolution of institutions (in the case of enduring *in situ* institutions) requires a more or less constant interrelationship amongst actors' interests, preferences and cognitive maps feeding into, and responding

to, progressively adapting institutions. This is the process that over time moulds collective identity and builds trust and cooperation. Even with the injection of some form of local participation in decision-making and an assumption of a well defined collective interest, commons project interventions can hardly be seen as endogenously unfolding and locally driven affairs. The important point to make here is that the settings of commons projects invariably differ considerably from the assumptions that have informed the formulation of the design principles.

Creating a shared identity also seems important to facilitate cooperation and trust in commons projects. As Li (2002) puts it, 'CBNRM uses an environmental hook to tie rights to particular forms of identity, social organization, livelihood and resource management' (p. 3). For commons projects, identity is largely perceived homogeneously in terms of a 'rational resource user' (whether it be woodcutter, irrigator etc.), rather than as other collective identities (such as farmers, women, elites, poor etc.) connected to a diverse range of institutions. Instead of producing homogeneity in CBNRM interventions, as argued by Poteete and Ostrom (2002), other experience has shown that it is more likely that the actors 'other identities' will emerge and disrupt project implementation (Ribot and Peluso 2003).

As the assumptions discussed above attest, CPR theory places emphasis, not on power, political conflict or legitimacy as shaping forces of institutions, but on voluntary (ex)change that is mutually agreed and beneficial, and that supports collective action (McCay 2002). Contrasting with CPR theory's largely apolitical view, several commentators have pointed out, the set-up of commons institutions can be motivated by ambitions other than resource conservation, e.g. territorial claims (McCay 2002, 371), party political affiliation (Saunders et al. 2010), indigenous/customary rights (Murombedzi 1998) or, paradoxically, more centralised government control (Rihoy and Maguranyanga 2007). Given these varied project motivations, without a shared cultural history mediating the relationship between the idea that there is a resource problem and the response of an institutional solution, there may be little to connect the decision-making norms of actors with commons projects.

Further evidence of the importance of the need to more carefully consider politics in commons projects is the problem of 'elite capture'. This is a widespread problem despite the attention by CPR theorists to credible commitments and collective choice arrangements that emphasise attributes of good governance and democracy (Johnson 2001; Mansuri and Rao 2004; Robbins 2004). It may not be reasonable to expect commons projects to overcome historical and cultural factors perpetuating political inequality, however the 'capture' of projects by elites undermines the democratic and egalitarian goals of commons projects. 'Elite capture' can be partially explained by commons planners' willingness to 'trade off' democratic goals against project efficiency and institutional legitimacy (Ribot et al. 2006, 47; Saunders 2011) in order to ground projects in existing institutions. This should not be a surprising finding given the way that translocal actors (e.g. NGOs, State) have been known to co-opt traditional institutional arrangements

to forward 'external' conservation agendas (Chhotray 2004; Campbell and Shackleton 2001; Saunders 2011). Co-option should be distinguished from providing project support, although this may not be straightforward and over-dependence on technical expertise may slide into the political realm of control. There is also considerable evidence that elite groups' interests may in some cases even enhance their positions through the perceived increased legitimacy of democratically structured and consensus oriented CBNRM projects (Gibbes and Keys 2010; Saunders et al. 2010). At stake here is whether competition and difference can be handled within the cooperative framework of commons projects. There is little doubt that actors will interact with and be affected by institutional rules variably depending on their individual capacities and social standing. A view of commons projects as contested arenas of difference where domination by elites is the norm rather than the exception has serious implications for the potential of such projects to support social learning and indeed to deliver local democracy, social justice and poverty reduction.

I have expounded an argument above that suggests that the application of CPR design principles should not simply be seen as a re-embedding process or some sort of punctuated evolutionary continuation, but a move to a new institutional set-up, in most instances, without a social learning history. In a village setting, 'in reality', externally designed commons institutions do not exist in isolation from the 'stickiness' of other institutions, production practices or networks of power played out at different scales. Commons projects invariably involve and affect a wider range of institutions than those usually addressed in interventions. To capture these influences a wider and more intensive scope needs to be cast beyond viewing actors as purely place-based, 'rational resource users' (Saunders et al. 2010).

This section has discussed several key assumptions of CPR theory and how these translate into problems for commons projects. Although Ostrom (2000) repeatedly warns that there should not be an expectation that design principles can predict the social reality of contingent contexts, it is not uncommon for them to be deployed in this way. As a result, CPR theory, with its focus on building trust (or social capital) in support of project efficiency, largely ignores the likelihood that struggles for power in the spaces of opportunity opened up by commons project interventions can be inherently destabilising and disruptive (Saunders et al. 2010). Furthermore, this heavy reliance on the hotly contested assumption of being able to effectively harness, and indeed 'craft', social capital to instrumentally deliver desired project aims has been seen as widely problematic in many other areas of public policy debate (see Fine 2001; Harriss 2001; Li 2002; Ishihara and Pascual 2009). While allowing for the consideration of local norms, CPR theory does not elaborate how to operationalise 'norms' or interests in commons projects. Whether commons projects can simulate an evolutionary path through institutional design is a highly questionable assumption that has not as yet attracted enough scrutiny amongst commons scholars and practitioners.

4. Concluding remarks

By going beyond the recent crop of commons project writings, which tend to focus only on ‘implementation problems’, this paper links the theoretical assumptions of CPR theory with the experience of commons projects. Highlighted in this discussion is how CPR theory tends to conceptualise heterogeneous communities as autonomous ‘rational resource users’ with fixed identities and a common purpose. In contrast, it has been argued in this paper that actors involved in commons projects are more likely to be enrolled in multiple network relations with differentiated influence, interests and responsibilities. Another key argument presented is that there has been a failure to sufficiently distinguish between analysis based on long-enduring, ‘endogenously’ evolving commons institutions and the transposition of these ideal attributes into the messiness of contingent project environments. It is rarely acknowledged that commons project environments are often without common social learning histories related to resource use or conservation. In these cases there is likely to be very little to connect the decision-making norms of actors with commons projects (Li 2002; Saunders et al. 2010). One way that some commons projects have been seen to be successful has been by co-opting local elites, but this strategy compromises key CPR institutional design principles and commons project goals of participation and widespread distribution of benefits (Chhotray 2004; Mansuri and Rao 2004; Springate-Baginsky and Blaikie 2007).

The concerns raised here suggest that when analysing the functionality and efficiency of commons projects greater attention should be paid to understanding the operation of power and conflict in particular resource use situations. This is not the same as saying that planning should not be undertaken or that CPR theory is not a useful heuristic device. Concepts and notions that underpin commons projects, such as participation, social capital, social learning, community and empowerment should not be approached naively, but be examined in a context-specific manner prior to project design and planning. Clearly the more conservation planners know about prospective project sites the better informed they will be to consider particular extant and emergent conditions and how these are forged through interactive relations at multiple scales. In finishing, it is worth reflecting in the insightful words of Deleuze (2004, 20), ‘it is not enough to say the institution is useful, one must still ask the question: useful for whom?’.

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