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*Synthesis*

# Understanding process, power, and meaning in adaptive governance: a critical institutional reading

*Frances Cleaver* [1] *and Luke Whaley* [1]

ABSTRACT. Adaptive governance continues to attract considerable interest in academic and policy circles. This is with good reason, given its increasing relevance in a globalized and changing world. At the same time, adaptive governance is the subject of a growing body of critical literature concerned with the ways in which it theorizes the social world. In this paper, we respond to these critiques, which we see as broadly concerning the process, power, and meaning dimensions of environmental and natural resource governance. We argue that adaptive governance theory would benefit from engaging constructively with critical institutionalism, a school of thought that, like adaptive governance, has one foot in commons scholarship. Critical institutionalism conceives of institutional change as a process of bricolage, where those involved piece together new arrangements from the resources to hand. This approach highlights the interplay of structure and agency, and illuminates how new governance arrangements form and come to be seen as natural in dynamic relation to the wider social and cultural landscape. We consider how these arrangements tend to reflect dominant power relations, whilst the plural nature of social life also provides scope for adaptation and transformative change.

Key Words: *culture; institutions; institutional bricolage; politics; resilience; social justice*

## INTRODUCTION

One way of interpreting the evolution of commons scholarship since the 1990s is to claim that it has bifurcated along two distinct paths. The first of these paths saw commons scholarship increasingly move from a concern with community-level governance of common pool resources to focus on power-sharing arrangements between communities and governments. Over time this comanagement approach merged with the field of adaptive management, giving rise to adaptive governance (and its managerial counterpart, adaptive comanagement; Folke et al. 2005, Armitage et al. 2009). The second of these paths saw commons scholarship encounter research drawing from more critical social science traditions, including those working in the fields of anthropology, sociology, and development studies. Although this is a rather loosely constituted group, in the last five years Cleaver and others (Cleaver 2012, Hall et al. 2014, Cleaver and de Koning 2015, Whaley 2018) have attempted to articulate places of commonality and overlap among the various positions. In so doing, this second branch has come to be termed critical institutionalism, and can be considered an attempt to critique and steer mainstream commons scholarship in a new direction.

Adaptive governance has gained considerable purchase in both academic and policy worlds (Stockholm Resilience Centre 2012). However, there is a growing recognition of the potential for generating "thicker," contextualized, and power sensitive understandings of how adaptive governance works in practice. This recognition comes both from within the adaptive governance literature (Vink et al. 2013, Chaffin et al. 2014, Karpouzoglou et al. 2016) and from aligned literature encompassing different disciplinary perspectives on environmental governance (Jones and Sok 2015, Van Hecken et al. 2015, Vatn 2015, Frick-Trzebitzky 2017, Wilson 2018). More broadly, there have been several contributions that deal with the relationship between resilience thinking and social theory (Adger 2000, Cote and Nightingale 2012, Brown 2014).

We build upon these various critiques by arguing for the value of viewing adaptive governance theory through the lens of critical institutionalism. Although the aforementioned critiques are clear on the need for more socially informed understandings of adaptive governance, very few offer meaningful ways of accomplishing this. We propose that critical institutionalism offers one valuable way of framing and analyzing the emergence and evolution of adaptive governance systems by employing social theoretical insights that are compatible with a concern for complexity, uncertainty, and change. In particular, we suggest that critical institutionalism offers the conceptual toolkit for illuminating process (how particular governance arrangements emerge and are enacted); power (how they are shaped to benefit some and not others); and meaning (how they become invested with meaning and so gain legitimacy and endurance). It is not our intention to provide a comprehensive comparison of adaptive governance and critical institutional thinking, but rather to focus on what critical institutionalism can offer adaptive governance with respect to these three dimensions of environmental governance.

## METHODOLOGY

To develop the arguments and analysis below, we undertook a literature review that followed two broad stages. In the first stage, we developed an understanding of the history and characteristic features of adaptive governance and critical institutionalism from key review articles pertaining to the emergence, definition, and application of these schools of thought. We further employed snowball sampling of citations within the review articles. These review articles included for adaptive governance Folke et al. (2005), Armitage et al. (2009), Chaffin et al. (2014), and Karpouzoglou et al. (2016). For critical institutionalism they included Hall et al. (2014) and Cleaver and de Koning (2015).

The second stage was concerned more specifically with the ways in which process, power, and meaning are dealt with by the two

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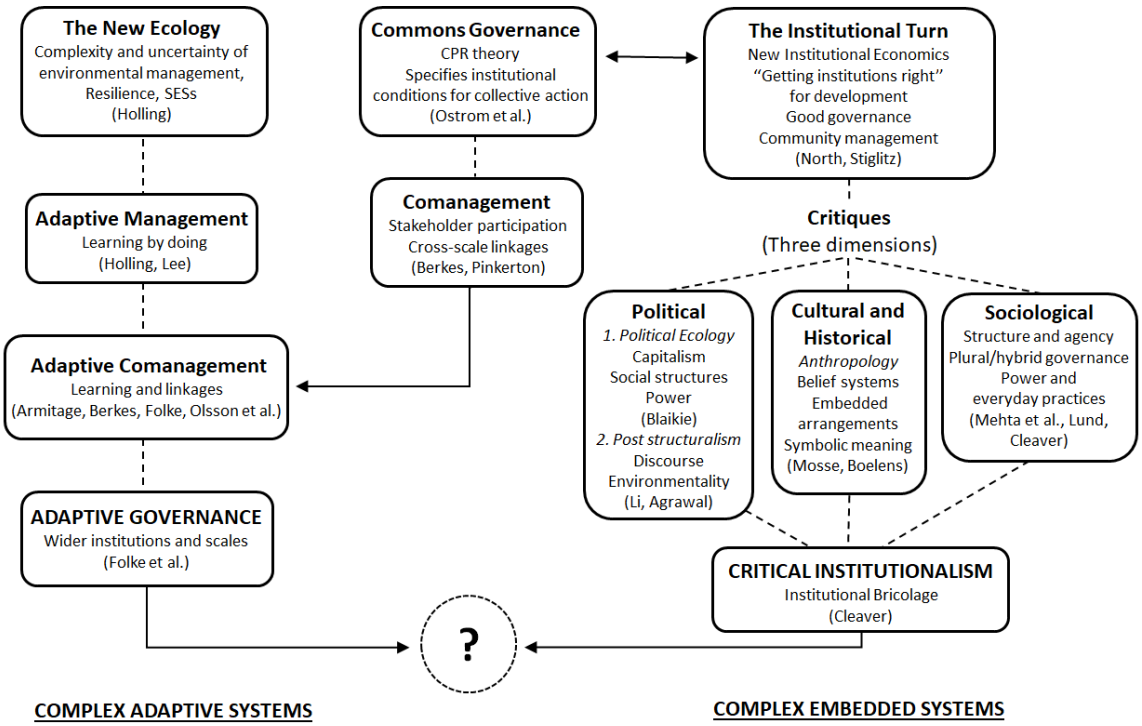
**Fig. 1**. The evolution of adaptive governance and critical institutionalism.




schools of thought. Alongside the insights gained from the Stage 1 review, we employed a combination of Web of Science and Scopus searches. For adaptive governance, we searched for "adaptive governance" and process (no. of results for Web of Science = 212/Scopus = 152), "adaptive governance" and power (n = 56/44), "adaptive governance" and meaning (n = 40/6), and "adaptive governance" and knowledge (n = 149/98). For critical institutionalism we searched for "critical institution*" and process (n = 17/39), "critical institution*" and power (n = 20/19), "critical institution*" and meaning (n = 7/5), and "critical institution*" and knowledge (n = 10/25). We included the term "knowledge" in the search because of its relatedness to "meaning." Within these articles we then performed word searches for "process," "power," "meaning," and "knowledge" to explore they ways in which they are conceptualized and employed.

In choosing the two illustrative case studies presented below we aimed to consider heterogeneous examples in order to capture issues emerging in different contexts and at various stages of development of adaptive governance arrangements. We also sought to include cases from so-called First World and a Third World country contexts in order to broaden the potential for capturing potentially interesting differences in the effects of socioeconomic status, power relations, the relevance of formal and informal institutions, and climatic and environmental conditions. Therefore, the Coastal Ring case from Sweden was chosen for the First World context where there is strong formal government capacity and adaptive governance emerges through self-organized initiatives from communities. Here the management of natural resources is mainly for tourism and amenity purposes. The SWAUM case from Tanzania was chosen for the Third World location where there is a weaker formal government context. Here there has been explicit facilitation of an adaptive governance approach through social learning initiated by an NGO, where the management of natural resources is largely for production. Both case studies have been drawn from secondary literature and we have verified our framing and interpretation of each case with the original author (in the case of the Coastal Ring example) and the prime adviser/facilitator (in the case of the SWAUM example).

## TWO EVOLVING SCHOOLS OF THOUGHT

The introduction highlighted that both adaptive governance and critical institutionalism have one foot in commons scholarship. We review in more detail the evolution of both schools of thought, paying attention to the disciplinary influences that underpin them and that have provided them with their own distinctive framing, arguments, and insights (Fig. 1). By way of schematic comparison, we think of adaptive governance as a complex adaptive systems approach (Levin 1999, Schultz et al. 2015) in contrast to critical institutionalism, which we instead label a complex embedded systems approach (Peters 1987, Cleaver 2012). The discussion highlights what we consider as key weaknesses of adaptive governance and the potential for critical institutionalism to address these by focusing on questions of process, power, and meaning. By charting the evolution of the two schools of thought, we also draw attention to different stages in their development. Broadly speaking, these relate to ways in which both adaptive governance and critical institutionalism have embraced complexity as well as a tendency at times to promote normative or prescriptive understandings.

## Adaptive governance: from complexity to recipe ... and back again?

*Evolution of a complex approach*

Adaptive governance is a holistic endeavor that focuses on the management of ecosystems across landscapes and seascapes (Folke 2006). Underpinning it is a sound logic concerned with how humans cope with some of the most pressing issues in the word today. In large part, these relate to various forms of complexity and uncertainty that have become increasingly accentuated in recent decades. They include the effects of climate change, environmental degradation, demographic change, and population growth, which are all now experienced through the prism of globalization. Many of the key insights that provide adaptive governance with its distinctive complexion can be traced back to developments and arguments in ecology in the 1970s. From this time onward, Holling and others (Holling 1973, 1978, Holling and Meffet 1996, Gunderson and Holling 2002) argued against the forms of technocratic, top-down, and efficiency-oriented environmental management that came to prominence in the 20th Century. In particular, they claim that this rigid approach to management results in pathological outcomes (Holling and Meffet 1996) and stifles the innovation needed to manage effectively in an unstable operating environment (Glasbergen 1998, Pahl-Wostl 2006, Pahl-Wostl et al. 2007).

As a remedy, adaptive management was proposed. In contrast to a command-and-control management style, here the focus is on learning to live with change and uncertainty through an ongoing, iterative relationship between management interventions and environmental change. In particular, environmental management policies and practices are treated as hypotheses to be tested, learned from, and adapted in accordance with changing contexts and outcomes (Holling 1978, Gunderson 1999). Thus, adaptive management is viewed as a way of increasing system resilience in the face of dynamism and unpredictability, where much of the theoretical basis for this approach derives from work on complex adaptive systems (Levin 1999, Gunderson and Holling 2002). It is perhaps the need to prioritize resilience and not efficiency that is most emblematic of this shift in thinking (Folke 2006), and its corollary in terms of management approach.

Over time, the concept of adaptive management merged with the concept of comanagement and with commons scholarship more generally. This merger resulted in adaptive comanagement, which combines the learning dimension of adaptive management with the linkages dimension of comanagement (Olsson et al. 2004*a,* Plummer 2009, Armitage et al. 2009). Adaptive governance is seen to enable adaptive comanagement. That is, although the two terms are intimately connected, adaptive governance is understood as the broader social arrangements operating across multiple scales, within which adaptive comanagement sits (Folke et al. 2005).

In keeping with its basis in the new ecology, adaptive governance is founded upon a number of core principles that include the need to live with change and uncertainty, to foster adaptive capacity, to understand human and natural systems as intrinsically coupled, and to consider resilience as the central desirable attribute. From this perspective, the focus is on understanding and facilitating governance arrangements that enhance a broad range of ecosystem services by coordinating multiple interests across multiple levels (Olsson et al. 2004*b,* Brunner et al. 2005, Folke et al. 2005). The networks of actors that emerge and evolve as an adaptive governance system develops must capitalize on windows of opportunity, and are characterized by relations that promote social learning, power sharing, and flexible institutions capable of accommodating and responding to change and uncertainty arising from both environmental and social sources (Folke et al. 2005, Armitage et al. 2007, Berkes 2007).

*Recipes for adaptive governance*

The above consideration of adaptive governance suggests it is a laudable project that has brought together ecology with social science, embraces complexity, and provides the hope of ecosystem protection and livelihood sustainability under uncertain and changing conditions. Yet as research into this area has proceeded, adaptive governance, and its managerial counterpart, adaptive comanagement, is at risk of being all-too-easily caricatured. In the process, the danger is that the characteristics that have come to be associated with adaptive governance become normative endpoints in their own right, a sort of "recipe of ingredients."

According Chaffin et al. (2014), Dietz and colleagues (2003) were among the first to propose a generalized list of criteria necessary for adaptive governance, entailing inclusive dialogue, layered institutions, and mixed institutional types and designs that facilitate experimentation, learning, and change. Significantly, they also proposed a prescriptive list of what adaptive governance should do (provide information; deal with conflict; induce rule compliance; provide infrastructure; and be prepared for change). This has significant appeal to policy makers because it helps to render complex system dynamics legible. Thus, for example, Nunan (2016), in a report for professionals in the UK Department of International Development (DFID), is able to boil down the features of adaptive governance systems and processes to a six-point list.[1]

A first point to note here is that many of the attributes associated with adaptive governance could describe a generic spectrum of governance arrangements, some of which are quite different from those adaptive governance scholars have in mind. This is especially true in an age of globalization where the likes of cross-scale interplay, polycentricity, shadow networks, and forms of trust, learning, and partnership working seem obvious. Although the picture is more complicated than this, the point is that in the process of becoming normative, concepts uncouple from what originally made them meaningful.

A second point is that the adaptive governance model appears inherently optimistic about the possibility of developing common understandings, trust, and collaboration between different interests and interest groups. Again, this appears to relate to a normative commitment to concepts that have been distilled and dislodged from the contextual details of the case studies in which they originated. It also relates to how the "social" of social-ecological systems is theorized and understood. In adaptive governance thinking, there appears to be an implicit assumption that social systems are largely analogous in their functioning to ecological ones, with similar processes of adaptation and adjustment occurring in evolving complex systems (Cote and Nightingale 2012).

*Back to complexity?*

Various commentators argue for the need to pay more attention to the process, power, and meaning dimensions of adaptive governance. For Chaffin and colleagues (2014), adaptive governance interventions cannot proceed on the basis of normative lists but "should be preceded by an explicit analysis of relevant power and politics ... that may be precipitating environmental and social injustices stemming from the marginalization of minority cultures, religions, worldviews, and environmental ethics" (Chaffin et al. 2014). In the same vein, Armitage (2008:7) has argued that the normative principles derived from the resilience and commons literature would benefit from "political ecological interpretations [that] help to reveal the challenge of actualizing these principles and the contextual forces that make entrenched, top-down management systems resilient to change."

The call for better understandings of power and politics runs through related literature.[2] For example, Wilson (2018), writing from a human geography perspective, points to the depoliticized nature of much resilience research and its lack of recognition of social contingency, and of the variable capacities of different actors to shape governance systems. Critiquing the "gospel of resilience," Nadasdy (2007) stresses how most management institutions and practices are embedded in unequal relations of capitalist production that make any reform of these institutions unlikely to lead to the equitable treatment of local and indigenous peoples. The author concludes that "adaptive co-management, like all environmental management, is an inherently political undertaking, not simply a technical one" (Nadasdy 2007:223).

The recognition of these limits raises questions as to how they can be addressed. Karpouzoglou and colleagues (2016) argue that insights from other theoretical perspectives can help to illuminate some of the gray areas of adaptive governance including those of power and politics, inclusion and equity, and short-term and long-term change. So for example, they see studies of environmentality (Boyd et al. 2014) as valuable in illuminating power processes. Stone-Jovicich (2015) has considered the benefits of probing the interface between resilience research and three fields of social science, namely materio-spatial world systems analysis, critical realist political ecology, and actor-network theory. Moreover, Cote and Nightingale (2012:475) argue for "critically examining the role of knowledge at the intersections between social and environmental dynamics [in order] to address normative questions and to capture how power and competing value systems are not external to, but rather integral to the development and functioning of SES."

In literature applying an ecological economics lens to market-based approaches for securing adaptive environmental governance, Van Hecken and colleagues (2015) suggest that there are three challenges to overcome. These are the idea that institutions can be designed to fit specific human-nature problems; the oversimplification of culture and social diversity and the apolitical conceptualization of social capital; and the overly rational or overly structuralist models of human agency, collective action, and institutional change. They suggest that there is a need to expand actor oriented, socially informed, and power sensitive understandings to generate insights into the way that "power geographies" underlie institutional logics, and the complex ways in which particular interventions are experienced.

Taken together, the above points provide a link to critical institutional approaches that are well placed to address the issues highlighted. In particular, the ways in which critical institutionalism is able to shed theoretical light on the process, power, and meaning dimensions of adaptive governance would appear highly relevant. We now turn to characterizing the evolution of critical institutional approaches, with a focus on these three themes.

## Critical institutionalism: from recipe to complexity ... and back again?

*From "getting institutions right" to complexity*

The upsurge of critical institutional literature relating to natural resource management can be traced back to reactions to the "institutional turn" in development theory and policy (Portes 2006). In the 1990s and 2000s, economists and political scientists concurred that "getting institutions right" mattered for development outcomes and contributed to good governance.[3] These dominant mainstream approaches, epitomized by the new institutional economics and the commons scholarship of Elinor Ostrom (1990, 2005), adopted a model of institutions as rules of the game (North 1990) that both enable and constrain human action and reduce transaction costs. This model was underpinned by broadly rational choice assumptions about the nature of individual action. The potential for crafting incentives, rules, and sanctions to shape human behavior in relation to the environment became linked to normative good governance principles of representativeness, participation, transparency, and accountability. Such ideas became very influential in shaping policy for natural resource management in the Global South (Saunders 2014). Often, in practice, the new institutional insights were translated into prescriptive checklists for institution building and much effort was expended on establishing Farmers Groups, Forest Committees, Water User Associations and the like, located in nested systems of governance.

A diverse range of critiques questioned the mainstream institutional views that the critics perceived were based on "thin" models of institutions (Mehta et al. 1999, Portes 2006). Originating in quite different academic traditions, all critiques located governance arrangements more firmly in complex social-relational systems. From a range of political perspectives came the critiques of capitalist systems and the attempts to understand local ecological governance arrangements as located in wider societal dynamics. Key here was political ecology, an approach that attempts to locate the ways in which power works in social-ecological systems by focusing on the relationships between political, economic, and social factors (Blaikie 2006). Alongside and sometimes intersecting with this perspective, strands of thinking developed that emphasized the diversity and contingency of human made arrangements, the dispersed nature of power effected through discourses, forms of governmentality, and the ways that change occurs through negotiation and in routinized everyday practices (Li 1996, Agrawal 2005).

From history and anthropology came a raft of cultural critiques and attempts to reconceptualize institutions and governance arrangements as embedded in (changing) social relations and belief systems, deeply imbued with meaning and symbolism, and loaded with the significance of the past (Mosse 1997, Johnson 2004, Boelens 2015). Another identifiable (and overlapping) strand of critique drew from sociological and anthropological

insights into how institutions work to develop insights into debates about the balance between social structure and individual agency (Mehta et al. 2001, Cleaver 2002). "Structure" refers to resources, social institutions, systems, or forces, generalized at a societal level, and manifest in recurring patterns of organization and practices. "Agency" refers to the ways in which individuals use their capacities or personal powers to act in purposeful and meaningful ways (King 2005). Here the emphasis is on understanding governance as effected through plural, hybrid, and overlapping arrangements in which claims to resources, property, and authority are constantly being renegotiated (Lund 2006).

Various attempts have been made to identify commonalities among these critiques and the academic work they inspired, to identify the school of thought that we refer to as critical institutionalism (Cleaver 2012, Hall et al. 2014, Cleaver and de Koning 2015). For Hall and colleagues (2014) the critiques coalesce around the argument that we need more socially informed models of human action, more realistic ideas about community and the constraints of collective action, and better understandings of social relations as imbued with power and meaning.

*The "complex-embeddedness" of critical institutionalism*

Critical institutionalism endeavors to understand the ways in which resource governance and service delivery is enacted in polycentric governance landscapes, characterized by multiple centres of power and authority. It offers explanations of how things change in situations of institutional, legal, and policy plurality to produce uneven outcomes (Hall et al. 2014). Departing from underlying rational choice assumptions of commons scholarship, critical institutionalists takes the view that resource governance systems are socially constructed, whereby meaning and social reality is historically and geographically situated and emerges from the interaction between members of a group or society (Berger and Luckmann 1967). From a critical institutional perspective, these systems can only be understood through an examination of the meanings and values that are attributed to them and the societal/power relations in which they are embedded.

This is well illustrated by Marin and Bjorkland's (2015) study of reindeer herders in Finnmark, Norway. Here the authors explore how the idea of the commons and the "tragedy of the commons" has been created over time by the Norwegian state, along with a related formal system of management. The reindeer herders themselves have developed customary local institutions, based on living and working together, and on different values and premises emphasizing sharing, cooperation, and flexibility in the use of grazing lands. These arrangements are patchily aligned with the broader scale formalized institutions of commons management, with variable outcomes for the herders and for the environment. Here the evolution of governance arrangements over time, the coexistence of multiple institutions at different scales, differences of understanding and inequalities of power between stakeholders, all interact to produce a complex governance scenario.

Core critical institutional principles include the complexity and "hybridity" (Booth 2012) of institutions entwined in everyday life; their historical formation and location in the structures of society; and the dynamic but constrained nature of human agency in assembling and reshaping institutions. It should be emphasized that for critical institutionalism the ways in which actors exercise agency does not infer only deliberative behavior that the individual can consciously reflect on and justify. In addition to this "discursive consciousness," the actions of individuals are shaped by "practical consciousness" formed in the nonverbal, tacit knowledge (often contained in routines and habits) that enables the skilful performance of everyday life without conscious reflection (Bourdieu 1977). Moreover, as Giddens argues, human conduct is subject to the unconscious need for ontological security - for a comfortable state of affairs in which people can go about their lives in taken for granted ways, in familiar surroundings with known others (Giddens 1984, Cohen 1988).

From a critical institutional perspective, the focus is not just on the public institutions of resource governance and deliberative decision making but on the dynamic combinations of formal arrangements, informal practices, and social institutions that occur in everyday life. Ingram, Ros-Tonen and Dietz (2015) examine governance arrangements for nontimber forest products (NTFPs) in Cameroon, exploring the range of forest practices, customary social arrangements, project-related and market-based organizations active in managing and monitoring forests. They characterize the multiple forest uses, and plural governance arrangements as constituting "a fine mess" but as also providing the space (in the gaps, overlaps, and gray areas) and institutional material for the creation of hybrid arrangements that work in a particular time and place but may do so by excluding particular forest users.

Critical institutionalists have a strong interest in how such institutions come about and are able to explain the dynamic processes of institutional formation, the variability of outcomes, and the ways in which power and meaning shape these. Cleaver (2012) brings anthropological insights into styles of thought and the working of institutions (Douglas 1986, Levi Strauss 2004) into engagement with social theory related to the interaction between individual actions and societal imperatives (Bourdieu 1977, Giddens 1984) to develop the concept of "institutional bricolage," defined here:

> *The adaptive processes by which people imbue configurations of rules, traditions, norms, and relationships with meaning and authority. In so doing they modify old arrangements and invent new ones but innovations are always linked authoritatively to acceptable ways of doing things. These refurbishments are everyday responses to changing circumstances* (Cleaver 2012:45).

Through processes of bricolage, institutional components from different origins are continuously adapted to perform new functions. However, institutions can only work and endure (be resilient) if they are seen as legitimate and meaningful; that is to say, if they socially fit. This fit is effected through calls on tradition, which may be invented (Hobsbawm and Ranger 1983), and by analogy to accepted ways of doing things and ideas about proper orders in social, natural, and spiritual worlds (Douglas 1986, Cleaver 2000, Boelens 2015). Authority, in the form of artefacts, symbols, discourses, and sanctioned power relations are borrowed from other settings, across time and space, and put to new uses.

Institutional bricolage has been taken up by a range of scholars working under the broad umbrella of critical institutionalism (Upton 2009, van Mierlo and Totin 2014, van Oosten et al. 2014, Verzijl and Dominguez 2015, Warren 2016, Benjaminsen 2017, Ishihara et al. 2017). We argue that this is at least partly because of its explanatory power in illuminating how processes, power, and meaning shape environmental governance arrangements.

To further illustrate bricolage processes, we turn to Jessica De Koning's study of forest governance in Bolivia (2014). She explores how government attempts from the 1990s to introduce forest reform included a strengthened regulatory framework for forest use, increasing community forest management, and a stronger role for municipalities in forest administration. Because of a lack of government capacity, NGOs came to take a prominent role in facilitating the reforms at community level. The reforms linked forest access to land rights and introduced community forest plans that could allow a community to obtain logging rights over 20 years. In the community studied, peasant farmers accessed the forest for Brazil nut collection as well as for logging. The imported community forest plan (and an associated forest association) was adopted for a variety of reasons: because it was strongly promoted by an NGO, because it appeared to secure forest-related income streams, and because local people saw it as a way of establishing land rights to the forest. The forest management plan and the forest association, promoted as regularized and institutionalized ways of managing the natural resource, were also altered by the different stakeholders and subjected to different logics and meanings. Effectively, the forest management plan became a substitute for land claims and land titles. Here we see a plural landscape of actors and institutional arrangements, different logics that leak across domains, and the adaptation of introduced arrangements to ensure local fit.

There are a number of conceptual framings available to critical institutionalists for understanding how broader power relations shape institutions and governance, and how power is exercised visibly and invisibly in public and private social spaces. For example, Lukes's (1974) classification directs us to think about three dimensions of power: the power to publicly influence decision making, the power to set the agenda (who participates and what is included or suppressed), and the power to shape or form people's interests and wants without them knowing it, often through wider societal discourses and processes of socialization. With respect to this third dimension of power, Zwarteveen and Boelens (2014), discussing water justice, show how discourses subtly govern the ways in which it is possible to talk about something, and so make it difficult to think or act differently. This helps to explain why disadvantaged people do not necessarily see unequal environmental relations as unfair or unjust (Walker 2014).

The invisible nature of power is also a feature of governmentality analyses. This approach applies Foucault's ideas to people-environment relations (Agrawal 2005, Li 2007). Governmentality (or environmentality) refers to the organized and layered practices through which we are governed and through which, consciously and unconsciously, we govern ourselves. From a governmentality perspective, institutions serve as technologies of government, shaping people's motivations and behaviors and channelling relationships. In Agrawal's (2005) research, village level forest councils in India worked visibly and invisibly to shape the actions of forest users, and to channel their participation in decision making and forest management in particular ways.

It should be noted that critical institutionalists attribute no inherent normative value to institutions formed through bricolage. Features related to institutional resilience may encompass adaptability, legitimacy, functionality, and endurance but these are assessed through the outcomes they produce, from a social justice perspective. Commonly, institutions that endure across time and space are seen to reproduce and further embed inequitable relations of access to resources (Johnson 2004, Roth 2009). This poses a challenge to those adopting a critical institutional lens to plan development interventions; whether to work with the grain of inequitable power relations and to facilitate the role of powerful bricoleurs in the interests of effectiveness, or whether to work against the "elite capture" of institutional arrangements (Russell and Dobson 2011, Rusca et al. 2015, Haapala et al. 2016)

*Back to "getting institutions right"*

Although critical institutionalism offers complex analyses of institutional formation and functioning, some analysts have attempted to use the perspective to pragmatically identify possibilities for transformation in development practices. Here the plurality and plasticity of institutional dynamics is perceived to offer multiple entry points for facilitated change (Merrey and Cook 2012). This focus is echoed in contemporary policy concerns of the possibilities of "working with the grain" to support local hybrid institutional arrangements that work (Booth 2012). In a study of adaptation to urban flooding in Accra, Ghana, Frick-Trzebitzky (2017) argues that a critical institutional/institutional bricolage lens can enrich adaptive capacity research and help to identify the possibilities for transformative change. For Frick-Trzebitsky, who understands adaptive capacity as embedded in institutional and social contexts, a bricolage lens helps to identify who is most/least likely to be able to adapt, how culture is deployed as an authoritative resource in adapted arrangements, and how this reinforces the power of particular actors and institutions (here the chiefs/chieftaincy). The key elements of adaptive governance and critical institutionalism discussed in this section are shown in Table 1.

## ILLUSTRATING CRITICAL INSTITUTIONALISM

Having profiled the development and essential characteristics of the two schools of thought (see Fig. 1 and Table 1), let us illustrate adaptive governance and critical institutional approaches by way of an analysis of two scenarios. Here we show how a critical institutional lens can add to an adaptive governance understanding, by offering insights into process, power, and meaning.

**Illustration 1: Coastal Ring, Sweden (Source: Sandstrom 2008)**

The Coastal Ring organization comprises three coastal villages in northern Sweden, on the Gulf of Bothnia. It is part of a comanagement arrangement that originally formed as a partnership with the County Administrative Board (CAB). This case is interesting because it would appear to reflect many of the attributes that characterize adaptive governance, as outlined below. Also of interest is the fact it is located in Sweden. To this extent, unlike a good deal of critical institutional research, here

**Table 1**. Key elements of adaptive governance and critical institutionalism compared.

| Key elements | Adaptive Governance | Critical Institutionalism |
|---|---|---|
| | A complex adaptive systems approach wherein multiple cross scale institutions facilitate experimentation, learning, and change. | A complex embedded systems approach wherein the scope for adaptation is shaped by societal structures, power relations, and social norms. |
| Complexity and scale | Social-ecological systems are inherently complex. This complexity arises from interactions within and across spatial and temporal scales. AG operates best at bioregional scales where ecosystems and institutional arrangements are compatible. | Complexity is an inherent feature of social systems, and of the interface of people with the environment. It manifests in multifaceted identities, institutional plurality, and the intersection of local and global domains. The unintended consequences of human actions cause further complexity. |
| Resilience | The capacity of a social-ecological system to absorb natural or human shocks and to reorganize or adapt while retaining essential functions and characteristics. Resilience promoted as a normatively good trait. | Resilient institutions have temporal endurance and the capacity to adapt to changing circumstances. Resilience not necessarily good or bad because a resilient institution may be one that perpetuates inequalities. |
| Networks | Self-organizing, multilevel networks of actors enable learning, trust, power sharing, information transfer, and shared visions. "Shadow" (informal) networks allow for experimentation that may facilitate desirable system transformation. | Dynamic webs of relationships, loyalties, and dependencies shape people's engagement with governance. Formal and everyday social networks intersect in practice. The plurality of networks offers multiple channels for accessing resources and for the exercise of power. |
| Institutions, adaptation, and social learning | Institutions as a system of rules, laws, policies, and norms that incentivize individuals to behave in certain ways. AG requires a structure of diverse, nested, cross-scale institutions that facilitate experimentation, learning, and change. Institutions can be designed for purpose. | Institutions as bundles of norms, practices, and rules. Institutions are hybrids, blending the old and new, formal and informal, formed through bricolage (improvisation and adaptation) in everyday settings. History, social structure, power relations, meaning, and legitimacy are key to how institutions work. Institutions partially elude design. |
| Power and agency | AG requires "power sharing" between actors. Powerful actors seen as champions of transformation, providing leadership and vision, generating trust, managing conflicts, preparing organizations for change, and creating learning environments. | Power is exercised visibly and invisibly in multiple social spaces. Powerful actors are able to command allocative and authoritative resources. They have the capacity to establish the terms of debate, set the agenda, and to legitimize adapted arrangements. |
| | Implicit assumption of boundedly rational actors strategically exercising agency. | Agency is conscious and nonconscious and is enabled and constrained by available resources, social identities, dynamic contexts, and webs of relationships. |
| Outcomes | Evaluated through a social-ecological resilience lens, assumes adaptive governance will produce a desired set of outcomes. | Evaluated through a social justice lens: what are the implications for resource access, exercise of voice, and livelihoods? |

the context is an affluent First World country with a system of strong formal governance. Sweden is also the location of one of adaptive governance's most emblematic case studies, involving the adaptive comanagement of Kristianstads Vattenrike, a wetland landscape in the south of the country.

*An adaptive governance analysis*

An adaptive governance framing would stress a number of key features of this Coastal Ring case. To begin with, the comanagement arrangement emerged in response to a perceived crisis. Here it was not environmental degradation but the inclusion of the mouth of the Kalix River in the European Commission's Natura 2000 Environmental Protection Network. Locals from three villages on the river mouth, feeling a sense of state encroachment and outsider interference, responded by forming the Coastal Ring organization. In 2002, the organization had a formal charter, a governing board of five to seven members, the active participation of 20 to 25 people, and attendance at meetings varying between 100 to 200 people. A year later, it had negotiated an informal mandate to manage the nearby Likskärs island nature reserve as a subcontractor to CAB. The following year a formal management agreement was reached whereby the Coastal Ring organization was funded by CAB to undertake day-to-day management activities in the reserve.

In adaptive governance parlance, the emergence of this arrangement reflects a self-organizing process that was facilitated by enabling legislation, including Agenda 21, which the Coastal Ring organization drew upon to create their own local Agenda 21 plan for the three villages and a local management plan for Likskärs island nature reserve. Over time, the Coastal Ring organization has evolved as part of a governance arrangement

spanning scales of organization and a diverse network of public and third sector actors. These include the Swedish University of Agricultural Sciences, the Kalix Agricultural College, the Swedish Popular Movement for Rural Development, the Gaia Foundation, the Swedish International Development Agency, and the UN's Food and Agriculture Organization. The functions and activities of the Coastal Ring organization have also expanded to include creating new rules for fisheries management, managing open-air bathing and picnic areas, constructing log cabins, paths, wind and firewood shelters in the forest, developing a carbon sink project, and feeding into policy decision making processes.

There is in place, therefore, an evolving governance arrangement comprising a system of formal and informal institutions, cross-scale networks, and different interest groups and types of knowledge that have ostensibly coalesced around a particular environmental management agenda. An adaptive governance framing would emphasize the role of a shared vision, a window of opportunity, trust building, power sharing, social learning, flexible institutions, and the like.

*A critical institutional analysis*

By contrast, a critical institutional lens brings to the fore aspects of the situation that are typically omitted or overlooked from adaptive governance scholarship.[4] Here we will focus on key features of process, power, and meaning as they relate to the nature of institutions. In particular, we consider the relationship between structure and agency: how dynamic and creative human agency is enabled and constrained by social structure while at the same time reproducing or transforming that structure, and therefore the means for future action.

A central feature of this case study concerns the difference (of positions, perspectives, and interests) that characterize the relationship between the Coastal Ring organization and government actors. Crucially, the comanagement arrangement that has emerged has not resulted from a smoothing over or working out of these differences. Instead, from a critical institutional perspective it can be understood as reflecting a process of ongoing negotiation and contestation whereby the various actors involved manoeuvre into positions of mutual accommodation by drawing on available resources. These resources include social relationships, forms of knowledge, funding, legislation, policy, and dominant discourses sourced from local, national, and international domains. This reveals how power is crucially linked to the distribution of different types of resources in society, and to the capability of the actors involved to access and mobilize them toward particular ends. In doing so, institutions are forged that reflect these power relations.

For example, the Coastal Ring organization attempted to secure its mandate to manage the Likskärs island nature reserve and the local village commons by drawing on the resources of the state. Here various members of the organization scrutinized Swedish policy and legal documents to identify scope for local environmental management activities and comanagement initiatives. The organization also drew on international discourses, such as the "think global act local" slogan, and policy trends toward decentralization and collaborative environmental management in order to confer upon it legitimacy and the authority to act.

As a result of these tactical developments, the government became an outside force to resist (with respect to the Natura 2000 designation of the Kalix River mouth), a partner to work with, and a resource to draw from. Likewise, although officials in the CAB were concerned to limit the amount of power ceded to the Coastal Ring organization, which they did not fully trust, the arrangement that emerged nonetheless became a case study the Swedish Ministry of the Environment draws upon to share with a wider international audience. Furthermore, as a result of the attention given to it, members of the Coastal Ring organization were invited to meetings and workshops that fed into national policy making processes.

Looking at the local formation of the Coastal Ring organization through a critical institutional lens reveals other aspects associated with institutional bricolage. Among these is the adaptation of past practices to new situations. This relates to the way in which locals adopted and adapted an ancient village institution, the *byalag*, in order to form the Coastal Ring organization. Although membership of the traditional *byalag* depended on ownership of land, in the new arrangement this requirement was broadened to include anyone living in the area or with a local connection. Another key feature is the invention of tradition, whereby villagers developed narratives about former times that stress community, a shared identity, and a culture and economy in harmony with the local environment. These narratives tended to downplay historical differences and the fact that some of the members of the Coastal Ring organization were relative newcomers, lacking the historical claim to place and tradition. The effect was the emergence of an arrangement imbued with meanings that conferred legitimacy upon it and provided a sense of purpose and direction for the villagers.

From an institutional bricolage perspective, it is recognized that the process of forming the Coastal Ring organization, although often highly innovative, occurred as a result of both conscious and nonconscious agency as those involved pieced together the arrangement from the old and new, traditional and modern, formal and informal, in accordance with the resources at hand. To explore some of these issues further, let us consider the case of a project that was established broadly according to the principles of adaptive governance (as identified by Nunan 2016).

**Illustration 2: The SWAUM Project, Tanzania (Source: J. Colvin and F. Maganga 2016, *unpublished manuscript*[5]; SWAUM database)[6]**

The Sustainable Water Access, Use, and Management (SWAUM) Project was established by the NGO WWF with funding from the UK Department for International Development (DFID). It was conceived of as a social learning intervention with the aim of addressing the shortfalls in water governance arrangements in the Great Ruaha River Catchment in Tanzania. Concerns about the catchment first arose in the 1990s, resulting from the periodic drying up of the Great Ruaha River. The problems of water governance in the area were understood as complex or "wicked," involving a variety of stakeholders, uses, and values; disagreements about the nature of the problem; knowledge gaps; uncertainties; and capacity constraints. From the later 1990s onward, a number of donor-funded initiatives were implemented, aimed at improving the natural resource management in the catchment. The case considered here built on these but aimed at a different approach to furthering adaptation in practice.

*An adaptive governance analysis*

The SWAUM pilot project (2011–2016) aimed to use social learning approaches to bring stakeholders into dialogue and enable them to address the constraints on implementing water governance. The long-term goal was to restore perennial flows in the Great Ruaha River and, through flexible and adaptive approaches, generate improvements to livelihoods, wildlife, tourism, and hydropower. The initiative would also facilitate behavior change by promoting better land and water management practices, increased commitment to collaborate from stakeholders, and improved institutional capacity at various levels. In line with adaptive governance principles, broad stakeholder participation was promoted through workshops. These facilitated multistakeholder platforms (MSPs) were designed to open spaces up for reflective dialogue, raise awareness, seek agreement on joint action, and consolidate learning.

The project set out to promote horizontal integration of representatives from different ministries (water, agriculture, energy, local government), the NGO and universities, smallholder and commercial farmers, representatives of the national park, and wildlife conservation interests. Shared knowledge and iterative decision making was promoted in "learning through action" collaborative initiatives. These included conservation agriculture with trees; land use planning; delivery of livestock troughs and dams; and technical training on agricultural intensification and water monitoring and water quality sampling. Training was provided for officials in the design and facilitation of MSPs, and policy advocacy activities formed part of the project with monitoring and review built in throughout.

An evaluation in 2016 found that SWAUM had strengthened adaptive water governance in a number of ways. Improvements were identified in vertical (multilevel), horizontal (between sectors), and upstream-downstream aspects of coordination between stakeholders. Involvement of some marginalized groups in catchment management was increased and their voices amplified in debate. Private sector actors had been brought into discussions about water governance and a degree of political engagement at district, regional, and national levels was secured for collaborative approaches. Some limited improvement in land and management practices in subcatchment areas was identified. The evaluation concluded that the project had laid the basic building blocks for collaborative and adaptive water governance but that the process of achieving this was ongoing.

Some constraints on effectiveness were also identified in the evaluation report, many of which the project had tried to address. The SWAUM approach adopted inevitably tested existing power structures and there were tensions and variable levels of commitment between key actors (WWF Tanzania, WWF UK, Rufiji Basin Office) some of whom saw the collaborative initiatives as challenging the status quo. Lack of capacity in government offices affected sustainability and the motivation of staff to be involved in complex processes, and there was an absence of mechanisms to integrate between sector hierarchies. Adaptive governance partly depended on water user associations (WUAs) as the local level institution available through which to secure stakeholder participation and channel initiatives. However, there was not a full complement of WUAs and they lacked capacity, clarity of roles and of relationship to local government. The project had deliberately set out to include marginalized stakeholders but did not secure significant representation of pastoralists. Despite considerable debate and agreement to protect water sources, local people continued to cultivate riverbanks and riverbeds, possibly to the detriment of river flows.

*A critical institutional analysis*

How does a critical institutional reading provide additional insights into the nature of processes, power, and meaning to explain some of the difficulties of achieving adaptive governance? If we see the MSPs and the WUAs as designed institutional arrangements then this raises questions as to how they gain legitimacy and authority. From a bricolage perspective, this would involve borrowing, invoking, or inventing traditions, symbols, devices, analogies, and classifications that link the MSP or the WUA to established and accepted forms of governance (and therefore to prevailing power relations). For the MSP in particular, the large number of different stakeholders involved means that there is likely to be a significant plurality of repertories, values, logics, and authorizing symbols that could potentially be deployed. Such plurality offers both opportunity (a rich stock of arrangements) and constraint (diverse and incompatible logics, the domination of particular discourses) with no guarantee that differences will be smoothed out in public debate.

As well as understanding the conscious learning and agreements forged in defined institutional spaces, a critical institutional perspective would locate resource use in the processes of everyday life, which are imbued with power relations, systems of meaning, and right ways of doing things[7]. Take for example the practice of streambank/bed cultivation, prohibited by law, by formal institutional rules, and in the multistakeholder dialogue, and yet universally practiced. There are strong discourses that can be deployed to justify the cultivation of riverbanks, derived from national policy (priority for food security); livelihoods (we are poor, we must eat!); history (our fathers and forefathers did this); and citizenship (we are the rightful owners/users of this land, it is our right to cultivate). These may well be at odds with conservation logics (streambank/bed cultivation causes erosion and siltation and therefore impedes the flow of the rivers). This is complicated by the fact that actors have multiple identities. The Chair of the water user association or the District Conservation Officer may well also be farmers, utilizing the fertile land of riverbanks and beds to grow crops to support their families. There may therefore be a significant gap between what they say in public processes of deliberation and what they actually practice in their everyday lives.

Regarding power, a critical institutional approach would suggest the need to be aware of the more structural dimensions of power at the societal level that shape local decision-making dynamics. Of particular relevance here is the way that some actors are able to exercise hidden power to shape the nature of discussions, the terms of debate, and the valuing of contributions to it. Such a lens may help to throw light on why, despite good intentions, it was difficult to involve pastoralists. These attempts failed to overcome dominant societal narratives that blame pastoralists for resource depletion. These views unintentionally leaked into SWAUM processes, influencing thinking and behavior. The wider discourses of society prioritize irrigated agriculture as essential to food security and development. These discourses are matched

by resource allocations, through large donor funded initiatives to support famers. At the same time, there are strong policy imperatives for conservation and a broad spectrum of vocal and well-resourced actors arguing for this ranging from the national parks authorities to the private safari operators. Both of these wider societal priorities provide the legitimizing frames that (consciously and unconsciously) work to exclude the pastoralists.

## CONCLUSIONS

The accounts we have provided of adaptive governance and critical institutionalism suggest scope for the latter to invigorate the former in a number of ways. The preceding sections also appear to circumscribe some of the optimism we see as inherent in much adaptive governance literature, and which we have attempted to demonstrate by way of the two illustrations above. The intention has not been to produce a negative account of adaptive governance but rather to demonstrate how critical institutional insights are able to provide a more realistic understanding of the potential for adaptive and equitable forms of governance to emerge and evolve. Specifically, we argue that critical institutionalism provides a set of theoretical insights that usefully attend to issues of process, power, and meaning in adaptive governance. Doing so helps to overcome the normative trap associated with a recipe-of-ingredients approach, and responds to calls from a wide range of authors to better address the political, social, and cultural dimensions of adaptive governance and of resilience thinking more generally. Here, we revisit and integrate the core arguments raised above in order to discuss the specific ways in which a critical institutional reading can contribute to adaptive governance theory and practice.

### Process

A critical institutional perspective can enhance analyses of adaptive governance by explaining the processes through which environmental governance arrangements emerge and endure. Such explanation is furthered by deploying the concept of institutional bricolage. Key insights of this perspective are that governance arrangements are pieced together consciously and nonconsciously as an adaptive response to change where components for these arrangements may be borrowed, adapted, and blended from a range of different sources. Significantly, such hybrid arrangements are made to seem appropriate or natural by drawing on accepted sources and symbols of authority and legitimacy. The implications for adaptive governance are that institutions designed for purpose (knowledge sharing platforms, resource management arrangements, social learning networks) may only work and endure when they also serve other socially valued purposes and are embedded in accepted practices and forms of behavior. An institutional bricolage lens therefore provides a more nuanced and socially informed appreciation of the ways in which people can adapt or transform social arrangements in the face of change.

### Power

A critical institutional perspective can add power sensitivity to adaptive governance approaches. Critical institutionalists view power relations (and the inequitable outcomes they produce) as an inherent feature of social and political life. Although adaptive governance places faith in powerful actors to be champions of change, a critical institutional lens tempers this optimistic view, seeing powerful actors as likely to be concerned with consolidating their interests across different domains of action. Drawing on both material and symbolic resources (including cultural and political symbols of authority) they are better placed to ensure that change is undertaken on terms that benefit them. However, critical institutional researchers also expand their analysis away from individual actors to understand how power is embedded in wider societal relations and reproduced in everyday interactions. This is a view of power as inherent to governance. The allocation of resources in society, the dominance of particular narratives about cause and effect, and about the proper order of social and political life operate in visible, hidden, and invisible ways to pattern the outcomes of governance processes. This critical institutional view of power may help to shed light on why designed interventions for adaptive governance deliver less than expected, or result in unanticipated consequences. A critical institutional analysis has the potential to help reveal hidden processes that may be obstacles to progressive change.

### Meaning

For critical institutionalists, it is impossible to understand environmental arrangements without appreciating that meaning and values adhere to them beyond their directly instrumental function. These meanings encompass worldviews about cause and effect in the human and natural worlds and different logics of action (for example the comparative values attributed to collective or individual action). Attribution of meaning is crucial for legitimizing and sanctioning relationships by relating them to accepted knowledge and familiar socio-political and environmental orders. Meaning (and power) therefore helps to ensure the acceptability and durability of institutional arrangements. Lessons for adaptive governance include the need to be aware that multiple processes of meaning making (beyond those of the adaptive governance focus) will likely shape adaptive governance arrangements in unplanned directions.

These concluding remarks highlight that process, power, and meaning are inextricably bound up with one another and should not be treated in isolation. However, this does not prohibit the use of these analytical distinctions in order to better conceive of and critically investigate adaptive governance. In this paper, we have argued that the theoretical insights critical institutionalism offers proves instructive in this regard.

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[1] Nunan abstracts these principles from the literature: adaptive governance systems and processes should, (1) be flexible and able to respond to change, (2) generate, use, and share knowledge for iterative decision making, (3) encourage coordination and cooperation between sectors and actors, (4) enable broad stakeholder participation, (5) facilitate behavior change, and (6) emphasize processes rather than structures.

[2] We are drawing here more broadly on strands of thought aligned to adaptive governance to greater or lesser degrees. These include broader environmental resource governance approaches, those concerned with SES and resilience thinking and those concerned with specific governance instruments such as payments for ecosystems services.

[3] See for example the series of World Development Reports from the late 1990s into the early 2000s in which institutions are proposed as key to ensuring the flourishing of markets, sustainable environmental management, and good governance, in the interests of propoor development.

[4] It should be noted that in writing up his research on the Coastal Ring, Sandstrom draws on both adaptive governance and critical institutional framings.
[5] Evaluation of the Ruaha Water Programme (RWP), Phase 2 (2011–2016): Sustainable Water Access, Use and Management (SWAUM) Part 1 – Main report. Dr John Colvin (Emerald Network Ltd) and Dr Faustin Maganga (University of Dar es Salaam).
[6] The authors gratefully acknowledge the insights gained from numerous conversations with Mike Morris about this project, although we take responsibility for the framing and interpretation. The evaluation report used as a primary source for this case study also refers to a wide range of process documentation contained on the project database. The authors drew on some of these documents to gain greater understanding of the case, necessarily presented in outline here.
[7] Such a focus on everyday practices indeed could be said to align with the SWAUM approach to social learning.

### *AUTHOR CONTRIBUTIONS*

Both authors are coauthors and have contributed equally to this paper.

*Responses to this article can be read online at:*
http://www.ecologyandsociety.org/issues/responses.php/10212

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