The Critical Institutional Analysis and Development (CIAD) Framework

Luke Whaley
Department of Geography, University of Sheffield, UK
l.whaley@sheffield.ac.uk

Abstract: In recent years, 'critical institutionalism' has emerged as a school of thought in its own right. Among its strengths is a focus on institutions as both complex and embedded, where institutional change is understood as a process of bricolage. Yet a number of distinct challenges follow from this. These include capturing the 'complex-embeddedness' of institutions; making critical institutionalism amendable to the world of policy; investigating the more hidden, informal, and everyday dimensions of institutional life; and providing explanations of commons governance that foreground the workings of power and meaning. In this paper, I provide an outline of the Critical Institutional Analysis and Development (CIAD) Framework, designed to explicitly reflect the basic tenets and core claims of critical institutionalism. Whilst it shares similarities with its predecessors – the IAD Framework (Ostrom 1990, 2005) and 'politicised' IAD Framework (Clement 2010) – the modifications it has undergone results in a qualitatively different framework geared toward critical institutional research. The paper considers ways in which the CIAD Framework facilitates systematic and critical analyses of commons governance whilst addressing key challenges a critical institutional approach engenders.

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1. Introduction

Much of commons scholarship after Hardin (1968) has been accompanied by an attempt to develop a framework for analysing institutions for commons governance. This endeavour was pursued in particular by Elinor Ostrom and colleagues and resulted in the Institutional Analysis and Development (IAD) Framework (Kiser and Ostrom 1982; Ostrom 1990, 2005; Blomquist and DeLeon 2011; McGinnis 2011). Over the same period, scholars working in disciplines including anthropology, sociology, and development studies were infusing commons scholarship with a different set of concepts and ideas. In part, these efforts have served as a critique of several of the core assumptions and suppositions that have characterised much work on the commons (e.g. Goldman 1997; Mosse 1997; Cleaver 2000, 2002; Johnson 2004; Nightingale 2011; Saunders 2014; Schnegg 2016). Cleaver (2012) has termed this second school of thought 'critical institutionalism' in contrast to the other school of thought, typified by the work of Ostrom, which she has calls 'mainstream institutionalism'.

Whilst a clear agenda to develop a framework has accompanied the evolution of mainstream institutionalism, the same cannot be said for critical institutionalism. In part, this relates to the difficulty of developing a framework that reflects the basic tenets and core concerns of the school. This includes the challenge of capturing the ways in which commons governance arrangements are embedded in historically specific social relations and ecological conditions, where power and culture is paramount to explaining their workings. Furthermore, it is likely that the development of a 'multi-purpose diagnostic framework' is less appealing to critical institutionalists, who tend to stress plural epistemologies, a degree of indeterminism, and the contingent nature of knowledge claims. Despite this, I argue that there is value in developing a framework for critical institutionalists. In particular, it has utility as an 'organising principle' that helps to structure critical and systematic analyses of commons governance arrangements, alerting the analyst to a range of relevant questions, methods, and dynamics. This may prove especially useful for less experienced researchers.

In this article, I outline the Critical Institutional Analysis and Development (CIAD) Framework. Building on Clement's (2010) 'politicised' IAD Framework, the CIAD Framework reflects the theoretical and conceptual insights that underpin critical institutionalism. In what follows, I discuss how the CIAD Framework is grounded in a critical realist philosophy, charting a middle ground between structure and agency to draw attention to the key features of social situations and their outcomes. At the same time, I consider the ways in which the CIAD Framework may help to address several of the main challenges faced by critical Institutionalism. These challenges relate to: 1) the 'complex-embeddedness' of institutions, 2) making critical institutional research amenable to the world

of policy, 3) investigating the more hidden, informal, and everyday dimensions of institutional life, and 4) providing explanations of commons governance that foreground the workings of power and meaning. Given the disciplinary breadth of the different scholars who make up critical institutionalism, the CIAD Framework proposed here is of course open to a range of critiques and revisions; a point I welcome in concluding the article.

2. Critical institutionalism

More recently there have been several efforts to delineate and articulate critical institutionalism as a school of thought in its own right (Cleaver 2012; Hall et al. 2014; Cleaver and de Koning 2015). Here I shall not undertake yet another exposition. Instead, it suffices to provide a short overview of critical institutionalism and to bring attention to a number of key challenges it faces. I start with the central premise that critical institutionalism conceives of institutions as both complex and embedded. This 'complex-embeddedness' (Peters 1987) stems from the fact that institutions are situated within particular political and economic structures. Furthermore, they always enmesh with and emerge out of people's systems of meaning and culturally accepted ways of doing things. As a result, institutions tend to reflect, and often entrench, historically specific power relations (Mosse 1997). Where attempts are made to create or impose new institutions, this is never undertaken upon a 'blank slate' but instead must contend with these existing social relations and cultural paradigms, often leading to outcomes that are both unintended and unexpected (de Koning 2011).

A good deal of mainstream institutional thinking focuses on the public spaces that undeniably represent an important part of institutional life (whether formal or informal). This same thinking proposes that institutions for governing the commons are created or modified by individuals through processes of deliberative 'crafting' or 'design' (Feeny et al. 1990; Schlager and Ostrom 1992; Pomeroy and Berkes 1997; Ostrom 1999; Dietz et al. 2002). On the other hand, critical institutionalism extends this framing to incorporate the ways in which institutions are entwined in people's everyday practices, and emerge and evolve through dynamic processes of 'institutional bricolage' (Douglas 1986; Cleaver 2001, 2002). Institutional bricolage is a concept that attempts to capture the ways in which people both consciously and non-consciously patch together institutional arrangements from the social and cultural resources available to them. Elaborating on the concept, Cleaver (2012, 34) writes that by "imbu[ing] configurations of rules, traditions, norms, and relationships with meaning and authority…people modify old arrangements and invent new ones." Furthermore, "innovations are always linked authoritatively to acceptable ways of doing things" where "these refurbishments are everyday responses to changing circumstances" (ibid).

Critical institutionalism therefore draws attention to the messy complexity of institutional life, ingrained in everyday practices and imbued with power relations and cultural meaning. Institutions formed through bricolage are characteristically

plural in their functioning, where arrangements that purportedly serve one purpose are adapted to serve others as circumstances dictate (Cleaver 2007; Jones 2015; Schnegg and Linke 2015). This also implies a degree of indeterminacy, overlap, and potential contestation when it comes to the functional remit across different institutions (for example, in the case of claims by different state and non-state institutions to wield public authority in a given sphere of social life [Lund 2006]). Furthermore, institutions seldom perform consistently over time but instead operate intermittently in relation to changing conditions (Berry 1994; Smith et al. 2001).

2.1. Some challenges

The complex-embeddedness of institutions poses a number of challenges for scholars working within a critical institutional tradition. Here I mention several of the more pressing concerns. Not least among them is the difficulty of informing policy (Mosse 2006; Cleaver and Franks 2008). Critical institutional research often results in rich descriptions or explanations of particular contexts and situations. Yet this begs the question, how can this specificity and complexity be translated or represented in such a way that it has purchase for public decision-making? What might make critical institutional research more amenable to policy makers whilst maintaining the integrity of the research itself?

Another challenge concerns the domains and scales within and across which critical institutional scholars seek answers to the question of the commons. Rather than focusing only on the more tangible aspects of commons governance arrangements, critical institutionalists concern themselves with those places and spaces wherein norms and values that underpin said arrangements are typically nurtured, reinforced, or negotiated. There is, therefore, an interest in apparently non-relevant associational activities such as weddings and funerals, public meetings, clubs, pubs, and any other customary and enculturated forms of social interaction (Nightingale 2011; Cleaver 2012). Furthermore, there is a concomitant requirement to understand how wider systems of governance and historical processes come to bear on the functioning or operation of more local governance arrangements (Mollinga 2008; Merrey and Cook 2012; Saunders 2014; Jones 2015; Whaley and Cleaver 2017). This draws attention to the workings of broader power structures and temporally situated social dynamics.

A final challenge following on from above concerns critical institutionalism's tendency to foreground power and meaning as constitutive features of all governance arrangements. The theoretical diversity that accompanies this stance suggests a potential methodological quagmire. Critical institutional analyses of power and meaning – or 'politics' and 'culture' in their broadest senses – differ considerably in approach. Nonetheless, it is generally recognised that research should attempt to capture not only visible and even hidden forms of power (where the latter concerns attempts at 'agenda setting'). Instead, it is also necessary to understand the seemingly invisible ways in which power operates through, for

example, the prevalence of particular discourses and the tacit cognitive schemes that order thought, feeling, perception, and action (cf. Lukes 1974; Bourdieu 1977; Foucault 1978; Hayward 2000, 2004).

3. The CIAD Framework

The Critical Institutional Analysis and Development (CIAD) framework (Figure 1) facilitates research into commons governance that explicitly attempts to align with the claims and objectives of critical institutionalism. A central concern is the need to critically and systematically analyse the 'complex-embeddedness' of institutions. As with its predecessors, the CIAD Framework helps to order a research agenda by bringing attention to the relevant aspects of the situations of interest and the types of questions one may want to ask. In doing so, it facilitates a nuanced analysis of the relationship between structure, agency, and social situation. The result is an approach that foregrounds power and meaning to understand commons governance arrangements, and which reveals the workings of institutional change as processes of bricolage.
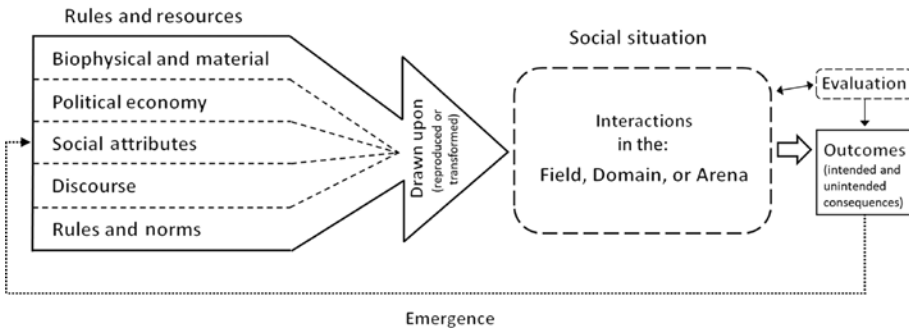

Figure 1: The CIAD Framework.

The CIAD Framework has been adapted from the original IAD Framework (Ostrom 1990, 2005) and a further iteration, the 'politicised' IAD Framework (Clement 2010). Whilst it shares clear similarities with these previous versions, the modifications it has undergone results in a qualitatively different framework geared toward critical institutional research. From the outset, it should be recognised that the CIAD Framework dispenses with the game theoretic underpinning of Ostrom's original IAD Framework. It therefore does not function as a tool to rigidly and reductively model decision making between individuals and groups in any definitive sense. Rather, it is a heuristic device that is suggestive of the questions, methods, dynamics, and relationships that facilitate a systematic and critical analysis of commons governance arrangements and the ways in which they change over time.

3.1. Philosophical foundation: critical realism

Critical realism (Bhaskar 1979; Archer 1995; Danermark et al. 2002) is a philosophy of social science that has come to be associated with critical institutionalism (Cleaver 2012). I restrict the discussion in this sub-section to locating the CIAD Framework in a critical realist paradigm by pointing to how it usefully attends to one of the philosophy's key ontological claims. This claim concerns the relationship between structure and agency, and a related methodological challenge.

Unlike rival structuralist and voluntarist paradigms, critical realism proposes that social structure and human agency are recursively implicated in the ongoing reproduction and transformation of social systems (signified in Figure 1 by the text in the large arrow leading from rules and resources to the social situation). This position aligns with Giddens's 'structuration' theory, whereby "the rules and resources that are drawn upon in the production and reproduction of social action are at the same time the means of system reproduction" (Giddens 1984, 19). However, the two positions also differ in one important way. Whilst both Giddens and proponents of critical realism promote the idea of a recursive relationship between structure and agency, critical realists have criticised Giddens's notion of the 'duality of structure' for being atemporal and synchronic, failing to provide an analytic distinction between structure and agency and therefore collapsing into indeterminacy[1] (Archer 1995).

Archer (1995) instead argues for what she calls 'analytical dualism' whereby the ongoing sequence recursively implicating structure and agency is broken up *analytically* into three stages. She terms these three stages 'Emergence-Interplay-Outcome'. Emergence is a key concept for critical realists, and here refers to the phenomenon whereby structure (represented by the rules and resources categories of the CIAD Framework) emerge from people's practices, interactions, and other actions whilst at the same time not being reducible to them (Bhaskar 1979; Elder-Vass 2010). These emergent structures are typically unintended. As Bhaskar (1979, 38) argues:

> "[P]eople, in their conscious activity, for the most part unconsciously reproduce (and occasionally transform) the structures governing their substantive activities of production. Thus people do not marry to reproduce the nuclear family or work to sustain the capitalist economy. Yet it is nevertheless the unintended consequence (and inexorable result) of, as it is also a necessary condition for, their activity. Moreover, when social forms change, the explanation will not normally lie in the desires of agents to change them that way, though as a very important theoretical and political limit it may do so"

The composition of the CIAD Framework in Figure 1 reflects the various points raised in this section. Archer's triad of Emergence-Interplay-Outcome is captured by the Framework's *emergent* rules and resources, the *interplay* between these

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[1] Archer (1995, 2007) calls this 'central conflation'.

rules and resources as they are drawn on by participants interacting in the social situation, and the *outcomes* that result. The Framework also captures how the outcomes of these situations (the intended and unintended consequences) feed back into the rules and resources through a process of emergence. These rules and resources then serve as the conditions for future behaviour. The CIAD Framework therefore attends to critical realism's ontological claim concerning the relationship between structure, agency, and emergence, and provides a means of analysing this dynamic by differentiating between rules and resources, social situation, outcomes, and the interplay between them.

3.2. The rules and resources

The first part of the CIAD Framework is the rules and resources component. This term borrows from Giddens (1984) and represents the structural features of the natural and social world most pertinent to critical analyses of institutions. However, as purely structural features, rules and resources are essentially 'out of time and space' and marked by an 'absence of the subject' (ibid). Later, I will consider the ways in which the CIAD Framework helps the analyst to examine how rules and resources are recursively implicated in the reproduction of social systems as knowledgeable human actors draw upon them in the social situation. At this stage, it suffices to say that rules and resources are both the medium and outcome of human actions, as Figure 1 suggests.

In the CIAD Framework, the rules and resources comprise five distinct but interrelated categories. These are the biophysical and material world, the political economy, social attributes, discourse, and rules and norms. These categories are suggestive of particular types of analysis. For example, forms of political economy or discourse analysis. Unlike in the original IAD Framework, where each of the three exogenous variables are contained within discrete boxes, in the CIAD Framework the five categories are partitioned by dotted lines. This modification is suggestive of the interrelationships between them: that the categories interpenetrate and do not succumb easily to treatment in isolation. For example, many 'social attributes' (e.g. gender, race, class) share some relationship with the 'biophysical and material' (e.g. sex, skin pigmentation, clothing/dress); the meanings that constitute particular 'social attributes' are constructed within 'discourse'; and 'discourse' and 'rules and norms' are often closely related, not least when it comes to understanding institutions[2] (Hajer 1995; Phillips et al. 2004; Dryzek 2005). Among other things, the 'co-action' (Clement 2010) of the rules and norms category with the other four categories underlines the embeddedness of institutions.

Turning to consider the categories in order. Firstly, the biophysical and material category encompasses the nature of the resource, resources, or ecosystem

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[2] Dryzek (2005, 20) observes that certain discourses become interwoven with institutions, where they "constitute the informal understandings that provide the context for social interaction, on a par with formal institutional rules."

in question. Here mainstream institutional insights linking particular resource characteristics – including excludability, subtractability, stationarity, and storage – to the possibility or likelihood of collective action is useful (see Ostrom et al. 1994). This category also relates to forms of technology, infrastructure, and the broader physical landscape, as well as to physiological attributes of actors in the social situation. For critical institutionalists, a point of interest concerns the ways in which the biophysical and material is co-constituted in dynamic relationship with 'the social' (Mosse 1997; Cleaver 2012; Whaley and Cleaver 2017). The CIAD Framework helps to articulate this dynamic in two ways. Firstly, through the co-action of the biophysical and material category with the other four social categories of the rules and resources component. Secondly, through the interplay between the biophysical and material category and the social situation.

Clement (2010) added the political economy category to the original IAD Framework, providing explicit consideration of power and interests. This category draws the analyst's attention to social dynamics that "require one's analysis to expand outward to take account of the wider political and economic factors that directly or indirectly influence the behaviour of participants in the [social] situation" (Whaley and Weatherhead 2014, 14). At the same time, it encourages one's analysis to "expand backward in time so as to understand the events and processes that have given rise to present-day conditions" (ibid). A broad political economy framing therefore addresses concerns of power, scale, and history shared by many critical institutionalists and helps to delineate the 'room for manoeuvre' (Long 2001) of actors at different levels. In doing so, it sheds light on the general limits or 'corridors' (Sehring 2009) within which institutional change may occur. When analysing more local contexts and micro-level interactions, the political economy category also points to analyses of the 'everyday political economy' (Elias and Rethel 2016) of people's lifeworlds by focusing on the power dynamics, interests, and quotidian practices of actors in these social situations.

The 'social attributes' category relates to such things as race, gender, class, caste, ethnicity, religion, sexuality, age, kinship status, and wealth. To this extent, it brings explicit attention to social structure and the relevance of different structural dimensions for a given context. For example, a consideration of how gender structures a social situation may reveal the workings of a patriarchal structure. The analyst may observe that only men participate in the situation of interest or occupy certain positions, or they may observe that one or more of the practices typically associated with a position may not be available to the participant in question if they are a woman. On the other hand, consideration of class may reveal how a capitalist class structure comes to bear on a given situation where likewise only people of a certain class participate in it or occupy certain positions. Moreover, understanding why some participants in a social situation are able to bend or break rules without suffering punitive measures often comes down to identifying social attributes of these sorts.

As with the political economy category, Clement (2010) also added a 'discourse' variable to develop her 'politicised' IAD Framework, and which remains

as part of the CIAD Framework. The discourse category brings explicit attention to the semiotic dimension of social life. It is a way of examining meaning, rationalities, representations, and types of knowledge, enabling forms of commons research that recognise that struggles over resources are also struggles over meaning (Li 1996). Discourse analysis is a broad field that facilitates critical analyses of power and meaning and is therefore of much interest to critical institutionalists.

Finally, the 'rules and norms' category modifies the original 'rules' variable of the IAD Framework. Firstly, the change signals that for critical intuitionalists an understanding of institutions inevitably incorporates not only rules but also people's norms of behaviour.[3] Ostrom (2005, 18) defines rules as "enforced prescriptions concerning what actions (or outcomes) are required, prohibited, or permitted." Whilst this definition of rules is useful, for many critical institutionalists it may be too restrictive. Instead, critical institutionalism typically employs more sociologically informed ideas about rule taxonomies and definitions.[4] This raises a second point concerning the inclusion of 'norms' in this category. As Hodgson (2006, 6) observes, "a hard and fast distinction between rules and norms is often difficult to maintain." Indeed, a distinction between rules, norms, and practices brings with it inevitable 'grey areas'. Whilst mainstream institutionalism often attempts to reduce or eliminate this indeterminacy, critical institutionalism instead accepts the existence of these grey areas as an inevitable aspect of research into the complex and 'messy' world of institutions, dynamically embedded in social and material relations.

3.3. The social situation: field, domain, and arena

The five rules and resources categories comprise the medium available for participants to draw upon in the second part of the Framework, namely the social situation (Figure 2). The social situation replaces the IAD Framework's 'action situation'. In part, this is to take attention away from the idea that what is of concern for critical institutionalists is only 'action' or 'behaviour'. Instead, critical institutionalism is also concerned with the hidden and even invisible[5] aspects of the social world, including the 'shadowy places' institutions cast and which oftentimes con-

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[3] Ostrom (2005) also pays close attention to norms. However, for her the necessity to include norms as part of an institutional analysis is not always clear. Instead, I contend that critical institutionalism is far clearer about the fact that norms are a crucial aspect of institutional analysis.

[4] Crawford and Ostrom (2005) produce their own taxonomy – the ADICO syntax – designed to systematically differentiate between rules, norms, and strategies. Despite the clarity of their system, and as noted in the main text, in practice distinguishing between rules and norms is not always easy. One way in which mainstream institutionalism attempts to produce this clarity is by employing a very definite and somewhat restricted definition of rules. Here the focus is "primarily on short-term payoffs," where rules are "linguistic statements containing prescriptions similar to norms, but [that also] carry an additional, assigned sanction if forbidden actions are taken and observed by a monitor" (Ostrom and Basurto 2010, 322).

[5] See Lukes (1974) for his discussion of hidden and invisible, or 'two-dimensional' and 'three-dimensional', power.

ceal the everyday workings of power (Douglas 1986).[6] The term also responds to
McCay's (2002) call for commons scholars to pay greater attention to what she
calls 'situation', including how rules and property rights emerge from within par-
ticular historical, ecological, and cultural traditions. McCay (2002, 393) argues
that explaining how people relate to each other and their environment "requires
specification of those traditions and their broader context." These are concerns the
CIAD Framework deals with explicitly by examining the relationship between
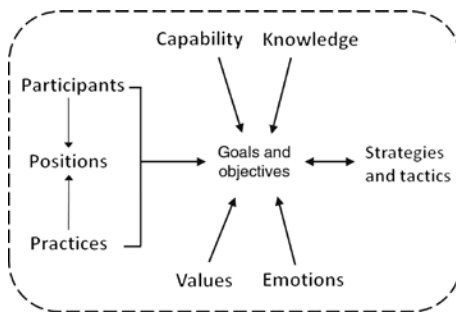rules and resources and the elements of the social situation (see below).

Figure 2: The Social Situation.

The social situation represents the social space of interest to the analyst. In the
CIAD Framework it is bordered by a dotted line, suggesting both the porosity or
semi-autonomous nature of most situations (Moore 1978) and their relative inde-
terminacy, with the corollary that they tend to elude precise definition. Following
Long (2001), the social situation can be any one of three qualitatively different
types. These are the field, domain, or arena. These three types of social situation
do not correspond to the nested 'operational', 'collective-choice', and 'constitu-
tional' levels of governance associated with the original IAD Framework. Whilst
the latter concepts refer to 'deeper' levels of rule following and rule-changing situ-
ation, fields, domains, and arenas instead help the analyst to identify qualitatively
different (although often interlocking or interpenetrating) types of social situation
based on their relative internal coherence and cohesiveness. As Long (2001, 57)
observes, "all three concepts address the issue of the bounding of social spaces
and how they are constituted and transformed."
    With this in mind, a 'field' tends to be large and lacking a single organising
principle. It will often be the broadest analytical boundary, within which different
domains and arenas are considered. Examples may be a geographical area per-
taining to a region, river catchment, or biome. Next, the 'domain' relates to those

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[6] This position is captured by the mantra that "what you see is *usually not* what you get" (De Herdt
and Olivier De Sardan 2015, 2).

situations typified by a degree of commonality: a core or cluster of rules, norms, discourses, and values engendering a degree of social commitment among participants. From the myriad potential social situations that could count as a domain, of much interest to commons scholars has been the local governance arrangements in place for the management, access, and use of common pool resources. Finally, 'arenas' are situations characterised by confrontation, contestation, and difference, often located at the interface between actors' various lifeworlds or distinct 'spheres of existence'. An example would be the interface between local communities and district-level extension workers. Whilst arenas reveal sites of difference and contestation they typically also reveal the boundaries and shared expectations that have developed in order to mediate between participants in different positions. Furthermore, domains may be replete with their own arenas – points of confrontation, negotiation, and difference – that become apparent as the analyst moves in to consider the internal dynamics of the situation. This reveals a notable strength of the CIAD Framework in that it permits movement within and across scales of organisation and levels of abstraction, in accordance with one's research agenda.

3.4. The social situation: structure, agency, and system

All social situations share the same internal composition of nine distinct elements (Figure 2). Broadly speaking, these elements can be divided into two groups. The first group comprises the three 'systemic elements' of participants, positions, and practices, and the second the six 'agential elements' of goals and objectives, capability, knowledge, values, emotions, and strategies and tactics. When these elements are considered in relation to each other and to the five rules and resources categories, they draw the analyst's attention to questions of structure and agency within specific social contexts. Here I will consider the social situation's systemic and agential elements in turn, as well as their interplay with the rules and resources categories. I draw in particular on the social theory of Giddens (1984).

As mentioned above and following Giddens, the rules and resources categories that structure situations are in a sense 'out of time and space' and marked by an 'absence of the subject'. In contrast to this, Giddens (1984, 25) argues that "the social systems in which structure is recursively implicated…comprise the situated activities of human agents, reproduced across time and space" (Giddens 1984, 25). This understanding of how structure and agency combine in particular situations to produce social *systems* points to the appropriateness of the use of the term 'systemic' to describe the participant, position, and practices elements. This is because social systems are "relations between actors or collectivities, organised as regular social practices" (Giddens 1984, 25). Reinterpreting this last point in light of the three systemic elements, we can say that social systems comprise individual or collective actors (the *participants*), the relationships between these actors (understood as a property of their respective *positions*), and their regular social *practices*.

The systemic elements therefore require the analyst to identify who participates in the social situation of interest, their respective positions – such as water users, Water Point Committee members, village chief, or District Water Officer – and the identifiable set of practices that are typically associated with these positions. For example, practices associated with a water user could include collecting water (e.g. walking to the water point, queuing, pumping, and carrying the water home); cleaning the water point and its surroundings; paying user fees; and attending gatherings to discuss water-related issues, decide on rules of access and use, or to vote in members of the Water Point Committee.

In keeping with critical institutionalism, people's practices – and not individuated actions – therefore become key to understanding institutional functioning and development. A practice can be thought of as "a routinized type of behaviour which consists of several elements, interconnected to one other: forms of bodily activities, forms of mental activities, 'things' and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge" (Reckwitz 2002, 248–249). In effect, practices are the lynchpin that bind structure and agency in time and space to produce recognisable social systems. All commons governance arrangements are comprised of participants in different positions engaging in a spectrum of routinized and exploratory practices. Whilst practices provide governance arrangements with their systemic form, they must also be understood as conduits through which a good deal of human agency is exercised. Crucially then, for critical institutionalists agency is not simply a form of conscious and deliberative thought or action. Instead, agency is also, and often, less-consciously or non-consciously exercised by people engaged in their various social practices, informed by what Bourdieu (1990) called a 'feel for the game'.

Understanding agency therefore requires conceiving of the ways in which habitualised and creative forms of behaviour co-exist (Cleaver 2012). Drawing on insights from social theory, in the social situation agency is captured by six agential elements, namely goals and objectives, capability, knowledge, values, emotions, and strategies and tactics. As compared to Ostrom's (2005) action arena, here the 'information' element has been replaced by the 'knowledge' element, and the 'control' element by the 'capability' element. These two modified elements are still able to perform the same functions as before,[7] however the new terminology expressly relates to what Giddens (1984) claims are the basic characteristics of human agency, namely 'knowledgeability' and 'capability'.[8] The knowledge element may be unpacked in various ways. So, for example, into

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[7] That is, 'knowledge' can still imply 'information', and 'capability' can still infer a capacity to exercise 'control'.

[8] 'Knowledgeability' concerns reflexive self-monitoring, the monitoring of others, and a general awareness of situation – "The monitored character of the ongoing flow of social life" (Giddens 1984, 3) – whilst 'capability' concerns a capacity "to command relevant skills, access to material and non-material resources and engage in particular organising practices" (Long 2001, 49).

forms of information, understanding, and belief.[9] The capability element relates to an actor's skills and competencies, their ability to access and mobilise rules and resources, and to engage in particular organising practices.

The addition of an emotions element to the social situation brings explicit attention to how people's feelings, fundamentally rooted in a need for ontological security, motivate them to behave in particular ways. When combined with the knowledge and capability elements, human actors are understood to be 'knowing/ feeling active subjects' (Long 2001, 20). The addition of a values element provides further nuance to understanding agency and replaces the more economically reductive concept of 'costs and benefits' used by Ostrom and others in the original IAD Framework. Instead, this element requires the analyst to consider participants' broader notions of worth and usefulness as they relate to things, events, processes, and outcomes. Values do not only capture perceived payoffs of potential outcomes but also principles or standards of behaviour and what is considered important in life.

The four agential elements discussed so far – capability, knowledge, values, and emotions – inform a participant's goals and objectives, as indicated by the unidirectional arrows in the social situation (Figure 2). Together these goals and objectives help the analyst to understand the interests of different participants and their motivation for acting in certain ways and toward particular ends. Here 'goals' refer to the long-term aims held by participants and tend to be relatively broad and abstract. In a sense, they relate to an actor's life project or projects, although these will always be subject to change. On the other hand, 'objectives' are more short-term and concrete. However, as indicated in Figure 2, goals and objectives emerge not only in relation to the four agential elements just discussed but also in relation to the positions of participants in the social situation. These positions typically relate to inclusion of the participant in particular social institutions or organisations, inferring that the goals and objectives of the participant will oftentimes overlap with the goals and objectives of the institution or organisation. Unlike the other five agential elements, the goals and objectives element is not directly structured by rules and resources but only indirectly in a pivotal relationship with all the other elements in the social situation.

Goals and objectives both inform and are informed by the last of the six agential elements, namely strategies and tactics. As noted above, the CIAD Framework understands agency as typically exercised through practices, and with varying degrees of conscious awareness. Here I draw upon de Certeau (1984) to argue that when people engage in practices we can think of them as doing so either strategically or tactically. For de Certeau (1984), 'strategies' are conceived of and implemented by more powerful actors – the 'producers' (rulers, authorities, etc.) – and are attempts to rationalise space and exert forms of control over it. On the other hand, 'tactics' describe the ways in which 'consumers' of these spaces 'poach'

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[9] And, more theoretically, into 'embodied', 'practical', and 'discursive' knowledge (Archer, 2000).

on existing rules and structures. They are the forms of 'necessary improvisation' undertaken by the less powerful – the 'dominated masses' – as they negotiate the exigencies of everyday life.[10] Tactics function as "internal manipulations of a system…of established order" (de Certeau 1984, 29). Differentiating between strategies and tactics is therefore a useful way of thinking about agency and power in the social situation. This includes attempts by more powerful actors to exert control (strategically) and less powerful actors to manoeuver within limits (tactically). It also helps to articulate aspects of institutional emergence or change,[11] as well as imposition.[12]

3.5. A note on power and meaning

Power and meaning have long and variegated histories in the social sciences. Here I will briefly consider one way in which the CIAD Framework functions to explore these concepts through its focus on the recursive relationship between structure and agency. Whilst the approach taken here is certainly not exhaustive, it does provide a useful means for thinking about and analysing power and meaning using the CIAD Framework.

For Giddens (1984), the ability to exercise agency relates to the capability to do things, which necessarily infers power. However, as agency and structure are interdependent, understanding the ability of different participants to exercise power in the social situation requires an understanding of the structural resources available to them: "resources are media through which power is exercised, as a routine element of the instantiation of conduct in social reproduction" (Giddens 1984, 16). Giddens distinguishes between allocative and authoritative resources. Allocative resources refer to "material resources involved in the generation of power, including the natural environment and physical artefacts" (Giddens 1984, 373). On the other hand, authoritative resources refer to "non-material resources involved in the generation of power" (ibid, 373) and include discourses, policies, rules, relationships, concepts, and ideas. Here non-material resources in particular are representative of the meaning (or semiotic) dimension of social structure.

Returning to the CIAD Framework, it is apparent that these material and non-material resources are well captured by the various categories of the rules and resources component. Their relevance for thinking about differentials in power among participants results from their interplay with the various systemic and agential elements in a social situation. In effect, the rules and resources relevant to a given social situation will position different participants differently in that situation. Depending on their positions, participants will have differing access to

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[10] Moore (1978) makes a similar distinction when she talks about processes of 'regularisation' and processes of 'situational adjustment'.

[11] As a rational project of 'crafting' or 'building', on the one hand; or, on the other, through the "gradual erosion and displacement" (de Certeau 1984, 34) of institutions from 'within'.

[12] For example, through state or NGO-led attempts to 'induce' community-based management programmes by forming village-level committees, user associations, and the like.

and capability to draw upon the rules and resources in the course of (consciously or non-consciously) attempting to achieve particular goals and objectives. This in turn reflects their differing abilities to exercise agency, and thus power.

3.6. Evaluating interactions and outcomes

A range of criteria can be used to evaluate both interactions and outcomes in the CIAD Framework. From a critical institutional perspective, a key evaluative criterion is social justice. Social justice applies to interactions in the social situation through procedural and interactional justice concerns and to the outcomes component through a distributive justice lens. Of course, this is not to say that there are no other evaluative criteria of importance to critical institutionalists. Among them, we may point to the transaction costs of different interactional settings (information, coordination, and strategic costs), and to other overall performance categories, including sustainability, resilience, or efficiency.

Furthermore, the CIAD Framework accommodates the possibility that more than one person may participate in an evaluation process, and often through recourse to including the research participants themselves. As a result, a dotted line bounds the evaluation box, indicating that it too may be a semi-autonomous social situation (in this case a domain, or even an arena). The two-way arrow between the evaluation box and the social situation indicates that not only are evaluation criteria applied to social situations but also that the participants in these situations can contribute to the evaluation process itself. This may be particularly important for some critical institutionalists for whom the validity and integrity of their claims about a social dynamic under investigation requires the views of the people who themselves make up that dynamic.

As a minimum, forms of participatory evaluation may help to produce claims that do not grossly misrepresent the people and issues in question. However, treating participatory evaluation processes as social situations also highlights the sorts of relations and interactions made explicit in Figures 1 and 2, implying that the participatory evaluation process is itself characterised by relations of power and meaning.

4. Applying the CIAD Framework

To consider the ways in which the CIAD Framework can be applied to analyses of commons governance, I draw upon Cleaver's (1995, 2000, 2012) work on water management in Nkayi district, western Zimbabwe. I choose this example as it is an emblematic critical institutional study that explores institutional emergence and functioning from a complex-embeddedness perspective. Here I focus on one 'domain' in particular: the local institutional arrangement in place to manage water access and use of Mtswirini well in the village of Eguqeni, Nkayi. The example will demonstrate that to understand the form and functioning of this institutional domain the analytical gaze must be broadened and deepened beyond a normal mainstream analysis. It is not possible in the space available to give a

comprehensive account of this expanded analysis so I limit the discussion to a number of insights that illustrate the benefit of using the CIAD Framework for undertaking critical institutional research. In doing so, I also point at how it differs from the mainstream institutional approach engendered by the original IAD Framework.

4.1. General process of applying the CIAD Framework

To recap, the CIAD Framework requires the analyst to identify the range of interlocking and interpenetrating social situations of relevance to the governance arrangement in question. These social situations are themselves constructed through the interplay between the rules and resources categories and the internal elements of the social situation. In each case, the CIAD Framework asks the analyst to consider the composition of the social situation by identifying the different participants, their positions and practices, their goals and objectives, strategies and tactics, and how these emerge in relation to their capabilities, knowledge, values, and emotions. These different elements are in turn analysed and understood in relation to the five rules and resources categories. Doing so draws attention to the interplay between structure and agency, power and meaning, authority, legitimacy, and their relationship to processes of institutional bricolage. This iterative analytical process is best served by an ethnographic approach whereby the researcher delves into the lifeworlds of the participants by undertaking detailed studies of their everyday lives.

4.2. Defining and analysing the field

A critical institutional analysis will typically start by delineating a broad field that appears most relevant to the research topic. At this scale, investigating the interplay between the elements of the field and the rules and resources categories provides a working understanding of the distribution of resources, including technological capacities, discourses, physical structures, and salient characteristics of the landscape and climate. Undertaking a political economy analysis of the field points to the distribution of power among key participants and to its historical trajectory. This broader analysis is particularly useful for framing the general conditions within which particular domains and arenas operate. Cleaver takes the district of Nkayi as her field, where her analysis identifies several key features. These include a troubled political economic history, involving a period of guerrilla warfare, the forced migration of its inhabitants to their current locations, and the suppression of the Ndebele people by the Government's Fifth Brigade after independence. In terms of biophysical and material conditions, she observes the prevalence of extended periods of drought in what is an already arid landscape and a dependence on boreholes, small dams, and hand-dug wells for water. She also notes the presence of two large rivers and several smaller ones, all of which are seasonal, where in dry periods people dig holes in the riverbed to access water.

4.3. Identifying relevant domains

Alongside the broad field, a critical institutional approach also takes into account the wider institutional landscape at the local level. The intention is to identify the variety of spaces, places, and processes that may have a bearing on the form and functioning of the institutional arrangement at Mtswirini well. This contrasts with mainstream institutionalism where typically the focus is the formal organisational arrangement, such as the water point committee, and potentially how it nests in wider formal structures. Cleaver identifies a number of different domains that lie beyond the institution domain governing Mtswirini well. These domains include village 'meetings of the people', rainmaking ceremonies, a women's savings group, and the 'invisible' arrangement mediating traditional access to and use of the Shangani river. It is incumbent on the analyst to identify those domains that appear most salient. However, having done so the CIAD Framework then structures the analysis in ways that help to reveal the key features of each situation and their relationship to the domain of interest. For example, both critical institutionalism and the CIAD Framework draw attention to features such as people's social positions and relations, everyday practices, forms of knowledge, values, emotions, goals and objectives (interests), and strategies and tactics (processes of negotiation and adaption).

4.4. Analysing a relevant domain

Consider Cleaver's analysis of the management arrangement at the nearby Shangani River, and how the CIAD Framework accords with it. Here she shows how the practices, norms, values, and emotions present in this domain also inform the institutional logic underpinning the domain governing access to and use of Mtswirini well. These include practices and norms that favour general but conditional access; multiple uses of water, with a balance between domestic and productive uses to avoid disputes between neighbours; prioritising practices that preserve water quality for drinking; and the need for only minimal formal management measures due to general compliance. These practices and norms are themselves underpinned by knowledge, values, and emotions borne out of the history of the area, which Cleaver identified previously during her analysis of the broader field. Most notably, she observes how historical exposure to warfare and political strife has engendered a strong desire for inclusiveness and conflict avoidance. Persistent experiences of drought have also shaped people's values and practices concerning water use.

These underlying principles help to explain the set of norms and practices just described and their partial transposition from Shangani River to the inland well in Eguqeni village. Importantly, the ways in which the norms and practices are adopted and adapted by users of Mtswirini well reveals that the emergence of institutional arrangements of this sort are not simply the result of conscious and deliberative decision making. Instead, they are often partially or even largely the result of less conscious or non-conscious behaviour as enculturated ways of

thinking and doing are drawn upon to piece together arrangements as circumstances dictate. The analytical approach the CIAD Framework facilitates therefore helps to shine a light on processes of institutional bricolage.

4.5. Other benefits of employing the CIAD Framework

The CIAD framework structures and informs the analysis in ways that point to many other noteworthy aspects of governance arrangements from a critical institutional perspective. For example, an understanding of the nature of user boundaries emerges from exploring the relationship between who participates in the social situation and different rules and resources categories. In this respect, Cleaver observes how water user boundaries in Eguqeni vary in relation to biophysical and material conditions such as seasonal changes and water stress. Furthermore, the ability of outsiders to access Mtswirini well in times of water stress also depends on social attributes such as kinship relation and wealth status. In contrast to the claims of mainstream institutionalism, these insights suggest that the boundaries that characterise access to natural resources are variable, dynamic, and 'fuzzy'.

The addition of new elements and the substitution of the knowledge, capability, and values elements for the information, control, and costs and benefits elements in Ostrom's original framework opens up new analytical possibilities. For example, considering different people's knowledge, values, and emotions in the domain governing Mtswirini well and how these are constructed in relation to discourse draws attention to the more fundamental ways in which participants understand and engage with each other. To this extent, a key finding from the Nkayi case study was the existence of what Cleaver calls a 'moral ecological rationality'. She describes this as a "model of decision making that is deeply enmeshed in culture, history and agro-ecological conditions but is nevertheless susceptible to modification and change." This moral ecological rationality functions to order, authorise, and interpret social interaction and hierarchical relations, legitimising certain types of behaviour whilst disciplining others. It therefore serves as a form of power-knowledge (Foucault 1980) through which water management and access in Eguqeni village is achieved. This is a finding that the original IAD Framework, with its focus on participants' 'information' and 'costs and benefits' rather than 'knowledge', 'values', and 'discourse', could never have arrived at.

4.6. Considering agency, power, and meaning

To understand how participants in the social situation exercise agency (and power) the analyst examines the strategies and tactics they employ – both consciously and non-consciously – when engaging in the practices associated with their positions. As discussed, their potential to exhibit agency is understood in dynamic relation to the rules and resources that structure the social situation and that may be drawn upon during the course of social interaction. In the CIAD Framework, the 'moral-

ecological rationality' identified above functions as a form of logic through which people interpret life in Eguqueni village. However, it also functions as a resource that may be tactically deployed (consciously or non-consciously) by participants interacting in a social situation and in accordance with their underlying goals and objectives. As the moral ecological framework links authority in the spiritual and natural world to authority in the social world (Cleaver 2000), deployment of this resource will tend to contribute to outcomes that reproduce the status quo. The extent to which this is the case is however an empirical matter that requires the analyst to evaluate the outcomes component of the CIAD Framework.

4.7. Analysing arenas

The focus on negotiation, confrontation, and difference moves the analysis from one social situation, the 'domain', to a qualitatively different one, the 'arena'. As Long (1999, 1) has argued, it is by studying the dynamics that comprise an arena, using what he calls an 'interface analysis', that the analyst is able to "elucidate the types and sources of social discontinuity and linkage present in such situations and to identify the organisational and cultural means of reproducing or transforming them." In the Nkayi study, Cleaver considers a range of arenas. Here the focus is on the strategies and tactics different participants employ – for example to bend or break water management rules – and how these depend on their capability to mobilise rules and resources.

    As the discussion has so far suggested, these strategies or tactics do not rely on economistic cost-benefit calculations, present in the original IAD Framework, but on behaviour informed by underlying values, emotions, and forms of knowledge. For example, the water point committee charged with the formal management of Mtswirini well does not practice rule enforcement in a strict, graduated manner. Instead, in keeping with the CIAD Framework's approach to structure and agency, Cleaver notes that the committee instead regards these rules as 'tools' that are drawn upon in a flexible manner. Key to understanding how and when the rules are applied are the core values of conflict avoidance and inclusiveness identified during the analysis of the field.

    In another example, Cleaver shows how participants negotiate water payments by drawing upon legitimate (and legitimising) discourses; social attributes including being related to the headman, or one's status as a poor single mother; physical attributes including disability; and norms of acceptable behaviour (what is seen as 'the right way of doing things'). Whilst Cleaver does draw attention to rules and how they structure the social situation, she also demonstrates how different participants are able to negotiate, bend, or break these rules by exercising varying degrees of power and agency linked to the distribution of material and non-material resources. Furthermore, these features of the social situation typically intersect in ways that point to the complex identities of participants and of institutions embedded in social relations, history, and underlying values, knowledge, and moral orders.

4.8. Summing up

Whilst necessarily limited in scope, this section has pointed to the utility of the CIAD Framework for analysing commons governance arrangements. The intention has been to provide a flavour of the relationship between the CIAD framework and critical institutional research. It has also considered the ways in which it facilitates analyses that move beyond mainstream institutionalism's focus on the "visible and tangible community efforts to manage natural resources" (Cleaver 2012, 53). The key point to make is that whilst the CIAD Framework does not substitute for an analyst's theoretical knowledge, it does reflect the core features and processes that characterise a critical institutional approach. Its strength therefore lies in structuring research in ways that provide a systematic and critical analysis of the complex-embeddedness of commons governance arrangements.

5. Conclusion

The analytical vistas opened up by the CIAD Framework accommodate systematic analyses of complex and socially embedded governance arrangements. These arrangements are characterised by interlocking and interpenetrating social situations that bound spaces of both commonality (domains) and difference (arenas) within larger fields of enquiry. The question of how institutional arrangements change over time is grounded in an understanding of the recursive relationship between the agency of participants in a social situation and the structure of that situation. In this paper, I have outlined how the various components of the CIAD Framework and the ways in which they interrelate brings attention to this dynamic. This overview was followed by a worked example of how the CIAD Framework can be applied to analyses of commons governance. To do so, I drew upon Cleaver's critical institutional analysis of water management in the Zimbabwean village of Nkayi.

Here I return to the four key challenges faced by critical institutionalists, mentioned at the beginning of this article, by considering the ways in which the CIAD Framework is able to address them:

1) *The 'complex-embeddedness' of institutions.* The CIAD Framework facilitates analyses that situate systems of rules and norms in relation to people's everyday practices, social relationships and identities, and systems of meaning; within the wider political economy; in history; and in reciprocal relationship with the biophysical and material world. In doing so, it promotes approaches to understanding commons governance arrangements that capture the complexity and embeddedness of real-life institutions.

2) *Making critical institutional research amenable to the world of policy.* The CIAD Framework helps to 'map' or organise research, providing clarity and insight. This same framing provides consistency across different cases and may be useful to policy makers because of its ability to repre-

sent pictorially and systematically the complexity critical institutionalism embraces. The CIAD Framework may also prompt questions about productive places for policy intervention, whilst better contextualising the potential impact of said policies. At the same time, it is clear that the challenge critical institutional research faces in speaking to policy is not completely overcome by the CIAD Framework, given the rich and detailed research findings it engenders.

3) *Investigating the more hidden, informal, and everyday dimensions of institutional life*. The CIAD Framework's taxonomy of social spaces (as fields, domains, and arenas) and its elaboration of the internal workings of these spaces in terms of people's everyday practices, values, emotions, and forms of knowledge, helps to shine a light onto the 'shadowy places' institutions cast. The ways in which social situations are constructed by discourses and norms (from the rules and resources component of the Framework) further assists with analysing hidden, informal, and everyday dimensions. Moreover, the questions the CIAD Framework suggests to the analyst, and the structure it provides, helps to reveal how the workings of other everyday arrangements (domains) come to bear on the institutional arrangement under consideration, as demonstrated in the previous section. This focus assists with analysing institutional emergence and change as a process of bricolage.

4) *Providing explanations of commons governance that foreground the workings of power and meaning*. The CIAD Framework embraces a wide range of approaches for analysing power and meaning. In this article, I considered in particular how power and meaning are vital ingredients in the interplay between structure and agency. This structure-agency dynamic is central to the CIAD Framework. It is by analysing this dynamic that the Framework draws attention to the distribution of material and non-material resources available to different participants in the social situation, their capabilities to access and deploy these resources, and the power differentials that result. Here 'non-material resources' comprise the meaningful or semiotic dimension of social structure, including discourses, policies, social relations, rules, ideas, and concepts. Both power and meaning are therefore constitutive and interrelated aspects of analyses that employ the CIAD Framework.

In concluding, I make one final point concerning a tendency in the literature to embark on projects that attempt to develop and perfect a single framework designed to carry out a particular function (such as analyses of social-ecological systems). I distinguish myself from this position, and argue instead that we should be cautious of efforts to arrive at 'one framework to rule them all'. A framework is only as useful as it is relevant for its user and will be interpreted in different ways by different people. To this extent, the CIAD Framework could be viewed as a sort of template – a 'framework for frameworks' – that can be adopted and

adapted by critical institutional scholars in accordance with their disciplinary training, subject area, and research agenda. At the same time, I hope the current version provides enough traction to prove useful in this respect.

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