

Institutions and Agency in Creating Collective Action for Common Pool Resources

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Abstract: This paper argues that despite the importance of agency in the creation of collective action and common pool resource (CPR) management, the relationship between agency and institutions has not been appropriately linked in the CPR literature. We argue that one school of thought in the CPR literature, namely the Collective Action School (CAS) based on rational choice model, has largely disregarded the recursive relationship between agency and CPR institutions, i.e. the fact that agency is enabled as well as constrained by the CPR institutions and different type of rationalities, such as ‘deontological rationality’ which play a key role in making decisions regarding the CPR institution. Similarly, the Structure Based School (SBS) of thought, does not take into account a key aspect regarding agency: its ability to create institutional change and to introduce new institutions based on ‘reflexive deliberation’. The paper links agency and institution through utilization of the concept of ‘collective intentionality’. This creates room for both (a) ‘habitus’/ habitualized thought for action which ultimately leads to the reproduction of the CPR institution, and (b) ‘reflexive deliberation’ which leads to a new way of action which leads to the production of the new CPR institutions. We argue that individual decision which leads to creation of collective action prescribed by CPR institution depends on the complex interplay of these ‘habitus’ and ‘reflexive deliberation’.

Keywords: Agency, institution, collective action, collective intentionality, deontological rationality, reflexive deliberation

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1. Introduction

Many scholars of Common Pool Resource (CPR) indicate that there is ample evidence of resistance or non-conformity to rules and norms prescribed by CPR institutions (e.g. Peters 1987; Mosse 1997; Agrawal and Gibson 1999; Agrawal 2003). This paper will focus on the issue of agency, i.e. how actors decide whether or not to conform to rules and norms. The term ‘non-conformity’ refers to a situation in which an actor decides to transgress the rules and the norms prescribed by CPR institution, hence exercising her agency. This non-conformity could be a conscious (deliberate) or unconscious decision. Despite ample evidences of non-conformity, the current CPR literature is hopelessly silent in providing a compelling explanation due to the lack of an appropriate framework between CPR institution and agency (Clever 2007). Moreover, we argue that the current CPR literature, especially that of New Institutional Economics and Game theory, has over-focused on the CPR institutions based on formal rule and sanctioning mechanism. It still lacks the explanation on how informal CPR institutions based on norms and customs induce actors to conform to it without sanctioning mechanism.

This paper will open a new path to explaining the relationship between CPR institution and agency by introducing the concept of ‘collective intentionality’ (Davis 2003; Searle 2005). The collective intentionality is defined as individual commitment to collective action. This notion of collective intentionality is instrumental to filling the gaps that exists in the current CPR literature. On the one hand, action based on commitment is fundamentally different from action based on welfare maximization and instrumental rationality held by the rational choice model. On the other hand, we argue that actors who participate in CPR institutions still retain rights to rescind their commitment leaving room for ‘reflexive deliberation’ (Gilbert 1990; Archer 2003). We do not deny that ‘collective intentionality’ is internalized as ‘habitus’ (Bourdieu 1990) as the interaction is repeated over time. Here the ‘habitus’ is used to refer to a ‘frame of reference’ which is formed with a repetitive action leading to a habitual action. However, at the same time, I will create a conceptual framework which allows us to reconcile ‘reflexive deliberation’ to this ‘habitus’ and introduce a possibility of new modes of action to occur.

This paper is structured as follows: in the next section I introduce definitions and explain terms that are the backbone of this paper, namely: agency, institution, social structure and norm-group. In the following section, I review two schools of thought in the current CPR literature, i.e., the collective action based school (CAS) and the social-structure based school (SBS), and their perspectives in order to identify theoretical gaps that hinder the understanding of the inter-linkage between agency and institution. This is done to allow better explaining non-conformity to rules and norms. In Section 4, the concept of ‘collective intentionality’ is introduced that effectively creates a link between the CPR institution and agency and allows to develop a new conceptual framework. The framework allows to introduce the possibility of ‘reflexive deliberation’ by overcoming the pitfall of the ‘over-socialized’ model of actors which generally focuses only on ‘habitus’. By introducing the notion of ‘collective intentionality’ this paper enriches the CPR literature by creating a new understanding of the relationship between CPR institution and agency. The paper also concludes by summarizing some limitations of the proposed conceptual framework.

2. Definition of Terms

Institution is one of the most disputed concepts in the arena of social science (Portes 2006). For the purpose of this paper, I define institution as ‘the system of established rules and norms embodied or internalized within agents as ‘habitus’, via the process of its’ internalization, to assist in rendering predictable intentions and actions of individuals’ following Fleetwood

(modified from: Fleetwood 2008a). This definition allows us to capture both the constraining and the enabling aspect of institutions through the recursive relationship between institution and agency. It is the institution which constrains our action by providing the 'frame of reference', or guidance. However, this very same 'frame of reference' provided by institutions enables individuals to think reflexively (Douglas 1986; Archer 1996).

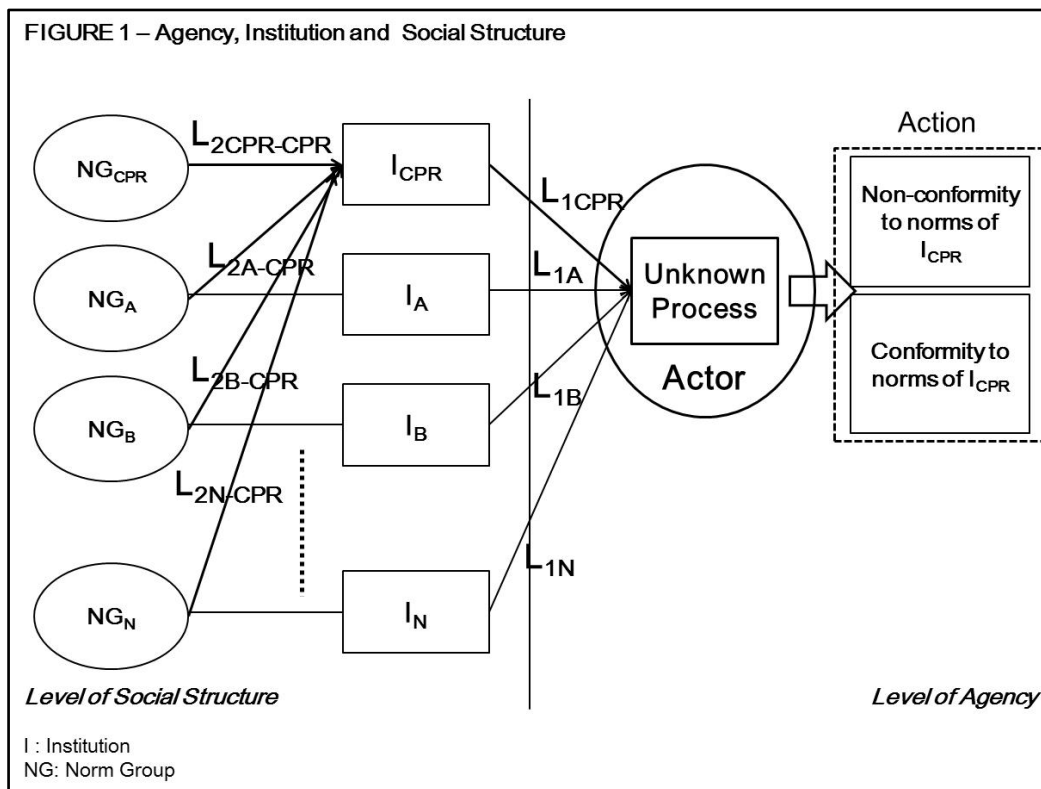
Though institutions consist of both rules and norms, we will limit our argument in this paper to norm and norm-like institutions based on norms. Norms and rules are different. Rules are based on formal or informal agreements with sanction mechanisms; whereas norms are based on networks of mutual beliefs with no sanction mechanism (Davis 2003; Tuomela 2003; Hodgson 2006). Thus, institution based on norms, i.e. norm-like institution, require norm-group, a group mutually sanctions the members through peer pressure or social sanctions. It is important to note that CPR institutions can be both rule-like institutions, such as in the case of government policy lead CPR institutions (Bowles and Gintis 2002; Agrawal 2005), and norm-like institutions, such as in the case of historically surviving CPR institutions based on social networks and mutual understanding (Aoki 2001b; Aoki 2007).

The second term, *agency*, is often used to refer to the general human capacity to choose actions, as well as human action itself (Giddens 2007 (1979)). For example In the CPR literature, it is defined as "the ability to make decisions based on social experience combined with the capacity to manipulate social relations and to enrol others into his or her project" (Steins and Edwards 1999: p.544). In this paper, we refer to agency as the capacity of an actor to choose their action, more specifically whether or not to conform to the rules/norms prescribed by CPR institutions. On the one hand, agency is prescribed by the institution that the actors interact in. Individuals have the tendency to reproduce the institutions that they live in by following the internalized rules/norms without much deliberation. On the other hand, agency does transform institutions because individuals have the capacity to transpose and extend their 'habitus' when he encounters a new and unfamiliar context (Sewell 1992). That is, while agency is prescribed by the institution, at the same time, institutions are also created through agency. It is the everyday human actions that reproduce/produce the institution (Giddens 1984). This relationship has been described as a recursive relationship between CPR institution and agency (Clever 2000; Brown and Slee 2002).

Institutions and social structures are both external superstructures to agency (Fleetwood 2008a). While these two terms, institution and social structure, have often been used interchangeably, it should be pointed out that both are different in that social structure involves two aspects: institutions and norm-groups (Fleetwood 2008a; Elder-Vass 2010b). Norm-groups are social groups consisting of members who share the same institution and common knowledge (Elder-Vass 2010b) (see Paper 1). It is crucial for norm-like institution, which does not have third party sanctioning mechanism, to have norm-group(s) which mutually monitors individual action and induce individual to act in accordance with the norms. In other words, it is the presence of norm-groups which provide the capacity to enforce norms that ensure the creation of action.

There are multiple norm-groups and multiple institutions within a given social structure. For example, even in small community where the most of the local CPR institutions reside, there are multiple institutions and norm-groups, such as family/ relatives, neighbours, and labour exchange for CPR management and various agricultural activities. It is these existence of multiple institutions which distribute multiple 'habitus' and norm-groups which distribute roles among actors and defines their relationships among themselves forms social structure (Portes 2006). The capacity of norm-group the induce individual to act according to the norms depends on how much the members of norm groups overlaps with each other.

The relationships between agency, social structure, institutions and non-group concepts are illustrated in Figure 1. The very fact that social structure is composed of conflicting and competing institutions and norm-groups creates the possibility for ‘reflexive deliberation’ (Folbre 1994; England and Folbre 2005). I argue that actors internalize multiple ‘habitus’ and belong to multiple distinctive norm-groups (shown as links L_{1CPR} to L_{1N} between institutions and norm groups in Figure 1). This is referred to as *institutional intersectionality* following Elder-Vass (2010b). Internalization of institutions as ‘habitus’ does not directly lead to the conformity to the norms *per se* (Elder-Vass 2010b). Because it is the norm-group that functions as sanctioning mechanism in the case of norm-like CPR institutions, existence of multiple norm-group has influence on the institutional outcome, i.e. conformity or non-conformity (shown as $L_{2CPR-CPR}$ to L_{2N-CPR}). It is further argued that the existing two schools of thought in the standard CPR literature, based on the conventional rational choice theory and the social theory, are blind about the recursive relationship between CPR institution and agency (L_{1CPR}) or overlooks the institutional intersectionality (L_{1A} to L_{1N} and L_{2A-CPR} to L_{2N-CPR}) which enables the possibility of ‘reflexive deliberation’. It is the complex interplay of L_{1CPR} to L_{1N} and $L_{2CPR-CPR}$ to L_{2N-CPR} that leads to both conformity and non-conformity to the norms prescribed by CPR institutions.



3. The Links Between Institutions and Agency in the CPR literature

3.1. Two School of Thoughts in CPR literature

Broadly speaking, there are two strands of thoughts in analysing CPRs. One is based on New Institutional Economic, especially the Game Theory, which is termed as the Collect Action School (CAS) following Johnson (2004). The other analyses the CPR from sociological or

anthropological perspective, especially focusing on the contextual factors, which is termed as the Structure-Based School (SBS) ¹ (Johnson 2004; Bardhan and Ray 2008). The difference between CAS and SBS stems from its difference in the method of explaining social phenomenon. On one hand CAS adheres to methodological individualism or agent-based explanations; on the other hand, SBS adheres to methodological holism or structure-based explanations (Vatn 2005). CAS is mainly concerned with the construction of generalized theory inferred from hypothetico-deductive methodology. It is particularly hostile to methods based on an understanding of context and an application of value-rational theory to action chosen by individuals (Johnson 2004). In contrast to CAS, SBS focuses on the power relations and complexity involved in CPR institutions (Bardhan and Ray 2008). As stated by Johnson (Reference), the SBS, which is strongly influenced by post-modernism, has the tendency to reject “all things universal, and the impasse this created for development theory and practice, was certainly part of this process” (Johnson 2004: p.428). To this end we concur with those scholars who claim that CAS and SBS share ‘uncommon ground’ in the study of the commons (Johnson 2004) or the ‘contested’ nature of study of the commons (Bardhan and Ray 2008). There are mainly three contentious areas between these two schools: i) autonomy versus embeddedness, ii) outcome versus process and iii) parsimony versus complexity (Bardhan and Ray 2008). This paper focuses mainly on the first contentious area; autonomy versus embeddedness.

The term ‘embeddedness’ refers to the contextual factors that influence the design of CPR institutions and their outcomes (Peters 1987; Edwards and Steins 1999b; Brown and Slee 2002). SBS argues that the common conception of the CPR held by CAS as an isolated system obscures or marginalises a number of important external and contextual factors that influence CPR related decisions (Brown and Slee 2002) and de-politicise the very political nature of CPR institutions (Mosse 2006; Agrawal 2008). This argument on embeddedness originated from Granovetter’s argument on embeddedness of economic transaction in social life (Cleaver 2000). Granovetter argued that actors cannot be considered as either ‘atoms outside a social context’ as in the rational choice model which assumes that actors act to maximize their welfare by balancing the costs and benefits of the action, or individuals who ‘adhere slavishly to a script written for them by the particular intersection of social categories that they happen to occupy’ (Granovetter 1985: p.487).

In this section I argue that firstly CAS continues to adhere to autonomous model of actors, ignoring the recursive relationship between CPR institutions and agency, and secondly SBS falls into the pitfall of ‘over-socialized’ model of human actors because SBS links between CPR institution and agency, i.e. embeddedness of human action, via ‘habitus’ following the social theory of Bourdieu.

3.2. The Collective Action School and Rational Choice Model

CAS takes the view that social phenomena can be explained in terms of individual choice and actions and considers the actors are the unit of analysis (Bardhan and Ray 2008). It adheres to the assumption that individuals choose their actions according to the most efficient or cost-effective means to achieve a specific end. It is entirely based on a rational choice model (Bates 1988). In other words, individuals act to maximize their welfare which is determined by exogenously given and stable preference (Bardhan and Ray 2008). We define this type of rationality as *instrumental rationality*.

¹ Here we do not use the term ‘entitlement scholars’ used by Johnson (2004) to give more emphasis on the social structure aspect.

In the context of CPR, when it is beneficial for actors to ‘free-ride’, they will choose to do so leading to the well-known ‘tragedy of commons’ (Hardin 1968) or degradation of its natural resource. The aim of designing CPR institutions is, therefore, to prevent such ‘tragedy of commons’ (Ostrom 1990; Crawford and Ostrom 1995). To this end CAS researchers take a somewhat narrow view of the notion of institution. Following North (1990) CAS argued that institutions are sets of rules/norms that constrain human action (Wade 1988; Ostrom 1990; Baland and Platteau 1996). CPR institutions are considered as mechanisms that can solve the resource dilemma arising from individuals’ preferences to ‘free-ride’ by altering the cost-benefit structure of collective action. In contrast, the non-conformity or inability for CPR institution to penalize those who deviate from collective action implies an ill-conceived design of the CPR institutions which ultimately leads to its malfunction and eventual collapse (Ostrom 1990).

However, the empirical evidence shows that the design of CPR institutions are not the result of rational calculations of individual actors but rather the result of political struggles and power relation in which CPR institution are embedded (Agrawal 2003; Pérez-Cierra and Lovett 2006; Ray and Bijarnia 2007). More often than not successful enforcement of CPR institutions is coercive and the burden of coercion tends to fall unequally on marginalized actors (Agrawal 2003; Ishihara and Pascual 2009). The individual decides whether or not to conform depending on contextual factors, that is, the situation that the CPR institution is embedded in (Peters 1987; Edwards and Steins 1999b; Brown and Slee 2002).

In more recent studies, some authors within CAS have incorporated the concept of embeddedness into their argument (e.g. Ostrom 2000; Aoki 2001; Aoki 2007) by referring to it as ‘social capital’. These authors argue that ‘social capital’ facilitates collective action because it can lower the transaction costs of coordination by ensuring the dense flow of information within the participants of CPR institutions (Pretty 2003; Paavola and Adger 2005). Furthermore, Aoki (2001; 2007) incorporates the concept of embeddedness into game theory through his concept of a ‘linking game’. He argues that when games are linked, i.e. embedded, players need to coordinate their own choices of strategies across more than one game so that the sum of payoffs is greater than would be possible from playing separately in each of the games. This allows Aoki to argue that CPR institutions do not have to be explained as an endogenous equilibrium outcome of the game without having specific third- party sanctioning mechanism (Aoki 2007). In a similar manner, the approach of so-called ‘second generation game theorists’ (Ostrom 2000) has incorporated reciprocal behaviour or ‘social preference’ as interpersonal altruism, fairness, reciprocity, and inequity aversion, into a rational choice model (Becker and Murphy 1988).

Nevertheless, these scholars within CAS continue to adhere to methodological individualism (Peacock 2011) and instrumental rationality (Bardhan and Ray 2008). While individual welfare may be influenced by the welfare of others, as in the case of altruism, this approach is still based on the assumption that individuals act to maximize their individual welfare (Sen 2005; Brennan 2007; Peacock 2011). However, some experimental economists have shown through their experiments that humans have the tendency to ‘altruistically punish’ those who cheat, even when there is no gain for the punisher himself (Fehr and Gächter 2002). This kind of ‘altruistic punishment’ can be observed in CPR management as well (Yamagishi 1986; Ostrom, Walker et al. 1992; Bowles and Gintis 2004). The fact that actors punish regardless of their gains shows that actors are not merely motivated by the pursuit of their own self-interest, in our words *my desire*, (at least narrowly defined), but by other reason of action, commitment and notion of *our obligation* (Sen 1977; Fehr and Fischbacher 2003; Peacock 2011).

As it will be argued in more detail later in Section 5, CPR institutions are based on commitment to others, which we term as ‘collective intentionality’ and the notion of *our obligation* shared among the members of a ‘community’ (Sen 1977; Etzioni 1988; Peacock 2011). Here the term

'community' is not used to refer to a 'small space' with a 'homogenous social structure' and where its members embrace 'common interests and norms', as criticised by some of the CPR researchers (Agrawal and Gibson 1999; Leach, Mearns et al. 1999). Rather following Anderson (1983), the emphasis is on that 'communities' are 'imagined' and as consisting of 'homogenous' members who refer to each other as 'we' and 'us' (Appadurai 1995; Elder-Vass 2010b). It is this sense of commitment *our obligation* or belonging and identification to a certain community or group that provides different motive or reason for human action (Davis 2004) which is largely ignored by CAS and yet, at the same time, is essential to understand the dynamics within CPR institutions (Li 1996; Petrzalka and Bell 2000). As Jentoft et. al. (1998) argue, "individuals do not always perceive others as distant 'others' or as a crowd, but in circumstances as part of 'we', which one belongs and feel committed" (ibid: p.426). Therefore, I posit that CAS cannot in its own explain an action (e.g. to conform or not to conform to the CPR rules) that is not based on *my desire*, such as based on belongings or commitment as mentioned by Jentoft et.al. (1998), which I will term as deontological rationality in section 4.

3.3. The Structure-Based School and 'habitus'

In contrast to CAS, SBS bases its main argument on methodological holism and structure-based explanations (Bardhan and Ray 2008). According to this position, social phenomenon can be only explained by referencing to other social phenomenon (Hodgson 1999; Vatn 2005). In other words, SBS argues that social phenomenon, like the design of a CPR institution and its outcome, cannot be explained solely from individual rational choice as suggested by CAS (Peters 1987; Mosse 1997). CPR institutions may have little, if anything, to do with instrumental rationality to seek an optimal level of collective action. Rather it is often the result of power relations that CPR institutions are embedded in (Mosse 1997) or the complex interplay of coercion by the dominant group and resistance by the marginalized group (Agrawal 2008). When institutions are deducted to a set of rules which serves as instrumental tool to achieve an optimal result, as argued by CAS, institutions lose all their richness in meaning (Peters 1993). Some of SBS scholars suggest that the CPR institution should be defined as the "embodiment of culture, social structure and routine within various levels of jurisdiction" (Jentoft, McCay et al. 1998: p.428) following the notion of institution created by Scott (1995).

SBS defines this relation with the wider social structure and contextual factors as embeddedness of CPR institutions. There are two types of argument regarding embeddedness of CPR institution (McCay 2002). First, the concept is used to describe the embeddedness of individual choice or the agency following the original argument by Granovetter (1985). Second, it is used to refer to the relationship between CPR institutions and wider society, including the influence of globalization, global markets and national/global environmental policies, i.e. other institutions at various scales, following Giddens (1990). Here I focus the argument on the former type of embeddedness suggested by Granovetter.

Relying on the concept of embeddedness of economic action by Granovetter, SBS argues that individual choice of whether or not to conform is not determined solely by instrumental rationality or the pursuit of *my desire* but also by different contextual factors and various belief-system and thoughts (subjectivity) (Agrawal 2008), or 'frame of reference' (Douglas 1986) or 'habit of thoughts' (Hodgson 2009). I will term these belief-systems as '*habitus*' following Bourdieu (1990; 1992). Bourdieu defines habitus as "systems of durable, transposable dispositions, structured structures pre-disposed to function as structuring structures, that is, as principles which generate and organise practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the operations necessary in order to attain them" (Bourdieu 2007 (1994): p.278). He

further argues that in the habitualization process, habitus is formed through repeated social interactions ensuring stable interactions in a given social context (Swartz 1997; Swartz 2002). Once habitus is formed, it predisposes its holders to act in a certain manner, i.e. to conform to the norms prescribed by the CPR institution. In this sense, habitus is *structured structures* since the actor is born into a structure and internalizes the structure through repeated interactions. But at the same time, *habitus is structuring structures* since it becomes a force for producing new structures when actors encounter the experience of these unanticipated outcomes (Bourdieu and Wacquant 1992).

This type of relationships between institution and agency is referred to in the SBS literature as a recursive relationship (e.g. Cleaver 2000; Agrawal 2005). For example, Agrawal (2005) argues “beliefs and thoughts (subjectivities) are formulated in response to experiences and outcomes over many of which any single agent has little control” (ibid: p.163). At the same time, this school argues that, because the actors encounter unexpected outcomes at times, they start to realize that habitus are inappropriate or that earlier subject positions need revision thus leading to institutional change (Agrawal 2005). In this vein, SBS argues that CPR institutions are reproduced because actors internalize institutions as *habitus*, which functions as *structured structures* guiding the actors to conform to the norms. But at the same time SBS argues that CPR institutions are altered because the actors at times do not conform to the norms, as habitus functions as *structuring structure*.

However, utilizing habitus as a linkage between CPR institution and agency to explain both conformity and non-conformity is, at best, problematic as some of the critical realists argue (Archer 1996; Elder-Vass 2007). Although Bourdieu argued that habitus is not sheer repetition or routine (Bourdieu and Wacquant 1992), we cannot deny the fact that his argument on habitus pre-empts the agency to a certain degree (Crossley 2001) by eliminating any possibility of any dynamic or uncertain interaction between actors (Jenkins 1982; Elder-Vass 2007).² Bourdieu emphasized that when there is a mismatch between habitus and the objective environment, or expectation and experience, conscious deliberation will occur (Bourdieu and Wacquant 1992). However, reflexive deliberation has only a secondary role in the practical logic of habitus (Elder-Vass 2007). It is difficult to see the possibility of actors reflexively deliberating on the context (Jenkins 1982), leading to institutional change.³

Fundamentally this inappropriate positioning of ‘reflexive deliberation’ stems from the conflation of institution and agency in current social theory (Archer 2003; Elder-Vass 2007). If we literally read of the above-mentioned definition of habitus, habitus is a internalized externality, i.e. ‘structure internalized into our body’ (Elder-Vass 2010b: p.106).⁴ According to this reading of habitus, an institution which is always and everywhere external to human agents is conflated with habitus, which is internal to human agents (Fleetwood 2008a).⁵ As a result SBS which adhere to Bourdieu’s model of action permeated by the determinism of social structure tends to emasculate individual agency by claiming that individual decisions are determined by power relations within the wider social structure (King 2005). It provides robust

² Even inside the Bourdieuien Sociologists there is no agreement on how to interpret Bourdieus’s concept of habitus (Elder-Vass 2007). On one hand there are those who argue that habitus pre-empts his concept of agency (e.g. DiMaggio 1979; Jenkins 1982). On the other hand there are those who argue that habitus indicates possibility of conscious deliberation at times (e.g. Taylor 1993; Crossley 2001; Swartz 2002).

³ Further it is worth noting that this determinism is further enhanced in the English-speaking world where a shift of focus from habitus to culture occurred (Jenkins 1982).

⁴ It must be also noted that there is another way of understanding of ‘habitus’ from the perspective of ‘emergent property’ according to some of the critical realist (Elder-Vass 2007; Elder-Vass 2010b)

⁵ This conflation is more clear to Giddens’ structuration theory than that of habitus by Bourdieu (Elder-Vass 2007).

explanatory power for conformity to the norms and the reproduction of CPR institutions penetrated by power relation. However it leaves a gap regarding the non-conformity to the norms and institutional change.

This section has discussed the different schools of thoughts within the core CPR literature. Table 1 summarizes the main differences between these two schools with regard to agency and institution. CAS, which bases its argument on the methodological individualism is blind about the recursive relationship between institution and agency (Peters 1993). Its model of action is based on the idea that individuals act to maximize their welfare based on their exogenously given and stable preference. This type of model cannot explain fully social phenomena like the CPR institution, despite its consideration of ‘social preference’ and reciprocity. Actors do not solely act according to their instrumental rationality and the pursuit of *my desire*; rather, they act according to different types of rationality based on commitment to others in the community and their sense of belonging to the community.

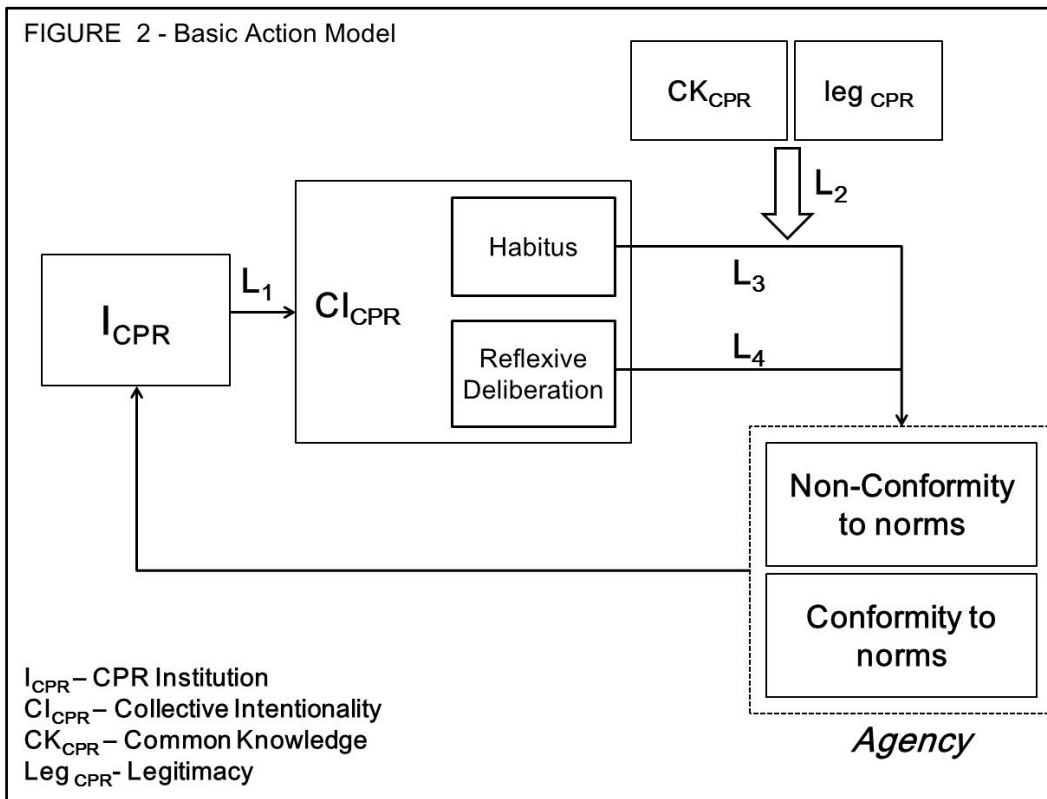
By contrast, SBS puts forward its main argument on methodological holism and incorporates the recursive relationship between institution and agency via habitus. It is capable of explaining the links between CPR institutions and conformity to the norms, thus leading to reproduction of CPR institution shown in the Figure 1. However, it fails to fully explain the possibility of non-conformity to the CPR norms, which ultimately is the key to leading to institutional change. To this end, I concur with Cleaver (2007), that the CPR literature based on either CAS or SBS lacks an appropriate framework of agency which fully explains the motivation and actions chosen by actors. This paper takes the same stance as SBS with the regards to the recursive relationship between the institution and agency; however I also acknowledge its shortcomings, based solely on the concept of ‘habitus’. In the next section, I introduce a new path to connect between the CPR institution and agency by introducing the concept of ‘collective intentionality’.

Table 1: Comparison between CAS and SBS in respects to relationship between CPR institution and agency

	CAS (Collective Action School)	SBS (Structure Based School)
Major authors in CPR literature	Ostrom (1990), Wade (1988), Baland and Platteau (1996)	Cleaver (Cleaver 2000; Cleaver 2001), Mosse (1997)
Meaning of CPR “institution”	Set of the rules which induce individuals to create collective action by changing the cost and benefit structure	Institution is comprised of regulative, normative and cultural-cognitive elements that together with associated activities and resources, provide stability and meaning of social life
Model of human actor	Under-socialized actor	Over-socialized actor
Motivation for action	Preference	Habitus
Basic Assumption	Methodological Individualism	Methodological holism
Weakness in the argument	Lacks an understanding of a recursive relationship between institution and agency and other type of rationality	Lacks an understanding of reason for non-conformity and ‘reflexive deliberation’
Foundation of argument	New institutional economics/ Game theory	Social theory, especially theory of praxis by Bourdieu

4. An alternative conceptual framework for understanding action under CPR institutions

In Section 3, the shortcoming of both CAS and SBS with regard to their influence on the CPR literature was identified. In this section, I introduce a new concept, ‘collective intentionality’, as an initial link between CPR institutions and agency. This allows to incorporate both i) ‘deontological rationality’ as alternative reason for action from that of instrumental rationality and ii) ‘reflexive deliberation’ into the recursive relationship between institution and agency in addition to habitus. Firstly, we introduce a basic framework for action, where it is assumed that CPR institutions are not yet embedded into the norm-group or social structure (shown as Figure 2). At this stage the institution and agency are linked through the creation of ‘collective intentionality’. In other words, norm-group(s) are not present yet to function as a sanctioning mechanism to endorse and enforce norms. Then, I develop a conceptual framework to understand human action under the assumption of embedded CPR institutions. As this stable interaction is repeated, the collective intentionality starts to form ‘habitus’ (Bourdieu 1990), reducing reflexive deliberation to a secondary role, thereby strengthening the influence of deontological rationality. However such internalization of ‘habitus’ occurs only when the CPR institutions are embedded into a pre-existing ‘harmonious’ norm-group(s) which have the normative power to enforce norms. This allows the introduction of an opposite type of norm-group, a ‘conflicting’ norm-group(s), which erodes the trust or legitimacy of CPR institutions and leads actors to reflexively deliberate on it. In other words, when CPR institutions are faced with ‘conflicting’ norm-group(s), its deontological rationality is weakened. The relationship between CPR institution, collective intentionality, habitus, and reflexive deliberation are shown as Figure 2.



4.1. Collective intentionality as a connection between institution and agency

I propose that the link between CPR institutions and agency occurs through a so-called collective intentionality rather than directly through habitus as argued by SBS (L_1 in Figure 2).

The term intentionality is used in philosophy to refer to an actor's commitment to an action (Searle 1983). Hodgson (2006) argues that "collective intentionality arises when an individual attributes an intention to the group in which he or she belongs while holding that intention and believing that others have a similar aim" (ibid: p.5). In other words, this type of intentionality is created when an individual commits to take part in collective action (Davis 2004) and such intentions are mutually shared among members, who eventually forms the norm-group, as 'common knowledge' (Gilbert 1990).

It is important to note the following two points regarding collective intentionality. Firstly, collective intentionality is not a supra-individual group intention or intention of the social group separate from the attribution of individuals. Rather, it is the individuals' commitment to collective action of certain social group (Davis 2003). That is, collective intentionality does not refer to a group commitment where every one of its members is forced to commit to collective action. By contrast, individuals have rights to rescind their commitment to a certain degree (Gilbert 2006b). Collective intentionality, thus, should be understood as 'contingent consent' instead of 'unconditional consent' (Levi 1990). The fact that there is 'consent' in collective intentionality is crucial for agency and reflexive deliberation. Actors take a decision to commit to collective action upon reflexively deliberating on the conditions of CPR institutions; i.e. whether other members in the group are going to fulfil their parts or not (Taylor 1987). In other words, collective intentionality in the context of CPR institutions arises only when it is mutually expressed among the members of the group and shared as common knowledge (shown as CK_{CPR} in Figure 2) (Hodgson 2006; Gilbert 2006a).

At the same time, for the collective intentionality to be shared, actors must think that the current distribution of rights and obligation among the members of the norm-group represents an acceptable bargain (Taylor 1987). In other words, the CPR institution must be considered as legitimate (shown as leg_{CPR} in Figure 2) and as 'the right way of doing things' by a sufficient number of individuals in the norm-group (Cleverly 2000). To summarize the first point, the collective intentionality will arise only when actors think i) that collective intentionality is mutually shared as common knowledge, and ii) that the rights and obligation structure specified by CPR institutions is legitimate or fair. Only when these either of these two conditions are not met, actor will most likely rescind their commitment or decide not to conform to the rules associated with the CPR institution (Levi 1990).

Secondly, the fact that collective intentionality is shared as common knowledge implies the need to point out the relationship between collective intentionality and deontological rationality. The individuals who share the collective intentionality as common knowledge form the norm-group which produces the normative power to endorse and enforce the practice arising from the norms of the institution (Fleetwood 2008a; Elder-Vass 2010b) and functions as a sanctioning mechanism for norm-like CPR institutions. In norm-groups, individuals are mutually *obliged* to fulfil their role as part of the action *as one community (as a body)* and individuals are *entitled* to accuse those who do not fulfil their obligations (Tuomela and Miller 1989; Gilbert 2006b). To put it differently, individuals who belong the norm-group have the right to rebuke their peers for their failure to fulfil the shared obligation and prescribed by the CPR institutions (Sen 1977; Gilbert 1990). In these norm-groups, actors identify themselves indivisibly and simultaneously as 'us' (a member of one community) (Etzioni 1988; Davis 2002). They also act as part of 'us', to fulfil *our obligation* not as distant others fulfilling independent *my desires* (Jentoft, McCay et al. 1998). Here the commitment required in collective intentionality provides a different type of rationality compared to that put forward by the rational choice theory and CAS. ⁶

⁶ The two different mode of reason of action is termed as sympathy and commitment (Sen 1977). When one has sympathy with another person, one's own welfare is affected by that of the other. In other words, action based on sympathy such as altruism is still egoistic action. Whereas when one has committed to

“Commitment...is concerned with breaking the tight links between individual welfare (with or without sympathy) and the choice of action (e.g. acting to help remove some misery even though one personally does not suffer from it)” (Sen 1982: p.8). I term this type of rationality ‘deontological rationality’ because it is based on the notion of *our obligation* to others who share the collective intentionality (Searle 2005).

To summarize, the basic conceptual framework of action that is proposed here can be explained as follows; i) the CPR institutions form a collective intentionality for each actor regarding their commitment to collective action (shown as L_1 in Figure 2); ii) such collective intentionality is understood as contingent consent depending on the following two conditions: a) collective intentionality is mutually shared as common knowledge and b) collective intentionality is accepted as legitimate, (shown as L_2); and iii) depending on the judgement about the contingency of the two conditions, actors will decide on their own action (either L_3 or L_4). Once collective intentionality is linked theoretically to the CPR institution and agency, I have made the first step to open the door for both deontological rationality and reflexive deliberation in CPR.

4.2. The habitus cycle: when a CPR institution is embedded into an ‘harmonious’ norm-group

In this section I assume that the CPR institution is embedded within the wider social context in which there is a pre-existing norm-group(s) which in turn supports the CPR institution, making it difficult for individuals to rescind their commitment to the collective action. Here the contingency of consent to such commitment becomes ‘unconditional’ where individual reflexive deliberation is suspended. I term this process ‘habitualization’, i.e. formulation/internalization of habitus (*a la* Bourdieu). On the one hand this habitualization is necessary to free the member of norm-group from ‘hyper-deliberation’ which results in a kind of social and mental paralysis (Fleetwood 2008b; Hodgson 2009). On the other hand, the formulation of habitus suppresses the reflexive deliberation, or reflexive deliberation becomes secondary to the practical logic of practice (Elder-Vass 2007). At this juncture, actors start to take the CPR institution for granted (strengthening L_4 in Figure 2) reducing the possibility of non-conformity (weakening L_3).

However this habitualization will occur only when the CPR institution embeds itself into pre-existing norm-group(s) (weakening L_2 , i.e. less deliberation on CK_{CPR} and Leg_{CPR} as shown in Figure 2). Here I concur with Elder-Vass’s (2012) claim that it is the norm-group which exerts the normative power which ensures conformity to the pre-existing institutional arrangement. It is neither the CPR institutions nor the collective intentionality *per se* that guarantee the conformity to CPR institutions. The key instead is the existence of norm-group with real social relationships. The CPR institution through collective intentionality creates a tendency for members of the norms-group to endorse and enforce the norms but it is the norm-groups which have the normative power to sanction the CPR institution (Fleetwood 2008a; Elder-Vass 2010b). For a stable interaction to occur inside the CPR institution, the presence of norm-group(s), i.e. ‘harmonious’ norm-group (NG_H), which function towards the enforcement of CPR institution, is essential. For a pre-existing norm-group to function as an enforcer for the CPR institution, it needs to meet the following two conditions: i) the membership of the CPR institution overlaps

another person, one does not expect adhering to the norm to redound to her personal advantage (Peacock 2011). Action based on commitment does non-egoistic action because one will adhere to norm without the consideration of one’s own wellbeing.

with that NG_H to a large extent and ii) the structure of rights-obligations distributed by the CPR institution does not conflict with the structure of rights-obligations distributed by NG_H .

Along with $NG_H(s)$, as the CPR institutions survive over time, CPR institutions start to form its own norm-group (NG_{CPR}) with its own boundaries (memberships) and distribution of obligation and rights (Etzioni 1988; Searle 1995). The existence of NG_{CPR} allows individuals to define themselves as members of a group and to participate in a set of interlocking obligations which are central to how the group functions (Cartwright and Zander 1968). Here I concur with some SBS scholars in that actors within the CPR institution “remain members of the community and adhere to shared norms and values not necessarily because it pays or from fear of sanctions but also because they feel morally committed” (McCay and Jentoft 1998: p.23). With the creation of NG_{CRP} , the deontological rationality is further strengthened, thus, throwing out other type of rationalities, such as instrumental rationality and possibility of reflexive deliberation.

As the reproduction of the CPR institution continues, the collective intentionality starts to become an automated process further reducing the room for reflexive deliberation about contingency. In other words, collective intentionality ceases to be an individual commitment to collective action and starts to disguise itself as ‘group intention’, intention of the group or the community as a whole. Following Tolbert and Zucker (1996) we term this process the ‘sedimentation’ of the CRP institution. In this sense, sedimentation is the complete spread of common knowledge and legitimacy to the extent that the actors inside the norm-group can trust themselves without much deliberation upon the nature of collective action. This jettisons other institutional arrangement as ‘unthinkable’ and disguises the arbitrariness of distribution of obligation by CPR institution (Bourdieu 1990). Here the non-conformity becomes ‘unthinkable’. As a result, these sedimented CPR institutions may survive even in an adverse environment.

4.3. The reflexive deliberation cycle: when a CPR institution is embedded into multiple norm-groups

In the previous sub-section I pointed that when CPR institutions are embedded within a wider community or society, it leads to habitus formulation and suppression of reflexive deliberation. However, this does not mean that reflexive deliberation is totally thrown out of the picture. Rather, there are moments where reflexive deliberation comes back to individual actors enabling them to choose their actions. This is firstly because by virtue of ‘collective intentionality’ as individual commitment, individuals have rights to rescind their commitment (Gilbert 1990) and secondly because of the fact that social structure is constituted of multiple institutions and norm-groups (Folbre 1994; Davis 2003).

Firstly, as we discussed in previous sub-section, collective intentionality is defined as individual’s commitment to collective action not as the group intentionality *per se*. The commitment to collective action is based on contingent consent (not unconditional). There are two conditions for actors to offer consent to committing themselves: i) collective intentionality is mutually shared by the norm-group members as common knowledge and ii) the structure of rights and obligation among the members is legitimate. When individuals perceive that these conditions are not met, they can rescind their commitment and decide to resist the CPR institution (Taylor 1987; Levi 1990). That is, individual actors retain their right to rescind commitment, even though this may be restricted by the both the habitualization and sedimentation processes (Gilbert 1990; 2006a).

Secondly, social structure is composed of competing norm-groups and institutions (Folbre 1994). Individuals habituate multiple institutions forming multiple habitus and belong to multiple norm-groups. This institutional intersectionality (Elder-Vass 2010b) creates multiple tendencies for actors, at times in concordance with each other but at times in conflict. For example, there may be conflicts between norms prescribed by the CPR institution and norms prescribed by work place (occupational institutions). Actors are capable of justifying their non-conformity to the norms of the CPR institution, or fulfilling communal obligation by using their conformity to other institutions, such as work place. The institutional intersectionality allows actors to move back and forth among these multiple norm-groups (Folbre 1994). “The capacity to move comfortably across one’s social affiliations requires being able to both identify with others and yet still preserve an independence and detachment from them” (Davis 2004: p.16). CPR institutions are not only embedded in the ‘harmonious’ norm-group(s) (NG_H) but also within a set of ‘conflicting’ norm-group(s) (NG_C) inside the social structure. Here a ‘conflicting’ norm-group is defined as a norm-group that prescribes rules which are in conflict with that of the CPR institution and erodes of trust or legitimacy in the CPR institution by obstructing the sharing of common knowledge. Hence, the NG_C is a norm-group with; i) a membership which does not overlap with that of the CPR institution and ii) the obligations which conflict with that of the CPR institution.

The presence of institutional intersectionality along with the right to rescind one’s commitment weakens the habituation and sedimentation of CPR institution and brings back the possibility of reflexive deliberation (weakening of L_2 in Figure 2). When CPR institutions are embedded into NG_C as well as NG_H , the possibility of ‘mental privacy’ (Archer 2003) is opened up where individuals can reflexively deliberate (strengthening of L_3) upon CPR institutions, on the degree of distribution as common knowledge and the legitimacy of CPR institutions, removing automatic or ‘unconditional’ conformity (weakening of L_4). It is the complex interplay between NG_H and NG_C which can be termed as the ‘institutional landscape’ (Van Hecken and Bastiaensen 2010) that influences the institutional outcome.

To summarize, I come back to the issue of non-conformity. Since CPR institutions create collective intentionality, not habitus *per se*, an actor has the ability to decide whether to conform to the norms prescribed by CPR institutions or not. Collective intentionality creates a tendency for members to endorse and enforce the norms prescribed by the CPR institution, however it is the norm-group which functions as a sanctioning mechanism. Thus, it is within individual actors’ rights to rescind their commitment, especially when they consider that conditions (CK_{CPR} and Leg_{CPR}) for collective action are not met. I have argued that this creates room for reflexive deliberation to function. At the same time, collective intentionality creates an action based on commitment and deontological rationality which is fundamentally different from instrumental rationality.

As the CPR institution becomes embedded inside the NG_H , it becomes more and more difficult for actor to reflexively deliberate on the conditions. NG_H induces each actor to endorse and enforce the norm prescribed by CPR institutions through their networks and social relations. Here conformity to CPR institution becomes habituated action rather than deliberate action and the actors appear to be more ‘*deus ex machina*’, a sheer norm-follower. At the same time, CPR institutions are rarely without challenges or non-conformity. This is because CPR institutions are not just embedded in NG_H but also embedded in NG_C which necessarily creates tension among actors. In the presence of NG_C , the habituated action is weakened, bringing back the reflexive deliberation. Due to the presence of institutional intersectionality, where actors habituated different ‘conflicting’ institutions and identify with the NG_C , actors can justify their non-conformity. Moreover, the very fact that the collective intentionality is individual intentions not a ‘group intention’ provides the actors with rights to rescind their

commitment to collective action. Conformity or non-conformity depends on the complex interplay of ‘institutional landscape’ and individual agency.

5. Conclusion

This paper has given an account of the relationship between CPR institution and agency. My propose conceptual framework has shown that it is possible to reconcile the two modes of action, *habitus, a la* Bourdieu and *reflexive deliberation, a la* Archer. The paper set out by identifying gaps that exist in two schools of thought regarding the current CPR literature, Collective Action School (CAS) and Structure-Based School (SBS). On one hand, CAS continues to adhere to the instrumental rationality with exogenously given stable preferences due to the lack of understanding of the recursive relationship between CPR institution and agency. It thus heavily relies on methodological individualism. Although some scholars within CAS endeavour to incorporate the influence of institutional structure on human action, they still ignore action based on commitment and deontological rationality based on the notion of *our obligation*. On the other hand, SBS pre-empts agency by reducing the ‘reflexive deliberation’ to a secondary role in the theory of praxis. SBS’s argument on the recursive relationship between institution and agency via *habitus* is only capable of explaining the conformity to norms prescribed by CPR institutions which leads to reproduction of CPR institution; however do not explain the non-conformity and institutional change.

The paper has brought the concept of ‘collective intentionality’ as an individual commitment to act together with other actors and to build processes of collective action. Two aspects of this concept have been emphasized; i) the collective intentionality creates a reason of action based on commitment and deontological rationality and ii) individuals have rights to rescind their commitment, because it is not a supra-individual group intention. As the interactions are repeated according to the Common Pool Resource (CPR) institutions, habituation occurs, forming *habitus*. This process oppresses the possibility of non-conformity through embedding the CPR institution inside ‘harmonious’ norm-group(s) inside the community or wider society. However, members of CPR institutions habituate multiple institutions and belong to multiple norm-groups, including ‘conflicting’ nom-group(s). This institutional intersectionality brings back the possibility of reflexive deliberation by enabling the actors to move back and forth among these multiple norm-group. It is this complex interplay of institutions and norm-groups, that has been often ignored in the CPR literature, which influences the actor’s decision whether or not to conform.

Finally, a number of limitations of the conceptual framework need to be considered. First, the framework is only applicable to what I term norm-like CPR institutions, which are without formal third-party sanctioning mechanism, such as official policy or government. It is our understanding that the current CPR literature, especially CAS and analysis based on the Institutional Analysis and Development framework (Ostrom 2005) and design principle (Ostrom 2000), has focused on the rule-like CPR institutions based on formal sanctioning mechanism. Therefore, it is recommended that further research is undertaken in the interplay between the norm-like CPR institution which I have discussed in this paper and the rule-like CPR institution which is the main focus for CAS.

Secondly, my conceptual framework has focused on the CPR institutions which have historically survived over-time, its institutional changes and its path-dependency. It is limited to explaining the endogenous development of norm-like CPR institutions, i.e. gradual institutional change. However, considering the influence of the global environmental policy, such as PES, imposed upon the local CPR management and institutions, these institutions are faced with the

challenge of possible rapid and abrupt changes which cannot be explained directly through my framework. To this end further research lies ahead of us in understanding the relationship between institutions at different level, such as local, national and global and its dynamic impacts on the agency of individual involved in the CPR management. I would like to conclude this paper by stating that my framework has opened up a new path for understanding human behaviour towards environment and natural resources incorporating multiple disciplines, but this is just one modest step, although we hope it is in the right direction. And I hope that my conceptual framework can give some guidance on the complex interplays of CPR institution and norm-groups on behavioural change.

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