

**Meeting of ESRC Environment and Human Behaviour, New Opportunities Programme  
rapid climate change researchers**

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School of Geography, Earth and Environmental Sciences, University of Birmingham

*Researching the Human Dimension in Rapid Climate Change*

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**Rapid climate change in the UK: towards an institutional theory of adaptation**

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Research Framework and Methodology:

Context

*1. What essentially distinguishes Rapid Climate Change.*

A counterintuitive shift in climate. As adaptation to climate change becomes increasingly institutionalised into everyday planning and decision-making procedures and worldviews so scope may be closed for accepting alternative trajectories for climatic futures as radical as that suggested by Rapid Climate Change.

Research Question – Does learning about climate change fix decision-makers on a defined set of parameters or does it encourage flexibility and open futures thinking?

Core Theoretical Work: Setting up a framework for analysis

*2. What is an institution?*

One of the key distinctions recognised in the literature (Aoki, 1998; Ostrom, 1999, pg 37) is between those who construct institutions as a type of (formal or informal) organisation (eg Uphoff, 1986), and those who view them as the rules, norms and strategies which shape individual and organisational behaviour (North, 1990; Ostrom, 1999). To this distinction between the players of the game and the rules of the game (to use North's metaphor), Aoki adds the result of the game, but as the result in this case is changes to the nature of the rules or the players, then as long as recursivity is allowed for in the analysis, this third category becomes an extension of the other two and is not needed. Institutions-as-results is more of claim about the dynamics of institutions than about their identities.

Although following the second line of thinking, institutions as the formal and informal rules regulating the behaviour of social actors, is already implicit in the choice of New Institutional Economics as primary theoretical basis for the Project, making this choice stands on its own merits for the conceptual clarity it provides. Both Kiser & Ostrom (1982, pg 193) and North (1990, §1) put forward arguments for this clarity. Kiser & Ostrom on account of the problems of confusion between ideal types and given instances of organisations that the distinction circumvents, and North because of the analytical power it provides for understanding why what he defines as institutions do not evolve as neo-classical economists might expect.

Treating institutions as fundamentally different to organisations loses nothing, because the category "organisations" is still available. The two concepts are still clearly linked, because organisations are organised through formal and informal institutions, and because the operation of institutions is made visible through the behaviour of organisations.

Under this distinction the fundamental difference between organisations and institutions is that the former are ceded agency, while the latter are not. That is, organisations (formal and informal) exist to the extent that they comprise constellations of individuals organised in pursuit of particular purposes. Institutions provide the field in which these purposes are

played out, and have no agency or indeed membership of their own. They are often constructed purely in terms of constraints, but as Nelson & Nelson (2002) point out, they enable as well as constrain – for these authors, institutions are the points of reference when human co-operation is needed.

Finally, it is worth pointing out that institutions do not operate in isolation. They have different relevancy to given decisions by given actors, and can act to modify one another in particular situations (cf Mershon, 1994 on the development of informal institutions which modify the operation of formal institutions in coalition politics).

Therefore it makes sense to speak of institutional frameworks, constellations or systems (according to preference), in order to recognise that different types and levels of institutions may be active in any given situation. In order to highlight that institutions provide a background, against which social actions take place, I prefer the term institutional environments. A focus on collectives of institutions in this manner is implicit in several frameworks for institutional analysis (Ostrom, 1999; Turner et al, 2003), and is vital for understanding and working with multi-level, iterated structures such as the distributed climate change assessment systems which interest Cash (2000).

**Table 1 – Axes of difference amongst institutions.**

Axis	Explanation	References
Formal/informal	Institutions can be formally constituted or informally constructed through the interaction of some social group.	(Kiser & Ostrom, 1982; North, 1990, 2001; Williamson, 2000)
Conscious/unconscious	Subjects of an institution may or may not be aware of the influence of a particular institution on their decision making	(Argyris & Schön, 1996; Goleman, 1998; Hulsen, 1998)
Action/Collective choice/Constitutional Choice	Institutions operate at different levels. Constitutional choices configure a space within which collective choices are made, which in turn shape how individual (or group) actions are decided upon.	(Kiser & Ostrom, 1982)
Designed/Emergent	Institutions can be considered the products of design, or the emergent, contingent result of ongoing social interaction.	(Jordan & O'Riordan, 1997; Nelson & Sampat, 2001; Ostrom, 1999)
Internalised/Enforced	An actor may perceive an institution as an internal value, arising from their identity, or an external force	(Hulsen, 1998; Nelson & Nelson, 2002)
Stable/dynamic	At a given point in time, institutions can be perceived of as stable and unchanging, or fluid and evolving.	(Aoki, 1998; North, 1990)
Continuous/1-10 yrs/10-100 yrs/100-1000 years	Institutions can persist and operate over different time scales.	(Shaw, 2002; Williamson, 2000)
Interorganisational/ Intraorganisational/ Interpersonal	Institutions can mediate different kinds of relationships.	(Vandenberg, 2002)

### *3. Adaptive systems as a theoretical framework?*

Adaptive systems theory posits that an ideal 'adaptive state' exists in the space where formal, controlling and informal, anarchic systems come together. This provides a bounded

flexibility. This contrasts with dominant approaches to governance, which tend to orientate towards the refining of formal regulatory structures to act as a controlling mechanism on behaviour – top-down/anticipatory adaptation. Adaptive systems theory argues for the need to wed this to space for allowing more spontaneous bottom-up organisation – bottom-up/adaptiveness-in-action.

The unquestioned assumption is that it is possible for global policies to be enacted locally without any interference from local beliefs, values, priorities etc.

#### Core Thoery: Examining the utility of medium level analytical tools

##### *4. Can social capital act as a theoretical lens to map individual behaviour?*

SC is a slippery concept with some very contrasting definitions, here it can be used to provide a language to describe the capacity within a group to form the interpersonal relationships that act as vehicles for the operation of institutions.

At a broad level, Putnam described social capital as ‘features of social life – networks, norms and trust – that enable participants to act together more effectively to pursue shared objectives’ (1993: 167). These are the ties that bind society together and give it internal structure. Although some criticise the concept of social capital for neglecting the issue of power (eg Fine, 2001), or as a cure all robbed of any distinct meaning (Portes, 1998), most analysts recognise the potential offered by work which seeks to uncover the role of interpersonal relationships, trust and reciprocity. Indeed, the variety of theoretical approaches reflect the context-dependent nature of social capital. However, the breadth of application that social capital has enjoyed does mean that individual projects have to be careful in the definition, operationalization and measurement of the concept (Adam and Rončević, 2003).

Following Fukuyama, social capital here is interpreted as an ‘instantiated informal norm that promotes cooperation between two or more individuals’ (2001: 7). Given a critical thickness of social capital, motivating pressure(s) and a supportive enabling environment, social capital can be built up into formal social organisation which is more visible and amenable to external policy makers. At this stage social interaction and exchange of information or resources are directed by formal rules with participants playing roles with more clearly bounded responsibilities in contrast to the informality that characterises social capital exchanges. There are occasions when the negative attention that membership of formal organisation might bring encourages local actors to have a preference for the more personal and potentially less visible interactions that form the currency of social capital. Whilst it would be in the public interest and long-term individual advantage to build collective social organisations, it is not always advantageous for individuals to contribute toward this process. Formal social organisation can include civil society groups such as community based organisations, youth clubs and church groups, and social movements. Key policy challenges for adaptive capacity to climate change are to identify the comparative advantages of social capital and social organisation, and to develop mechanisms for fostering the transition from social capital to social organisation, from norms to organisations and for knowing when this is appropriate for alleviating individual and collective vulnerabilities.

This said there remain challenges that limit the explanatory power of social capital. Perhaps most important is the lack of clarity over whether social capital is a dependent, independent or intermediary variable. The extent to whether social capital is a product or organising principal behind social structures or individual acts of agency. This is an important concern in using social capital as an indicator of vulnerability and as a focus for policy attention to enhance adaptive capacity. For policy makers attempting to build social capital questions remain on the relative efficiency and equity outcomes of top-down and bottom-up strategies (Williams, 2003). Top-down strategies suggest social capital is an outcome of society-state relations and existing civic associations, bottom-up strategies stress the importance of social norms.

Need to define 'institutions' – informal rules that pervade society and formal organisations. They can work to resist or facilitate formal policy or be ambiguous. Most work to date has seen institutions as a barrier to be controlled by rigorous formal rule making. Take North's view as institutions being analytically separate from organisations. Though both foster and are shaped by each other.

*4. Communities of practice (bonding capital) and boundaries (bridging capital).*

#### Towards an Empirical Testing

*5. What elements of institutions are suitably visible and amenable to policy or personal influence to be meaningful for stakeholders.*

Reflections on past counterintuitive crises: foot and mouth, BSE. What role did informal institutions and formal structures make in shaping responsive adaptation? How did the two interact?

Can integrated futures scenarios be used to draw out stakeholders thoughts on the relative capacity of informal institutions to shape adaptation under different socio-economic futures in the context of counterintuitive climate change?

#### *6. Methods?*

National level, Welsh Assembly, individual stakeholders in the rural economy.

Small group discussions/ key informant interviews in January

Weekly diaries of informal institutional interaction November – January?

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### Core Theoretical Work

*2. What is an institution?*

*3. Adaptive systems as a theoretical framework?*

*4. Social capital as a theoretical lens to map individual behaviour?*

*5. Communities of practice (bonding capital) and boundaries (bridging capital).*

### Towards an Empirical Testing

*6. What elements of institutions are suitably visible and amenable to policy or personal influence to be meaningful for stakeholders?*

*6. Methods – scale, techniques?*

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