Exploring Discourses of Sustainable development: A Flexible Framework

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Abstract

This paper outlines a research process that explores the relationship between Ulrich Becks reflexive modernity and sustainable development. Sustainable development is becoming increasingly prolific throughout society yet there remains a lack of empirical work that is capable of exploring the complexity and ambiguity of the terms meaning. There is a significant need to design and implement effective methodological approaches that are capable of addressing the highly complex, non linear and ambiguous issue that relate to sustainable development. The following paper will detail a research methodology that attempts to grapple with this complexity.

Keywords: Reflexivity, sustainable development, risk discourse.

Introduction

This paper details methodological innovations on a number of distinct levels. Initially, the work draws on an adapted theoretical framework developed by Ulrich Becks World Risk Society Theory (WRS). This broad brush and seminal theory of risk has facilitated and catalysed altered epistemological perspectives on many levels that have fed into methodological innovations as a dialogue is sought between theory and empirical work. This paper outlines how this dialogue was achieved and in turn the resultant methodologies employed. The research focused on two case studies that were geographically disparate and divergent in structure and content. The unifying factor was the concept of sustainable development upon which policies and programs were developed and implemented. The first case entailed in-depth ethnographic research with the United Nations Environment Program (UNEP), and the second, was an in-depth examination of a carbon reduction and energy efficiency project in Plymouth. Initially, the paper will explore the rational for the case studies used and this includes a brief elaboration on the Risk Society, reflexive modernity and the relationship this theoretical base has with the concept of sustainable development. This is followed by examining the epistemological underpinnings that inform the methodology. An overview of the methodological framework used is then provided in both case studies.

Case Study Rationale

As already mentioned the research employs Ulrich Becks Risk Society theory (Beck 1992,1999) as an overarching framework, and more precisely the research aimed to test Becks notion of a reflexive modernity by using the concept of sustainable development as a litmus at both the global and the local level. This is

done through the identification of a number of synergies between sustainable development and reflexive modernity. What is principally argued is that sustainable development and the WRS present a mutually integrative storyline of humanities influence on its environment and the complex and dynamic ways in which this relationship is reciprocated. It is proposed that bother concepts are highly synergistic and can be summarised very briefly as follows. Both expose the relationship between humanity and the environment; draw into question notions of progress, science and rationality; open up the boundaries between the global and the local; and are concerned with inter-generational equity and the incompatibility of geological and political time-scapes.

Two case studies are examined to assess the macro and micro scales of sustainable development discourse and its relationship with reflexive modernity (Beck 1999). At the macro scale, it is argued that there is only one case study that can appropriately address the relationship between SD and reflexive modernity. The first case study examines discursive representations of SD from within the United Nations (UN) during the convention of the 57th United Nations General Assembly (UNGA). Examining discursive representations of SD from within the UN provides the following essential elements. One of the central tenets of Beck's notion of a WRS is an altered political space that is predominantly represented by the changing role of the nation state. In-depth ethnographic research over a period of three months within the UNGA allows observation on national interaction and assesses the way that SD is understood within this environment. This can be done by assessing discursive representations of SD from nearly every nation of the world, whilst simultaneously examining national and supranational interaction. Moreover, the influence of non governmental organisations and broader societal actors on the governance process can also be explored as well as the inclusion of wider society in conventional governance frameworks.

The second case study addressed the nature of reflexive modernity at the micro level. The aim at this level is to assess the degree to which SD represents a reflexive modernity not only in the form of local governance structures, but also from an individual, personalised dimension. With these parameters in mind, a local networked/partnership scheme designed to engender sustainable patterns of consumption through energy reduction is examined. This project was known as the Carbon Reduction Innovation Support Pilot (CRISP) and was based in Plymouth, Devon. For this case study a multi-methodological framework was adopted, including a quantitative survey followed by in-depth qualitative interviews.

In sum, these case studies allow SD to be accessed from a supranational, national, institutional perspective through to the local governance and individual scale. By doing so, the possibility of a reflexive modernity can be examined from a uniquely multi level perspective. With the underlying rationale of the research established the next logical step is to explore the underlying epistemological perspective that provides the architecture for the methodological innovations.

Epistemologies of Risk: Breaking down the tension

The first step in exploring the methodological innovations required to achieve the above mentioned goals is to connect the methodology to the epistemological foundation that informs it. The research is built on an interpretation of the nature of risk and as such involves an academic body of work that grapples with the theoretical and practical implications of risk in contemporary society. This is based on the underlying assumption that the rise of SD discourse over the past thirty years is a result of the increased visibility of risk created through humanity's impact on the environment. These discussions not only feed into, but offer important insights into the empirical study of risk and the methods that are used to do so.

The way that risk is articulated, and the particular lens through which it is viewed, fundamentally affects how ensuing visions of the world impinge on the socio-political framework. In the sociological literature these

visions usually take the form of the dichotomy between realist and constructivist outlooks. The importance of this debate for Beck is clear, and is the starting point for examining a world *re*-ordered by risk. Beck is adamant that: 'If it is asked what is the justification for this concept, two answers are possible; one realist and one constructivist' (1999: 23). The following discussion will briefly outline this debate. (See also Burningham and Cooper 1999; Buttel 2002).

The fundamental difference between the two positions is based on the extent to which contemporary risk is viewed as culturally constructed or, objectively occurring (for a fuller debate see Renn 2008). These perspectives may be summarised as follows: The realist perspective assumes the objective reality of global risks, existing as asocial entities (Benton 1994; Dunlap and Catton 1994; Renn 2008). Constructivism, on the other hand, views the world as mediated completely through the social world, making no distinction between physical existence and interpretation of the external physical phenomena (Sismondo 1993). This epistemological frame is most significantly developed by Mary Douglas (1972), who maintains that risk is a culturally perceived phenomena, raising questions as to the reality of the current manifestations of risk. However, many commentators are cautious of over-presenting a dichotomy between these two positions. Burr indicates that:

> '…this may give the impression that there are two sharply divided camps each characterised by a single and coherent argument. Infact there are many subtle overlaps and arguments, so that it is more accurate to talk about various 'relativism' and 'realisms' (2003:88).

Dickens goes further (1992) and suggests that the separation between constructivism and realism is in some respects misleading because realists must accept that knowledge is mediated through the social system, and constructivists have to accept on some level that reality exists outside the social sphere.

Relating these debates to Sustainable Development, Redclift (1992) suggests that the challenge of developing an appropriate epistemological perspective when examining the issues of sustainability is to conceive of a third perspective which allows for a clearer responsibility for institutional and individual actions, whilst assessing underlying commitments to a broader social responsibility. This third view has been variously presented by, for example, Best (1987) who describes a contextualised constructivism which examines the objective conditions of phenomena whilst assessing the relative merits of claims about those conditions. Irwin is a 'co–constructivist' attempting to avoid '…some of the perils of social reductionism inherent in social constructivism' (2001: 173), Dickens (1992) has opted for the term critical realism. For Beck the issues of realism and constructivism should not be an either/or option… 'The decision of whether to take a realist or constructivist approach is for me a rather pragmatic one, a matter of choosing the appropriate means for the desirable goal (2000: 212).

It is this pragmatism, a willingness to embrace a number of different perspectives, which offers the greatest strength when examining discursive representations of SD at both the global and the local level and heeds Redclift's call for a third view. This approach also allows us to overcome the tension that is often identified between the pragmatism of data collection and the acknowledgment of values within the entire research process.

Importantly, and drawing together relevant epistemological debates this paper will present a methodological framework that simultaneously explores the realities and practicalities of conducting research whilst emphasising normative and value laden subjectivities within the research. This idea of practical data collection and acceptance of value within the research process, as displayed in the aforementioned epistemological discussion is often presented as opposite ends of the methodological spectrum. However, what is argued here is that this need not necessarily be the case.

The epistemological foundations set the scene for developing a methodological framework that is flexible and pragmatic. Deys comments are relevant here and certainly internalised for the research process. They also have strong synergies with the aforementioned epistemological discussion

Dey observes:

> 'Research methods are probably much more autonomous and adaptable than some epistemologists would like to believe, it makes more sense to consider all the available tools and not leave one half of the toolbox locked. Epistemological and ontological arguments are more useful if they examine knowledge as a practical accomplishment - how research works in practice - than if they indulge in prescriptive wrangles about how we really ought to proceed' (1996: 267).

Deys comments are pertinent but it is argued here that Dey adheres to a polemic epistemological position which in itself creates a separation between epistemological/ontological and empirical. With this foundation established the following will provide an overview of the methodology used.

Overview of Methodological Framework

As already indicated the research was focused on two distinct case study areas. The first involved a three-month internship with the UNEP in New York, during the UNGA between September and December (2002). The second, consisted of an examination of an energy reduction scheme in Plymouth, Devon, UK, designed to alter consumption patterns and engender sustainable lifestyles. The case studies possess similarities and differences in methodological approach. Whilst the research to which this methodological framework was applied is predominantly qualitative, and there is a case for arguing that the term ethnography could be applied to both cases, this is considered here to be an overly reductionist approach, masking the diversity of methodological approaches used.

Figure 1: Overview of Methodological Procedure
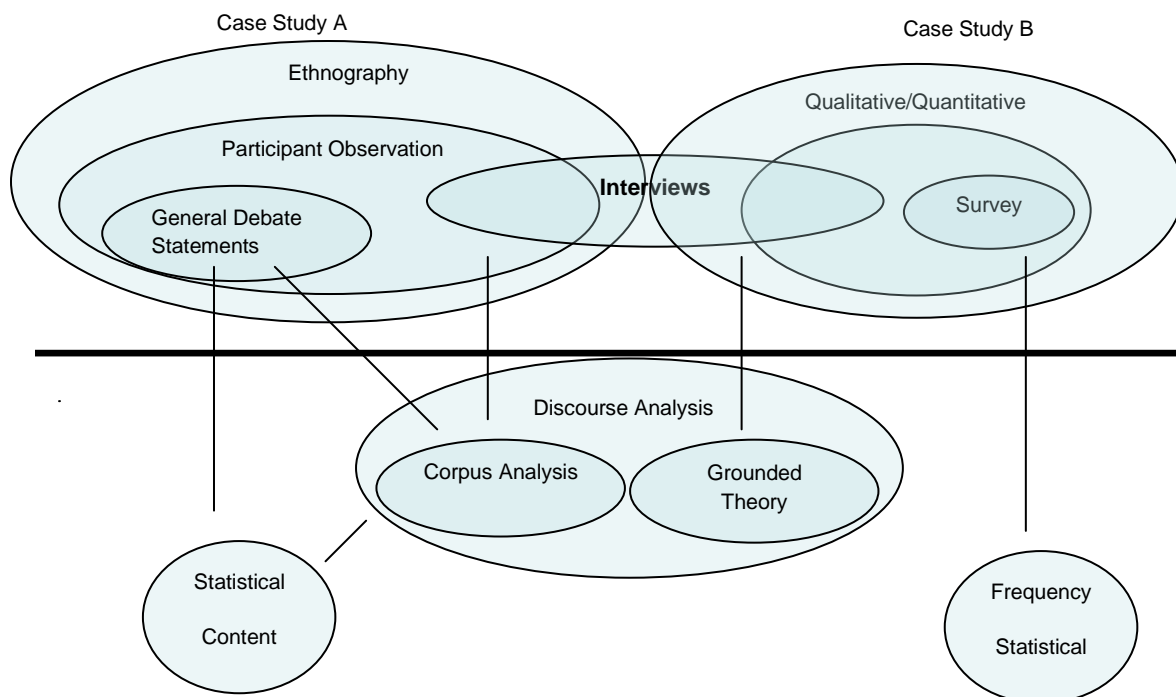
The above diagram represents the methodological framework utilised for the collection and analysis of the research data. The top spheres refer to the methodological structure and methods used for data collection. Case study A, the United Nations, utilises predominantly ethnographic methods, which are represented by the outermost sphere. Moving to the next level, participant observation was a constant within this research environment, and permeated all other forms of data collected. These included the observation and collection of General Debate statements, and also in-depth interviews. Importantly, the diagram illustrates the use of in-depth interviews in both case studies; consequently this form of data collection is discussed at some length. Whilst case study A claims methodological purity, as far as this is possible by focusing only on qualitative techniques, case study B utilises both qualitative and quantitative methodologies; this is displayed in the outermost sphere of the diagram for case study B. In conjunction with in-depth interviews, a quantitative survey was deployed to this study group.

In sum, the spheres above the bold dividing line represent the methodology and methods. The spheres below the line represent the analytical framework that was applied to the data collected. Firstly, all qualitative material was analysed under the umbrella of discourse analysis. Contained within this broad heading, corpus analysis was applied to the general debate statements, whilst interviews were subjected to two levels of analysis. The first, a basic content analysis, and secondly a deeper analysis based around the principles of grounded theory which are discussed later in the paper. The smaller independent spheres represent the statistical analysis used to analyse the quantitative data.

To date the discussion has attempted to provide an overview of the methodological framework. The merits and otherwise of qualitative and quantitative research have been variously and extensively explored and will not be reiterated here. What is germane to this paper is to understand the motivations and justifications for methods selected and what is it about the particular circumstances of each of the case studies that necessitate the methods used.

> 'A case as such can be identified as any phenomenon located in time and space about which data are collected and analysed. It can comprise single individuals or a group, particular events of a situation, a specific organisation, social institution, neighbourhood, national society or global process. Case studies can address the micro situation of a single person in everyday life or the macro situation of a nation state in the global world. Case studies are defined by the focus of the instance of the phenomenon, not by the method used to study it' (Hammersley 1992: 184).

The case studies used in this research contain all of the above-mentioned traits of case study research outlined by Hammersley; within this broad definition distinct sub-categories can be identified. Stake (1998) identifies three different types of case study, which include the *intrinsic* case study of a particular instance of the phenomenon because it is interesting in its own right; the *instrumental* case, which is studied because it facilitates understanding of something else, whether it be a theoretical debate or a social problem; and finally the *collectiv*e case study. Yin (1994) also suggests that there are three different types of case study. These are *exploratory, descriptive, and explanatory*. Similarly, Hakim (1992) suggests there are *descriptive, selective* and *experimental* case studies. The case studies in question are investigating SD discourse and the classifications can be exploratory and experimental as well as, following Stake (1998), instrumental.

Table 1: Case Study Matrix

AUTHOR	TYPE OF CASE STUDY		
STAKE	INTRINSIC	**INSTRUMENTAL**	COLLECTIVE
YIN	**EXPLORATORY**	DESCRIPTIVE	EXPLANATORY
HAKIM	**EXPERIMENTAL**	DESCRIPTIVE	SELECTIVE

Table 1 identifies the type of case study under investigation in this research. Those categories in bold apply to this research. Following Stake (1998), they are instrumental to facilitate a greater understanding of SD and its role in the modernist processes of contemporary society. Within Yin's categorisation, the case studies are exploratory as the nature of risk and SD are unravelled, and in line with Hakim, the case studies are experimental as the relationships between SD and reflexive modernity are examined. The above establishes the appropriate 'form' of the case study; the next stage is to outline the methodological issues applicable to each. As Eisenhardt (1989) suggests, case study research can involve the use of qualitative and quantitative data separately, or both used together, and suggests that the combination of data types can be highly synergistic. This research uses a singular methodological approach for case study A and a multi-methodological framework for case study B. This was deemed necessary and draws on the pragmatic nature outline in the epistemological discussion earlier in this paper. The following discussion will examine each case study in turn

Case study A: The United Nations

The following explores the methodological and practical issues that relate to the global component of the research. Initially, there will be an exploration of the methodological techniques employed which critically introduces the character of ethnography. The term ethnography is not clearly defined in the literature, and there is often disagreement about what counts and what does not count as examples of it. Hammersley and Atkinson (2003) suggest that in some sense all social researchers are ethnographers and that the term should be interpreted liberally, without getting caught up in discussions about what does and does not constitute ethnographic investigation. Whilst their comments are relevant, for this research, particular forms of ethnography were identified. Broadly, ethnography…

> ' …in its most characteristic form…involves the ethnographer participating, overtly or covertly, in people's daily lives for an extended period of time, watching what happens, listening to what is said, asking questions – in fact, collecting whatever data are available to throw light on the issues that are the focus of the research' (Hammersley and Atkinson 2003: 1)

An investigation into the discursive representations of SD at both the global and the local levels necessitates a methodological framework that is flexible, and able to respond to the dynamics of particular situations as they arise. Herbert (2000) argues that teasing out the connections between the micro and the macro, requires a degree of theoretical sophistication, as well as empathic observation. Moreover, these attributes require the ability to '…develop a vibrant, recursive conversation between theory and data' (2000: 564). Ethnographic techniques offer this flexibility and the ability to engage with theoretical assumptions whilst simultaneously engaged in the process of data collection. To reiterate, in this instance it is the complex relationship between SD and reflexive modernity.

Furthermore, this research deals with the formulation and interpretation of a particular concept, and how this concept is translated in particular locales. Herbert argues that ethnography is singularly capable of tackling and disentangling the complexity that exists between process, meaning and place both at the macrological and micrological The advantages of an ethnographic approach for this research are clear. As a research methodology however, ethnography engenders a number of criticisms that need to be addressed.

Justifying Ethnography: From the General to the Specific

Again Herbert's (2000) observations are pertinent, suggesting ways in which ethnographic research is rebutted within the scientific community. Firstly, given the nature of the scientific process itself, can such a reflexive interpretative exercise be truly scientific? The nature of qualitative research more generally has succumbed to similar criticisms. These criticisms focus primarily around the subjectivity of small sample sizes and the difficulty of replication. Whilst this is quite rightly a fundamental criticism, it is also equally important to recognise that interpretation and subjectivity are central to 'all' sciences whatever their position on the interpretative, positivist spectrum (Latour 1987). So, whatever the pretension towards objectivity, all scientific practices must inherently be mediated through the social system. The recognition of subjectivity within the research structure is an important reflexive exercise that must be employed for 'all' research.

This form of reflexivity is employed by the researcher when taking into account their relationship to the study group. This is particularly the case when referring to qualitative forms of research, such as the interview (Ellen 1992; Hammersley and Atkinson 2003), but can be extended to the quantitative realm of investigation, where the researcher acknowledges his or her own biases not only in the interpretation of the research results, but also the design of the research structure. This form of reflection on the research process aims to produce a more rigorous and honest conclusion. The definition of a methodological reflexivity for this research is *the acknowledgement of failings and intrusions in the research procedure by the researcher, resulting in suggestions for the improvements of these shortfalls in future research.*

Further criticism surrounding ethnographic and qualitative techniques more broadly, refers to generalisation. This argument asserts that ethnographers focus on one, or a small number of situations or cases, which prevents the researcher from making generalised statements. Two responses to this criticism are warranted in the context of this paper. Firstly, the general response for all ethnographic research, which holds that ethnography does not pretend to make generalisations, but 'contextualises' the complex interrelations in any one locale. It is generally accepted that the nature of qualitative research irks the vague generalisations of positivistic surveys and methods of breadth (see Payne and Williams 2005).

With this said, commenting on case study research as a form of qualitative research, Brewer (2000) maintains that looking at the single case does not necessarily sacrifice wider generalisations, but that attention should be paid to the grounds on which these generalisations are made. Furthermore, many qualitative researchers agree that their rejection of generalisability, as a search for broadly applicable laws, is not a rejection of the idea that studies in one situation can be used to speak, or help form a judgement about other situations (Payne and

Williams 2005). The second response to the criticism surrounding generalisations relates to the specific locale within which ethnographic techniques are applied for this research. Whilst the study area was spatially confined, the particular locale under study was embedded in particularly powerful networks of global influence. Activities and decisions within the UN have fundamental and worldwide repercussions. Whilst it is conceded that no study area is situated within a vacuum, there can be little dispute that the discursive representations of SD in the forum of the UNGA will have an unprecedented influence for wider society. With the critical elements of ethnography addressed the following discussion will elaborate on case study A, highlighting the ethnographic techniques applied.

Ethnography Applied: Inside the United Nations.

Methodologically the United Nations is a tough nut to crack. Knight and Krause recognise the tools that have been traditionally used by the academic community to peer into this melting pot have proved inadequate:

> 'The so called crisis of multilateralism of the early 1980s was not merely a political crisis but an intellectual and scholarly one, as the tools and concepts used to study the UN system proved ill-suited to understanding the changing nature of political life in the late 20th century ' (1995: 261)

Changing political life in the 20th and 21st centuries is an important component of understanding a reflexive modernity and sustainable development but research of state and supra-state mechanisms have traditionally been based around insights provided by political science and particularly international relations. Whilst the political sciences have proved effective in explaining the intergovernmental role of the UN, it is the role of the UN as a supranational entity in the pursuit of sustainable development governance that in turn shines alight on reflexive modernity that poses the greatest challenges to contemporary governance processes (Cronin 2002; Gupta 2002; Hass 2000).

Importantly, the UN should not be seen as a closed system but a dynamic entity, permeated by a myriad of flows that converge internally and are subsequently radiated outwards again towards wider society. Beck (2006) suggests that international organisations serve interests which are neither national or international:

> '...*rather*, they *alter, maximize and expand* national interests into transnational interests and thereby open new transnational spaces of power and restructuration for global-political actors of the most various kinds, states among them' (2006:26).

With the above in mind, Knight and Krause (1995) suggest looking at the UN from what they term a state/society perspective. The authors assert that this perspective '…highlights the fact that the interaction between international society and domestic societies is not always mediated through the state' (1995: 253). These authors argue that simply viewing the UN as a bureaucratic colossus, constituent of its member states and various organs, is reductionist and misleading. More accurately, the UN should be viewed as an '…arena of ideologies and values, a forum for discussion and negotiation, not as a 'place of operations' (Strong 2003: 117).

It is with this assessment in mind combined in parallel with the previous epistemological debates that again assert ethnography through discourse analysis as the most effective and innovative methodological approach. This approach was applied during a three month internship with the UNEP at UN Headquarters in New York. The internship took place between September and December 2002, a time-frame of particular importance for this work on two counts. Firstly, September to December represents the convening of the UNGA. This is the decision-making organ of the UN where resolutions are developed and decisions are made on a plethora of issues from global governance, to the efficiency of the global postal service. During this time, delegations are sent from all member states to participate in the negotiation processes. Secondly, the 57th UNGA directly

proceeded the World Summit on Sustainable Development (WSSD), providing a singularly unique opportunity to assess, not only interpretations of sustainable development at the international political scale but also its construction within a negotiated framework. The following discussion will outline the practicalities of data collection on a daily basis.

Researching inside the United Nations

In line with the previous discussion and remembering the epistemological position taken within the research data collected from with the United Nations was both opportunistic and pragmatic. During this period, operating as a member of UNEP allowed the researcher to be immersed in sustainable development discourse and assess high-level governance discourse from many different sectors of society. Sustainable development rhetoric within this framework was a complex, dynamic and often contested concept. As such the process of data collection was at the same time both pragmatic and capable of exploring normative and value laden interpretations of sustainable development. The following briefly outlines the multiple data sources.

Firstly, general observations of the overall environment of the UNGA, this consisted of extensive note-taking, not only of the content of the meetings but the dynamics of these interactions, how competing positions on many issues were reconciled (or otherwise) and the mechanisms which various nations used to interact at this level.

Secondly, documents were collected from many different areas, which included transcripts of speeches made, resolution documents including relevant revisions, press releases, official statements made by the Secretary-General and many more. From this overwhelming source of qualitative material there is a specific focus on the statements made from the United Nations General Debate (UNGD), which included statements from nearly every member of the UN. This provided a comprehensive insight into discursive representations of sustainable development from nearly every country in the world. The third form of data collection was interviews conducted with Program Officers (POs) of the UNEP.

The above discussion has achieved a number of goals. There has been an elaboration on the methodological framework used in case study A. The nature of United Nations and   ethnography has also been examined, and the synergies between the two laid bare. The specific methods of data collection have been highlighted, where it was argued that multiple forms of data collection were necessary to investigate the area under study. The above represents the global component of this research; the following will elaborate on local case study B.

Case Study B: The Carbon Reduction Innovation Support Pilot

The Carbon Reduction Innovation Support Pilot (CRISP) the project was designed to promote sustainable lifestyles by reducing energy consumption in the home. The primary collaborators in the scheme were Global Action Plan (GAP), Devon Energy Advice Centre (DEAC) and Plymouth City Council (PCC). GAP operated as the primary steering organisation. Using this case study provided the following opportunities. Firstly, the project was designed to encourage sustainable lifestyles as part of a SD agenda at the sub-political level. Secondly, it represented an opportunity to examine the nature of reflexive behaviour in the form of altering consumption patterns of the participants. Thirdly, it is argued here that the scheme is representative of the sub-political processes.

Practically then, extending from the global case study, the ways that the concept of sustainable development is used and perceived within this context provides insights into the integration of sustainable development in the governance framework at the local and individual level. The scheme offered the opportunity to further test the relationship between the emergence of sustainable development and the nature of reflexivity, as participants of

the scheme's motivations for achieving 'sustainable lifestyles' were assessed. In order to access the relevant information, a multi-methodological framework was utilised. The quantitative method used was a questionnaire covering topics identified in the literature as relevant for exploring the relationship between sustainable development and reflexive modernity.

Interviewing at the International and Local Scale

In-depth interviews were employed in both study areas, those of relevance to case study A have already been discussed, in case study B, two levels of interview were conducted. The first was with the managers of the scheme, and the second with the participants of the scheme. A total of 23 interviews were arranged, 3 were conducted with the managers of the scheme and 20 with participants.

Interview Process

Within Case Study B, the first interviews to be conducted were with the managers of the CRISP project. The aim of the interviews was to understand the ways that SD was being articulated at this level of governance. Interviews were held with the managers of the various bodies of the partnerships. Where possible all interviews were transcribed, because as Pile points :

'An analysis of language can only be carried out with confidence if there is an entire record of a conversation. Hastily scribbled notes are not accurate enough to be used in this way. Tape recorded sessions provides the only viable data for this kind of analysis' (1990: 217).

The above discussion has served to introduce both of the case studies utilised in this paper. In particular, the role of ethnographic research and the methods of data collection this entails were explored. The following section moves the discussion forward to examine the analytical framework for this research, focusing overwhelmingly on the analysis of the qualitative data with an emphasis on discourse analysis.

Discourse Analysis

In line with Hajer, discourse is understood in this research as a specific '… ensemble of ideas, concepts and categorizations which are produced, transformed and reproduced in a set of social practices defining the meaning of the social and the objective world' (1995:44). There is a clear continuity between the epistemological pragmatism and the use of discourse analysis in order to delve beneath the discourse of sustainable development.

The varied forms of data collection within ethnographic research produce multiple data formats upon which the analytical procedures are built, however, whilst the methods of data collection are diverse, they possess a single commonality. The resultant analysis occurs from a staticised text or transcript, transforming even the 'active' event of interviewing into a 'static text' (Holstein and Gubrium 1997). The following discussion will examine the nature of the transcript in order to expose the analytical processes used in this research.

It is recognised by commentators that the transcript can be an ambiguous medium from which to work with some particularly referring to the hybrid status of the transcript (Kvale 1996). This hybridity means that it is essential that the researcher chooses the method of interpretation that is conducive with the research area (Schwandt 1998). Fairclough makes a useful distinction between detailed analysis of texts, which has been termed 'textually orientated discourse analysis', and discourse analysis that does not do this. Fairclough contends that discourse analysis oscillates between a focus on specific texts and '… what I call the order of discourse, the relatively durable social structure of language which is itself, one element of a relatively durable structuring and networking of social practices' (2003: 3). In line with this, discursive representations

of sustainable development are examined in the context of the environment from which they were created as well as the broader social processes.

Whilst it is argued above that all analysis was conducted on the static text, Fairclough tells us that the production processes of these texts must be an intimate part of the analysis procedure. The nature of the power dynamic within the interview environment and the underlying production of a static text incur its own set of unique processes. For example, the production of a political speech will follow different rules from that of a biographical interview. The analysis procedure used for this research takes these issues into consideration when drawing conclusions from data collected.

Analysis of the United Nations Data

Analysis within the remit of ethnography resists the conventions of a linear process with each stage of the research, from the initial identification of a research area, to the analysis of data collected, blurring into the other Glaser and Strauss (1967). Mindful of the previous discussions in this paper on the criticisms of ethnography this fluidity of the analytical procedure, however, should not reduce the rigorous nature of the analytical framework. The following argues that within ethnographic research the use of grounded theory provides the necessary foundations upon which an effective and dynamic analytical framework can be built. There are clear connections between the analysis of ethnographic material and the application of Glaser and Strauss's 'grounded theory'. Titscher *et. al.* (2002) have suggested that where the development of concepts are concerned grounded theory has been developed in greater detail than that of ethnographic analysis. The following will briefly outline some of the central tenets of grounded theory.

Grounded Theory

The fundamental aim of grounded theory, as with ethnographic techniques, is to produce theory from the data (Corbin and Strauss 1990; Strauss 1967). With grounded theory, the analysis process is ongoing, with each stage influencing the next in the same way that the analysis of ethnographic data is a non linear process. Grounded theory allows for versatility in the research process and consists of three basic elements; *concepts, categories* and *propositions*. Such a research framework allows data to be examined both inductively and deductively. At the centre of this research is a process of induction where discursive representations of SD are derived from the data. However, these inductive findings are applied to a central proposition. Furthermore, it is recognised that the boundaries between induction and deduction do not represent an impenetrable barrier.

Considering the earlier debates on ethnography it would be naive to assume that nothing is brought into the analysis procedure from the outside; there are inevitably pre-existing ideas that will influence the development of categories and themes developed from the data. In this respect, grounded theory has been criticised for failing to acknowledge '…implicit theories which guide work at an early stage' (Silverman 1998: 47). Along similar lines, Dey (1996) maintains that grounded theory plays down the conceptual ideas that are brought into the analysis process. What is important to recognise is that there is a cyclical relationship between theory, life experience, the research procedure, analysis and subsequent conclusion (Miles 2001). Grounded theory as a way of analysing discourse also makes the connection between the pragmatism of data collection in the first instance exploring context value laden discourses, explicitly through the idea of symbolic interactionism (see Oktay 2012).

Grounding Disparate Ethnographic Methods

To reiterate, three forms of data collection were employed under the heading of ethnographic techniques within the UN; the in-depth interview, documentary data, with a focus on general debate statements, and participant observation. Individually and collectively, the basic principles of grounded theory were applied to

this data in order to elicit a deeper understanding of the nature of sustainable development, as perceived at the global scale and its relationship to reflexive modernity. It is difficult therefore, to separate the individual components; the ongoing participant observation influenced all levels of analysis and ultimately permeated the analysis of the other data sources. Due to the volume of data provided by the UNGD statements it is necessary to elaborate on the analysis of this corpus of material and how this relates to the overall data collected.

Two stages of analysis of the UNGD statements were conducted. The first was the initial personal presence of the researcher as the statements were being delivered by the appointed delegates, at this stage patterns and themes were identified with an overall feel for the data established. The second stage involved revisiting the static texts of the debates in the form of transcripts and further developing and elaborating on themes and prominent issues that had been identified in stage one. Whilst this was done with the basic principles of grounded theory in mind, the sheer scale of the data necessitated an adaptation of the basic grounded theory principles.

There is a distinct risk within the presentation of qualitative data of overrepresentation that may detract from the essential analysis and discussion. To overcome this under-representation of data it is possible in certain circumstances to 'quantify' the qualitative data, this can provide supplementary information and offer the breadth that qualitative materials lack. This form of analysis has been termed linguistic or corpus analysis (see De Beaurande 1997; Stubbs 1996). This is a situation where keywords on the corpus of texts are identified and distinctive patterns of co-occurrence or collocation identified (see Sinclair 1991).

The analysis of the UNGD statements were examined in their own right to determine general patterns, discourses of sustainable development and the association with risk and reflexivity within the UN. Once this was completed, these overall findings were integrated back into the ethnographic analysis. For Fairclough, this is not only beneficial but a necessary part of the analysis procedure: 'Such findings are of value, though this value is limited and they need to be complemented by more intensive and detailed qualitative textual analysis' (2003: 6). In order to address this issue once the corpus analysis was completed, it was reintegrated back into the rolling analysis of the ethnographic procedure, which was based on the ethnographic and grounded theory principles already outlined. In sum, the above discussion has highlighted the analysis procedures for data collected from within the United Nations. Whilst based around the principles of grounded theory, it is important to recognise that data collection and analysis was an adaptive and ongoing process. The following discussion will focus on the analysis of data produced from the second case study. At the local level of analysis the same pragmatic approach was adopted.

A CRISP analysed

Analysis at the local focused on an in-depth questionnaire administered to the managers and the participant of the scheme. Using the questionnaire as a guide, specific issues were identified from the corpus of interview material that appeared to uphold or contradict the results for the quantitative data; this may be seen as a 'content analysis' of the interviews. At this level no attempt was made to draw theories or propositions from the data, instead specific sections of interviews were identified as they related to results from the survey. Building on this, the principles of grounded theory outlined above are then applied more rigorously. The use of mixed methodology provided both a breadth and depth for analysis and, in line with the epistemological underpinnings of the research were deemed appropriate from a pragmatic view point.

Connecting the case studies: Results and methodical reflection

The above methodology identified a number of connection mechanisms between the two case studies to be made (See Borne 2010) and has significantly taken forward debates relating to risk, modernity and sustainable development. The research allowed for the first time an empirical assessment of the notion of reflexive

modernity. The ethnographic approach revealed that SD holds real currency within the UN, creating political space for discussion and co-operation. It also represents a paradigm shift in political ideology that fully takes on board the interaction of social processes with natural phenomena that is catalysed through global risk. Results suggest that this risk is now intimately juxtaposed with traditional decision-making mechanisms.

At the local level there is also evidence from the managers of the CRISP project related to the experiences of the UN. Particularly, the notion of convergence was evident within discursive representations of SD. This enabled disparate organisational representatives to come together under the banner of sustainable development and focus as well as multiple goals. In sum then, at these two levels of analysis risk enables sustainable development to represent a reflexive modernity.

Moreover, evidence from the managers of the CRISP project was seen as closely related to the experiences of the UN. Particularly, the notion of convergence was evident within discursive representations of SD. This enabled disparate organisational representatives to come together under the banner of SD and focus on a specific goal. In sum then, at these two levels of analysis risk enables SD to represent a reflexive modernity.

Whilst it has been shown that risk enables SD at the global level, representing a reflexive modernity, at the local individual scale this is transformed into an inhibiting function. At the individual level, risk served to inhibit discourses of SD, blocking the ability of SD to effectively enhance reflexive behaviour. This has led to the emergence of a form of counter-reflexive behaviour at the individual scale, which has far-reaching implications not only for the WRS but also the integration of SD into policy frameworks. Overall, at the global level SD is evidence of a questioning of development patterns associated with modern processes around the need to abate risk and is therefore evidence of a reflexive modernity. The local level fractures into two distinct realms, one that suggests a reflexive modernity at the managerial level, and the other at the individual level that does not. It is argued that what emerges is the prominence of risk in the relationship between SD and reflexive modernity.

Ultimately, it was argued that multi-methodological techniques, with an emphasis on a qualitative methodological approach are congruent with the aims of this research. The methods used were able to assess diverse data from many different perspectives whilst maintaining a focus on the core research goals. With this said however, each case study presented its own set of unique methodological issues. Within the UN the various methods of data collection proved to be complementary, allowing for a rigorous investigation of the research question. However, only one UNGA could be practically observed. Future analysis of the UN needs to address the balance between operational reductionism and organisational complexity. In sum, however, the methods used at the UN proved to be productive and capable of examining the many interconnecting issues that were manifest whilst examining the relationship between SD and reflexive modernity

Unlike research conducted within the UN, at the local level a multi- methodological framework was used providing both depth and breadth of analysis to the research areas. It was found that one strongly contributed to the other in a supportive manner. Importantly, by integrating methodological approaches, inconsistencies and weaknesses identified in individual research areas were brought to the fore. Particularly pertinent were the weaknesses identified in survey research that relate to environmental issues where responses tend to provide what they perceive as the 'environmentally correct' answer (Dunlap 1998; Tesser and Staffer 1990). Qualitative results from within the CRISP project highlighted the problems of applying a broad quantitative survey to the research areas. With this in mind the survey used provided valuable and broad-based information that strongly complemented the in-depth ethnographic interviews. However, in light of ethnographic research conducted at the UN it is suggested that further ethnographic research would have benefited findings at the local level.

Conclusion

This paper has constructed a picture of the methodological and analytical processes that have been used to connect disparate case studies. These case studies were selected in order to address a research proposition. Drawing on Ulrich Becks WRS thesis it has been argued that adopting a pragmatic approach is not only required but also preferable when exploring dynamic and contested meanings. Constructing a methodological approach was both challenging and unique. The research addressed an overarching theoretical assumption both at the global and the local level without precedent. To what extent does sustainable development represent an epochal shift to a reflexive modernity? The research design was required to accommodate both empirical and theoretical complexity. It also had to ensure that it was reflexive and responsive to the realities of conducting research. Future research that attempts to understand the relationship between sustainable development and reflexive modernity will benefit from exploring broader contexts from which to understand the possible connections (Borne 2013).

The increasing integration of sustainable development into governance structures as well as its proliferation in many other areas of human and environmental interaction require a closer scrutiny of what the term means and how it is being implemented. With this in mind there is a deft of research that directly attempts to address sustainable development discourses. As such there is a significant lack of guidance on how such a complex and ambiguous topic should be tackled from a methodological perspective.

Biography

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Primary research interests surround the integration of sustainable development into governance frameworks. There is a particular emphasis on the relationship between increased environmental risk and the uptake of sustainable development within the United Nations as well as connecting this to local governance structures. Gregory's most recent research explores the integration of sustainable development into local communities with a focus on town and parish councils. The work examines local government and local community's response to global risks such as climate change.

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