Bureaucracy and other Stories: Organizing Policy-Making in Defra

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No part of the material offered has been previously submitted by me for a degree or other qualification in this or any other University.

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Abstract

My research explores policy-making in the UK Department for Environment, Food and Rural Affairs (Defra). I focus on the part of Defra that seeks to control exotic animal diseases such as Foot and Mouth Disease and Avian Influenza. The research investigates how civil servants make policies to control animal disease, how scientific expertise is used in decision-making, and the differences in styles of policy-making that occur during disease outbreaks compared with 'peace-time'.

In contrast with conventional policy analysis, my research takes an interpretive approach to the study of policy-making. The emphasis of my analysis is on the understandings that officials hold about aspects of policy-making and how these understandings influence their behaviour. I gathered accounts from Defra officials and their advisers, using participant observation and interviewing, about what it means to be a bureaucrat and to provide expertise. Drawing on insights from organizational sociology, I treat these accounts as stories about policy-making with not only explanatory but performative power. Using John Law's (1994b) concept of 'modes of ordering', I view policy-makers' stories as organizing narratives that structure interactions and generate organizational materials and realities. I argue that three modes of ordering can be identified in Defra's exotic disease division: rationalism, bureaucracy, and expediency. These three modes interact, overlap and contradict one another as Defra staff seek to make sense of the organization and their role within it.

I conclude that the differences between these three modes of ordering account for differences in the way that policy-making is organized over time and between policy contexts. During disease outbreaks, for example, Defra officials think of themselves as 'heroes' and act accordingly, while during 'peace-time' they consider themselves bureaucrats or rational decision-makers to justify their inability to achieve policy outcomes.

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Acronyms and Abbreviations

ADPG	Animal Disease Policy Group
AI	Avian Influenza
BSE	Bovine Spongiform Encephalopathy
BTB	Bovine Tuberculosis
BVA	British Veterinary Association
CSA	Chief Scientific Adviser
CSL	Central Science Laboratory
CVO	Chief Veterinary Officer
DCMS	Department for Culture, Media and Sport
Defra	Department for Environment, Food and Rural Affairs
EBP	Evidence-based Policy
EFRA	Environment, Food and Rural Affairs Select Committee
FMD	Foot and Mouth Disease
FSA	Food Standards Agency
HEO	Higher Executive Officer

IAH	Institute for Animal Health
ISG	Independent Scientific Group
MAFF	Ministry of Agriculture, Fisheries and Food
NAO	National Audit Office
NFU	National Farmers Union
NPM	New Public Management
OSI	Office of Science and Innovation
SAC	Science Advisory Council
SEAC	Spongiform Encephalopathy Advisory Committee
SEO	Senior Executive Officer
SVS	State Veterinary Service
TSE	Transmissible Spongiform Encephalopathy
VLA	Veterinary Laboratories Agency

Introduction

The Department for Environment, Food and Rural Affairs (Defra) is an organization where the complexities of evidence-based policy-making are negotiated on a daily basis. This is especially true of Defra's exotic disease division, which deals with Foot and Mouth Disease (FMD), Avian Influenza and other livestock diseases. Here, scientific and veterinary expertise is always needed: to prioritise funding and control measures, to decide on vaccination strategies, to inform the creation of protection zones, to decide whether or not to cull particular birds and livestock. The priorities of the division are to prevent disease from entering the UK, and to control disease outbreaks as quickly as possible when they occur. Consequently, the work of the officials in this division is not of the high-level, strategic kind, but involves dealing with specific, technical cases and finding practical solutions to problems with a large scientific component. Officials[1] in this division are more divorced, at least in terms of formal qualifications and first-hand experience, from their policy field than is true of most government departments. Policy-makers in the division rarely have scientific qualifications, or experience of working with livestock, or a deep understanding of the epidemiology of disease or the efficacy of different control measures. Their reliance on expert advice is great. This is not a new phenomenon, however. Veterinary and scientific advice has been used to inform animal disease policy for over a hundred and fifty years, since the first inspectors were appointed to survey the state of the nation's livestock and report their findings to the Board of Agriculture. Although the techniques of disease detection, surveillance and prediction are vastly improved, the same fundamental dilemmas remain: how to combine science with politics, translate abstruse theories into effective implementation, and how to act proportionately and wisely in difficult circumstances.

[1] In practice, the distinction between 'officials' and 'scientists' is difficult to maintain because many scientists and veterinary advisors are employed solely by Defra and are therefore civil servants in their own right. However, for clarity I have used 'officials' throughout the thesis to mean policy staff, and 'scientists/ scientific advisers' to refer to both in-house and external scientific and veterinary staff.

While academics struggle with the theory of evidence-based policy-making, debating the extent to which policy can incorporate science, or science remain impervious to politics, Defra officials have worked out their own pragmatic solutions. They have created expert advisory groups, drawn up templates for decision-making, appointed chief scientific advisors and funded research, all with varying degrees of reflexivity about science and its place in the policy process. Every day, policy-makers call meetings with scientists, read summaries of research findings, telephone colleagues for advice and decide how to incorporate this information into their work on a case-by-case, context-dependent basis. They bring this scientific expertise together with their own expertise, which consists of knowledge about how decision-making works, where political will lies, and how the affected parties are likely to respond. It seems, then, that evidence-based policy-making is happening every day in Defra out of a simple need for expertise. It goes largely unnoticed by observers except when a high profile event like a disease outbreak draws attention to the actions of officials. However, we still know very little about the way in which these practical solutions to evidence-based policy-making are reached. For example, what are the attitudes towards science that underpin the creation of experts' groups, and how does the creation of such groups impact on the way in which policy is ultimately made? To what extent are scientists aware of the political and policy context of their advice, and how able are policy staff to judge the merits of conflicting expert opinions? These deeper questions are difficult to answer because there is a fundamental disparity between the neat, bounded model of evidence-based policy-making and the way it is put into practice in Defra. This corresponds to a broader inconsistency between notions of a rational policy-making process and the reality of the activities performed by Defra officials, which are complex and unsystematic. There is a need for a better, more empirically grounded understanding of policy-making if we are to say anything meaningful about evidence and expertise.

This became apparent at the outset of my research, when I undertook exploratory fieldwork in the exotic disease division, which involved several months of participant observation working alongside Defra officials. Without a closely formulated research agenda, my aim was to conduct a broad observation of the practicalities of policy-making, and to witness the ongoing activities of policy-

makers within the Department. I realised very quickly that conventional approaches to policy analysis and the traditional language of political science were not able to answer the sort of questions raised by this fieldwork. Observing Defra officials, the complexity and unruliness of policy-making were immediately apparent, as well as the efforts made to regulate and utilise this labour. Working as a policy-maker in Defra means dealing with a continuous flow of information from myriad sources – commissioned reports, meetings of various kinds, gossip from the office 'grapevine', EU and central government directives, stakeholder consultations and informal conversations with colleagues. All of this information must be filtered, sorted, reordered, repackaged and disseminated as 'policy' but this process too is chaotic and conducted in a perpetually changing environment. At all stages, policy documents may be subject to a wide range of revisions, adaptations and distributions, the culmination of which is not determined in advance of the process itself. Thoughts may be conveyed upwards to line managers, outwards to stakeholders, or sideways to colleagues; this is done through press releases, briefing documents, ministerial statements, web pages and further meetings. The simple sense of 'a policy-making process', ubiquitous in policy analysis, is not present in Defra.

And yet, in the face of these disordered, confusing and changeable circumstances, Defra officials find order. They find ways of understanding what is required of them, and are able to prioritise work based on their understanding of what their roles entail. They create goals to which their work is directed and construct a sense of who their policy 'customers' are. They are able to create hierarchies in which everyone has a place, and through which they are able to structure their interactions with experts. They create rules about how and why certain procedures should be followed and are able to give meaning to work that may seem meaningless: to justify why something needs doing when this is not immediately apparent, at least to the outsider. The fundamental question arising from this fieldwork is, therefore, *how* Defra officials find or make order in their work. I want to analyse what orders prevail in Defra, and where such orders come from. For example, what role do formal documents such as organization charts, policy-making guides and departmental objectives play in shaping officials' understanding of their roles as policy-makers, and what role do informal factors

such as departmental culture and personal values play? The part of other actors must be acknowledged too. The second question to be explored concerns Defra's scientific and veterinary advisors. How are they incorporated into the orders created by policy-makers, and to what extent do they shape these orders? I want to explore who achieves expert status, and how scientists and officials co-construct the notion of expertise. Finally, the influence of disease outbreaks must be considered. Is order created differently during 'peace-time' (when the country is free of disease) and 'war-time', when an outbreak occurs? To what extent do the relationships between officials and scientists change during these different states, and do officials view their roles and responsibilities differently?

To begin to explore these questions, an alternative method of policy analysis is required. The prevailing approach to policy analysis sees policy-making as a more or less rational process, with distinct phases of problem formulation, evidence-gathering, decision-making and implementation. Whether this is seen by scholars as a simple linear process or a more iterative and circular one, the common assumption underpinning conventional policy analysis is that policy-making consists of discrete stages (problem formulation, evidence gathering etc) and that all policy-makers' activities are directed towards 'solving' the particular policy problem they are dealing with. Consequently, when analysing policy-making the dominant method is product-led and involves isolating a policy or decision and tracing its genealogy. The relevant documents are identified, consultation responses dissected and, in some cases, government officials (usually the most senior) are interviewed about what guided their decision-making. This approach imposes upon policy-makers a simple teleology and a pure rationality; their purpose is to make decisions, and they follow a logical sequence of steps to arrive at their outcomes. While these studies highlight instances where policy-making does not follow the expected pattern of action, and thus give insights into the roles of pressure groups and other forms of 'interference', they do not challenge the underlying assumptions of the nature of policy formation and consequently lack the means of making more radical critiques of the policy process.

This model-based approach to policy analysis also assumes that policy-making is or should be structurally identical between departments. The peculiar constitution

of each individual department is rarely commented on and when it is noted it is cited as a reason for the failure of that department's policies. Studies of Defra frequently focus on the close relationship between the Department and the National Farmers' Union, citing the historical influence of inter- and post-war policies of agricultural support as a reason why this close relationship developed and persists (see for example Winter 1996). These suppositions remain abstract, however, because few policy scholars go into Defra and ask officials about their relationship with pressure groups and whether this constructed history actually has an effect on the way they think and act. In addition, there is little work that systematically examines the contemporary culture of Defra and how this culture affects its staff. While in the field of organizational studies the notion of organizational culture has been accepted and developed for decades, this concept has not been fully adopted by political scientists, who continue to talk of the civil service and policy-making in terms of historical influences and structural design. Departmental specificity is considered to be an accident of history that in some way causes policy-making to deviate from the ideal type. Therefore, those studies of Defra that focus on pressure groups debate the extent to which they distort policy-making by exerting an influence over officials. The idea that a Department could develop a sophisticated and distinctive culture not shaped by structure and history alone but co-constructed by its staff, the nature of the work they do and their policy field has not yet been considered in the existing academic literature.

Consequently, in this thesis I am proposing an approach that rejects the model policy-making process as the norm and 'policy' as the unit of analysis. Instead, the focus of this thesis is on the organizational and the personal aspects of policy-making. In order to answer those questions set out above, about the ways in which order is found and created, this thesis develops an organizational sociology of Defra. This approach brings together individuals and their context without privileging one over the other. It attempts to understand how Defra staff interact as a group and how this group interacts with and constitutes the organization. My focus on the people who work in Defra stems from the simple, but, as I have argued, overlooked assumption that individuals in Defra have an influence over the way that policy is made, and do not blindly try to implement a rational model of policy-making. A focus on people, rather than processes or products,

immediately introduces a new perspective because people hold beliefs that they act upon; create and share interpretations of events and rules; and vary in their ability and desire to conform to expectations of the way in which they carry out their duties.

In conventional studies, policy-makers remain 'black boxes' of the policy-making process. It may be ascertained that a piece of evidence was given to officials and that the subsequent policy seemed to be based on that evidence, but the actual decision-making process at the individual or small group level through which evidence becomes policy remains poorly understood. Analyses of evidence-based policy-making look for instances where advice has been incorporated into decision-making and when evidence is not used often argue that it is the result of interference or incompetence of some kind, whether deliberate obfuscation by civil servants (as critics of bureaucracy might suggest) or the lobbying of pressure groups, as interest group theorists might propose, and so on. What is universal is that this activity is generally speculated upon after the fact – rationality or intent is imputed when a decision emerges – and the actual policy-makers concerned are rarely asked to comment on their thoughts and actions. If documenting the complexity of policy-making is the chief empirical problem in this thesis, and developing a sociology of the organization is the predominant theoretical challenge, then this desire to bring the voices of policy-makers back in to the analysis of policy is the methodological puzzle which it seeks to solve.

To do so, I embarked upon a second phase of fieldwork. While the first phase, participant observation, gave me great insight into the atmosphere of Defra and the structure of the working day and so on, conversations with policy-makers were opportunistic and biased towards the groups and individuals with whom I had had the most regular contact. I subsequently interviewed a range of actors working in or with Defra's exotic disease division. I chose policy-makers of differing seniority to gain a spectrum of perspectives on working in Defra, and then people from pressure groups, scientific advisers, veterinary officers, consultants and members of scrutinising bodies to cover the broader range of actors who in one way or another have contact with, or input into, policy-making. My primary concern was to understand how the participants interpret their duties,

relate to others and bring their own beliefs and values to bear on their actions. This interpretive approach has a relatively long history in sociology and anthropology but is very new to political science. Pioneering qualitative policy analysis can be found in McPherson and Raab (1988) and Page and Jenkins (2005), both of which provide extensive data from interviews with civil servants, but truly interpretive studies of British government are confined to studies of government ministers such as Rhodes (2005), Rhodes et al (2007b) and Bevir and Rhodes (2003, 2006) and work on local government by Gains (2009), Durose (2007) and others. Interpretivism demands an understanding of participants' stories not as mere accounts but as exercising performative power. The epistemology of interpretivism does not treat such stories as distinct from facts; policy-makers are not describing the world when they tell stories but are helping to bring it into being. They do this in a number of ways, including communicating historical experiences and providing individuals with a way to weave this experience into discussions of current activities, socialising new members, documenting successes and failures and drawing conclusions (or morals) from them, stereotyping other organizations, and indirectly communicating information to individuals about issues which are too threatening or sensitive to discuss directly (Schwartzman 1993). My interest in collecting policy-makers' and advisors' stories about their work was not to gain descriptions of life in Defra but to understand how, through their interpretations and talk, they order and organize the business of policy-making.

Structure of the thesis

To meet the empirical, theoretical and methodological challenges arising from the research aims I have used a number of strategies for presenting data and analysis. The thesis begins with a vignette depicting one day in the working life of an official in Defra's exotic disease division. The vignette in **Chapter One** is set during a small disease outbreak to give an impression of the changes, both subtle and drastic, which take place when the presence of an exotic disease is confirmed. It gives a sense of the many different types of interaction that take place from the perspective of a middle-ranking official (i.e. at a level between the senior civil service and the administrative/secretarial staff). Contrary to descriptions that

follow the course of a policy from inception to implementation, looking at policy-making from the perspective of an official illustrates the great variety of the work they do and shows that they may only infrequently come into the realm of a particular decision that needs to be made. The aim of the vignette is both to give the reader a sense of the experience of working in the division, and also to introduce themes and ideas (such as the use of expertise, or the constraints of bureaucracy) that recur throughout the thesis.

Chapters Two and Three deal with the theoretical challenges raised by the complex nature of policy-making in Defra and my desire to provide an alternative account. **Chapter Two** comprises a survey of what the existing literature tells us about policy-making in Defra and its predecessor, the Ministry for Agriculture, Fisheries and Food (MAFF). The chapter is structured around three major themes that can be identified in the literature: pressure groups and problem-framing, the use of expertise, and the problems associated with bureaucratic government. The purpose of this chapter is thus to set out existing knowledge about policy-making in the Department and to highlight the aspects of policy-making that remain under-theorised.

Chapter Three takes up the discussion that I have begun in this introduction about the utility of conventional approaches to policy-making and the alternative view that I am proposing in this thesis. This chapter situates the analysis of animal disease policy as described in Chapter Two within the broader context of literature on policy-making in the UK. I describe the rational model of policy-making most frequently used in policy analysis and contrast this with the interpretive approach I am taking.

The research methods and the methodology of the thesis are discussed in **Chapter Four**. The chapter also covers the data collection methods used – participant observation and in-depth interviewing – and reflexively discusses the efficacy and implications of using these methods. The chapter draws upon common observations made about qualitative research (including issues of access, researcher identity, and so on) and relates them to my specific experiences of researching the civil service in a politically sensitive policy field. The chapter also

explains the epistemological justification for the interpretive approach, and deals with criticisms of interpretive political science.

Chapters Five and Six begin to describe and analyse the stories told by Defra officials and their advisers. **Chapter Five** details the experiences of policy-makers, and discusses their interpretations of their roles within the division. The chapter begins by discussing public conceptions of bureaucracy and popular stereotypes of civil servants. It then goes on to explore the extent to which Defra's civil servants recognise these stereotypes in their own experiences of being bureaucrats, and considers whether there is such as thing as 'bureaucratic culture' and a 'bureaucratic personality'. The chapter recounts the stories told by policy-makers of the challenges they face in their working lives, ranging from the endless meetings they must attend to the misguided attempts by Defra management to interfere in the organization of the division. Finally, the chapter discusses how disease outbreaks affect policy-makers' behaviour and feelings towards their roles within the bureaucracy.

Chapter Six explores how scientific advisors feel about their contributions to the policy-making process and takes a similar approach to the previous chapter in order to provide a 'mirror image' account of life as a scientific adviser. This chapter outlines the ways in which scientific advisory committees are perceived, and summarises the literature that argues that government advisors are generally politicised and liable to give biased advice. The chapter then allows Defra's scientists to describe how they give advice and how they feel it is used. It discusses the notion that expertise is not denoted purely by academic qualifications but requires the scientists to play the part of advisers and gain acceptance by Defra's policy-makers. To explain how this happens, the chapter discusses the role of informal organization, networks of communication and the use of meetings as sites of negotiation to determine which advice is used and which advisers are accepted.

In **Chapter Seven**, I return to the research questions that this thesis seeks to answer, and consider how Defra officials order their activities. The stories told in the previous two chapters are analysed in connection with John Law's (1994b)

concept of "modes of ordering". In this chapter I argue that the stories told by staff in the division are ordering devices which structure the interactions between staff and, ultimately, the way that policy is made. The chapter identifies three distinct modes of ordering – rationalism, bureaucracy, and expediency – and explains how policy-makers and their advisers constitute, and are constituted by, these ordering patterns. The three modes of ordering occasionally contradict one another and occasionally overlap, thereby enabling policy-makers to interpret their actions and context when other modes of ordering fail. The thesis concludes by revisiting the original aims of the research and assessing the benefits of my approach as a means of offering a new perspective on policy-making in Defra.

Chapter One

Battle Rhythms and Bird Tables, or A Day in the Life of a Policy-Maker

Monday, 08.30: Arrival

Liz[2] arrives at the Defra building, scanning her identity card to open the glass door into the foyer, and walking past the security guards. There is a noticeboard that shows the level of 'security alert' for the building; today it is black, the lowest level of alert. She takes one of the lifts to the third floor where she works, and walks through the large, open plan office to her desk. There are not many others in at this time, because most people start at 9 am. Employees have some flexibility in their working hours, and Liz chooses to come in early and leave early, because she has a long commute from her home on the outskirts of London. Liz used to work in Defra's Guildford office, but about two years ago most of the staff were asked to move to the Westminster offices as a cost-cutting move. Liz would have preferred to stay in Guildford because it was a nicer place to live, and she could walk to work, but if she had stayed she would never have been promoted to a Grade 6, which she is now. She stops to put her sandwiches in one of the communal fridges on her floor, which involves quite a bit of rearranging to fit her plastic tub in amongst the many individual milk cartons labelled with names. After throwing away one of the more disgusting looking old cartons, Liz continues to her area of the office. Lights with a motion-sensor switch flick on as she walks across the floor. The Department is very big on energy saving, as the lights and the posters reminding everyone to switch their computer monitors off at night shows. It does mean, however, that if you sit at your desk for more than ten minutes without moving much then the lights go off. An irritated colleague waving their arms in the air to turn the lights back on is a common sight most afternoons.

[2] This chapter is based on my fieldwork diary, kept during a period of participant observation. Although it is based on real events, names and minor details have been changed to preserve the anonymity of the staff involved.

Liz reaches her desk and switches on her computer. The computer at the next desk along is also switched on, so Liz knows that her line manager, Jonathon, is already here. The desks are arranged in small clusters, with signs hanging from the ceiling marking out each individual area. All of Liz's division, Exotic Disease Prevention and Control or EDPC, works on this floor; the scientists and vets occupy two floors, and other divisions (such as endemic diseases and international trade) also have floors in the building. It wasn't always open plan, and in fact when Liz first moved to London she had her own individual office. Management decided that it would encourage better working because people would be able to see who was in the office and locate colleagues more easily, plus team leaders would be working alongside their junior team members. Liz doesn't mind it much, except that there aren't many communal spaces any more; there is a "tea point" rather than a kitchen, which is just a boiler and a fridge to keep milk and sandwiches in. People sit at their desks during their breaks and there isn't much socialising. At 9am and 11am a man pushes a trolley round the building selling sandwiches, drinks and snacks so there is no need to leave your desk all day if you don't want to. Liz likes to get out when she can, though, even if it's just walking to one of the coffee shops along the road to buy a drink.

The office has enormous plate glass windows with no blinds, which has become a favourite gripe among the people who work in there. In the summer, the sun is so bright that it is a struggle to see your computer screen. In the winter, it gets so cold that people work with their coats on because there is no insulation around the windows. Everyone has heard a rumour that blinds have been ordered for their floor, but as it is no one's particular responsibility to chase them up, nothing ever seems to happen. It is a common topic of conversation, along with the recurring problems with the printer and the impossibility of getting anyone from IT to sort it out.

Normally the first thing Liz does when she gets in to work is to look through her folder for the day ahead. She has a cardboard folder for each day of the week, with briefing papers for meetings and any other relevant documents kept inside. It is the only way to stay organised when there are so many meetings to go to, often

one after another with no breaks in between. Liz carries the folder to every meeting so she rarely forgets the papers she needs. Today she opens the Monday folder and takes out the contents. She had three meetings scheduled but two of them have been cancelled over the weekend because there is a new outbreak of Newcastle Disease in Surrey. She still has a meeting at 11am to hear a report on a cost-benefit analysis project, but the other two (a meeting with some members of her team to discuss a new strategy for communicating with the farming industry about biosecurity, and a planning meeting for one of the contingency plan test exercises which is taking place later in the year) are now replaced by a stakeholder conference and an 'experts group' meeting.

On Friday, a report came in of a suspected disease outbreak at a poultry farm in Surrey. It takes 24 hours for the laboratory which tests the samples to give a definite result, so after setting up some local veterinary officers to do surveillance activities around the site, there was little to be done that evening. Suspected cases of disease are very common – at least three or four per month – but most are found to be negative straight away. A suspected case isn't in itself cause for panic in the division, but it does mean that everyone is alert to the possibility of an emergency. Ever since the major Foot and Mouth Disease outbreak in 2001, disease outbreaks have been treated with the upmost seriousness. Defra was so heavily criticised then that they are determined never to be caught out again, and even the smallest outbreak is treated seriously – emergency meetings, high disease alert status. Liz didn't work in animal health in 2001 – in fact she came from a different area entirely, the Meat Hygiene Service – but she is very much aware of the impact it has had. Just last week, in one meeting the Chief Veterinary Officer brought along a clipping from the Guardian, saying that none of the lessons of 2001 had been taken on board by Defra. They all felt frustrated that they had made so little improvement in the eyes of the public despite doing everything they could to be more prepared for a disease outbreak.

Liz had left work on Friday evening expecting to be telephoned the following morning with more news. She doesn't work weekends, but disease outbreaks are emergencies and staff expect that they will have to be available if necessary. They are supposed to be paid overtime, but in reality staff are expected to work as many

hours as are needed to control the disease and are not always paid as much as they deserve. On Saturday the disease was confirmed, and a teleconference was held so that the minimum number of staff had to actually make the journey to their central London office. Liz phoned in, along with Jonathon, and one or two other policy staff. The rest were scientists who could explain the seriousness of the situation based on the preliminary information they had. The time taken to collect more samples from neighbouring farms and have them tested meant that it was a matter of 'wait and see' for the London staff. There was a regular communication between the local vets and the London staff for the rest of the weekend, but on Sunday, when Liz was last in contact with the local veterinary officers, it was still unclear how big the outbreak was going to be.

Now, having caught up on the latest news of the outbreak by email, Liz will need to brief the people who weren't in on Friday. Flexible working means that most people spend one day per week working at home, and some of those who were away on Friday weren't notified of the disease outbreak because they aren't key to managing it. However, it is important that they are aware of what is going on, because if it turns into a big outbreak everyone will be affected in some way and will be required to contribute to the effort of controlling the disease. Liz looks around the office. Scott, one of the people she wants to brief, is just sitting down at his desk. Ali isn't in yet, but Liz checks his online diary and it looks empty between 9 and 10am. Liz walks over and asks Scott if he is free at 9.15 for a quick briefing meeting. He is. Can he pass the message on to Ali when he gets in? Yes he can. There isn't time to book one of the meeting rooms now, so they will just find one that is empty and use it. Around the edge of the office are small meeting rooms that you can book online or just nip into for small divisional meetings. There are bigger rooms in the basement that they often use for meetings with people from outside the division, or outside Defra. If it is someone they want to impress, like the stakeholder groups, they sometimes use the rooms in a different building, because they are nicer. Liz's office, although it is new, is rather functional and plain. The basement rooms in particular, which have no windows, are not nice places to spend long meetings.

Liz goes back to her desk and starts printing out some papers about the outbreak to take along. At that moment, Jonathon returns to his desk and greets Liz. They talk briefly about their weekends, and laugh about the disease outbreak that interrupted their plans. It is an office joke that outbreaks always start on Fridays just to spoil their weekends. Jonathon will be out of the office for most of the day, as he has a meeting with the Chief Veterinary Officer and then the Minister. Liz's job description says that she is in charge of two branches of the division but as Jonathon will be out, and Liz has the most animal disease experience, she will be effectively in charge of the whole division today.

9.15am: informal briefing meeting.

Liz, Scott and Ali meet in one of the small rooms and sit round the table. Liz spreads out some photocopied maps showing the infected farm, the surveillance and protection zones (shown as concentric circles around the premises) and some printed-out emails from veterinary staff who have sent updates on the disease this morning. She describes the situation. Neither she nor the other two policy staff have a scientific background so she doesn't bother going into detail about the epidemiology but just summarises events. On Friday Defra received reports of a suspected poultry disease outbreak in Surrey. The vet at the site couldn't say for certain what the disease was, because the clinical signs of many different poultry diseases are quite similar. The samples had to go to the Veterinary Laboratories Agency at Weybridge in order for the disease to be confirmed but this took a long time because the sample had to come by taxi. There was then some confusion over the lab results that delayed an announcement even further. The Chief Veterinary Officer confirmed the presence of Newcastle Disease on Saturday morning. The usual measures are in place: protection and surveillance zones, movement restrictions. A press release has gone out through the Government News Network. Culling will begin shortly at the site, but the birds have to be valued first. This is going to be done by a local valuer, and Defra have little control over the decisions that are made as to the value of the bird. The initial value has been set at £4 per bird, but Liz is uncomfortable with the way the valuation has been carried out. Disease outbreaks are always expensive, and there is a lot of pressure from the Minister to reduce costs across the Department. It is

in their interest to make sure that the values given are accurate. Scott asks if another valuer can be found to give a second opinion. Unfortunately, the need to do things as quickly as possible means they will probably have to go ahead with the person they have got.

Liz gets out another map, showing the location of individual buildings on the farm. The farmer has several sheds of birds, and wants to spare some of the uninfected birds from being culled by housing them together under strict biosecurity conditions. Liz is not keen on this idea, because scientific knowledge suggests it is risky, and existing legislation will probably not allow it. Pointing at the map, she explains that technically, the entire farm is a single epidemiological unit and all the birds should be culled. If this epidemiological unit is split to allow some birds to be spared, this will set a precedent for future disease outbreaks, and every farm would have to be considered on an individual basis. If there were a big outbreak, like Foot and Mouth Disease in 2001, this would be impossible to carry out. However, the legislation might be revised in the near future to bring it in line with other disease legislation, and Defra might be able to derogate (create an exemption to spare the birds) now if they had to. But Liz would rather go ahead as normal. A further complication is that the infected farm is near some other producers who will be affected by any decisions taken to derogate. Trade is restricted during a disease outbreak, and if potentially infected birds were kept alive, it would take even longer than usual for trade to resume. Liz has already been contacted by some of these producers asking that derogation is not allowed to go ahead.

Some other staff in the division are not sympathetic at all to the idea of derogation. James, one of the senior veterinary advisers, argued with Liz at their last meeting because in his view, the industry should be taking more responsibility for disease outbreaks and although it is unfortunate that this outbreak has occurred, the farmer will have to accept the consequences. Also if the outbreak was big, it would involve hospitalising sick birds, setting up an appeals committee, putting a lot of biosecurity inspection personnel in place – it would be horrendously expensive. Liz can see other sides to the argument, however. In favour of derogation, Defra's reputation might be helped if they spare some of the

birds. In 2001 they got a reputation for being "heavy handed", culling animals that were later found to be healthy. At this early stage it is difficult to tell whether this will become a large outbreak or not, and if it is a big outbreak they could end up being criticised again for culling a lot of birds. At the teleconference at the weekend, it got quite tense as those who were for and against derogation argued with each other. Liz is unsure whether the farmer will be able to maintain the level of biosecurity needed for derogation. The fact that the disease outbreak has occurred in the first place is a worrying sign, because it suggests that either wild animals or dirty vehicles are bringing in diseases. Nobody from the London office has been out to the farm to see what it is like, and they rely on reports from local staff. It can be very frustrating when they are slow at getting information through to the London office, or if their information is incomplete. Over the weekend the flow of information was particularly bad, because there were fewer staff than usual at the local offices in Surrey.

At this early stage, Liz has no more information to give, so she gets up to leave, reminding Scott and Ali that more meetings will be taking place throughout the day as more news comes in from staff at the Surrey site. For some staff, even in the exotic disease division, the outbreak will not have a great impact on their day's work, except that some of their less important meetings might be cancelled if other colleagues are involved in controlling the disease. There is a tense atmosphere in the office, however, as everyone is waiting to find out whether the disease has spread to other premises. For Liz, it has already had a very great impact on her day, as much of her routine work has been suspended so that she can concentrate on the outbreak. Almost her entire day has been taken over by meetings related to the outbreak, and in between these meetings she checks her emails or telephones colleagues to find out more information.

After the meeting, Liz has an hour to try and fit in some of the work she would have been doing if there wasn't an outbreak. She is writing a report about the prioritisation of work within the division for a management board meeting in two weeks' time, and she wants to get it out of the way as soon as possible. It involves pulling information together from the intranet that can be really hard work when other people don't file their documents properly. Some files have very similar

names, or else they have illogical names and it takes a long time to locate them. It is even harder when the person who wrote the original document has left because then Liz has no one to ask about where such and such a piece of information came from. There have also been some emails about the meetings that have been called for this afternoon, so Liz prints out the attachments (mainly agendas and a background paper) and adds them to her Monday folder. She checks with one of the administrative staff that the telephone number has been emailed out to the relevant people so they can participate by teleconference. There won't be any time for a takeaway coffee today, so she quickly makes a drink in the tea point and takes it along to the next meeting.

11am Cost-Benefit Analysis Meeting

As the outbreak is, at the moment, small and contained, a lot of the routine meetings are still taking place. There is no point in stopping people from going about their usual business just in case there is a new development with the outbreak. This particular meeting takes place in one of the larger meeting rooms, which is in the middle of the open plan office. It is only a few steps from people's desks to the room itself, so there is little feeling of disruption. Alan, one of the Department's economists, is giving a report on a small project he has been leading. It is a cost-benefit analysis of a new policy that the division is thinking of introducing. The meeting is partly to inform division staff about the results of their project, and partly to discuss where to go from here. Alan uses Powerpoint slides with some facts and figures about the costs of different policy options, and hands out some two-page summaries of the findings. One or two questions are asked, mainly about the way in which the figures have been calculated. Have the administrative costs been included? Does the cost of a particular vaccine change if it is ordered in a bigger batch? For the most part, however, people are quiet and look restless. Although no one particularly resents being in the meeting, there is a feeling that it can't go on too long because of the disease situation. Phones can be heard ringing in the office; some of them are being answered by the administrative officers who are not in the meeting, but – due to the small number of staff in the division – others go unanswered. Liz frequently looks at her Blackberry, checking for new emails that might have come in with reports from

Surrey. She was given it when she was promoted and now Liz feels like she can't live without it; the majority of communication is done by email because people are so often in meetings or away from their desks that telephoning or coming in person is useless.

Alan's presentation is only a preliminary report, and no decisive action needs to be taken at this stage, so after some limited discussion the meeting is brought to an end. The meeting is mainly an iteration of points that have been made at previous gatherings: that the Minister wants costs cut in one way or another, and that the industry won't be amenable to these cuts coming from animal disease compensation. Alan isn't that bothered by other people's apathy; this meeting has been scheduled for a long time as every project has an obligation to give updates, and he will just carry on with the project regardless of comments made today. Alan works in a different building, and doesn't see staff from this division very often, so he hangs around afterwards talking to others, and most people gradually drift back to their desks. Liz, in contrast, rushes out of the meeting because she needs to jot down some notes for the next one that starts in ten minutes time. After again refreshing her email inbox to make sure nothing new has come in about the outbreak, she scribbles a few bullet points on a piece of paper and then walks over to Ali's desk to remind him that it's time for the "bird table". They walk to the meeting together.

Midday: Bird Table

The so-called bird table is being held on a different floor of the building to the one on which Liz works. Many of the staff from Liz's division go upstairs for the meeting, to the floor where the London-based vets work. These short periods of time, like walking to a meeting in a different part of the Department, give people a chance to chat to each other, sharing some office gossip or informally talking about their progress with a piece of work, which doesn't usually happen in the office because it is open plan and talking would be disruptive. This floor looks quite different from their own, as the walls are covered in maps and charts showing livestock populations, printouts of epidemiological models, surveillance zones and so on. Their own office is bare, save for some biosecurity posters left

over from a previous publicity campaign. Defra got the concept of a "bird table" from the military during the 2001 Foot and Mouth Disease outbreak. It is designed to convey information as quickly as possible, so every detail is designed to help this happen. Everybody stands up, because the received wisdom is that meetings last longer when people sit down. This is not a meeting where people sit around and chat; in fact there is a slightly tense atmosphere at the start, because everyone is waiting for the Chair to start speaking, and no one wants to be left sharing office gossip when the room falls silent. Liz enjoys the bird tables because there is a sense of urgency about them; sometimes she gets the feeling that people enjoy the chance to be away from their desks and so drag conventional meetings out for longer than is really necessary.

The most 'important' people (in this case, heads of divisions, representatives from the legal department, press office and so on) stand near the centre of the room. This is referred to as being "in the loop". Everyone else stands around the edge of the room, being "out of the loop" and simply listening to the proceedings. In reality, this means 7 or 8 people standing around a small table, which is covered by a large map showing the location of the infected premises, with the surveillance and protection zones shown as large, black circles. Everyone else is standing awkwardly in small clusters, or perching on the edge of desks. Few have brought pens and notebooks because they anticipate a short meeting where they will be able to quickly absorb the information, although some of the more junior staff, who are still learning the ropes, stand ready to make notes. In addition to the directive that speakers should be brief and to the point in their presentations, there is a set order of topics on which people are permitted to speak during the bird table:

1. Update on current situation
2. Epidemiology
3. Data analysis and mapping
4. Operations
5. Vaccination
6. Culling and disposal
7. Disease control policy

8. Legal
9. International and trade issues
10. Animal welfare
11. Science
12. Rural
13. Food chain
14. Livestock products
15. Wildlife species conservation – if necessary
16. Human resources (Animal Health; Defra and others)
17. Procurement and contracts
18. Finance
19. IT
20. Web team
21. Communications (press office; Customer Contact Unit; Animal Health)
22. Devolved administrations
23. UK Permanent Representation to the European Union (UKREP)
24. Operational Partners (e.g. Health Protection Agency, Department for Communities and Local Government, Food Standards Agency)
25. Industry representative
26. Chief Executive of Animal Health
27. Chief Veterinary Officer
28. Minister (if present)
29. Director of Joint Coordination Centre

Lists like this one, with fixed procedures and protocols, contribute to the "battle rhythm" of a disease outbreak. There are certain meetings to be held and documents to be produced during every outbreak as a matter of course, creating routine and avoiding the confusion that was said to have prevailed in the Department during the 2001 FMD outbreak. At the bird table, the State Veterinary Service representatives outline what they know about the disease, how the culling has proceeded, and what the current state of play is. They themselves have got their information from the vets in Surrey, although they can now speak with more authority as there is more information coming in. Liz represents her division, outlining the policy situation and speaking briefly about the possibility of

derogation. The press office want to know what they should mention in their next press release; everyone agrees that they should stick to the concrete facts: culling has begun and a surveillance zone is in place. The possibility of derogation should not be mentioned unless it becomes a definite policy. There are perfunctory presentations by representatives from the IT and GIS mapping divisions but they have little to say. In a large outbreak, they might comment on the way in which Defra's website is being used by farmers or report on any difficulties in mapping the disease spread. Other people speak about animal welfare, legislation, international trade, but the whole meeting only lasts around ten minutes. Partly, this is because everyone feels there is little to say; but also the format is designed to keep the meetings brief. The senior staff are keen to emphasise that although it is a small outbreak at the moment, everybody must be vigilant and prepared. Some of the junior staff, who are peripheral to the disease management, seem to be quite bored by the meetings which all say the same: we don't know much yet, we'll have to wait and see.

This particular bird table is for representatives of all Defra sections, but afterwards Liz goes back downstairs to her own division to hold another bird table, to brief everyone there (staff from farm health planning and other less related work areas) about the disease outbreak. She shouts across the office to get everyone's attention, and they walk across from their own areas to gather around Liz's desk while she repeats the most relevant parts of the information given out upstairs. When she has finished she retrieves her sandwiches from the fridge and eats them at her desk, replying to emails as she does so. Many of them are tasks which can be delegated to others; there is a parliamentary question which a couple of the Grade 7s can put together an answer for, and Liz forwards the email to them with some brief instructions as to the sort of information to include. Then it is off to yet another part of the building for a meeting with stakeholders.

1.30pm: Stakeholder teleconference

The stakeholder conference is being held in the Chief Veterinary Officer's private office. He is one of the few who still have their own rooms in the building. The Chief Veterinary Officer is not at the meeting, but his office has a large table in

the corner that can be used when the other meeting rooms have been booked. This is a teleconference, held to brief stakeholders about the outbreak. The relevant stakeholders call a telephone number that has been emailed to them, and are connected to a "spider phone" on the table around which the Defra staff are sitting. Jonathon is there to chair the meeting, along with several other Grade 7s from the division who will be able to answer policy questions, and Brian from the veterinary division. Among those on the phones are representatives of the National Farmers Union, British Veterinary Association, Turkey Club, RSPCA, World Pheasant Association, and the Game Farmers Association. Of course, there are more stakeholders who could be included, but Jonathon does not want the meeting to go on for too long so he has decided to invite a select few. This group will easily disseminate information to the vast majority of the farming industry anyway.

During the meeting, there are tensions between Defra and some of the stakeholders, particularly when representatives of groups with very narrow interests dominate the discussion. Jonathon, Liz's line manager, is irritated at the time that is being taken up when he could be back in the office dealing with the outbreak. However, as a senior member of the division, he has to be present at the teleconference. He has developed a way of closing down discussion with the stakeholders more rapidly than some of his junior colleagues, and is able to move the meeting on when some of the familiar gripes (about compensation, for example), are raised again. Jonathon wants the division to be more holistic and cross-cutting and finds it frustrating having to deal with questions from people who only represent a tiny minority group. Some of the stakeholders have been dealing with Defra for years, and have a strong understanding of how the department works and what is possible. Some of the newcomers are more argumentative and are always trying to push for more money, or less regulation, or some other thing that will be impossible to achieve. In Jonathon's view, arguments about compensation can take place at routine stakeholder consultation meetings. This is 'war-time': only important issues that relate to the disease outbreak should be talked about.

Walking back from the meeting, Jonathon and Liz chat about how the morning has gone. Jonathon feels uneasy about how the stakeholder teleconference went. Although everyone was civil, Jonathon complains to Liz that there were some stakeholders on the lines who had not said anything, including some of the producers who might be affected if Defra allowed derogation. If it was a face-to-face meeting, he could have sorted out any problems they had, and discussed the issue with them. Now he is uncertain about how they have reacted to the news of the outbreak. Although the division sometimes gets frustrated by the stakeholders making endless demands and putting them in a difficult position, it is also very important to maintain good relations with them. As they return to their area of the third floor, Jonathon asks Liz to ensure that the producers are involved in future meetings about the outbreak, to ensure they aren't alienated. Liz drops the papers from the teleconference on her desk, makes another drink then heads straight off to the experts group meeting that is being held in the basement. Normally they get tea and coffee at the experts group meetings but because it has been called at such short notice there wasn't time to order any.

2.30 pm: Expert Group meeting

One of the most common mechanisms for obtaining advice is the expert group format, whereby an established group of scientists and veterinarians meet with policy-makers to discuss the scientific aspects of a disease or group of related diseases. The experts group meeting is held in the basement, in one of the big meeting rooms. It is another teleconference, chaired by the head of the veterinary division. The experts groups (there are different ones for all the main exotic diseases) aren't always teleconferences, but because this one has been called at short notice due to the disease outbreak, many people are unable to come in person. Many of the scientists are based in Surrey, and of course there are staff present at the site of the outbreak on the line. In addition, there are representatives of the devolved administrations who need to be kept informed even if it seems unlikely that their countries will be affected by the disease. For some of the scientists, especially those working at the Veterinary Laboratories Agency where the samples are being tested for diseases, it is more important that they stay at

their laboratories and oversee what is happening, than travel to London to be at the meeting in person.

The group that has gathered for this meeting mainly comprises scientists and vets, but there are a few staff from the policy side here too. Although many of the policy staff want to sit in on the meetings, Liz is anxious that they don't crowd the scientists and derail the discussions. The role of the experts groups is to bring the relevant scientists together to discuss issues like vaccination, disease spread, animal welfare and so on. Their recommendations, in peace-time, are written up in a report that then goes to the policy group for discussion. If there are too many interruptions from policy people, there might as well not be a policy group at all, and the experts group meetings would go on forever. It can also be embarrassing when people who don't understand the science ask naïve questions. One of the new grade 7s, Matthew, asked a question at an experts meeting last week and the scientists didn't make much of an attempt to explain the answer in layman's terms. Liz found the whole situation very awkward and wanted to tell Matthew to shut up, but he is still new and Liz hopes that he will learn for himself that it is unacceptable to fill the experts meeting with policy questions. Liz is here to sit in on the meeting and get up to speed with the scientific issues. She might not understand everything that is being discussed, but it means that she has a better overview of what is happening on the ground and what the potential problems are. If she needs to make a policy decision quickly, she might be able to draw on the knowledge gained from this meeting, rather than having to try and get hold of one of the scientists again to ask their advice.

All attendees have received an agenda in advance, but it is very brief. Normally, the meetings are long, with many documents being circulated in advance. Members of the experts group will receive project updates, background information documents, and briefing papers. Today, there are no documents as the situation has arisen so quickly. The meeting was less organised than usual, and the issues discussed were quite random because it was an outbreak meeting. Susan, the Chair, begins by giving a brief update on the situation in Surrey. Then Charles, one of Defra's in-house scientists, talks about the emerging epidemiology of the outbreak. He gets his information by telephoning staff at the site of the

outbreak, then models the way in which the disease appears to be spreading. This helps everyone to get a rough idea of how big the outbreak is going to be. Today, though, there is no evidence that the disease has spread beyond the one farm, so there is little to report. There is also a report about the surveillance and inspection visits that are being carried out. Technical issues were discussed like the ways in which the samples were being tested. For example, did the group think it would be ok to substitute one system of pooling the eggs used for testing for the usual system? The basic facts about Newcastle Disease (its epidemiology and so on) are not disputed within the scientific community, so the discussion tends more towards operational issues like testing and surveillance regimes. It is quite different when they are discussing potentially more dangerous diseases, like Avian Influenza, or emerging diseases such as Bluetongue.

The group talk about the situation on the farm, getting eyewitness accounts from some local veterinary staff. The London-based staff are still heavily reliant on their Surrey colleagues and the atmosphere becomes a little strained when it is revealed that they do not have all of the information that the group in London required. There had been some confusion about the information the Surrey staff were supposed to collect, and it was unclear whether the culling figures they gave referred to the birds that had already been culled, or the birds that were waiting to be culled. Liz is getting increasingly worried as she will have to report to Jonathon later on the situation, and it will look bad if she doesn't have the right information about the outbreak. A member of the legal team has come to ask for advice on enforcing a particular biosecurity measure – is it reasonable to expect the farmer to take certain steps, and can it be proven that this will actually prevent the disease from spreading? There are often complicated legal issues involved in a disease outbreak because although there is legislation in place to deal with poor biosecurity (for example, if Defra suspect the farmer in question hasn't disinfected his vehicles properly) there are always grey areas and the legal staff need to understand some of the scientific evidence before they can proceed. Although there is no likelihood of prosecution in this case, the legal team need to ensure they are up to speed because they might be called on to contribute to a press release or bird table at any time.

Simran, a higher executive officer, is taking notes at the meeting and afterwards will write these up as a short report to be sent to the policy staff. Before they are sent out, Simran will send a draft version to all the people who were present at the meeting, to make sure she has represented their views correctly. She does not have a scientific background, and it can be difficult to summarise a discussion when you don't know exactly what people are talking about! When the meeting is over, Liz goes back to her desk to finish off her day's work. It seems unlikely that the outbreak is going to spread beyond the one already infected farm, so now she has to decide how to prioritise tomorrow's work. She checks her calendar and sees that she has another two long meetings scheduled for tomorrow, meaning that she won't have much time to catch up on writing her report. She still has some briefing documents to read for those meetings, but Liz decides that if she prints them out to read on the train home this evening she can afford to spend the rest of today working on the report instead. Ali comes over to ask what happened at the experts group meeting and Liz chats to him about it. Yes, the tests on the neighbouring farms are coming back negative. No, they thought derogation was a bad idea. Liz jokes about the number of hours she has spent in meetings today and Scott laughs too; still, it's better than peace-time when there are endless management meetings to go to instead.

An administrative officer comes over to give Liz a phone message: someone from international trade called, and could Liz ring them back. Looking at the clock, Liz realises that with only twenty minutes before she leaves the office she is not going to be able to work on the report after all. She makes the phone call and notes down the details on a post-it note, before shutting down her computer. On the way to the lifts, she picks up her piles of briefing papers from the printer, then stands and waits for a lift to the ground floor. While she is waiting she chats with Matthew who is also leaving. She asks him how the new job is going. "Ok", he replies, but he still feels that he has a lot to learn about the technical details. He is thinking of postponing a stakeholder meeting until he has had time to do some more reading. Liz agrees, and anyway, a lot of the stakeholders are tied up with the disease outbreak at the moment. They reach the ground floor, swipe their identity cards to leave the building, and then separate.

Chapter Two

Policy-Making and the Politics of Disease

Introduction

In the previous chapter, I told a story about working in Defra as seen through the eyes of a policy-maker. The vignette described an organization with a distinctive vocabulary, an uncertain and pressured working environment, and serious but ambiguous and changeable problems to deal with. At the same time, however, it shows a workplace that every office worker would recognise, with the regular artefacts (reports, emails, agendas) and regular structures (a hierarchy, seating plans) of office life. This is one story I could tell about policy-making based on my observation of officials in Defra. In this chapter, I want to consider more conventional accounts of Defra: the Department's own official publications, and academic commentaries. The aim of the chapter is to build up a picture of what we know – or can find out about – Defra from these sources, and the different stories they have to tell about the Department and its policy-making process. The chapter demonstrates that while official documents seek to portray the Department as a forward-looking, lesson-learning, evidence-seeking organization, hostile academic accounts portray a Department chained to pressure groups, abusing scientific advice, and unable to change its rigid policy processes. I also want to argue that these accounts leave significant gaps in our understanding of policy-making, which can only be filled with an alternative approach to policy analysis.

Defra as disaster zone

There is a significant body of literature on MAFF/Defra[3] and the governance of animal disease, and it is almost universally condemnatory of the Department's handling of outbreaks. The three main topics of analysis are Bovine Spongiform

[3] MAFF was replaced by Defra in 2001, but the structures and processes for dealing with animal disease remain largely the same. To avoid unwieldy acronyms, I use 'Defra' throughout, except where a point relates specifically to the pre-2001 MAFF period.

Encephalopathy (BSE), bovine tuberculosis (bTB), and Foot and Mouth Disease (FMD). There is a smaller literature on Avian Influenza and food safety issues (such as *e. coli* 0157 and other human health risks with an animal disease component). BSE and bTB are endemic diseases (that is, they are always present among domestic animals or wildlife in the UK) while FMD is exotic (not usually present), and as such they are dealt with by different parts of Defra, but this distinction is rarely made in the literature and so I have included relevant articles on both endemic and exotic diseases in this chapter in order to understand perceptions of animal disease policy-making in the broadest sense. Before going into this literature in detail, it is necessary for me to set out exactly who and what I am examining in this thesis. Defra is a large department and I am only focusing on one part of it, the Exotic Disease Prevention and Control division. Defra's responsibilities span a variety of policy areas, including environmental protection, rural development, marine and fisheries, farming and food production, wildlife biodiversity, sustainable development, and animal health and welfare. Defra states on its website that its Departmental priorities are to secure a healthy natural environment for us all and deal with environmental risks; promote a sustainable, low-carbon and resource-efficient economy; and ensure a thriving farming sector and a sustainable, healthy and secure food supply. In the field of animal health and welfare specifically, Defra has both its own policy commitments to protecting the nation's animals from disease and ensuring a continued food supply, as set out in the 'vision' of the 2004 Animal Health and Welfare Strategy. The vision describes the world of animal health and welfare that Defra wants to create by 2014:

- Animals in Great Britain kept for food, farming, sport, companionship, entertainment and in zoos are healthy and treated humanely
- Our disease status is amongst the highest in the world, and we are able to trade our animals and animal products internationally
- The costs of livestock health and welfare are appropriately balanced between industry and the taxpayer
- All disease emergencies are dealt with swiftly and effectively using an agreed approach

- Consumers value the confidence they have in food produced safely from healthy animals that are well cared for. Consumers and retailers accept that higher standards of animal health and welfare are not cost free
- Livestock keeping is part of a competitive British farming industry which succeeds by meeting the needs of consumers at home and abroad, producing food safely and to high standards of health and welfare

(Defra 2004a p14)

Defra also has statutory obligations imposed by the UK's membership of the European Union and the World Organization for Animal Health (OIE), which develops common standards for protecting animal health, classifies those diseases that must be reported by member states, and specifies methods of diagnosis and treatment. There is a complex legal framework through which disease controls are enforced. The principal legislation governing the health of farm animals in England is the Animal Health Act 1981, but this is supplemented by some 175 statutory instruments, the majority of which are made under the 1981 Act. This legal framework not only dictates which diseases must be dealt with by Defra but also determines when a slaughter policy is to be used in case of outbreaks.

Structure of the department

The structure of Defra is depicted in Figure 1. At the highest level the Department has Directorate Generals, and within these are a number of Directors, each with a different role. Each Director oversees several divisions, and within these divisions there are multiple teams and/or business areas. The way in which these different sections correspond makes can be better explained by relating them to the field of animal disease. At the time of the initial fieldwork,[4] Defra was divided into seven Directorate Generals (DGs), each corresponding to an area of policy covered by the Department. The DG that deals with livestock diseases, in which I spent my

[4] In late 2006/early 2007 Defra instigated an initiative called Renew Defra, which led to some internal restructuring and re-naming of divisions but which did not affect the general operation of the Department. For the sake of consistency I have used the pre-Renew structure here as this was in place at the time of my fieldwork. The impact of the Renew Defra on policy-making is discussed in Chapters Five and Six.

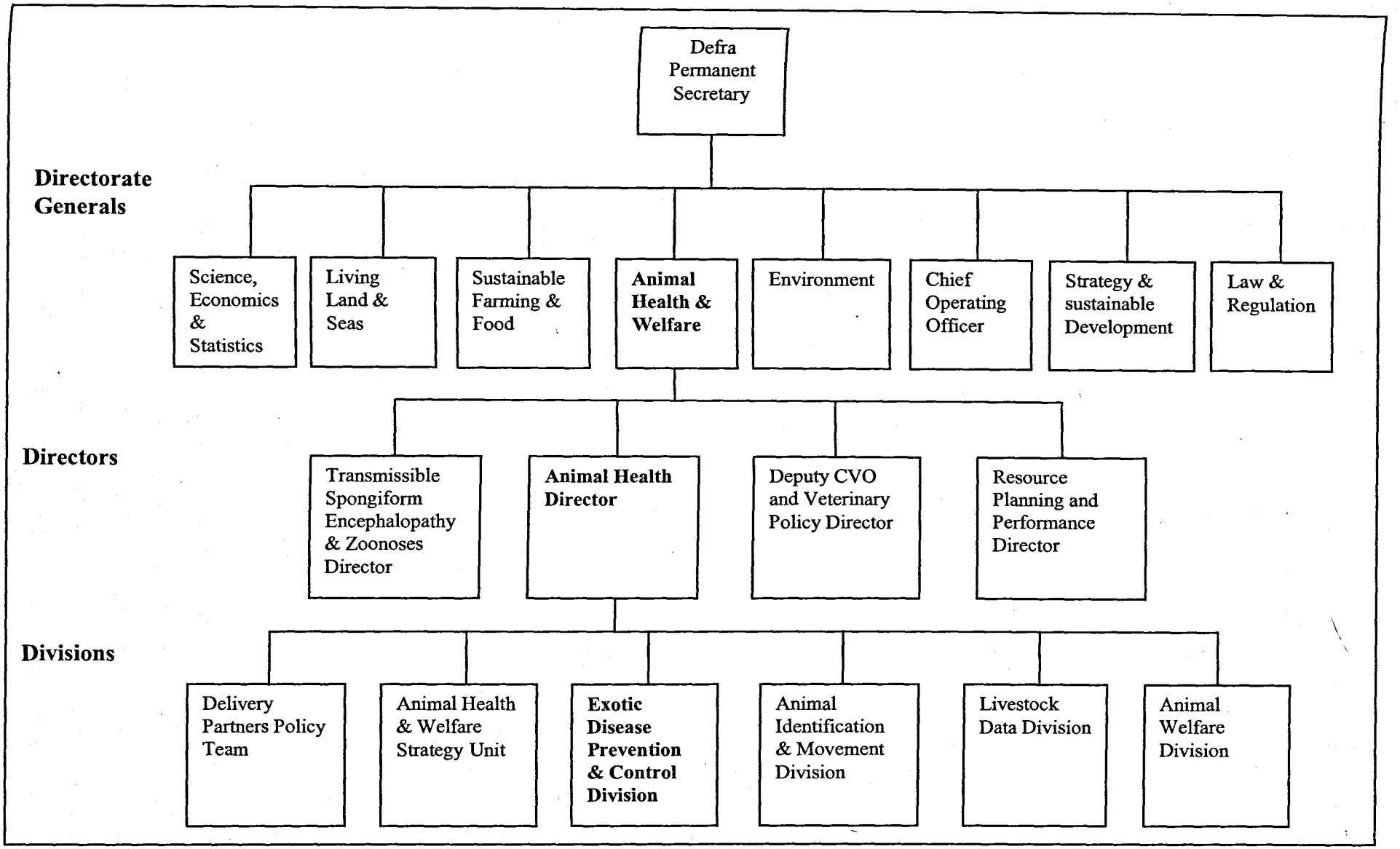


Figure 1: The Structure of Defra at the time of the initial fieldwork (2006)

period of participant observation, is the Animal Health and Welfare Directorate General. Within this are four Directors who each oversee one particular aspect of policy. One of these, the Animal Health Director, oversees six Divisions/Units. Of these six, the Exotic Disease Prevention and Control division is the division that I am interested in. It deals with all exotic diseases: FMD, Avian Influenza and Bluetongue are the most well known but there is a list of 34 notifiable exotic diseases in total that the division has statutory responsibility for controlling.

The final level of organization is within the division itself, where staff are divided into teams. In the Exotic Disease Prevention and Control division there are six teams, covering biosecurity, disease prevention, disease preparedness, EU and 'better regulation', Farm Health Planning, and responsibility sharing. Each team consists of middle-ranking officials, from Grade 7 down. The everyday work of the Exotic Disease Prevention and Control division of Defra includes developing regulations about the keeping, moving and slaughtering of livestock; monitoring compliance with these regulations; ensuring that this regulation complies with EU regulations; updating secondary legislation relating to animal disease; prioritising work streams to ensure that funds are shared between, for example, surveillance programmes, border controls, education programmes for farmers, and scientific research; representing the UK position at EU-level meetings about animal disease; responding to reports of disease and deciding when to impose/remove trade restrictions; deciding how much vaccine to order in case of an outbreak and ensuring that stocks are maintained; and producing information to go on the animal disease pages of Defra's website.

As this summary demonstrates, although the division is small – at the time of my fieldwork it comprised two senior civil servants, around 30 'middle management' level officials (civil service grades 6 through to Executive Officer) and five administrative officers – it has heavy responsibilities. Not only is it responsible for protecting against diseases that cause significant animal health, human health, economic and trade problems, but it is also the division upon which the reputation of the entire Department seems to rest. Defra is, for many people, synonymous with the incompetent handling of disease outbreaks. This is an unfair assessment; the division actually deals with a lot of disease outbreaks very well – there are

many small outbreaks involving only one or two premises that are brought under control rapidly and never reach the public eye; and in cases where the disease has spread out of control there are often many complicating and unpredictable factors at work (for example, in 2007 there were 689 notifications of suspected exotic disease, and disease was confirmed in 81 cases).

Nevertheless, the Department as a whole is judged by its failings in the realm of animal disease. Defra has presided over a number of scandals and disasters including BSE, which endured for decades, destroyed trust in the Department, was scandalous in its excessive secrecy and misuse of science, and which had serious human health implications. The 2001 FMD outbreak, a turning point for MAFF leading to its downfall, was hugely expensive, criticised by the public and widely acknowledged to be mishandled. The Department has also been responsible for Bovine TB, an apparently intractable policy problem, with highly contested scientific evidence, political interference and implications of pressure group dealings behind the scenes, and for other food scares such as salmonella, listeria and *e. coli*. As well as long-standing criticisms of Defra's preparedness and ability to deal with outbreaks, and their determination to pursue slaughter policies instead of alternative strategies, critical attention has recently been turning to the financial implications of disease outbreaks. This was precipitated by the enormous cost of the 2001 FMD outbreak, which ran to £8 billion, during which Defra had to deal with overcharging by contractors, legal fees from payment disputes and farmers contesting the controversial culling policy, and occasionally exaggerated compensation claims from affected producers. Even in the absence of such major disease outbreaks, spending on animal disease is very high. In 2007-08 Defra spent £381 million on animal health and welfare, of which dealing with bovine tuberculosis alone cost £77 million and exotic disease outbreaks a further £33 million (National Audit Office (NAO) 2009). A 2008 National Audit Office report questioned Defra's financial management, citing animal disease outbreaks as one

of the reasons why the Department continually overspent on its budget, while a more recent report highlighted that Defra's continued diversion of resources towards tackling exotic disease is leading to shortfalls in other important areas such as animal welfare (NAO 2009).

Because of its history of failure over animal disease, Defra has a reputation among politicians and other government departments for being incompetent and an albatross to the careers of ministers. Many Ministers found their political careers marred as a result of their involvement in a MAFF scandal, including, in the case of BSE, Minister John Gummer and his burger-eating daughter, and Permanent Secretary Richard Packer (who later claimed that he was made a scapegoat over BSE when forced out of his job in 2000), and later Nick Brown for his incompetence during the FMD outbreak. As a consequence, Defra has become something of an omen of bad luck; in his recent memoirs an ex-Minister, Lord Donoughue, recalls his horror at being posted to "that notorious ministry, from which no minister in recent history had emerged undamaged" (cited in Ward and Lowe 2007 p413). Another Labour advisor told The Guardian (8 April, 2001) that MAFF 'was a secretive, depressed place, very suspicious of change, very defensive' [...] and that the Government has 'learned the hard way that the Department which gave us BSE is the last organization you want on your side in a crisis' (McConnell and Stark 2002a p42). As Peter Hennessy observes in his survey of Whitehall, this attitude towards MAFF is nothing new. He writes that "The Ministry of Agriculture shows that if you are a government department, you cannot win. It has presided for forty years over the most consistent and conspicuous success story in British industry and yet it is surrounded by carping and controversy" (Hennessy 1990 p444). This is indeed the irony of MAFF that at the same time as it has secured high levels of productivity, a stable industry and a generally very high standing in disease control terms, it continues to be notorious for scandal and disaster.

A Ministry for Industry

One of the reasons why MAFF was perceived as a failure and has acquired such a bad reputation is because of its close links with certain pressure groups. One of

the prevailing narratives in the academic literature is that of the Ministry being heavily influenced by pressure groups to the neglect of its wider interests and responsibilities. MAFF had traditionally been thought of (and considered itself) as a ministry for industry, and consequently it had a very close relationship with the main producer pressure group, the National Farmers Union (NFU). MAFF and its pressure groups have historically exemplified theorists' notions of a closed policy community that has even bordered on corporatism (e.g. Grant 1983; Cox et al 1986) because the Ministry and the pressure group shared the same goals and are working towards the same ends. The NFU has long had a very important role in policy-making and has strongly influenced decisions taken in MAFF. Because the goals of agricultural policy were settled a long time ago and supported by a variety of post-war legislation which secured land rights for farmers (1948 Agricultural Holdings Act), land for agricultural use (1947 Town and Country Planning Act), and guaranteed financial stability in return for increasing outputs (1947 Agriculture Act), they were for a long time politically uncontroversial.

Consequently, agriculture policy became centred on technical debates where groups like the NFU claimed the greatest expertise. From the outset, groups that disagreed with agriculture policy were excluded from the decision-making process, creating an image of consensus that it was easy for the policy community to maintain, and difficult for dissenters to contradict (Smith 1993 p104). With a near monopoly of membership among the farming pressure groups, the NFU had a significant resource base at its disposal and was able to further strengthen its arguments by claims to be representative of the whole industry. This resource base also gave the NFU a great advantage over the (initially) smaller and less organised environmental groups. Their inability to concentrate their efforts on a single issue for a long period of time meant that farmers needed only to resist pressure for a finite period before the pressure group, and media, spotlights turned elsewhere. In order to facilitate this process, the NFU took the initiative over environmental and price support policies by allowing small concessions and by themselves becoming the promoters of limited agri-environment schemes. Consequently the Government had no reason to allow new groups into the policy community (Smith 1990 p193; Winter 1996 pp223-224). While many commentators have criticised the close relationship it has apparently persisted

despite the challenges of scandals, environmentalism and economic restructuring in agriculture.

The most important consequence of this close relationship between MAFF and the farming industry pressure groups has been the tendency of policy to focus on agriculture to the exclusion of all other interests. The most damaging cases have been neglect of consumer and human health interests. Until the creation of the Food Standards Agency in 2000, MAFF had sole responsibility for regulating the food production industry, and had also historically played an important role in promoting agriculture (which had given the farming pressure groups their dominant roles in policy making). The tension between these two roles became apparent when animal diseases with human health impacts arose, where the Ministry had to choose between protecting the economic interests of the farming industry either by downplaying the risk to avoid consumer panic; making the regulations on industry as minimal as possible; or compensating affected producers.

An early example of the pressures faced by MAFF was the Salmonella outbreak[5] in 1988. Salmonella is a bacterium that can be found in poultry meat and eggs, and which can cause serious illness when contaminated poultry products are not thoroughly cooked. In the Salmonella episode, Health Minister Edwina Currie made a public statement warning that Salmonella had become endemic in the UK's chicken population, a statement which she later insisted was based on the information given to her by experts (Currie 2003 pp94-97). The actual risk to human health was contentious (because although the elderly, pregnant women and people with existing illnesses are at risk of serious illness from salmonella, other groups are not), and a dispute ensued between Currie and MAFF, who had been working on a voluntary code of practice with farmers for some time. Egg producers feared a consumer backlash and the NFU encouraged its members to sue Currie over her statement if they suffered losses as a result. Eventually Currie was forced to resign, and a compensation scheme was introduced, which would

[5] This incident was not strictly an 'outbreak' of Salmonella as it is endemic in the UK, but the political crisis came about because of a rapid increase in the number infected chickens and eggs and of cases of Salmonella enteritidis. See Smith (1991) pp240-241.

seem to suggest that the NFU remained a powerful force in politics. For many years, producer groups had been able to put the blame for the transmission of food-borne diseases on the consumer, by arguing that properly prepared and cooked food posed negligible health risks. The view of the policy community was that Salmonella in chickens was unavoidable, so the onus was on consumers to prevent food poisoning. MAFF had identified Salmonella as a problem in 1981 but rejected the link between eggs and the disease (Smith 2004 p321). The Government did not choose to destroy flocks with Salmonella or prevent the recycling of slaughterhouse waste where infected birds might be returned to the food chain (Smith 1991 p241) but focused on a voluntary code of practice which would not disrupt the industry, which had been in development for months due to MAFF's 'softly softly' approach (Currie 2003).

Smith (1991) argued that this episode could be seen as evidence that the NFU was actually *losing* power, because previously they would have been able to keep such an issue off the political agenda and out of the public eye whereas in this instance, although the NFU remained dominant, other pressure groups (particularly consumer groups) actually had an input into policy-making. When the issue was exposed, and received widespread media attention, it was significant because "The policy community which had previously managed to avoid conflict was now subject to widespread political debate. Food poisoning was transformed from an issue of a technical nature and of individual hygiene to one of central political importance" (Smith 1991 p244). Not only did the NFU seem to have lost its influence, but MAFF also could not presume to control issues that had an impact on sectors other than agriculture. Rather than the single decision-making centre which had previously existed, "the Ministries of Health and Agriculture took opposing views and tried to define new responsibilities. In supporting their own positions they opened the policy community further by bringing in new groups and politicising to a greater degree the issue of food" (Smith 1991 p251). A study by Maloney et al in 1994 supports the trend identified by Smith. In their survey of the number of pressure groups involved in the formation of agriculture policy they found that in 1992, relatively soon after the legitimacy crisis of the agriculture policy community sparked by the health scares of Salmonella and the emerging BSE crisis, as many as 150 groups were involved in routine consultation with

MAFF, including 56 environmental and consumer groups, 47 agricultural groups and 14 industrial organizations and the once-closed policy community had come to resemble a more open 'issue network' (Maloney et al 1994 p21). This widening of participation in decision-making was seen as recognition that "the department has lost any stomach it ever had to defend agriculture in an unreserved manner" (Jordan et al 1994 p506).

In the longer term, this view of a wider issue network around agricultural issues seems unfounded. Other analysts see the growth of the number of pressure groups involved in a more cynical light, suggesting that what appears to be meaningful consultation is a simple paper exercise to make it seem that a greater number of parties are involved in policy-making. Pressure groups, far from enjoying their close relationship with government, are complaining of 'consultationitis' and seeking to withdraw from what is cynically perceived to be Defra's attempt to superficially engage with different parties in order to appear concerned with all sides of the policy debates (Barling and Lang 2003). Following the outbreaks of BSE and FMD, Smith's (1991, 2004) view that a small circle of influential pressure groups has ceased to exist has been undermined, particularly because in both cases there is evidence to suggest that policy disasters occurred due to MAFF's desire to appease the farming lobby. As was demonstrated by the Salmonella episode, MAFF had a tendency to abdicate some of its regulatory responsibilities, particularly in cases where the blame could be assigned to consumers, who had few well-organised pressure groups and little presence in the policy community. BSE was an animal disease with human health implications but, unlike Salmonella, responsibility for dealing with it could not be passed on to consumers. It was the duty of government and industry to manage the disease and regulate food production and the failure of MAFF and the farming industry to do this, as many have argued, directly led to an epidemic.

Bovine Spongiform Encephalopathy (BSE) is a neurological disease of cattle that was first discovered by pathologists at MAFF's Central Veterinary Laboratory in 1986.[6] It is a Transmissible Spongiform Encephalopathy (TSE), which are

[6] For a more detailed account of the BSE crisis, see Appendix One.

diseases transmitted by abnormal forms of protein known as prions and are untreatable, invariably fatal and poorly understood. Research is difficult and expensive because it is not possible to test for the disease before clinical symptoms show (van Zwanenberg and Millstone 2005 p72). The use of commercial cattle feed was the only factor common to all the affected farms, and scientists concluded that feed prepared with rendered slaughterhouse waste contaminated with a TSE agent was the source of the disease. Recycling abattoir waste from sheep and cattle to produce protein-rich feed was commonplace at this time. In 1988, as the number of reported cases continued to rise, a compulsory slaughter programme was introduced for infected animals which paid compensation to affected farmers and a ban was imposed on the use of ruminant-derived protein in animal feed. Despite these measures the number of confirmed cases increased, suspected to be due in part to the 'grace period' given for retailers and farmers to use up existing feed stocks, and by the end of 1990, 24,396 cases of BSE had been confirmed. The Government embarked on a campaign of reassurance, with John Gummer MP infamously feeding his daughter a beef burger in a misguided PR stunt.

Throughout the early 1990s public fears of the health implications grew, along with a suspicion that they were being kept in the dark about the seriousness of the disease. A turning point for policy makers came in 1993 when a 13-year-old girl was diagnosed with Creuzfeld-Jakob Disease (CJD), a TSE that is usually confined to older adults. By 1995 there were 14 suspected cases including young people and farmers whose herds had suffered BSE. On the 20 March 1996 the Government's expert group, the Spongiform Encepalopathy Advisory Committee (SEAC) made a statement that in their opinion: "on current data and in the absence of any credible alternative the most likely explanation at present is that these cases [of vCJD] are linked to exposure to BSE before the introduction of the ban on specified bovine offals in 1989. This is a cause of great concern" (Spongiform Encephalopathy Advisory Committee 1996). The Government announced its intention to adopt further precautionary measures in accordance with SEAC's advice: carcasses from cattle aged over 30 months must be de-boned and the feeding of mammalian meat and bone meal (MBM) to all farm animals would be banned. Within two weeks, however, public pressure was so great that

these measures were replaced with a total ban on cattle over the age of 30 months being used for human food or animal feed.

One of the most frequently made observations about the BSE crisis was that the Government felt its desire to promote agriculture more strongly than its duty to protect consumer health (see for example Van Zwanenberg and Millstone 2003). The point at which MAFF realised that BSE had human health implications is a contested one. It has been argued strenuously by the Permanent Secretary at the time, Richard Packer (2006 pp34-38) that it was natural for the Department to assume that the disease was restricted to livestock because of its similarity to scrapie, a similar TSE which has never jumped the species barrier, and for there to be a delay in informing the rest of government and the public about the disease. There is ongoing debate over the extent to which MAFF policy makers deliberately withheld information on the disease from the Department of Health in order to avoid calls for greater action on the human health risks (see for example Miller (1999) for the argument that MAFF tried to sideline human health related research). For the Department's critics, however, too little was done to avoid catastrophe because MAFF was preoccupied with not disturbing agricultural markets. As Millstone and Van Zwanenberg (2007) argue, because of MAFF's commitment to reducing the burden of regulation and avoiding consumer panic that would disrupt production and sales,

> MAFF adopted a strategy which, in effect, entailed painting itself into a corner. To avoid imposing regulatory measures for which conclusive scientific evidence could not be provided, and to try to maintain consumer confidence both at home and in export markets, MAFF policy-makers (i.e., ministers and senior officials), with the whole-hearted support of the Prime Minister, adopted a policy of asserting that, while BSE was pathogenic to cattle, there were no risks whatsoever to human consumers; and that the assertion that there were no risks was based on unproblematically sound science. That strategy was extremely problematic, since any recognition of significant uncertainties or relevant new findings risked undermining the entire policy narrative.

The NFU and other industry groups were inevitably resistant to increasing the amount of regulation on their operations as this affected their profitability. With BSE there was an added dimension that increasing government regulation would give the impression that beef was unsafe to eat, which would prompt a fall in consumer confidence. Many examples have been given of the ways in which BSE policy was dictated by sensitivity to the economic fortunes of the farming industry, including the manipulation of scientific advisory committees (of which more later; see Miller 1999, Van Zwanenberg and Millstone 2005), the rejection of advice which would lead to consumer health scares (Greer 1999) and pressure on the Cabinet to favour industry-friendly precautionary measures (Gerodimos 2004). Under the Conservative government of the 1980s, which was also reluctant to introduce more red tape for private businesses, this attitude was received without difficulty. Although there were developments in food regulation and safety during the 1970s and 1980s they were, as former MAFF civil servant Michael Franklin argues, '...side shows. The heart of the Ministry lay in the Agriculture Act and the concerns of the farmers' (Franklin 1994 p4). Likewise, when the BSE Inquiry published its report, it concluded that the disease developed into an epidemic 'as a consequence of an intensive farming practice... [which], unchallenged over decades, proved a recipe for disaster' (Phillips et al 2000 pxvii).

Consumer trust in MAFF was extremely diminished following the BSE scandal, and the creation of the Food Standards Agency in 2000 was effectively a means for the government to indicate that MAFF could no longer be trusted to safeguard consumer interests. While the success of the FSA in meeting this expectation is debatable (see for example Schofield and Shaoul (2000) and Barling and Lang (2003) for criticisms of the FSA and allegations that industry protection continues, and Rothstein (2004) on industry lobbying of the FSA) it has been a visible guardian of human health concerns. As the FMD outbreak just one year later demonstrated however, MAFF still defined animal disease as a narrow agricultural problem, neglecting wider interests and apparently being heavily

influenced by the NFU.[7] In February 2001 a severe outbreak of FMD began in the UK, on a scale for which the Government was woefully underprepared. Slow initial detection of the disease, the practice of transporting livestock long distances, and unfavourable weather conditions led to cases of the disease rapidly outstripping MAFF's ability to diagnose and deal with them. After a month of increasing incidence rates the Prime Minister intervened, creating a Cabinet Office Briefing Room to oversee the handling of the outbreak. At the same time, a team of epidemiological modellers demonstrated a need to drastically reduce the time between report and slaughter. The army was brought in to manage the higher rate of slaughter and disposal required. At the height of the cull in April, around 100,000 animals were being killed daily. Slaughter on this scale provoked widespread opposition and public misgivings that led to questioning of the disease control strategy. Hastily constructed burial pits began 'weeping' into water supplies, and animal corpses had to be exhumed. Horrific tales – of incompetent slaughtermen, live animals crawling out of burial pits, and wagons transporting corpses leaking blood onto roads – abounded in the media. What had begun as a crisis for farmers soon escalated into a crisis which cut across many economic sectors, as tourist numbers fell and rural businesses suffered. The direct economic effects of FMD in the years 2001-2005 were estimated at a £355 million loss to the agricultural sector, compared with a loss of £2180 million to tourism (Defra/Department for Culture, Media and Sport 2002 para.16).

The NFU was a key player in one of the most controversial policies of the outbreak, the blanket closure of countryside footpaths that took place at the beginning of the outbreak. In line with the 1983 Foot and Mouth Disease Order, any footpaths within a controlled area could be closed for disease management purposes. In 2001, the whole of Great Britain was designated a controlled area in an unprecedented move, and an amendment was made to the Order enabling local authorities to blanket close all footpaths under their jurisdiction. Formal guidance from MAFF stated that closures should only take place where there was a real risk of disease spread, but in practice many footpaths were closed unnecessarily by local authorities who thought they were doing the right thing in trying to prevent

[7] A more detailed discussion of the 2001 FMD outbreak can be found in Appendix Two.

disease spread by the only means at their disposal (McConnell and Stark 2002b p674). The impact on the rural economy was apparently unforeseen but the effects of discouraging tourists and other visitors from the countryside had catastrophic effects on rural businesses. The losses from the rural economy eventually became far greater than the direct losses to agriculture as what was initially viewed an animal disease problem became a rural economy crisis (Ward et al 2004 p299). Speaking later about the footpath closures, then agriculture minister Nick Brown admitted that pressure from farmers had been an important influence on the decision to press for blanket closures. Another minister, Elliot Morley, added that during the crisis "the NFU had almost open door access – much more so than was the case with any other organization with any other Department" (cited in Ward et al 2004 p297).

The NFU's success lay not in the size of their membership base or monopoly over consultation, but in their ability to frame policy problems from the outset in such a way that farming interests would be MAFF's primary concern. Ward et al have termed this process of problem definition "policy framing", which "involves the selective use of knowledge and information about a problem and the causal relationships surrounding it, to give it meaning and render it manageable" (Ward et al 2004 p92; and see Hindmoor 2009 for a similar argument about FMD vaccination policy). In the BSE crisis, this had happened almost unconsciously, as the disease was seen purely in animal health terms for the first decade after its discovery, and control was therefore geared towards minimising impacts to the agriculture sector rather than concentrating on the risk to human health. As Oosterveer (2002 p218) points out, BSE can be seen in two separate phases: as an animal health problem from 1985 to 1996, and as a human health problem from 1996 onwards. During the FMD crisis, Ward et al (2004) argue that the NFU actively encouraged the blinkered approach to the disease that avoided consideration of wider economic and societal implications.

FMD was problematized as a concern for MAFF and vets only, and the public were portrayed as potentially dangerous agents who would "unwittingly" spread the disease through their lack of understanding of the problem. MAFF styled themselves as the defenders of agriculture by doing all they could to prevent the

disease spreading and consequently "all other actors in play are reduced to the status of intermediaries who either aid MAFF in the eradication, or aid the disease in its spread" (Donaldson et al 2002 p206). Even those working in rural businesses were treated as somehow separate from farmers, and therefore unaffected by the problem of FMD, as Ward et al (2004 p297) explain:

> Ministers had publicly acknowledged farmers' financial plight, but had been at pains to refute that this had consequences beyond farming. Only two months before the FMD outbreak, the Prime Minister headed a week of government campaigning on rural issues that proclaimed that the nonfarming rural economy was thriving despite farming's evident difficulties. This in effect reiterated a long-implicit framing of policy that the development of the wider rural economy was essentially detached from, but an effective antidote to, the fluctuating fortunes of agriculture.

The government failed to see that agriculture and the rural economy are essentially interrelated and that they cannot function effectively when treated as separate entities by policy-makers. The crisis caused by the footpath closures occurred because the government failed to see that people are actors in multiple networks – by removing tourists from the countryside they were eliminated from potentially spreading the disease, but they were also removed from tourism/rural economy networks of which they were also part (Donaldson et al 2002 p207).

The analysis of policy-making during the BSE and FMD outbreaks seems to confirm the view that industry-related pressure groups have a significant influence over policy-making, often to the detriment of other affected parties. I have described how pressure groups operate at various stages of the policy process, from attempting to place issues on the government's agenda at the problem-framing stage, to influencing the mechanisms of implementation once a policy has been formulated. The use of scientific advice has suffered as a result of this pressure group interference, both deliberately and as an unintended consequence of the Ministry's desire to pursue particular courses of action. As described above, there have been allegations that industry groups indirectly influenced the use of

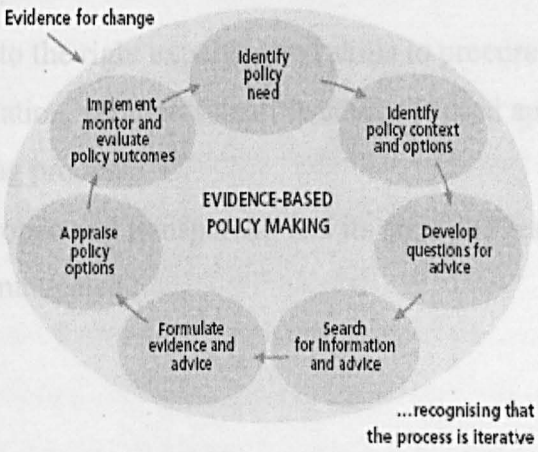
scientific expertise over BSE by persuading government that protecting food production would be jeopardised by the strict precautions advocated by scientists, thus politicising the decision about how much risk to human health was acceptable. Over the issue of bovine tuberculosis, where scientific advice constitutes an important branch of the policy-making process thanks to a highly publicised research campaign, industry groups have been strenuous in resisting the scientists' recommendations and questioning the validity of their findings. Just as the Food Standards Agency was created as a (visible and trust-restoring) means of taking responsibility for consumer affairs and human health protection away from MAFF, so there was also a response to the mounting criticisms of the Ministry's use of science: evidence-based policy-making.

Evidence-based policy and the politicisation of expertise

Evidence-based policy (EBP) is commonly traced back to the 1999 White Paper *Modernising Government* that addressed the traditional reliance on generalist administrative skills and bureaucratic operational procedures. The Paper argued that "government must be willing constantly to re-evaluate what it is doing so as to produce policies that really deal with problems; that are forward-looking and shaped by evidence rather than a response to short term pressures; that tackle causes not symptoms; that are measured by results not activity; that are flexible and innovative rather than closed and bureaucratic; and that promote compliance rather than avoidance or fraud" (Cabinet Office 1999 p15). Government demanded "more new ideas, more willingness to question inherited ways of doing things, better use of evidence and research in policy-making and better focus on policies that will deliver long term goals" (Cabinet Office 1999). The Cabinet Office define evidence as "Expert knowledge; published research; existing statistics; stakeholder consultations; previous policy evaluations; the Internet; outcomes from consultations; costings of policy options; output from economic and statistical modelling" (Strategic Policy Making Team 1999). Although evidence-based policy-making was implemented across government, its derivation from the disasters of MAFF were clear: as one commentator suggested, although the impact of BSE on New Labour's thinking should not be overestimated, it is

reasonable to concur with Alan Greer that *Modernising Government* "could have been written with BSE in mind" (1999 p613). The BSE episode is also cited in the Performance and Innovation Unit report, *Better Policy Delivery and Design* (Mulgan and Lee 2001) and the National Audit Office report, *Getting the Evidence* (2003), as a paradigm of policy failure.

EBP is frequently expressed as a model of policy-making whereby information is sought to answer policy problems in an iterative process of question setting and evidence-gathering. This is Defra's interpretation:



(Defra 2003 p6)

MAFF, and now Defra, have embraced the EBP movement and constantly cite the model of policy-making in their Departmental publications. In recent years, Defra has focussed its attention on the amount of scientific research it commissions and uses, which has been reflected in the number of reports and publications which have appeared on this topic. These include "Assuring the Quality of Defra Research" (Risk Solutions 2002), "Delivering the Evidence: Defra's Science and Innovation Strategy 2003-06" (Defra 2003), "Evidence and Innovation: Defra's needs from the sciences over the next 10 years" (Defra 2004b), "The Development and Use of Scientific Advice in Defra" (Taig, 2004), "Science Meets Policy 2005: Next Steps for an Effective Science-Policy Interface" (Defra 2006d) and "Our approach to evidence and innovation" (Defra 2006c). Defra has

frequently boasted of the amount of money spent on scientific research, implicitly suggesting that more research equals better policy. It is estimated that Defra spends around £300m annually on research, monitoring and surveillance activities, employs 2500 scientific staff and has around thirty direct science advisory bodies (Office of Science and Innovation (OSI) 2006 p54). Underpinning this activity are Defra's principles for commissioning science for policy, in which the Department aims to ensure that:

- We are carrying out the right scientific activities to underpin current and future policy needs and to anticipate emerging risks and opportunities.
- The scientific advice we obtain, and the science activities supporting it, is of a high quality.
- We have access to the right expertise and skills to procure and interpret scientific information, and that scientific advice is used appropriately in the policy-making process.
- Defra science is open and transparent, and its aims and results are effectively communicated.

(Defra 2007a)

But what is it that the Department hopes to gain by commissioning such a large volume of scientific research? There are two complementary answers to this question. The first is that government officials seek objective, impartial advice that they can use to support their arguments and, in doing so, put themselves beyond reproach. In short, they want to capitalise on the public perception of science as an apolitical form of knowledge. The second is that they see scientific research as providing certainty. Uncertainty is very difficult to accommodate in contemporary policy-making, where decisions are scrutinised by Parliament, the media, and stakeholders, and uncertainty is taken as a sign of weakness. EBP is not so much a means of making policy but an *ethos* of how policy should be made, based on the idea that if only the correct evidence can be obtained, then objective and 'correct' decisions will flow naturally from it. As I shall argue,

however, it is this quest for objectivity and certainty that introduces new controversies and problems into the policy-making process.

The search for scientific objectivity

It has been suggested that owing to its origins in medicine, EBP shares some of the methodological assumptions associated with this field; policy-making is a diagnostic task, and policy-makers seek information on the efficacy of different "treatments" for the problems they identify (Pawson 2002). The approach implicitly accepts that objective information (that is, free from the biases of political agendas) is readily accessible through observation, if only the right questions are asked (Townley 2002). This creates an impression of objectivity; ministers become 'experts' through the process of data gathering. The transfer of functions to independent bodies (whether Non-Departmental Public Bodies or ad hoc advisory groups) has a similar effect, removing issues from the political domain and placing them in the hands of visibly independent experts (Flinders 2004). Not only does depoliticisation bring the advantage of shielding the government from the consequences of unpopular policies, it also "seeks to change market expectations regarding the effectiveness and credibility of policy-making" (Burnham 2001 p129). Government must appear competent in order to win market confidence, building political credit that will allow them to pursue other less popular policies. The legitimacy of a policy is, in effect, judged by the process of decision-making as well as any tangible outcomes.

Policy-makers look to scientific expertise as a 'magic bullet' not only because it depoliticises their decisions but because it offers certainty in complex situations and hence places them beyond reproach from their critics. Hinchliffe (2001) argues that Defra is keen to fund and use scientific research because policy-makers take the view that science is an explanatory tool that can help them to describe and understand nature. They assume that although there may be different perceptions of natural risks, in time "a consensus and or closure on the problem under consideration is possible. In holding up the possibility of an object-centred agreement, uncertainty is reduced to being largely a problem of making accurate representations" (Hinchliffe 2001 p186). As science is a means for policy-makers

to understand the natural world, the logical extension of this view is that commissioning more research will lead to better understanding and, eventually, perfect knowledge of the natural environment. Greater knowledge and understanding leads to greater certainty. The consequences of such a position were seen in the BSE crisis, which Hinchliffe argues was caused by policy-makers' failure to appreciate the indeterminate and contested nature of the disease. As a consequence of their tendency to treat nature as fixed, "there is little or no consideration of the *extent to which* nature can be known. Instead, the task of government and of environmental policy-makers seems only to make sure that the best representation of nature is made available at the time of making a decision (with any failure to do so being a result of underdeveloped science or of political failings). Once represented, the immutable and incontestable character of a natural entity will form the basis for a consensual approach to decision-making" (Hinchliffe 2001 pp182-183).

As a consequence of policy-makers' desire for objective evidence, evidence produced by the natural and physical sciences is favoured above all other forms of knowledge. Busch et al argue that "One of the dominant features of modern scientific practice is the tendency to think of science as a special human enterprise, governed by standards that are essentially different from other, ordinary approaches to knowledge and problem solving. These standards set scientific enquiry apart from other enterprises by virtue of being clear, generally well-formulated, rigorous, and fundamentally rational" (Busch et al 1992 p34). The preference for certain forms of expertise has been observed by critics of evidence-based policy. In the field of healthcare, for example, a "hierarchy of evidence" exists which places randomised experimentation at the apex of desirability and observational evidence at the bottom (Davies and Nutley 2002 pp4-5). The desire for science as a means of reducing uncertainty and enabling better policy choices, has led not only to more funding for science, but also for more policy problems to be brought under the remit of scientific inquiry. Wilson and Hegland (2005), in their study of scientists working on the Common Fisheries Policy, described pressure on scientists to "inflate the science boundary", meaning to expand the range of issues that can be legitimately resolved through scientific findings. Scientists, they found, "are increasingly being asked to deal with

problems and concepts more directly suited to the social sciences" rather than simply assessing fish stocks' biological condition (Wilson and Hegland 2005 p.iv). Yet, while scientists are being asked to consider political, economic and sociological questions as part of their research, those more normally associated with the study of these issues – social scientists – continue to be excluded from Defra's advisory process. The Science Advisory Council (SAC) has been extremely critical of Defra's attitude towards social science, claiming that policy-makers see it only as a means of gauging public opinion or making scientific findings intelligible to other audiences. They term this post-hoc use of social science expertise "end of pipe", meaning that it is an optional add-on when the natural science research has been completed (Science Advisory Council 2006 p11).

The role for social science is virtually non-existent; the only exception being statistical analysis, because of its similarity in methods and results to the natural sciences. Murdoch and Ward (1997) see the initiation of the farm management survey in the 1930s as an historical attempt by the British government to make the agriculture sector 'visible' to policy-makers. By defining land units by their economic output policy-makers were able to pronounce which holdings were and were not "farms", and the data was later used to implement a national comprehensive agricultural policy. Making farms objectively measurable entities enabled the government to make policies for a sector that they themselves had created. Likewise, as they portrayed agriculture in terms of a "national farm" a sense of collective identity was created and farmers were "increasingly incorporated into the prevailing mode of governmentality" which focused on "aggregate national output of key commodities as the crucial 'bottom line'" (Murdoch and Ward 1997 pp309, 316). Enticott (2001) takes a similar line in his study of a contemporary problem, bovine tuberculosis, arguing that the government preferred to discuss the issue in numerical terms because it enabled them to describe the situation despite inherent uncertainty about the disease. A statistical approach meant that policy could be based on the probability of badgers passing the disease to cows, regardless of the fact that there was very little scientific understanding of *how* such a transmission could occur.

However, even within the natural sciences, some disciplines and branches claim to be more objective than others, with frequent disputes over whether objective but detached knowledge is more useful than applied – and applicable – research. Bickerstaff and Simmons (2004) have looked at the rise of epidemiological modelling and the conflict it causes with veterinarians. As the recommendations made by the two groups frequently differ, claims about objectivity have increasingly been used to justify their positions. During the Foot and Mouth outbreak, one modeller, Professor Roy Anderson, criticised vets for resisting the contiguous cull policy (which was justified by epidemiological modelling they had carried out) for "basing their stance on personal opinion rather than hard scientific assessment", which he characterised as a "cultural difference" between the two groups. In his view, the role for veterinarians was in policy implementation rather than policy formation, and they were portrayed as being "too close" to farmers and their industry. Epidemiological modellers, on the other hand, had "cultural distance" which gave them greater objectivity (cited in Bickerstaff and Simmons 2004 pp405-406).

The vets in turn criticised the modellers' science as "abstract, inexact, and inherently subjective or partial" when compared with their own "empirical, contextually sensitive, exact" practices based on their greater knowledge of the field (Bickerstaff and Simmons 2004 pp407-408). Similar arguments have raged throughout the recent attempts to find a solution to the spread of bovine tuberculosis, a disease believed to be spread by badgers, but the transmission of which decades of scientific research has failed to conclusively explain or prevent. A link between badgers and the spread of bovine TB was first suspected in 1971 when a dead badger infected with TB was found on a Gloucestershire farm which had recently suffered a bTB outbreak (Enticott 2001 p154).[8] Although no firm conclusions could be drawn about the mode of transmission, experiments in which badgers and cattle were housed together to ascertain whether badgers could pass the disease to cattle led MAFF to conclude that they were the single most significant source of the problem, and in 1973 MAFF resolved to deal with badgers where they posed a threat to the health of cattle. Although several reviews

[8] For a more detailed discussion of the history of bovine tuberculosis see Appendix Three.

were conducted in the 1970s and 80s, these led only to changes in the means of culling badgers, and the efficacy of the strategy was not seriously challenged until the publication of a report by Sir John Krebs in 1996. Krebs highlighted the flaws of previous experiments and proposed a new approach, involving systematic culling, known as the Randomised Badger Culling Trials (RBCT) or 'Krebs Trials'. The Independent Scientific Group on Cattle TB (ISG) was set up to design the RBCT, under the Government's objectives of identifying "a sustainable policy to control bovine tuberculosis, based on sound science" and to clarify any link between badgers and bTB using scientific evidence rather than "folklore and guesswork" (Agriculture Select Committee 1999 para. 2). The ISG Scientists have deliberately designed their field trials to appear as objective as possible (as was their mandate following the Krebs report) and have frequently come into conflict with vets who believe their 'first principles' approach to disease control is of more use in such a difficult situation. In essence this means that when the pathology of the disease is poorly understood, measures which are seen to work (in this case badger culling) should be used even though there is little supporting scientific evidence to explain the efficacy of such measures.

Again, the competing claims made by scientists and veterinarians are fuelled by the tension between producing objective knowledge and producing effective policy outcomes. In the case of bovine TB, the Independent Scientific Group has found that culling badgers has little (or even an adverse) effect on controlling the spread of the disease, but this does not lead to an obvious policy outcome. The veterinary profession, on the other hand, has consistently favoured badger culling as a method of controlling the spread of bTB and has argued that if scientists cannot come up with an alternative, culling should be pursued regardless of their evidence because it is the only workable option. Although the British Veterinary Association has supported the moves to increase cattle testing, it insists that "the culling of badgers is the most viable option we have" (British Veterinary Association (BVA) 2006). It contends that there is still insufficient scientific evidence to rule out culling as an option, and argue that "In a situation where the control of an animal-based disease is critical, yet absolute science is absent, the application of first principles of disease control by the veterinary profession is essential" (BVA 2006 para. 8). The history of the veterinary profession –

particularly the fact that its early successes in disease control came despite a lack of knowledge of epidemiology – is the foundation of this claim. As culling, which is the primary tool of this approach, becomes less publicly acceptable, other forms of expertise threaten to supplant vets as the primary advisers on animal disease issues.

Another similar development is the increased reference to biosecurity in the last decade, which offers policy-makers certainty and a means of exercising control. Biosecurity itself, however, is a problematic concept, as the efficacy of many of its incarnations is not scientifically proven. For example, the use of disinfectant mats to prevent the spread of FMD, the benefits of which even the Agriculture Minister at the time of the 2001 outbreak, Nick Brown, acknowledged to be "more symbolic than real" (Nerlich and Wright 2006). Donaldson and Wood point to the rapid increase in the use of surveillance biosecurity in the last five years, claiming that it "offers an approach that sidesteps the indeterminacy of the disease [...] by proposing that the maintenance of static territorial integrity can disrupt the disease materiality. It also requires a relatively more easily achieved goal of politicians: the control of humans" (Donaldson and Wood 2004 p386). Biosecurity practices make nature observable (by monitoring the movements of disease and its carriers) and controllable (preventing likely sources of infection from crossing government-defined boundaries).

Misusing Science?

In summary, then, the EBP turn shows that policy-makers are aiming for objectivity, and seem to believe that more science will reduce uncertainty and help them to depoliticise decision-making. This is not happening in practice, however, firstly because there is political interference in the commissioning and use of scientific expertise, and secondly because the need for certainty and the bureaucratic nature of the decision-making process mean that it is difficult to take new approaches to problems and difficult to accommodate equivocal scientific expertise.

Politicisation of advice

Although Defra strives for objectivity through EBP, critics of MAFF/Defra's policy-making process have provided numerous examples of overt political interference in the process of obtaining and using scientific advice. Many such examples emerged from the BSE episode. As was mentioned earlier, BSE was for many years seen only as an animal health problem, which meant that responsibility for dealing with the disease – including commissioning and funding research – fell to MAFF. This formed another barrier to the serious consideration of human health implications, as not only did policy-makers disregard the risk, but scientists were effectively prevented from researching it. Miller (1999) claims that in the early 1990s the Chief Vet and a senior civil servant put pressure on the Agriculture and Food Research Council to send all applications for research into BSE to MAFF. Researchers complained that MAFF blocked their access to BSE-infected material and epidemiological data, and were told to direct their research towards areas that would support the Ministry's view that the human health risk was low. One neuropathologist explained:

> There was a structure set up which said that this disease was cattle scrapie. Sheep scrapie doesn't do us any harm therefore this won't either. Research was set up to prove this theory, much more pertinent evidence to the contrary was, shall we say, brushed to the side, for a while at least

(cited in Miller 1999 p1245).

Despite the fact that advisory groups were idealised by the government as sources of independent information because they were comprised of academics (one implication being that they would be giving 'pure' i.e. not policy driven advice), members later revealed the overt instructions they received on toeing the Ministry line. The Southwood Working Party is a particularly good example. Van Zwanenberg and Millstone (2005 p31) state that the group was "directly but discreetly told by the MAFF permanent secretary not to make any recommendations that would lead to an increase in public expenditure, and it was

subsequently asked to avoid alarming the public by underplaying its concerns about risks of exposure to the BSE agent from pharmaceuticals and from occupational exposures." It was also encouraged to consider economic implications for the meat sector that led to the group dropping certain precautionary feed bans. Scientists were asked not to use the term "scrapie-like disease" in their research papers because it was deemed by MAFF to be "emotive" and would attract a lot of publicity (Miller 1999 p1245). The remit of the Southwood Working Party was also very confusing to its members. It was formally appointed to "advise on the implications of Bovine Spongiform Encephalopathy and matters relating thereto" leading to ambiguity about whether the group should be advising on science, or policy, or both. Some commentators see this ambiguity as a deliberate tactic by MAFF as it presented them with "a strategic opportunity for both officials and committee members to shift what the working party was responsible for, and what it was represented as responsible for, on different kinds of issues" (Van Zwanenberg and Millstone 2005 p98). Whether there was malicious intent or not, the remit of the group seems to belie an understanding by policy-makers that there is no neat science/policy split and that advisors – however independent – will inevitably be involved in the making of policy as well as simply 'doing the science'.

The way in which advisory committees operated within the bureaucratic structure also gave the Ministry considerable influence over the outcome of their meetings. The nature of the groups – individuals brought together periodically to discuss issues with very little time available – meant that they relied upon civil servants for documentation. Gerodimos (2004 p918) claims that "department officials and civil servants played a key role as a link between advisory committees and ministers. They also drafted the bulk of policy on BSE and possessed vital bureaucratic resources such as in-depth knowledge of their own departments' mechanisms." He suggests that there were cases when important decisions, such as whether vaccines derived directly or indirectly from bovine tissue should be banned instantly or steadily phased out, did not even reach ministers but were decided by lower-ranking civil servants. Van Zwanenberg and Millstone (2005 p97) argue that this reliance on civil servants compromised the independence of the Southwood Working Party further as the secretariat of the group, for example,

comprised of only two officials (one from MAFF and one from the Department of Health) who were charged with all aspects of documenting the proceedings. Prior to the group's first meeting, these two officials helped Southwood to draw up a list of questions for the Working Party to address, and subsequently drafted the answers to these questions, supplied most of the data and evidence to the committee, drafted much of the final report and discussed the practicality of the recommendations with the group. Through what appears to be an innocuous civil service convention of providing a secretariat, the Ministry had opportunity to control every aspect of the advisory group's operation.

More recently, the creation of an Independent Scientific Group (ISG) to advise the government on bovine tuberculosis, as described above, has provided another example of partial science. Although MAFF claimed that the objective of the group was to use "sound science" rather than "guesswork" (Agriculture Select Committee 1999 para. 2) the ISG themselves acknowledged that the design of their experiments was influenced by political motivations and that they were asked to disregard potential solutions which would be "politically unacceptable" (Independent Scientific Group (ISG) 1999 para. 12.0.3). They said they were aware that "the widespread elimination of badgers from large tracts of the countryside would not be politically or socially acceptable, hence we have sought to explore a much wider consideration of the problem and its possible solution(s)" (ISG 1999 para. 12.0.3). From the outset, then, the scientists acknowledged that they were being asked to take non-scientific issues into consideration despite the protestations of the government that the ISG was to be the last word in scientific rigour and impartiality. Several years later, Defra used the findings of the ISG to draft a consultation document essentially claiming that the scientists supported badger culling as one of several options for the control of the disease in cattle. Consequently the ISG wrote to stakeholders to raise awareness of what they felt was a misrepresentation of their findings, and in their official submission to the consultation decried the scientific basis for badger culling as "neither accurately portrayed nor carefully explored in the consultation document". Moreover, they argued that it "does not provide stakeholders or the wider public with an appropriately balanced view of the scientific background to the issues they are asked to consider, and furthermore appears to have led Defra to ignore relevant

scientific evidence in forming the badger culling strategies proposed in the consultation document" (ISG 2006a p1).

The ISG were also open about the part they had played in policy formation, telling the Environment, Food and Rural Affairs select committee that they had played no part in the development of the consultation document, and only saw a draft version the day before it was published (Environment Food and Rural Affairs Select Committee (EFRA) 2006 Q51). John Bourne, the chair of the ISG, told the inquiry that the Group found it "very difficult to understand" why the CVO and Agriculture Minister Ben Bradshaw have said that they are able to develop policy without waiting for the end of the RBCT, in direct contradiction to Defra's commitment to gathering sound scientific evidence (EFRA 2006 Q41). The EFRA Select Committee launched an inquiry into the consultation in January 2006 and their report noted Defra's apparent disregard for the findings of the RBCT when designing the consultation. The obvious discrepancy between the advice provided by the ISG and the course of action favoured by Defra attracted criticism and scrutiny, particularly because large amounts of money were being spent on the experiment. The consternation of the EFRA Select Committee at the disregard for evidence was such that they have stated that "if the line the UK Government proposes to take differs from the position adopted by the ISG on what constitutes an effective culling strategy, Defra should publish details of the science underpinning its conclusions on the consultation" (EFRA 2006 para. 6).

Politicisation does not only take the form of overt selectivity of evidence use or the discrediting of dissenting scientists, but can also take place at an earlier stage in the process by closing off certain avenues of research or framing questions in such a way that they can only be answered using particular types of evidence. Just as the framing of FMD as an agricultural problem led to the marginalisation of tourism and business interests, so equivalent processes take place in relation to scientific research. Knorr-Cetina (1981 p88) argues that it is misleading to consider the role of non-scientists in the choice of research problems as an external influence, because "the process of defining a problem penetrates to the core of research production through the negotiations of its implications and operationalisations". The FMD science group, set up during the 2001 outbreak,

included three teams of university-based epidemiological modellers and one from the Veterinary Laboratories Agency, as well as Government veterinary epidemiologists, veterinary experts, serologists and logisticians. The diversity, and transparency, of the group was lauded (see Scudamore and Harris 2002 p706). Critics have argued, however, that the initial membership of the group (its core was the four groups of modellers) and the immediate adoption of the contiguous cull policy "meant that consideration of any alternative scientific (and nonscientific) constructions of risk (and risk management) were effectively closed off, thus blurring the line between scientists advising on policy and scientists making policy" (Bickerstaff and Simmons 2004 p399). Ambiguity and uncertainty were unwelcome to policy-makers struggling to bring the disease under control. In the words of the Chief Scientific Adviser: "We had calculated a whole range of scenarios but I simply said that this is the one that will work. So it wasn't a matter of giving what I thought would be a confusing set of options" (cited in Bickerstaff and Simmons 2004 p399).

There can also be acknowledged partiality from the scientists themselves, when they take a particular stance on an issue and give their opinion rather than being mere proxies for information. Animal Health (formerly the State Veterinary Service or SVS), which fulfils many functions including providing input into policy-making from a veterinary perspective, diagnosing and treating animal disease, and implementation of other aspects of Defra policy, is a unique and occasionally controversial organization. The politics of veterinary expertise has received attention in recent years because of their role in the FMD outbreak (see for example Woods 2004a, 2004b), although there had also been tensions over BSE control when the British Veterinary Association had advised its members not to participate in SVS schemes because it did not agree with a government policy (Fisher 1997). Animal Health occupies a problematic position between policy and implementation, and its success in managing this tension often seems to be a deciding factor in the success of overall disease control policy. Various commentators have argued that Animal Health is a politicised organization because it takes an overt stance on issues like the culling of badgers in order to control bovine TB (Lawson 2006; Wilkinson 2007).

Historically at the heart of disease policy, Animal Health now faces competition from other sources of expertise (particularly epidemiological modellers, as was discussed earlier) and has undergone reorganization and severe budgetary cuts since the 1980s. Policy-makers appreciate the pivotal role of Animal Health in an outbreak but tensions develop when it appears that vets have their own views on policy matters or are working at odds to the Department. A review commissioned by Defra in 2004 described the problems that are occurring because the Animal Health and Welfare Directorate General is undergoing a transition from a veterinary-led to a policy-led culture of working. Describing the role of Animal Health as a "double-edged sword" the report points out that alongside their valuable field role, several veterinary units also have their own science budgets that are not always synchronised with the research needed for policy. There are personal conflicts too, because Animal Health is a "large cadre of individually very highly qualified professionals who are used to doing their own diagnosis and prescription of solutions. They may in some cases undermine Defra policy by letting people know that their views are different or that they are doing something reluctantly under 'HQ orders'" (Taig 2004 p13). In summary then, scientific objectivity is rarely achieved both because of the political agenda within which research is sought having an impact upon the framing of questions and research, and because the scientists and veterinarians themselves are unable or unwilling to provide unequivocal answers to complex policy problems. There are also features of bureaucratic decision-making that hinder attempts to follow the ideal model of evidence-based policy-making, including risk aversion, an inability to record uncertainty or disagreement in official documents, and the lengthy process through which evidence and argumentation must pass before a decision can be reached.

Bureaucratic culture and the policy-making process

Defra has a culture of inertia and an aversion to risk-taking that both slows down policy-making and prevents people from voicing their concerns when they feel that policy is taking the wrong direction. Iain Anderson, chair of the FMD Lessons Learned Inquiry, claimed that "Within MAFF, and now DEFRA, I

detected a culture predisposed to decision taking by committee with an associated fear of personal risk taking. Such a climate does not encourage creative initiative. It inhibits adaptive behaviour, and organizational learning which, over time, lowers the quality of decisions taken. It seems to me that a reappraisal of prevailing attitudes and behaviours within the Department would be beneficial" (Anderson 2002 p7). McConnell and Stark, in their analysis of the FMD crisis, argue that in some respects the MAFF culture was a manifestation of "groupthink" where groups of decision-makers with an inward-looking culture make bad judgements because of "mindless conformity" and "collective misjudgements of serious risks" (McConnell and Stark 2002a p43). These findings are supported by academic analyses of risk management. For example Beck et al (2005) have argued that when faced with unprecedented disasters like BSE (or FMD on the scale of the 2001 outbreak) government officials adhere to conventional response patterns because the individuals concerned do not feel able to act autonomously. When the crisis develops in novel ways, administrators are unable to react in innovative ways and those in the lower ranks are unable to take corrective action (Beck et al 2005 p398).

This tendency towards inertia and an inability to change direction is exacerbated by the desire for certainty in scientific expertise and consequently policy decisions. In particular, the inability to tolerate uncertainty in the decision-making process makes it very difficult for policy-makers to change their minds about an issue, even when new evidence emerges. As Wynne and Dressel (2001) argue, British policy-makers attitude towards risk means that potential damage or harm has to be specified and accepted even if the estimated probabilities of this harm occurring are very low. Uncertainty "has to be focused on something concretely identified, and indeed has to be quantifiable if at all feasible; ignorance in the sense of unknowns is disqualified from this framework, since by definition we cannot describe what we do not know" (Wynne and Dressel 2001 p151). This need for certainty means that, once consensus has been reached, it is very difficult for policy-makers to consider other options, or even register dissent. As Majone suggests, there is no formal place for discretion: bureaucratic organizations can only function when they face a small number of exceptions and uncertainties, and

are able to follow relatively strict procedures (Majone 1984 pp19-20). In the BSE case, the Phillips Inquiry termed the complacency that resulted from the apparent agreement over scientific knowledge and low health risk "sedation". Van Zwanenberg and Millstone (2003 p33) go further, arguing that

> The entire policy machinery in effect crystallised and rigidified around that narrative, demonstrating a remarkable lack of responsiveness to the remaining uncertainties or their diminution, and to the emergence of new knowledge and information. A crucial problem was that the commanding heights of the regime became so myopic and rigid that it was unable or unwilling to recognise that risks could be other than negligible. Having articulated a narrative to the effects that the science was robust and the risks were zero or negligible, MAFF found it very difficult to accept and respond to new evidence that implied that its assumptions about the risks (and the policy that flowed from those assumptions) might need to be revised.

A tendency is created, therefore, for the scientific position that is first accepted by the Government to become dominant, and for dissenting scientists to become excluded from the advisory process. This also happened during BSE with the creation of what Jacob and Hellstrom (2000) call "an in-group and an out-group of claimsmakers among the scientific community." In other words, a link was made between the acceptability of the scientists' viewpoint and the quality of their science. Those who offered alternative theories to those favoured by MAFF were discredited, as allegedly happened in the infamous cases of Harash Narang, Stephen Dealler and Richard Lacey. Out-group scientists "tended to be advocates of very strong precaution and full communication to the public. In-group scientists such as Sir Southwood (not himself a BSE expert) tended to take the view that once certain precautionary measures were in place, "there was no value in stressing that some people might already have caught a really terrible disease about which nothing could be done"" (Jacob and Hellstrom 2000 p309). What the out-group scientists suffered from was their willingness to admit scientific

uncertainty that undermined their public credibility, even though their uncertainty was no greater than that of the 'government-friendly' scientists whose misgivings were concealed (Beck et al 2005 p404).

The bureaucratic nature of policy-making obscures the journey that policies take, giving the impression that there was no dissent, uncertainty or confusion, which later also hinders a change of direction. The process of drafting and re-drafting documents, and summarising complex scientific advice, can serve to direct policies in a particular direction, as material which is initially discarded by those writing policy documents can rarely be reincorporated at a later stage. Hinchliffe (2001 p194) gives a pertinent description of how the process worked when a decision needed to be taken on keeping BSE-infected cattle out of the food chain:

> The submission's journey from the animal health division at MAFF to the Minister for Agriculture took 1½ months. On route, the paper work passed through a number of hands, including those of Permanent and Under Secretaries, who had responsibilities for adding cost estimates, checking the submission's compatibility with other agricultural policy, raising issues of a legal nature and so on. Could farmers be compensated from the public purse if no danger to human health had been demonstrated? Wouldn't this contravene the 1981 Animal Health Act? Did compensation set a precedent for a raft of other crop and animal disease problems and so effectively sanction further subsidization of the agricultural sector? Could a ban on ruminant-derived feed be enforced in lieu of a definitive statement on the origins of the disease? What would the effect be on the feed industry and on farming practices? These questions were all appended to the submission in verbal and written form as it moved.

There is little evidence of this process in the final policy document, and the many actors and ideas that played a part in shaping the policy are hidden from outsiders' views. This was amply demonstrated during the BSE Inquiry, which took years to piece together the chains of events behind key decisions. For example, MAFF

arrived at a corporate consensus that the amount of infective material needed to be consumed to contract the disease was "massive" even though individual scientists warned otherwise (and were later vindicated when it emerged that the size of material need only be the equivalent of two peppercorns). Those involved in making the decision were unable to account for the consensus over a "massive" dose, as no one could point to an exact date or meeting when agreement might have been reached.

Another consequence of the apparent rigidity of the policy process is that it makes it easier to commission more of the same research than something new, perpetuating the dominance of the approaches that are established at an early stage of problem-framing. The Department has been criticised for favouring the continuation of existing approaches to research instead of "radically different directions" and being unwilling to consider "non-standard views and novel approaches" particularly on long standing problems (SAC 2006 p3). This is partly due to the way funding priorities are allocated, which until recently was based largely on history. Areas of expenditure "tended to receive proportionally the same amount of funding from year to year. There is recognition that, as needs and priorities change over time, funding also needs to be reallocated, for example on the basis of (estimated) economic and social risks to policy" (OSI 2006 p31). Little is done to assess how the framing of a research problem has impacted upon the way the research has been carried out and the results that have been found (SAC 2006 p3). It has been noted that it is procedurally easier for Defra staff to commission new research on a topic rather than use existing findings. There are few mechanisms in place to assess the extent to which findings are communicated and used throughout the department (Taig 2004) and "little evidence that Defra has yet achieved much in terms of evaluating whether, and how effectively, science has influenced policy" (OSI 2006 p39).

Researchers themselves are frustrated that it is easier to get funding for new scientific work than to research ways of applying existing knowledge, and some recorded a very low level of satisfaction with the ways in which their research had been used by Defra (Taig 2004 p12). Corporate memory problems caused by a high staff turnover hinder the effective transfer of knowledge. Some scientists

think that the identification of research gaps relies on the capabilities of individual project officers and express concern that Defra's success in reviewing science and identifying gaps "may diminish as its scientific experts retire and are not replaced at the same grade or level of expertise" (OSI 2006 p27). New follow-on projects are often commissioned before the original project has been completed and its outputs fully evaluated which may be symptomatic of the reliance placed on a few key individuals to manage the research agenda (SAC 2006 p12). It is clear that Defra's difficulty in effectively using science is a deep structural issue and not simply deliberate political perversion of objectively "good" science. Both the culture and processes of Defra policy-making hinder effective use of expert advice.

Conclusion: what do we know about policy-making in Defra?

Defra's own official publications in the field of animal disease portray the Department as being committed to evidence-based policy-making, seeking to commission high volumes of scientific advice to support its decision-making processes. The Department has objectives to meet (as set out in the Animal Health and Welfare Strategy) to which all of its policy-making activity is directed. Defra's account of itself is, as one would expect, an account of a competent, rigorous user of expertise making sound and unimpeachable policy choices. In contrast, the analyses of academic commentators portray the Department as a disaster zone, as a ministry for industry, and as a poor user of science. It is portrayed as a disaster zone because of its poor reputation over the handling of disease outbreaks, poor financial management, lack of evidence-based policy-making and all-round political albatross. Accounts of Defra as disaster zone seem to suggest that it is incapable of change for the better; it has a culture of failure and inertia. Defra is also portrayed as a ministry for industry, preoccupied with satisfying farming pressure groups and neglecting its other responsibilities as a consequence. Commentators on the role of pressure groups in Defra's policy-making process have highlighted the power of these groups to set policy agendas and steer the course of action towards the outcomes that they favour. Occasionally this includes steering policy-makers towards or away from certain forms of scientific advice. Pressure groups theorists have claimed that the interference of

interest groups forces policy-makers to choose between their demands and the advice given to them by scientific advisers (e.g. Smith 1990). For example, in disease outbreaks where tighter regulation is recommended by experts, civil servants may be pressured to resist such stringent measures to avoid economic impacts on the agriculture industry. Finally, Defra is also a poor user of science, seeking expertise but only choosing to listen to those who support its policies. As critical accounts argue, Defra's unreflexive quest for objectivity and impartiality in policy-making ignores debates about whether these values can ever really be achieved, and simply serves to exclude alternative approaches from the policy process. Different forms of expertise have been forced to compete for attention because the decision-making process, which is unable to accommodate uncertainty and plurality of evidence, demands narrow sets of options and unequivocal results.

Despite the wealth of literature on Defra policy-making, there are still significant gaps in our knowledge, particularly regarding how things happen in the decision-making process. Reading the accounts above, little sense is given of how pressure group lobbying is actually taken on board and influences individual officials; there is little information on how scientists give advice and what is done with that advice, and the advice of conflicting groups. The detail on the precise number and rank of officials involved in decision-making is sketchy and often derived from the names on policy documents even though the incompleteness of these documents as records of decision-making has been recognised. The people and activities that populate my vignette are entirely absent from conventional accounts of Defra policy-making. In the absence of detail about the practices and materiality of policy-making, the existing academic literature either overlooks the need for detail entirely or deduces that meetings were held and documents submitted by picking over the evidence from official inquiry reports. In consequence, these analyses of policy-making are forced to piece together how decisions were made after the fact, inferring causality and attributing intent to officials, without being able to substantiate their claims. This is not something specific to the Defra literature; it is a symptom of the predominant means of analysing policy. In the next chapter I situate the Defra literature in the context of policy analysis methods more broadly, to explain why certain tendencies prevail

(such as the focus on moments of decision, and the assumption that policy-making is an elite activity) and the reasons why a new approach to policy analysis is required if the *how* of policy-making in Defra is to be better understood.

Chapter Three

Getting Beyond the Textbook: Competing Paradigms of Policy-Making

Introduction

Research methods textbooks often tell us that when an ethnographer enters 'the field', the strangeness of the new culture and surroundings being encountered prompt him or her to appreciate afresh those features of their own everyday life that were previously taken for granted. In this chapter I want to make a similar claim for my own experience of observing Defra. The 'strangeness' of the policy-making activities I witnessed in Defra – in contrast to my expectations of what policy-making should look like – made me aware of how deeply certain assumptions about policy are held, by myself and in mainstream policy analysis literature. These assumptions, and my desire to challenge them and find new ways to talk about policy-making, are the focus of this chapter. I begin by setting out the 'textbook' approach to policy analysis, into which category much of the literature on Defra and animal disease policy falls, and explaining the premise of the approach and its dominance within the field of policy studies. I then describe in more depth my preliminary observations of policy-making in Defra, and the differences between my account and the existing literature. Finally, I set out a new approach to policy-making that draws on both the established discipline of organizational studies and the emerging field of interpretive policy analysis.

The textbook policy process

The literature in the previous chapter mainly falls, consciously or unconsciously, within what has been variously termed the "rationality project" (Stone 1988) or the "textbook conception of the policy process" (Nakamura 1987). This rational model of the policy process is characterised by the view that policy-making

follows a rational and predictable course with distinct and identifiable stages. Policy-making is seen thus:

> Decision-makers first identify empirically the existence of a problem, then formulate goals and objectives that would lead to an optimal solution. After determining the relevant consequences and probabilities of alternative means to the solution, they assign a numerical value to each cost and benefit associated with the consequences. Combining the information about consequences, probabilities, and costs and benefits, they select the most effective and efficient alternative.

(Fischer 2003 p4)

The origins of the textbook approach to policy-making are usually traced back to Lasswell (1956) who differentiated a series of functional activities in what he termed the 'decision process': intelligence, recommendation, prescription, invocation, application, appraisal, and termination. Lasswell's formulation was abstract (derived from systems theory) and not intended as a comment on the policy process in terms of political actors and institutions. However, it was part of a wider project; Lasswell wanted to bring about a multidisciplinary field of study that could inform post-War policy-making, as set out in a chapter entitled 'The Policy Orientation' (1951). Lasswell set out a wide-ranging agenda of creating an applied social science that could generate objective solutions to policy problems and in doing so, reduce political debate (Fischer 2003 p3). Despite this appeal for a broad, multidisciplinary approach, policy studies has actually developed along narrow technocratic lines, with an emphasis on the neopositivist methodologies that dominated the social sciences in the 1950s and 60s. The result was a view of policy-making as described above by Fischer. The process was seen to be sequential; differentiated by function (each stage represents a distinct activity required by a system to move to the next stage); and cumulative in the sense that each round of activities produces results that are fed back into the process (Nakamura 1987 p142).

Having conceptualised the policy process as rational and sequential, later authors applied labels to the different stages, such as policy initiation, incubation, modification, adoption, implementation and appraisal (Polsby 1969) or problem formation, formulation, adoption, implementation, and evaluation (Anderson 1975). Next came the allocation of different actors to these stages in the textbook process. Typically, policy formation/formulation is the business of high level decision-makers like appointed executives and legislators. The implementation of these decisions "becomes the province of their subordinates like bureaucrats or others who accept the mission of carrying out decisions made by more authoritative actors." Evaluation happens last, driven by standards established by policy-makers and carried out by a range of participants (elected officials, bureaucrats, analysts) whose behaviour is shaped by their institutional positions (Nakamura 1987 p143). Assigning people to stages of the process is not simply a descriptive task; it also denotes hierarchy in the ideas, decisions, and actions of policy-makers. As Brunsson argues, "according to the assumption of sequentiality the decision process precedes the decision, and the decision precedes the action. In this way the decision process and the decision cause the action; the symbolic and ideological activities control the practical and concrete. In other words, there is a control hierarchy between thought, decisions and actions. Those who think and decide control those who act" (Brunsson 1989 pp174-175). This leads to the conventional assumption that the highest-ranking actors (Ministers, senior civil servants) must be responsible for decision-making because the setting of policy dictates all which follow and therefore the senior staff should dictate the actions of their subordinates. Below the Ministerial and senior civil service levels all else is 'mere implementation'.

In addition to this imputed hierarchy of actors and activity, the rational conception of policy-making also narrows the way we are able to talk about policy-making in other respects as well. It is fundamentally decision-oriented, and focuses on creating the optimal circumstances for decisions to be made, by reducing debate, gathering as much information as possible, and attempting to predict consequences and eliminate unpredictability in the results of the decision. It also removes values from the policy process, prescribing an ideal type of policy-making whereby the personal beliefs of policy-makers and the values of society at

large can be either removed or reduced to externalities. Rationalism deals with facts and, as Fischer puts it, "if politics does not fit into the methodological scheme, then politics is the problem", leading some rationalists to argue that the political system itself must be changed to accommodate policy analysis (Fischer 2003 p5). The rational model also downplays the importance of the decision-making process and suggests that the system has no value of its own; it is a scientific means of arriving at a decision, and even this decision is less important than the action which results, because it is the action which will be judged and evaluated (Brunsson 1989 p174). Policy-making, then, is spoken about as a process of decision-making, concerned mainly with high-ranking politicians and officials, in which success is measured by policy outcomes. If we call to mind some of the literature on animal disease from the previous chapter, it is evident that it fits into this model. Consider, for example, the analyses of FMD that argue policy failed because the problem-framing stage was marred by interference from pressure groups (e.g. Hindmoor 2009) or the argument that BSE policy was unsuccessful because scientific evidence was not objectively used at key decision-making junctures (e.g. Van Zwanenberg and Millstone 2003, 2005). These examples highlight a feature of the means of rational policy analysis: that it is usually conducted by choosing an existing policy and then tracing its development retrospectively, identifying key moments of decision and deducing the motivations behind the actions of the people involved.

The account above is a necessarily caricatured description of the rationality project but it is true to the spirit of textbook policy analysis. Nor is it an exaggeration to say that this view of policy-making continues to dominate the majority of scholarship on policy-making, even if the scholars themselves do not acknowledge neopositivist tendencies. Though policy analysis has become more sophisticated, many continue to accept the central propositions of the conventional approach. For example, those who argue against the rationality or objectivity of the different stages of policy-making (e.g. Lindblom 1959) still accept that there *are* discrete stages of policy-making. Those who suggest pressure groups influence problem formulation (e.g. Marsh and Rhodes 1992) support the notion that there is an identifiable stage at which problems are put on the policy agenda. The success of this approach is marked by the fact that

conventional policy analysis features prominently in social science curricula to the detriment of all other approaches (Schwartz-Shea and Yanow 2002). Perhaps more important is the fact that outside academia, 'rational' model policy analysts are found throughout government, public policy think tanks, interest groups and research institutions (Fischer 2003 p4). In fact, the dominance of the rational model within government itself has led some to comment that they fear policy-makers will simply ignore them if they stop speaking in the language of the textbook model. The recent emergence of evidence-based policy-making (which perfectly reiterates the classical formulation of policy-making, only with an emphasis on gathering more information in the process), as documented in Chapter Two, compounds this problem as it forces researchers to fit into the mould of EBP and has merely spawned a new wave of research asking 'how much' evidence is being used to inform different policies and not challenging the essentials of the idea.

Observing Defra: challenging the textbook model

My dissatisfaction with the rational model of policy-making as a template for my own analysis stemmed from the period of fieldwork in Defra which emphasised the disparity between policy-making as it is described in the existing literature on animal disease and the reality of what happens on a daily basis in the Department. Firstly, the activities that constitute policy-making are much more diverse than simple decision-making. Policy-making, in this division of Defra, encompasses an enormous range of meetings, written reports, emergency planning exercises, visits, and so on. Secondly, the complexity of the policy-making process seemed to me much more intricate, recursive and disordered than is portrayed in rational analyses. Thirdly, the range of people involved in policy-making was much greater than is often assumed. Policy-making (in the sense of consulting, making strategic decisions, and working through the difficulties of implementation) is the province of middle-ranking officials rather than senior civil servants. In the following section I look in detail at the disparities between my observations and the expectations of policy analysts in order to explain why an alternative means of studying policy-making is necessary.

How is policy made?

Close scrutiny of existing accounts of policy-making in Defra reveals that there is very little mention of the *activity* of policy-making at all. It is just assumed to happen. Occasionally meetings are alluded to, and the publication of statements and press releases are seen as significant acts. But the actual day-to-day activities of policy-makers are a mystery. All that is apparently necessary to know is that they add up to 'decision-making'. By my observation, in contrast, an enormous variety of activities are carried out within Defra's exotic disease division, very few of which could accurately be described as 'decision-making'. In a typical week, officials in the division will attend a wide range of meetings, covering, for example, updates from scientists on the latest developments in diagnostic technology and reports about the status of the vaccine banks so they can make decisions about ordering supplies. They hold brainstorming meetings with scientists and veterinarians to explore the extent of the evidence available on a particular disease and meetings with stakeholders to discuss how industry groups can help Defra to disseminate information about disease to farmers. They will also be involved in 'business' meetings with management boards and other strategic groups that will discuss the prioritisation of work within the Department and the division. Within the division, heads of team will meet their team members to discuss which work they will be continuing with and which they will be discontinuing over the following months. Other meetings will involve officials meeting with colleagues from other divisions to hear project updates and exchange information. They might be summoned to meetings with the Science Advisory Council, National Audit Office, or other groups wanting information on the work of the division. In addition to these planned meetings there will be countless unplanned, spontaneous gatherings of colleagues to discuss progress on a piece of work, problems which have arisen, briefings for those who work part time or who have been on leave, and meetings to discuss where an individual stands on a particular issue, or how another colleague or Minister is going to be dealt with.

The working day of Defra civil servants is not only constituted of meetings. There is a lot of writing to be done too: drafting the answers to Parliamentary questions,

responding to requests for information, composing the agendas for meetings and the briefing documents for the chairs of those meetings, updating the Defra website, preparing reports on projects, writing the text for educational campaigns, drafting consultation documents, synthesising the results of closed consultations, putting together presentations for future meetings. Periodically, staff will be tasked with reviewing the documents in the computer database, streamlining and updating them and identifying gaps in their knowledge. More meetings will be held to identify how these gaps will be filled, for example through 'brainstorming' meetings where the evidence base for a particular policy area will be critically reviewed. Staff are also seconded to other parts of Defra in order to increase their knowledge of a related policy area or to offer their expertise to others. They also visit sites that could potentially be affected by animal diseases, such as public parks, wildlife sanctuaries, and food producers. They set up and attend road shows and public education events, as well as producing leaflets and posters for distribution and display. They meet with representatives from other government departments and simulate their response to a disease outbreak, either through 'table top' exercises (where they study maps and discuss hypothetical problems and solutions) to real-time exercises where other staff pretend to be journalists and stakeholders to test the capacity of Defra staff to cope with an outbreak. These activities are only an indicative sample of the types of work done by Defra officials in 'peace-time'. In 'war-time', of course, even more types of activity are involved as the pressure to identify a disease, tackle its spread, and communicate with the public is intensified.

While some of these activities taken in isolation may seem insignificant, they form part of a continuous stream of work that constitutes policy-formation. It is tempting to assume that the momentous policy announcements that receive media attention form the bulk of activity for civil servants – largely because, as I have argued, little is known about the other types of work done by government officials on a day to day basis – but as Page (2001 ppvii-viii) explains,

> Politicians, civil servants and the interest groups with which they interact do not spend all, or even most, of their time concerned with what might be called 'major' policy changes such as new

> legislation establishing freedom of information or comprehensive reviews of the welfare state. Most of what can be termed 'government' appears to be a matter of dull routine, and unless we understand this, we cannot understand what government is about.

Page argues that delegated legislation and routine matters of policy-making "are part of a world whose *existence* is certainly well known, but its *character* has largely escaped serious social scientific attention" (Page 2001 pp3-4). Attention is warranted because studying more mundane policy jobs reveals the everyday processes of government. By their very nature, major policy decisions that attract public and media attention are not representative of the routine jobs done by civil servants, whereas a shift in focus to everyday work gives us a much better understanding of how policy-making occurs.

Moving the focus to everyday activity also reveals the complexity of policy-making. If we accept that all the varied activities described above constitute policy-making, then it is clear that it cannot be reduced to simple linear goal-oriented patterns of action. Defra officials are often carrying out activities without a specific 'decision' in mind to which their activity will contribute: for example, they may be reviewing preparedness for an outbreak as a routine activity – not because an outbreak is expected – and in the course of that review issues may or may not be raised about which more action is necessary. Likewise, scientific research is routinely commissioned – to update officials on new developments in a particular field, or simply because it is deemed a good idea to increase knowledge in an area of Defra's interest. Not every piece of research commissioned by Defra is destined to be 'evidence' in a decision-making process. Officials are recruited largely as project managers; they have workstreams to oversee and objectives to meet, but it is not always evident whether there is an overall 'direction' to the work they are doing. There are so many strands of work going on, each overseen by one of the many different branches of the division, that it is very difficult to speak of animal disease 'policy' in anything other than the broadest terms.

Who are policy-makers?

In addition to these observations about the nature of policy-making, my experience of working in Defra differed from the accounts given in conventional policy literature regarding the relative importance of senior and junior officials. Conventional policy analysis, because of its emphasis on decisions, believes that middle- and lower-ranking officials have little input into policy and no input into the running of their Department. The authors of this literature prefer to focus on the more exciting worlds of mandarins and ministers, pressure group politics and corporatist alliances, major policies with their society-changing successes and politically disastrous failures. The wealth of literature on policy-making focuses almost exclusively on the senior civil service, even though these 'mandarins' account for less than one per cent of the total workforce. The 'top' civil service contains just 4570 people, but if the five management grades below the top senior civil service level are included this rises to 253,700. While these studies tell us much about the work of senior officials and ministers, they leave significant gaps in our understanding of policy-making because they fail to take account of the thousands of others who are involved in bureaucratic government. It is easy to talk of policy-making and policy-makers without ever explicitly setting out of what the process consists or who it involves. As Page (2001 p16) puts it, "For all the models of policy-making, all the case studies of British government in action and all the grand theories that have emerged along with the massive growth in the number of social science researchers and their publications since the 1950s, we still know very little about how government actually works on a day to day basis".

Just as the range of activities carried out in the name of policy-making in Defra is much more varied than policy analysis literature would suggest, so the range of people involved in these activities is also much greater than the senior civil service and politicians to whom such analysis is usually confined. Of course, Ministers and senior civil servants are crucial actors in the picture of how policy is made. Ministers have the democratic mandate to set policy direction and the senior civil service is instrumental in setting the priorities and securing funding for their department to ensure that work can be done towards the Minister's policy objectives. However, to imply that all those who work at levels below the senior

civil service are employed merely to implement these decisions, to deal with details and correct small problems as their arise, is utterly erroneous. Lower ranking civil servants are not simply people who implement policies dictated to them by ministers and senior officials. As Page and Jenkins argue, the main part of their work "is to create solutions to problems; if politicians knew how they wanted the problems solved sufficiently to give their administrative subordinates direct instructions, they would not need policy bureaucracies. Politicians are often not even generally aware that such policy problems exist before their policy officials raise them" (2005 pvi).

Page describes the middle-ranking officials as "the unsung efficient secret of everyday government" because they "develop a strong expertise in their areas of responsibility and apply it to concrete issues of public policy with sensitivity to the political and constitutional constraints within which they have to operate" (Page 2001 p180). The importance of middle-ranking officials in policy-making (as opposed to just the top few civil servants) leads Page and Jenkins (2005) to use the phrase 'policy bureaucracy' to describe the body of officials involved in policy work. 'Bureaucracy' emphasises the hierarchical but interdependent structure and relationships of the officials, and also the fact that policy-making is not a single smooth process but a series of tasks distributed among a range of groups. These tasks are the myriad activities that I described above as having witnessed officials doing in Defra on a daily basis; they are not insignificant 'detail' but form the bulk of all the work done in the civil service. As Lindblom and Woodhouse put it, "if it were possible to count all the policy-making acts in any political system – choices made, attempts at persuasion, agreements reached, threats and promises made, authoritative commands given or received – one would find that, so defined, policy-making rests overwhelmingly in the hands of the bureaucracy, leaving relatively few policies to be determined elsewhere" (Lindblom and Woodhouse 1993 p59). If we accept that policy-making is a bureaucratic activity, it becomes evident that it is insufficient to focus on the tiny proportion of officials at the top in the same way that it would be insufficient to focus only on administrative staff, if the object is to understand how policy is made.

Interpretive policy analysis

Following the period of participant observation it became clear that Defra officials do not act according to the expectations of policy analysts and that policy-making does not proceed according to their models. However, if we accept that people are not acting 'rationally' it becomes necessary to understand what does guide their actions. In other words, what are their values and beliefs if they are not simply following orders? This then leads to my overarching research question: how do officials find and make order or, by what principles do they organize themselves? This question cannot be answered by approaches to policy-making that treat officials as instruments of decision-making and ignore their views of policy-making and the problems at hand. In most policy analysis, even where individual actions and the motivation behind them are considered they are generally those of Ministers or senior civil servants (which as I have already argued is a mistaken assumption), and their beliefs are generally inferred from policy documents and media reporting of events, rather than from speaking to the individuals themselves. Studying policy documents in order to piece together retrospectively how decisions were made runs the risk of imputing a rationality or intent that was not necessarily there. As Yanow (1996) suggests, policy analysis often involves trying to identify cause and effect patterns in the actions of politicians or officials after a decision has been made without ever being certain that such patterns existed at the time. Policies, Yanow argues, are not strictly rational, goal-oriented actions but may be seen as "expressive statements": as expressions of the values of government, expressions of the identity of the polity, or as claims for attention (Yanow 1996 pp22-23). We can only understand policy by understanding the people that made it. Rhodes et al (2007a), in their study of government elites (by which they mean ministers and senior civil servants) argue that:

> we know little about how elites make sense of their world day in and day out. It remains unclear how individuals, issues and institutions add up to meaningful government action. Thus, a solid understanding of phenomena like leadership, strategic decision-making, change management, and project management in public

> organizations not only requires us to understand what the people who control these activities do and how they do it, but also to gain insight into why they do it. How do they find space amid constraining structures to enact alternative realities? How, by using certain words, metaphors and symbols, do they alter, bend or modify ingrained meanings?

Exactly the same arguments can be made for the study of middle-ranking officials if we substitute the phenomena of leadership, strategic decision-making and change/project management with the phenomena of consultation, evidence gathering, policy formulation and bureaucratic government. In the first instance, we know almost nothing about how middle ranking officials interact. There is little literature on the types of meetings that are held, and the ways in which people behave and debate issues and produce documents, in the process of policy-making. In addition to this lack of descriptive material, there is a more significant lack of understanding of how the interaction between different actors influences the policy process. We know little about how policy makers interact with one another; how policy-makers and scientists interact; and how both policy-makers and scientists interact with Defra as an organization. Consequently, we do not understand how policy-making is affected by the relationships between people, and how the values these people hold about policy-making and their role in the process affects the way policies turn out.

The desire to avoid explanatory models and focus on values has led me to interpretive policy analysis, which puts the emphasis on description and understanding rather than explanation, and which emphasises the values and actions of the individual over theories and models of behaviour. Interpretive policy analysis is an emerging critique of conventional policy studies that borrows heavily from interpretive thought as developed in other social science disciplines, particularly sociology and anthropology. Tracing the roots of interpretive policy analysis is an almost impossible task; it has been linked to critical theory, post-structuralism, postmodernism, social constructionism, discourse analysis, hermeneutics, phenomenology, symbolic interactionism and feminist theory. Among the names mentioned as influences on interpretivism include Wilhelm

Dilthey, Edmund Husserl, Max Weber, Alfred Schutz, Theodor Adorno, Jürgen Habermas, Jacques Derrida, Michel Foucault, and Paul Ricoeur (for more comprehensive attempts to trace the history of interpretivism see Fischer 2003; Yanow 1996). It is more productive to try to identify some common themes in interpretive thought, as the intellectual precursors to these ideas and themes are often readily apparent. Despite its varied roots and decades of development in sociology and anthropology, where it is more commonly used, several uniting features can be identified: understanding actors' meanings, rejection of a formal hypothesis, and situating actors in webs of tradition and belief.

Interpretive policy analysis differs from the conventional model by seeing values, beliefs and feelings as a set of meanings, rather than simply seeing values as a set of costs, benefits and choices, and by seeing human action as expressive of meaning, rather than focusing on human behaviour as instrumentally and technically rational (Yanow 2000 ppviii-ix). The focus on meaning occurs because interpretivists see meaning as a component in the construction and understanding of social reality, where social meanings are always open to reconstruction and change because the social world of the individual or group "is constantly enlarged by new experiences and thoughts; it is continuously in the process of evolving through reflection, practices, and communication with others" (Fischer 2003 p49). The purpose of such sustained focus on beliefs and the meaning people give to their actions is not to study these meanings for their own sake, but to study them "as they appear within, and even frame, actions, practices and institutions" (Bevir and Rhodes 2003 p17). In other words, interpretive analysis seeks to explore beliefs in the context of actors' lived experience. It is "not only a matter of finding out what a spuriously pure subject might think and do but, through tracing these connections and critically engaging with these stories, it is also one of trying to get both at *why* this has come to be the case and at what wider causes and effects this might have" (Cook and Crang 1995 pp8-9).

Exploring the meaning behind policy-makers' actions is more authentic than guessing at their motivations by studying policy documents and presuming that they are rational actors. As Yanow (1996) suggests, the logic of positivist political science is appealing because it offers the chance to ascribe rationality to

governments' actions. However, this is misleading because such rationality may never have existed: "We see cause-and-effect relations after the fact, but in attributing intention to the causality traditional analysis ascribes both instrumentality and intentionality before-the-fact to policy actors and events. We cannot know for certain, however, that the patterns we are seeing retrospectively in policy actions 'actually' resided in them" (Yanow 1996 p23). Interpretation is a more valid approach because policies are not strictly rational, goal-oriented actions. Policies may be seen as "expressive statements": as expressions of the values of government, expressions of the identity of the polity, or as claims for attention (Yanow 1996 pp22-23). Further grounds for taking an interpretive view of policy comes from growing scepticism about the validity of the policy process – government's ways of getting and using evidence, the lack of public involvement in decision-making and so on – which call simplistic accounts of politics into question. As Roe puts it, "many public policy issues have become so uncertain, complex, and polarised – their empirical, political, legal and bureaucratic merits unknown, not agreed upon, or both – that the only things left to examine are the different stories policymakers and their critics use to articulate and make sense of that uncertainty, complexity, and polarization" (Roe 1994 p3).

The aim of interpretivism is not to replace formal models of decision-making but to offer alternative means of understanding how policy is made. At the heart of interpretivism is a shift in focus "from discovering a set of universal laws about objective, sense-based facts to the human capacity for making and communicating meaning" (Yanow 1996 p5). Interpretivism stresses the importance of understanding intentional human action. This emphasis involves minimal theory because interpretivists aim to provide a "distinctive, alternative analysis" rather than systematically accounting for the field as a whole (Bevir and Rhodes 2003 p5). The goal is social understanding, rather than causal explanation. As Fischer (2003 p50) explains, "Whereas positivist-oriented empirical analysis aims at causal explanation and prediction of behaviour, social understanding requires a teleological explanation related to goals and purposes. In the traditions of sociology, following the great German sociologist Max Weber, such explanation is referred to as the process of *Verstehen*. *Verstehen* identifies the process of rendering facts *understandable* by interpreting their meanings in the light of

relevant social goals and values." Consequently, interpretive studies do not proceed from a formalised hypothesis, partly because the researcher does not know ahead of time what meanings will be found, and partly because the flexibility of qualitative research means that the research design changes in the face of field realities which the researcher did not anticipate (Yanow 2006 p71). Whereas the scientific method of investigation has five distinct steps (identify research problem/ state hypothesis; prepare research design; collect data; process/analyze data; draw conclusions/findings), interpretive investigation is freer to pursue research questions as they emerge, in a field that has not been overly restricted by the research design.

The purpose of an interpretive study, then, is not to discover theoretical explanations for human behaviour, but to be a "process of setting forth the meaning of an event or experience" where meaning "is defined in terms of the intentions and actions of a person" (Denzin 2001 pp52-53). One of the first exponents of the interpretive approach, Charles Taylor, identifies three characteristics of meaning as it is used by social scientists:

1. Meaning is for a subject: it is not the meaning of the situation *in vacuo*, but its meaning for a subject, a specific subject, a group of subjects, or perhaps what its meaning is for the human subject as such (even though particular humans might be reproached with not admitting or realizing this).
2. Meaning is of something; that is, we can distinguish between a given element – situation, action, or whatever – and its meaning. But this is not to say that they are physically separable. Rather we are dealing with two descriptions of the element, in one of which it is characterized in terms of its meaning for the subject.
3. Things only have meaning in a field, that is, in relation to the meanings of other things. This means that there is no such thing as a single, unrelated meaningful element; and it means that changes in other meanings in the field can involve changes in the given element.

(Taylor 1987 p41)

Taking these characteristics into account, interpretivists aim to avoid both universalism and subjectivity. As Yanow (1996) argues, human variety necessarily means that others may interpret creations of human activity differently. There is "the possibility of multiple meanings, of varieties of interpretation. There are the possibilities of miscommunication and of noncommunication, of meanings that are shared or not shared, of meanings once shared that are later dismantled" (Yanow 1996 p7). Meanings must also be conceptualised intersubjectively, recognising that 'meaning' is not something that exists in the minds of individuals taken in isolation, but as something bound up with "concrete contexts of shared social practices and interacting individuals" (Adcock 2003 p16).

For interpretivists, meanings are constructed in the interactions of participants in those meanings. However there are few explicit explanations of how meanings are structured and transmitted in the interpretive literature. Some interpretivists hold that meanings are passed on through traditions, which Bevir and Rhodes define as "a set of inherited beliefs" (Bevir and Rhodes 2006 p7). As they argue, while identifying the meanings held by political actors requires ethnographic enquiry, reading practices and texts and so on, *explanation* "needs a historical form of inquiry: we have to locate their stories within their wider webs of belief, and these webs of belief against the background of traditions they modify in response to specific dilemmas" (Bevir and Rhodes 2003 p5). They offer two caveats when talking about traditions, however: the first is that traditions are, like other abstract concepts such as class and institutions, unable to fully explain people's beliefs, actions and interests. Instead traditions "represent only an abstract stand-in for the multiple and complex beliefs and actions of the individuals we classify under [them]" (Bevir 2003 p19). The second is that traditions are not fixed but are "evolving, adaptable sets of beliefs that enable those acting in the political sphere to understand and make sense of their world [...] They are sometimes resilient and enduring; sometimes ambivalent or contradictory in their core beliefs. Some parts are codified and rule-bound, others exist as a loosely connected constellation of ideas variously constructed by participants or observers" (Rhodes et al 2008

p463). Bevir and Rhodes' analysis is distinctive in the sense that they attempt to identify Ministers' beliefs against well-known political traditions (Tory, Liberal, Whig, Socialist), whereas other authors are less overt about returning to historically-defined categories as units of meaning, preferring a grounded approach whereby analytical themes are inferred from the data (particularly among North American interpretivists e.g. Soss 2000; Maynard-Moody and Musheno 2003; Roe 1994).

Just as these characteristics that I have labelled 'central tenets' are not at all universally agreed upon and subscribed to by interpretive policy scholars, so their methods and results also vary. A summary of some well-known interpretive policy studies gives an indication of the broad range of work that has been done. Lipsky (1980) is one of the earliest interpretivists to gain widespread attention with his book *Street Level Bureaucrats*, which studied the values held by police officers, teachers etc. (the street level bureaucrats of the title) and how they either remain loyal to these values or change them in adverse circumstances. Lipsky's approach has led to a fruitful branch of studies into local government and executive agencies in the UK, such as those by Gains (2003) and Durose (2007) and other interpretive approaches drawing on new institutionalism and organizational learning (Brannan 2009, Leach and Lowndes 2007; Lowndes 2005). While these studies typically look at the values held by officials and contrast them with the values of the organization (or of central government), Yanow's (1996) influential study of a government agency looked at the relationship between the values of the agency and the wider societal values in which the agency was situated. Finally, in a different manner again, Bevir and Rhodes (2003, 2006 and also Rhodes 2005, Rhodes et al 2007b, 2008) have developed a body of work on British Ministerial and senior civil service attitudes, which develops interpretive analysis as an extension of the decentred governance approach.

An organizational approach

While the literature on interpretive policy analysis has strongly influenced my research, my interest in researching the organization of government also led me

towards literature on the sociology of organizations. Despite striking similarities in both approach and methods, scholars in the disciplines of interpretive policy analysis and organization studies almost universally ignore one another. Early policy studies drew heavily on organization theory – the formal models of decision-making being directly borrowed from organizational psychology – but as the sociology of organizations developed in a more interpretive direction, policy studies failed to follow until very recently. Interpretive policy analysis, as an emerging field, has little cohesion in either method or modes of analysis and therefore while it provides the context for my research I felt that much could be gained by drawing on concepts developed by organizational sociologists. Of particular interest was the work on storytelling in organizations, which bears a close resemblance to some of the interpretive policy analysis work. Although the concept of storytelling is rarely used in political science (an exception being Maynard-Moody and Musheno 2003 who study storytelling among street-level bureaucrats), it is well established as a field of enquiry in organizational studies. Stories or narratives are acknowledged as ubiquitous and potent ways of communicating feelings, values and beliefs within and between organizations. Storytelling has been explored in contexts as diverse as a mental health centre (Schwartzman 1987, 1993), a nuclear energy laboratory (Law 1994b), and an office supplies firm (Boje 1991), yet very little has been said about the UK civil service, despite its essential similarities with the organizations listed here.

Stories, then, are the tales told within organizations (and by organizations, to stakeholders, researchers and so on) about their activities. While the stories themselves may be entertaining and engaging, they have many important functions to play, including communicating historical experiences and providing individuals with a way to weave this experience into discussions of current activities; socialising new members; documenting successes and failures and drawing conclusions (or morals) from them; stereotyping other organizations; and indirectly communicating information to individuals about issues which are too threatening or sensitively to discuss directly (Schwartzman 1993 p44). In essence, stories can be seen as attempts to "throw an ordering net over the activities within the organization" (Law 1994b pp2-3). They help individuals and groups to make sense of their own identity, that of their organization, and the environment in

which they are located. Stories become, in Law's words, "modes of ordering" when they are not only verbal accounts but are performed or embodied in a concrete, non-verbal manner (Law 1994b p20). In other words, when they are linked to action.

There is some disagreement as to the use of the terms 'story' and narrative'. Czarniawska argues that "a story consists of a plot comprising causally related episodes that culminate in a solution to a problem" (1997 p78). Maynard-Moody and Musheno (2003) argue along similar lines, defining stories as complete and logical tales with a beginning, middle and end. For them, narrative is a broad category, while story is narrow; all stories are narratives, but not all narratives are stories (2003 p26). Boje (1991) on the other hand contends that narrative implies a greater level of coherence and causation than the looser concept of story. As he argues, "the folk of organizations inhabit storytelling spaces outside plot, not tidy and rationalised narrative spaces. Narrative analysts replace folk stories with less messy academic narrative emplotments and create an account of organizations that is fictively rational, free of tangled contingency and against story" (Boje 2001 p2). For Weick, (1995) narratives have explanatory power that does not always accurately reflect the events that they describe: "When people put their lives into narrative form, the resulting stories do not duplicate the experience. The experience is filtered. Events in a story are resorted and given an order, typically one in which a sequence is created". Narratives are finalizing, because they transform events "into historical facts by demonstrating their ability to function as elements of completed stories" (White 1987 cited in Boje 2001). Stories, as defined by Boje, resist this tendency: they are open-ended, disorganised, and do not necessarily have a strong causal link or 'plot'. In this thesis, I have used the terms narrative and story interchangeably, along with the term 'discourse' and the phrase 'modes of ordering'. While recognising that these terms have distinctive intellectual heritages and are strongly contested by various groups of scholars, I feel that they can all be usefully deployed in my analysis of the accounts of policy-making gathered in my research, and that the use of these different terms will be seen not as a terminological sleight of hand, but as an attempt to capture the depth of the analytical approach proposed in this thesis.

Gabriel suggests that organizational researchers have only recently realised that "stories and narratives do not merely offer accounts of politics, but can also act as political interventions, challenging dominant discourses, subverting them, or questioning them. Stories set agendas, express emotions, and fashion ways of thinking. In these and other ways, they are no longer seen purely as effects of a 'superstructure', mere by-products of core social and political processes, but very much parts of these core processes" (Gabriel 2004 p3). Stories are enacted – become modes of ordering – in various ways. One of the most evident is that they act as guides to decision-making; as "recipes for action" (Gabriel 2004 p3). As Boje (1991 p106) argues,

> Stories are to the storytelling system what precedent cases are to the judicial system. Just as in the courtroom, stories are performed among stakeholders to make sense of an equivocal situation. The implication of stories as precedents is that story performances are part of an organization-wide information-processing network. Bits and pieces of organization experience are recounted socially throughout the firm to formulate recognizable, cogent, defensible, and seemingly rational collective accounts that will serve as precedent for individual assumption, decision and action

Over time, people "engage in a dynamic process of incremental refinement of their stories of new events as well as on-going reinterpretations of culturally sacred story lines. When a decision is at hand, the old stories are recounted and compared to unfolding story lines to keep the organization from repeating historically bad choices and to invite the repetition of past successes" (Boje 1991 p106).

Stories, by this understanding, are a form of memory for an organization, storing information about its history. Organizational memory, and the behaviour and culture of its individual members, cannot be extricated; as Hedberg (1981 p6) puts it, "as individuals develop their personalities, personal habits, and beliefs over times, organizations develop their world views and ideologies. Members come and go, and leadership changes, but organizations' memories preserve certain

behaviours, mental maps, norms and values over time." Organizational memory can take explicit forms, such as formal rules, structures, policy documents, manuals, operating procedures, computer based information systems and so on, but it can also be transmitted implicitly through norms and beliefs (Dekker and Hansen 2004). Stories, when they are transmitted, perpetuate a particular part of the memory and translate individuals into a group: "Although individuals are limited information processors, each person retains a part of the story line, a bit of interpretation, story performance practices, and some facts that confirm a line of reasoning" (Boje 1991 p106).

Stories can also fulfil a critical function, as they often differ significantly from the 'official' stories told by and about the organization. Official stories are reproduced in organizational rituals, advertisements, websites, and official publications. Inevitably, they usually express the positive qualities that the leaders of the organization wish to publicise. These are stories of great achievements, of crises averted or overcome, and of dedicated employees. In what Gabriel (2004 p4) terms the "unmanaged organization", however, competing and even conflicting stories are told. These stories may challenge, ridicule or subvert official stories, celebrate resistance, criticise injustices and hypocrisy, and extol solidarity. These stories express a wide range of emotions, from pride and hope to anger and anxiety. They help employees to endure difficult experiences and to capture their feelings towards the diverse events that occur (Gabriel 2004 pp3-4).

What is the ontological status of organizational stories? If we think of stories as ways of recounting the past to make sense of the present, it is tempting to think that they are simply re-presentations of facts; in other words, to think that they are simply interesting ways of recounting the key dates and events in an organization's history to newcomers, or in other situations where guidance is needed. This would deny the fundamentally interpretive nature of storytelling, however. It is evident that the selection of events to be 'remembered', the ways in which stories are told, by whom and to whom, are subjective and political acts. On the other hand, it is equally wrong to dismiss them as "dreams" or "misleading ideologies", given their power to enact reality within an organization and influence people's behaviour (Law 1994b p83). It is true that stories do not

derive their power from adherence to the 'facts', as Czarniawska argues: "in narrative, the perceived coherence of the sequence (temporal order) of events rather than the truth or falsity of story elements determines the plot and thus the power of the narrative as a story. [...] In other words, there are no structural differences between fictional and factual narratives, and their respective attraction is not determined by their claim to be fact or fiction" (1998 p5). If stories are neither pure fact nor pure fiction (or even more radically, it is impossible to distinguish between fact and fiction as far as organizational stories are concerned), how can we understand the nature of stories?

Law defines stories as "*fairly regular patterns that may be usefully imputed for certain purposes to the recursive networks of the social.* In other words, they are recurring patterns embodied within, witnessed by, generated in and reproduced as part of the ordering of human and non-human relations" (Law 1994b pp82-83). Law suggests that organizational stories, or modes of ordering, have six characteristics. Firstly, they are monist, in the sense that they are not ideas separate from a material reality. Narratives cannot be reduced to talking and writing, because they generate many other materials too, such as agents, machines, and materially heterogeneous social arrangements. Secondly, narratives are recursive: they generate and perform, and are embodied, in social and material arrangements, but at the same time they do not have any existence outside their performances. Thirdly, narrative is strategic, generating power and hierarchy. Fourth, narratives are always incomplete. That is, their attempts to tell, embody, and perform ordering arrangements tend, in the end, to fail. Fifth, narratives differ in that what counts as a 'material', for example, in one mode of ordering may not in another, leading to the sixth characteristic: narratives interact creatively so that one narrative fulfils a sensemaking function when others fail (Law 1994a pp259-260).

Law argues that because these modes of ordering are incomplete, contradictory and precarious, 'the organization' is a multidiscursive product. Consequently, he suggests both that there is no organization outside of these modes of ordering, and that there is no possibility of a "final account" of the organization (Law 1994a p250). If we accept his argument, then it is no longer necessary to worry about the

'truthfulness' of stories. The important point is to look at how and why particular stories are being told, as these give us an insight into the values and beliefs of the tellers. As Law says of his study into Daresbury Laboratory, "*how* Laboratory members tell stories, *how* they formulate their past, is an important clue to a much more general issues: how is it that they would like to order the organization in a much wider range of circumstances; and how it is the organization is being performed in a wide range of circumstances. For this is the point: *stories are often more than stories*; they are clues to patterns that may be imputed to the recursive sociotechnical networks" (Law 1994b p19).

Studying stories, therefore, gives us insight into an organization and its members. It helps us to understand behaviour and beliefs. It is wrong to suggest, though, that by uncovering all the stories there are in an organization, one would be able to unlock the secrets to its culture and activities. There are many forms of ordering in addition to stories, including formal organizational structures (the division of labour and so on). Stories are only one way of organizing, even if they are a powerful and persuasive way. Moreover, there are no 'definitive' stories: they are all contingent, changing, unfinished and partial. Boje (1991 pp110-111) suggests that the performative element of storytelling ensures that there will always be multiple versions of events, as performing them is itself an expressive act. For example, a story will take a more abbreviated form with those already within the group, who are expected to know the details, but the same story will be told with much more embellishment to newcomers, outsiders and researchers. Certain stories can only be told by those in a position to divulge sensitive information, and making a judgement about who to tell is a significant act. The role of stories as modes of ordering also ensures that multiple stories, and versions of stories, persist, to guard against the failure of one story to help participants make sense of events, or to bring about desired effects. It would be impossible for an organization to survive if it did not have multiple, mutable stories because the failure of a story may occur at any time (Law 2001).

In summary, then, research into the sociology of organizations tells us that employees attempt to make sense of the world in which they are operating, and in doing so formulate understandings and beliefs about themselves, their colleagues,

and their organization. The primary means of doing this is through talk: talk about events that have happened in the organization's past, talk about how the organization should ideally function and its staff should behave, talk about each persons role and contribution to the organization's goals. In talking about these things, participants are not simply transmitting information but they are actively shaping and reshaping the organization by generating materials, spatial arrangements, performances and so on and, together with these artefacts, they generate effects. In the following chapters I explore the ways in which Defra officials and their scientific advisers make sense of Defra as an organization, the policy-making process, and evidence-based policy-making. My aim, after Law (1994b p4), is "to tell tales about the very important but very local social philosophies which we all embody and perform." To do this, I describe and investigate the stories that the officials/advisers tell about Defra, their colleagues, and themselves. Through these stories, I want to understand the values that officials/advisers hold and how these values inform their policy-making actions.

Conclusion

In this chapter I have set out some of the reasons why the existing literature on policy-making in Defra fails to capture a sense of life in the Department as I observed it, arguing that this is because the conventional approach to policy analysis focuses too heavily on rational behaviour and overlooks the importance of values and interpretation. The textbook approach to policy analysis sees policy-making in a very particular way: as procedural, following specific steps; as goal-oriented, with the ultimate aim of the policy-maker being to make a decision that others will then implement; and being the concern of Ministers and senior officials, who are the "policy-makers" in question. This approach to policy analysis, though long-standing and providing much useful insight into the policy process, was at odds with my own encounter with policy-makers and their work during my participant observation period in Defra. During this time, the activity I saw was not of a simple, decision-making nature: it included many different activities many of which were not oriented towards a particular (policy) goal but were necessary for maintaining a body of knowledge, gaining an insight into industry conditions, keeping policy-makers informed about work in other

divisions, and so on. Policy-making, as I observed it, was not all aimed towards the end of making decisions, and as a result of this, was more disordered than I had expected. This is not to say that policy-makers were confused or that they were failing to do their jobs, rather than they were imposing their own order onto the tasks that needed to be fulfilled. A third but important point is that the people I observed – the middle-ranking officials, rather than ministers or mandarins – seemed to be the key actors in the policy process, against my expectations and the writings of conventional policy scholars. This has important ramifications for the study of policy-making because this group are not represented in policy documents, are not open to public scrutiny through the media and so on, and so the usual means of analysing discourse and retrospectively piecing together the rationale behind their actions from statements and publications is impossible.

To return, then, to the question of how order is found or imposed, I want to bring back the crucial element that textbook policy analysis leaves out: meaning. Specifically, I want to understand the meanings that inform the actions of policy-makers in Defra. While the growing field of interpretive policy analysis offers a framework through which to study meaning in the policy-making process, I feel that there is also something to be gained by applying the tools of organization studies to the civil service. It is my intention, in this thesis, to explore storytelling in Defra and in doing so to understand how officials order their working lives. In the following chapter, I further elucidate my research methods and discuss the methodological underpinnings of interpretive research in more detail.

Chapter Four

Interpreting Organizations

Introduction

A commitment to an interpretive approach to policy analysis does not necessarily entail a commitment to particular research methods, and in this chapter I discuss my choice of strategies for collecting the data for my research, namely participant observation and interviewing. The difficulty in writing a 'methods' chapter is that my experience has not followed what Cook and Crang (1995 p4) call the "conventional *read*-then-*do*-then-*write* sequence" of doing research. My fieldwork was arranged to make the most of opportunities for participant observation that arose during the early stages of the research. The structure of the chapter represents the temporal sequence in which the data was gathered and written up, but in reality the development of research questions, analysis of data, and time spent in the field was an iterative process rather than a linear sequence of activities. Firstly, therefore, the chapter covers the period of participant observation, then the rationale for doing interviews, and finally the means by which I analysed and wrote about the results. The purpose of the chapter is not only to describe what I did but also to explain how it fits into the methodology of the research project, and to be as transparent as possible. Consequently I have set out in as much detail as possible the practicalities of doing the fieldwork.

Participant Observation

My research began with a period of participant observation, which, as I have already mentioned in preceding chapters, was to prove instrumental in directing the course of the project. This preliminary fieldwork took the form of a two-month secondment to Defra, working in the Exotic Disease Prevention and Control (EDPC) division of the Animal Health and Welfare Directorate General. I worked from Monday to Thursday at the divisional offices in Page Street,

Westminster, ostensibly as a civil servant. I was given several projects to work on, independently or as part of the team to which I had been assigned. These tasks ranged from essentially administrative tasks such as writing reports to more investigative roles, gathering evidence for cross-cutting reviews and presenting the results to more senior staff. As part of these projects I was required to attend various meetings. These ranged from small informal team meetings to large board meetings with staff from across Defra and its agencies. In addition, as staff became aware of my presence and personal research interests they invited me to other meetings that they thought would be of interest. Living in London, sharing the staff canteen and keeping office hours, as well as my active participation in meetings and the policy process, gave me an experience of life as a civil servant in that particular division of Defra which no other method of research could afford.

The aim of this participant observation was to gain first-hand experience of policy-making in Defra. Ethnographic inquiry enables the researcher to find out what it is that everybody in the setting in question takes for granted. I had felt some dissatisfaction with my previous attempts at researching Defra policy-making (my masters degree thesis, which studied bovine tuberculosis and relied on interviews) because of my inability to 'ask the right questions'; because I didn't really have a sense of who was at different types of meetings, how advice was transferred between scientists and policy-makers, and because all these things were taken for granted by my interviewees, I felt that my analysis only performed a superficial interpretation of the issues involved. Thus, by doing the participant observation I wanted to be able to refine my research questions and be more informed about the background issues of working in Defra. Another important aspect of ethnography for me was the fact that it is (usually) done in real time, in contrast to retrospective policy analysis. Consequently, this gives a very different perspective to normal means of studying policy-making, although the importance of this was something that only really became apparent during the participant observation when my experiences contrasted with my expectations.

Participant observation is not simply a process of entering a field site and taking notes on its characteristics but, as Denzin describes, "a field strategy that simultaneously combines document analysis, respondent and informant

interviewing, direct participation and observation and introspection" (1970 p186). The experiences of researchers vary widely as there are few guidelines determining the optimum length of fieldwork, or the means of conducting the data collection. Consequently, it is important that written accounts include reflections on the key factors that have influenced the field research. Altheide and Johnson (1994 p494) suggest several items for locating and informing the role of the researcher vis-à-vis the phenomenon being studied, around which this section is structured:

- Accessing the setting
- Approach and presentation of self
- Trust and rapport
- The researcher's role and way of fitting in
- Mistakes, misconceptions, surprises
- Types and varieties of data
- Data collection and recording

These items are used as starting points for discussing the key issues that arose during my Defra placement.

Accessing the setting

In order to access the setting (in this case, Defra's exotic disease prevention and control division), I used a contact that my doctoral supervisor had made within the division to try to negotiate entry. After a series of emails, we had a teleconference to discuss the length of my visit, the hours I would work, and how the secondment would be funded. At that stage, I knew little about the work I would be expected to do and understood little about the division itself. My arrival in London to begin the secondment was, in effect, a more important phase of accessing the setting, as I met my two Defra supervisors who were responsible for managing the secondment. This entrée period was marked by many conversations in which my Defra supervisors talked about the importance of confidentiality, and they frequently sought reassurance that I understood my obligations not to talk to

'outsiders' about my work and what I heard in meetings. The confidentiality agreement we brokered was less formal and more ambiguous than I would have liked. My Defra supervisors were happy for me to see, read, and hear anything during my secondment. I could make notes, and use my observations in my research so long as the material did not cast Defra 'in a bad light'. I was not permitted to use the names of staff, or to quote their words directly. And in some cases, where the material concerned was sensitive, I was not to use it at all. I felt as though the first week was a chance for them to 'test' my trustworthiness, by monitoring my behaviour and reactions to the events I witnessed. I was careful not to make too many notes, ask awkward questions, or speak out of turn at meetings. By the end of the week they appeared to be satisfied, and allowed me to start work on my project autonomously.

For much of the time, my two Defra supervisors acted as gatekeepers, determining who I spoke to and which meetings I attended. Although they were diligent in collecting me from my desk before meetings and showing me where to go, I had no way of knowing how and why they chose to take me to some events and not others. Some of their decisions were guided by the project they had given me, as I was frequently asked to attend a meeting that would be relevant to my work. At other times I was told that it would be good for me to witness a particular type of meeting because I would find it interesting (as an outsider with an interest in policy-making), but I was usually not asked to attend similar meetings again because they thought I only needed to see one typical meeting and no more. It was possible for me to find out some of the meetings that were taking place by looking in staff's electronic diaries that are used to check availability when scheduling events. However, even when I found out that a meeting was taking place that I was interested in, I felt powerless to ask if I could go along. On one occasion I *did* ask, and was told that I couldn't go because the division was trying to cut down on the number of staff who attended this particular type of meeting. At this point I seemed to occupy a difficult position between insider and outsider; I was clearly considered 'staff' by those who wanted to limit the number of attendees, but I felt very strongly that as an independent researcher, I would be interested in going along. This was not the only example of my gatekeepers' agenda in deciding which meetings I should attend. In some cases, I was effectively compelled to

attend a meeting because I would be required to discuss my project and the progress I was making. Although this was unnecessary to some extent (one of my Defra supervisors could equally have given an update) it seemed to me that they were keen to show their managers what they were 'getting' from the student on secondment, and to prove that I had been a worthwhile investment.

Participant observation is criticised on the basis that it may cause actors to change their behaviour in the presence of the researcher. These reactive effects may seriously jeopardise the external validity of the research if actors have significantly altered their normal behaviour. Moug (2007 p109) argues that reactive effects are unavoidable in participant observation because the researcher deliberately "sets out to become involved in, or influence, the setting under investigation by striking up relationships with people in the setting". The acceptance of the presence of a researcher over time does not diminish the problem; instead it produces a "selective contamination" in the data gathered as information given at the beginning of the study may be less reliable than that gained when the researcher is accepted (Denzin 1970 p261). It is also claimed that in some situations, participant observation hinders the collection of data because the participation element (especially in workplaces) can "get in the way of" observation (Moug 2007 p109). Advocates of non-participant observation claim that it allows the researcher to remain at a distance from the situation or actors under study, giving them greater freedom to collect data and enabling them to avoid taking a stance on issues such as the politics of the group being studied (Moug 2007 pp110-111).

While these are valid criticisms, they are similar to those made of all types of social research; people are not studied in a vacuum and it is impossible to create a laboratory-like situation where the presence of a researcher has no effect whatsoever. There are two possible approaches that can minimise the threat that reactive effects pose to the validity of the research. The first is to triangulate data, that is, to compare information from different sources and information gathered in different ways. The second approach is to acknowledge the extent of reactive effects among the research participants in the written account, to make the reader aware of potential 'contamination'. Those employing an interpretive approach see

this issue differently, however. The suggestion that observation and participation are mutually exclusive is problematic because the interpretive researcher is not aiming for clinical distance from the 'research subjects'. The part that the researcher plays in the sensemaking process of the participants must be acknowledged. Perhaps more than most, I actively influenced the research setting by not only openly observing policy-making but actually contributing to policy-making by producing reports and documents of my own, giving presentations at meetings and so on. It is not a case of sitting quietly in a corner to observe the lives of others. When participating in an activity the researcher is constantly gathering information through their own experience. The authority of the researcher comes from "being there" and encountering at first hand "the mundane nature of elite life, and the 'nitty-gritty' of government action" (Rhodes et al 2007 p3).

Approach and Presentation of self

Many staff were made aware, by emails from my Defra supervisors, that I was visiting the division and that I was an academic researcher with an interest in the policy process. In practice, however, I only met a small number of staff in person during the first week and after that I was generally assumed by everyone else to be a new employee. The turnover of staff in the division is fairly high and it was commonplace for staff to be seconded from other divisions, or employed as consultants on a short or long-term basis. Consequently, there was little reason for me to be noticed as a newcomer, and almost all staff accepted my presence without question. Atkinson and Hammersley (1994 p249) suggest four factors in the self-presentation of the researcher which influence the experience of participant observation:

- Whether the researcher is known to be a researcher by all those being studied, or only by some, or by none.
- How much, and what, is known about the research and by whom.

- What sorts of activities are and are not engaged in by the researcher in the field, and how this locates her or him in relation to the various conceptions of category and group membership used by participants.
- What the orientation of the researcher is; how completely he or she consciously adopts the orientation of insider or outsider.

Several points can be made here. Firstly, from the outset I was clear that the Defra staff would be made aware that I was working with them as a researcher from Newcastle University, and that my secondment would provide me with an opportunity to observe their working practice. I was not comfortable with the idea of covert research and, in any case, explaining my research often helped me because staff invited me to meetings that they thought would be of interest, or told me an anecdote that they thought was relevant to my area of work. However, it would have been impossible for me to tell everyone I met, over a period of eight weeks, that I was not a Defra employee and that I was observing their behaviour as an 'outsider'. At some meetings, there were over forty people present, and it would have been inappropriate for me to interrupt the proceedings to try and say something about my research. In other cases, when I was working on the project Defra had given me, it seemed irrelevant to tell someone who I was phoning for a piece of information that I was also there to undertake my own research. Despite these limitations, I took many opportunities to make my position clear to those whom I was observing. In addition to the information that was circulated before my arrival, at some meetings my Defra supervisor introduced me to the Chair (and anyone else who happened to be present) so that I might have permission to sit in on the meeting. When there was a teleconference, all participants stated their name and which organization they were from, for the benefit of those telephoning in.

Atkinson and Hammersely's criterion of "consciously [adopting] the orientation of insider or outsider" (1994 p249) was problematic as it was other Defra staff who seemed to determine my status, and my portrayal as insider or outsider became context-dependent. At meetings with stakeholder groups, for example,

these stakeholders were clearly 'outsiders' who had been invited to a Defra building for a meeting. I was seen by them as 'Defra' and thus an 'insider', and rarely had an opportunity to speak directly with the stakeholders. At management board meetings, however, my Defra supervisors were keen to emphasise that I was an academic 'outsider' who they had brought in to give a fresh perspective on their work. As a social scientist, I was particularly valuable because this is an aspect of their expertise that the division is keen to expand. At meetings with scientists and veterinarians, they saw me as being on the 'policy' side (rather than the 'experts' side), because I was identified with my Defra supervisors who are policy-makers. All of these instances affected the ways in which I was perceived by others, and as a result affected their interaction with me in some way. Membership of certain groups (such as 'insiders', or policy-makers) in the division could be a powerful tool for accessing other groups or information, and my experience of working in Defra could have been quite different if I had been identified with other categories of actor.

One more point that I would like to make about researcher identity is that it is not a simple case of 'managing' one's own presentation of self – it is reciprocal and one's own views of the organization change as a result of the process of working there. As Coffey (1999 p5) points out, "This sort of approach does not address, in any detail, how fieldwork shapes and constructs identities, intimate relations, an emotional self and a physical self." Actually working alongside Defra officials shaped the sort of research I wanted to do; I didn't want to simply criticise them and appraise their "ability" to make policy. As the project unfolded, it became clear that I wanted to highlight the nuances of policy-making, the multiplicity of forms it can take and the difficulty, in consequence, of pronouncing whether certain types of policy formation are 'good' or 'bad'. Partly, this was because I sympathised with the Defra officials, having shared their experience for several months. Partly it was a result of a more sophisticated understanding of the nature of policy-making. The question of critique and critical distance in interpretive research generally, and my project specifically, is returned to in the conclusion of this thesis.

Understanding language and culture

Before entering the field, I attempted to do some preparatory work to ensure that I was well equipped for the secondment. As well as thinking through the areas I would later like to investigate in my thesis, I tried to find out something about the organization I was joining and the work I would be expected to do. However, one of the primary reason researchers choose participant observation as a method is to study hard-to-reach groups who cannot be located by other means, and civil servants are no exception. My only substantial source of information about Defra was their own website but this gives very little information about the structure of the Department and when I arrived I had almost no idea what the division I was joining actually *did* on a daily basis. I was given many documents when I arrived, including an organizational 'map' showing the job description and grade of all the staff within the division. I was also given many background documents for the project I would be working on, as a way of familiarising myself with both the topic area and the method (in terms of length and style) of writing documents for Defra. I was given many practical items including notebooks and pens like those used by everyone else in the division, folders and files and my own telephone line and Defra email address. I received the welcome pack that is usually given to new employees, which included information about the local area, staff leisure and catering facilities, and many other routine details. I felt very much like an outsider, but the staff were keen that I should feel at home and be treated no differently from other employees.

However, learning the culture of the department took a long time, and producing reports was a laborious process of finding similar work done in the past and emulating its structure and format. When I arrived, one of my Defra supervisors pointed out that, as a doctoral student, I was the most qualified person who had come to do such a secondment in the division. They had strong preconceptions (encouraged by my CV which included a number of publications in the area of agriculture policy) that I held expertise that would be of use to them. I, on the other hand, felt *under*-qualified for the work they were expecting me to do. Much of the content was outside my existing field of knowledge (concerning specific animal diseases, or pieces of legislation) and many of the skills they demanded

(including risk assessment and project management) were beyond my abilities. Even attending meetings could be fraught with misunderstandings and required negotiation between myself and the other participants. In one rather awkward instance, I was asked to move from the seat I was sitting in at the table to one in the corner of the room, because it was customary for the most 'important' participants to sit near the chairperson. On other occasions I was asked to sit at the side of the room unless others failed to arrive, in which case I could be 'promoted' to the empty seat at the table. Being able to manage these situations successfully and adapt to the culture of the Department was crucial to the success of the placement.

Trust and Rapport

The success of participant observation hinges upon the relationship between the researcher and those who s/he is attempting to study. The acceptance of the researcher into the group being observed, the researcher's access to people and materials, and the direction that the fieldwork takes are all dependent upon the way the researcher manages their self-presentation. Participant observation is different from other qualitative methods, such as interviewing, in that the researcher is in a very precarious position involving the constant renegotiation of roles. Once an interview has been granted, for example, the researcher will more often than not be able to ask their questions without fear that the subject will suddenly terminate the interview. In participant observation, on the other hand, the researcher is at the mercy of those s/he is studying, as inappropriate behaviour may result in expulsion from the field (or in less extreme cases, they may be denied access to group members or events). This creates a power relationship that often favours the research subjects. Should the relationship with my Defra supervisors have deteriorated, they would have been able to exclude me from meetings and effectively cut off my contact with other staff. The tasks I had been assigned offered me an 'official excuse' to contact people outside of my immediate circle of colleagues, but an inability to produce adequate results could have isolated me from the staff. My credibility as a researcher was, for them, based on my academic qualifications, and it is likely that our relationship would have changed had I failed to produce effective outputs from the tasks I was given.

Despite my early acceptance in the office, I frequently encountered suspicion among new acquaintances. Defra receives heavy criticism from journalists and pressure groups, and 'outsiders' are consequently perceived to be hostile to the Department. By carefully wording the aims of my fieldwork, however, I was able to use my project to gain the trust of my Defra colleagues. As others have observed, the chances of co-operation increase when the researcher's interests seem to coincide with those of the subjects, and especially so when gatekeepers believe the research will report favourably on an issue they want to be publicized (Shaffir and Stebbins 1991 pp25-30). When I was able to speak in more general terms about my research, and describe it as a project on Defra's policy-making process, I found that people were very receptive to my presence because many had their own grievances about the part they played in policy-making. Winning trust was a long process involving tact and sensitivity. I was frequently taken into the confidences of staff who wanted to complain about some aspect of their job, whether it was the heavy workload, unrealistic demands from Ministers, or the uncooperative members of the farming industry they were expected to deal with. Although I tried not to appear to take sides, my apparent sympathy (as opposed to vocal criticism) contributed to my acceptance within the Department. Had I argued with their views on disease management, or other contentious issues, it is likely that I would have encountered reserve and an unwillingness to share information with me.

I also learnt to behave in a manner appropriate to the office environment. For example, I did not take a central position at meetings, nor noted down everything that was said and done. I felt that the latter was particularly important as constant note-taking, particularly when people were speaking about sensitive issues, would have created an impression that they were 'under surveillance'. A turning point came during a meeting where the Chair looked around before sharing some information and said "we're all Defra people here"; an important indicator of my acceptance. Even this acceptance was only temporary, however, and when I returned to conduct interviews eight months later, respondents were again at pains to re-establish the terms of our relationship. Some used phrases like "we know each other" to emphasise their willingness to help with the research, while others

said "I know you don't want to make Defra look bad", as though trying to prevent any criticism by reminding me of the good relationship I had enjoyed with the Department.

Collecting empirical materials

During the period of participation, I had two methods of collecting empirical data: recording events in my field diary, and gathering documents, either paper or electronic. Documentation took many forms including minutes of meetings, emails, reports given to me by other staff members and documents that I found on the Defra intranet. As I had only a rudimentary idea of the direction my thesis would take, I kept a copy of virtually every document that I received. Taking notes required greater thought. Wolfinger identifies two strategies for note taking: comprehensive note-taking, where everything (as far as practically possible) is noted, and the 'salience hierarchy' where the researcher focuses on events which he or she considers most important (Wolfinger 2002). In practice, for many people a salience hierarchy is employed whether they recognise it or not, as each individual has mechanisms for filtering and sorting information which depend on many factors. For example, with regard to the documentation, I reported keeping "virtually everything" I obtained during the placement. But this still leaves a number of documents – emails about the staff canteen, for example – which I discarded because I assumed them to be irrelevant. At the time of the initial fieldwork, I was not interested in the materiality of policy-making and so prioritised attention to talk above attention to objects and spaces. As Emerson et al argue, it is vital that researchers acknowledge the mental sorting processes they have used when recording their impressions of events, as "fieldnotes are written accounts that filter members' experiences and concerns through the person and perspectives of the ethnographer; fieldnotes provide the ethnographer's, not the member's accounts of the latter's experiences, meanings, and concerns" (Emerson et al 1995 p13).

Many authors of ethnographic methods texts stress the importance of writing extensive notes while 'in the field', both to capture initial impressions before becoming accustomed to the setting and therefore becoming blind to important

features, and to give a broad base of data which does not restrict the possible avenues of analysis that can later be carried out (see for example Emerson et al 1995 p11). There are dilemmas for the researcher, however, in finding the time to write and whether to make notes overtly or covertly in the presence of the research subjects. One benefit of this type of organizational ethnography was the culture of taking notes at meetings. Without exception, participants at meetings would be taking notes and my Defra supervisors at the start of the placement gave me several standard-issue notepads, so even my writing materials blended in with those of my subjects. However, there were times, as mentioned earlier, when it seemed inappropriate to be taking notes, for example when something tangential to the meeting was being discussed (e.g. gossip about other staff, or tentative ideas that were not yet formally proposed for discussion). There were also many instances when conversations held in the lift, by the kettle, or at an office party were interesting but I had no chance to write them down until several hours after the event.

Interviewing

As I have already discussed in the thesis, the preliminary fieldwork was a period of discovery where disparities emerged between what I expected policy-making to look like and what was actually observed. As Yanow suggests, the process of reflecting on these puzzles and tensions can lead the researcher to perceive that members of the group being studied have invested something with a meaning that is different to the meaning afforded it by the researcher (Yanow 1996 p45). As a result, the tasks of the researcher are to understand what these meanings are and to understand the interpretive processes at work. Being interested in the storytelling approach, I decided to conduct interviews to explore the way that policy-makers talk about policy-making. There are those (e.g. Gabriel 2004, Maynard-Moody and Musheno 2003) who advocate actually asking participants to recount stories (defined as anecdotes with beginning, middle and end, a plot etc), rather than simply interviewing them about their experiences. However, I do not feel that this strict adherence to the notion of a story is necessary; meanings can be communicated in many different forms and, it seemed from my observations, there was little 'story-telling', strictly defined, in Defra. As such, I did not feel

that asking people about their experience of policy-making would miss substantial information. Indeed, it transpired that in the course of the interviews people often recounted anecdotes about occurrences without specific prompts to do so. So my purpose in conducting the interviews was to gain an understanding of the meaning that policy-makers and scientists attach to their work.

Eight months after completing my period of participant observation I began conducting in-depth interviews with 16 individuals who I had identified as key actors in the policy-making process around animal disease. In deciding who to interview, I tried to recruit people who would have different perspectives on policy-making. The interviews were typically one hour in duration and took place at the workplace of the interviewee, because I felt it was important to meet participants in their work environment. I used the experience of participant observation to make decisions about who to interview. Yanow (2006 p71) draws an analogy with actors rehearsing to illustrate this process: through preliminary fieldwork, researchers "learn the action repertoires of their research craft: how to select 'good' research sites – places where they will be more likely to observe what it is they want to see; how to identify 'good' documentary locations or 'good' people to chat with; how to 'topic talk' with them; and so on". Sampling in this sense does not involve randomly selecting respondents, but using intuition and knowledge gained over a lengthy period of fieldwork to select the most appropriate candidates for further research. I knew from my prior experience that insight into the policy process would require speaking to a wide range of people, and I also knew who would be most willing and able to participate in an interview.

Consequently, I identified key categories of actors: Defra civil servants (from the exotic disease division), Defra Science Directorate staff, Government scientists, Government veterinarians, Chief Scientific Advisors, Chief Veterinary Officers, Science Advisory Council members, consultants, stakeholders, and civil servants from the devolved administrations. I located informants from each category and contacted them by email. The response rate was high. Of the 20 people who were approached 16 agreed to be interviewed. I knew that a large number of interviews would not be possible, due to the small number of individuals within each

category, and because they were extremely busy due to a series of exotic disease outbreaks from September to January 2007 (there were multiple outbreaks of Foot and Mouth Disease, Avian Influenza and Bluetongue disease in this period). However, the number of people interviewed was less important than their relevance to my research questions. As Cook and Crang point out, "researching the lives of every member of every interest group is not only impractical in most studies but is also unnecessary because there usually comes a point in the research process where the range of arguments that *can* be made concerning a particular matter *has* been made" (1995 p11). Therefore, rather than seeking the highest number of respondents, I worked on the principle of asking interviewees who else they thought I should speak to and, when no new names were offered, I felt confident that I had covered all the relevant actors.

As well as the problem of accessing respondents during a time of disease outbreaks and other upheavals (the exotic disease division was in the process of moving to offices in a new building), several other issues arose as a result of the 'elite status' of many of the people I was interviewing. Rossman and Rallis (2003) have described the challenge posed by interviewing elites and they make observations that are equally relevant to my study of senior civil servants, laboratory directors and so on. The elite individual, they argue, "is typically quite savvy and may resent the restrictions of narrow or ill-phrased questions. He or she may want an active interplay with the interviewer. Elites respond well to inquiries about broad topics and to intelligent, provocative, open-ended questions that allow them to use their knowledge and imagination". Therefore, greater demands are placed on the ability of the interviewer, "who must establish competence by displaying a thorough knowledge of the topic or, lacking such knowledge, by projecting an accurate conceptualisation of the problem through shrewd questioning" (2003 p192). Through my placement in Defra, I did have detailed knowledge of the topic and, usually, the person I was interviewing. This was not enough to ensure a successful interview, however; there were several occasions on which I felt I was being given generalisations instead of meaningful occurrences, or that the interviewee was answering a different question to the one I had asked.

Thomas, who studied corporate executives, explains why this can happen in elite interviews: "talk is the stock in trade of corporate executives. That is, they are paid to think and talk and, more pointedly, to talk to a wide variety of audiences. Their public or organizational persona is formed through training in public speaking, in dealing with the press, and even in how to be interviewed" (1995 p11). Consequently, it is quite common to "watch an executive mentally 'rewinding the tape' in search of an appropriate phrase or monologue that appears to accord to a particular question. This may be unavoidable (even unintentional), but the effect is the same: He will launch into a speech if the question allows or if the question does not challenge the appropriateness of a speech" (Thomas 1995 p11). The most exaggerated example of this was an interview where the participant talked for fifteen minutes without my having asked the first question. Forester (2008 p146) warns against being "held hostage to familiar but reductive rationalisations", variously termed "scripts", "spiels" and "homilies". A strategy to avoid rehearsed narratives is to ask for specific details and examples and to challenge serial grievances with requests for possible solutions (Forester 2008 p146). Additionally, it is important to be clear about who exactly you want to interview – the individual, the position, or the organization, because "in the absence of clarity, the third is likely to be chosen by the interviewee" (Thomas 1995 p10). In my experience, respondents immediately began to talk about Defra's position on a subject, and seemed surprised that I would rather hear about their own personal experience. Likewise, many assumed I wanted to talk about the latest disease outbreaks, which were frequently in the news, rather than their everyday work. Only through very specific and explicit questioning was I able to redirect them to the topics I wished them to speak about.

There are other, more deliberate reasons for respondents to avoid answering questions that is particularly common in political research. Political elites may approach the interview with an agenda at odds with that of the researcher, a consequence of their position in the public arena and the importance of their image and reputation. The aims of the interviewee may be "to present themselves in a good light, not to be indiscreet, to convey a particular interpretation of events, to get arguments and points of view across, to deride or displace other interpretations and points of view" (Ball 1994 pp97-98). The researcher must, as

a consequence, be aware that misleading answers may be given. In studies of the civil service, some have found that actors tend to claim key roles and influence for themselves (e.g. Ball 1994 p104) while others argue that they often underemphasize their role, particularly if the policy has not been a successful one (Duke 2002 p49). While the nature of interpretive research is to treat all respondents' viewpoints as valid interpretations (in other words, the researcher does not have access to different 'truths' because he or she is an outside observer), this does not entail uncritically accepting every story that is told. It is vital that the researcher considers alternative perspectives on the information offered by elites and acknowledges resistance to, or narratives that compete with, the dominant discourses presented to them. The potential for ignoring certain discourses, or of self-silencing by participants, must also be considered. There may be people who felt unable to talk about certain topics or who felt compelled to present their views in a particular way. It is one of the chief purposes of this thesis to challenge this; firstly by interviewing those usually ignored (middle ranking officials) and also by seeking to explore challenges to the dominant 'rational' discourse of policy-making.

Analysing the results and writing the text

Just as my research has not followed the supposedly linear transition from literature review to fieldwork, it is also difficult to make a neat distinction between data collection and analysis. As Yanow observes, the distinction between data "collection" activities and data "analysis" has temporal reality (in the sense that fieldwork often precedes desk-based analysis) but it is conceptually artificial because sensemaking occurs before entering the field and while observing and interviewing, as well as afterwards in the "analysis" period (Yanow 1996 p35). In my case, I had already had time to reflect on and begin to interpret the period of participant observation before I began interviewing, and so directed my interview questions towards particular topics. In this sense, then, I had already begun to make sense of Defra and use this preliminary sensemaking to guide my further investigation. Even within the interviewing period, my questions changed as interesting themes emerged. Interviewing is more than simply setting a tape recorder running and asking a series of questions. I wanted to follow Soss (2006

p136), who argues that in-depth interviewing "can be viewed as a set of simultaneous activities that support and direct one another in the field: discursive and dialectical conversations with interviewees, transcription activities, coding and analysis of data in hand, analytic memo writing, purposive selection of next informants, revision of interview protocols, and so on." There is a second element to the falseness of the distinction between data collection and interpretation, however, which stems from the fact that there is no such thing as 'pure' data, free from interpretation. As Yanow puts it, data "are not 'collected' or 'gathered' as if they were so many butterflies or seashells strewn about an organizational beach just waiting to be found" (Yanow 1996 p44). This is particularly true of attempts to gather stories and narratives, because each retelling is a recreation of the world of the participant, and these recreations "are not photographically accurate accounts of events and people. Researchers cannot separate the storytellers' interpretations and their decisions regarding what to present and how to present the story from the events recounted (or invented) and the characters described (or imagined). Stories are not facts or evidence waiting for interpretation; they are, from the moment they are conceived through their many tellings and retellings, the embodiment of the storytellers' interpretations" (Maynard-Moody and Musheno p320).

The aim, then, was not to collect pure stories and then analyse them from my privileged position as 'outside' observer. The aim of interpretive analysis is to study situated meanings; consequently I wanted to study the stories told to me during the interviews and compare this with my experience of observing Defra. As Taylor explains, "We make sense of action when there is a coherence between the actions of the agent and the meaning of his situation for him. We find his action puzzling until we find such a coherence [...] This coherence in no way implies that the action is rational: the meaning of a situation for an agent may be full of confusion and contradiction, but the adequate depiction of this contradiction makes sense of it" (cited in Soss p133). The first stage of my analysis involved coding the interview transcripts: assigning chunks of the text to different categories. To do this I used qualitative data analysis software, QSR NVivo 7, which allows text to be coded with multiple tags and permits faster access than traditional 'cut and paste' methods. In coding the data, I highlighted

parts of the text and applied a category to them: not a predetermined category, but a label derived from the interview transcripts themselves, such as 'frustration', 'management' and 'craziness'. It is not my intention in this chapter to discussion the merits and shortcomings of the NVivo software (there is a burgeoning literature on the subject of computer-aided qualitative data analysis, e.g. Kelle 1995; Weitzman 2000; Bringer et al 2004) because it was simply a starting point for my analysis and my interpretation of the data did not rely on its peculiar merits.

After coding the interview transcripts, I perceived that two themes predominated in the data: complaints about work, especially feelings of ineffectiveness and the difficulty of working the Department, and ideas about who is or is not useful, expert, and so on. These themes were arrived at intuitively, rather than by doing pseudo-quantitative keyword searches; it was not that particular terms were used more than others, but that it became apparent to me many comments returned to these two overarching narratives. Therefore, I wrote two chapters – directly following this one – arranged around the themes of bureaucracy and expertise. In the spirit of Law (2004), who counsels against searches for certainty and singularity, these are not two directly complementary sets of stories; the voices of both policy officials and scientists are present in each, and they are sometimes overtly contradictory in their interpretations of events. The same people who call themselves experts are derided as 'out of touch' by others, while the same meeting may be heralded a success by some and a waste of time by their colleagues. These contradictions and gaps are not problematic; rather, competing interpretations form the basis for the argument in the rest of this thesis.

Writing up interpretive research requires sensitivity to the fact that a thesis gives the impression of being a final, ordered and complete account of the phenomenon or group under study. It is rare for participants to collaborate in producing the text, and so it is perceived as the observations of an 'expert' who has entered their field and recorded their behaviour. Interpretation can be portrayed as an "act of inscription" which gives authority to the inscriber and simultaneously "suppresses the dialogic dimension of constructing interpretations of human action" (Schwandt 1994 p131). Conventional social science texts often claim to be

definitive accounts of the research subject, presuming that "there is a world out there (the real) that can be captured by a 'knowing' author through the careful transcription (and analysis) of field materials" (Denzin 1997 pp4-5). This style of reporting social scientific findings, with its emphasis on the objective stance of the researcher, "contrasts badly with the down-to-earth routines of the people under study" (Shaffir and Stebbins 1991 p5). Thick description is posited as an alternative means of communicating research findings; a means which prioritises detail over conformity to a theoretical purpose. Denzin (2001 p52) argues that the purpose of thick description is "to rescue the meanings and experiences that have occurred in the field situation. It captures the interpretations persons bring to the events that have been recorded. It reports these interpretations as they unfold during the interaction." In doing so it establishes the grounds for "thick interpretation", which attempts to "uncover the meanings that inform and structure the subject's experiences." In order to fulfil these aims, thick description should be sufficiently detailed that it allows the reader to experience vicariously the events that are being described, by presenting data without significant explanatory glosses (Denzin 2001 p117).

I have used two different writing strategies to represent the data that I have gathered. The first is the vignette in Chapter One, which is based on my fieldwork diary from the participant observation period. The vignette aims, after Denzin (2001), to offer a means for thick interpretation. In capturing the mundane nature of everyday life in Defra the vignette not only gives those who have never worked in such a Department an opportunity to understand what it is like, but also gives detail of circumstances and activities and places that are generally absent from interview data, precisely because they are features of Defra so taken for granted by those who work there. The second writing strategy is the use of direct quotations from interview transcripts, edited only for grammatical accuracy where necessary, and supported by my own explanations of the context in which the words were spoken or the described events took place. These are included in Chapters Five and Six. I felt that it was important to use direct quotations because the language in which they talk about their experiences is a significant indicator of the way that they have interpreted them. By combining these two forms of

presenting data, I aim to give a fuller picture of life in Defra, and to allow sufficient detail for others to reinterpret the data for themselves.

Conclusion

This chapter has described in detail the two phases of fieldwork carried out as part of my research project, the rationale behind them, and the benefits and drawbacks of each method of gathering data. As I have demonstrated, the two phases held very different challenges. In the participant observation phase, I had to develop a working relationship with Defra staff and establish myself as both an independent researcher and a policy colleague, and manage the conflicting roles and identities that these dual purposes entailed. The second phase, consisting of in-depth interviews, was more formal in the sense that I had only one role, as an outsider wanting to know more about Defra, but there was still a degree of sensitivity and negotiation required in order to arrange the interviews and ask participants about their work. The aim of this chapter was not to demonstrate the validity of my findings by discussing sample sizes and researcher disturbance and so on, because I do not feel that these criteria are particularly helpful ones against which to judge the merit of interpretive policy analysis. The aim was to set out the circumstances under which the research was conducted, to point out difficulties and to make clear the sources upon which my own claims and interpretations are based. In doing this, readers may judge for themselves how plausible they find my arguments in this thesis.

The emphasis of this chapter has been on the reflexivity that is essential to the interpretive methodology. Interpretive research is not impressionistic, despite the emphasis put on thick description and lengthy reporting of participants' own stories and opinions. The fact that researchers do not enter the field with fixed hypotheses and research questions to answer should not imply that interpretive data gathering and analysis is without order. As Yanow argues, the rhetorical power of the orderly and finite steps of positivist research denotes a sense of rigour which is, by extension, absent from interpretive research but interpretive methods are formal, in the sense of conforming to accepted rules or customs (Yanow 2000 ppix-x). The rules and customs are simply somewhat different to

the rules of more traditional methods, which might emphasise, say, sample size or triangulation. For interpretivists, criteria by which to judge a 'good' interpretation include internal consistency, a logical flow, and a wealth of detail that persuade the reader that the interpreter "knows intimately what happened, has an insider's understanding and a plausible explanation" (Yanow 2000 pp57-58). In this chapter I have set out the steps I took to ensure that these criteria have been met in my own research, and reflected on the process of studying policy-making as an interpretive activity.

Chapter Five

On Being the Bureaucracy: What it Means to Make Policy in Defra

> *So how difficult was it to get into policy-making? It was difficult to understand this slightly different world, [in my previous job] you're still running projects but they're generally much more focused; you're clear what you want to deliver, you're clear on the cost. Projects that fail and ones that don't are clear. So you're clear what you want to do, you're clear what your costs are, you're clear what your deadlines are and generally you know who's going to make decisions. When it came to policy-making, I head an area that had done some work but it wasn't obvious to me how they were going to deliver it because they hadn't got the buy-in they needed. They knew roughly what they were trying to achieve, but they were going into all sorts of detail about detailed recovery mechanisms and hadn't got the sign up to actually recover it.*
>
> *Grade 7 Civil Servant*

Introduction

In Britain, the term 'civil servant' has many connotations, almost all of which are negative. The civil service and its members have a definite place in the public imagination, and a lexicon of terms from the neutral ('faceless', 'bureaucratic' and the like) to the insulting ('pen pushers', 'jobsworths' and so on). Page and Jenkins (2005) outline three different images commonly associated with the civil service. The first is of the higher civil service as a sort of gentlemen's club, with few women employees, and a world of gentlemen's agreements, inventiveness with diplomatic language, shared codes of behaviour and so on. This image is supported by the research of Bevir and Rhodes (2003) who allude to the public

school traditions of this group when they claim that 'chaps' remains an important concept in understanding the culture of the senior civil service. The second image is that of a "much larger army of public servants who staff the offices of national government services which deal directly with the public or provide 'back office functions' [...] including social security, immigration, passports, and tax administration" (Page and Jenkins 2005 pp17-18). In this sense the term 'civil servant' is extended to refer to all public officials who work in offices whether employed by central government, local government, or any other public body. The defining features of these civil servants are that they are generally less well or even poorly paid and unionized. This image "shares much in common with a traditional view of the British working class, which, with the decline in manufacturing employment, has become increasingly represented in the service sector" (Page and Jenkins 2005 pp17-18). The third image proposed is that of an "army of faceless individuals in suits and bowler hats – the universal signifier of the English civil servant, understood from here to Beijing." The civil servant's clothing, including the hats that portray the civil service as still a largely male preserve despite statistics to the contrary, and commuter lifestyle, "firmly places them among the ranks of the middle class" (Page and Jenkins 2005 p18).

In addition to these images, Law (1994b) adds a description of the typical civil servant's behaviour and attitude: "The civil servant is told as the antithesis of the heroic agent. She absorbs like a sponge. She routinizes. She picks over the details. She worries about formalities. She dilutes and diverts [...] the bureaucratic wheels grind slow and fine as they wear down the entrepreneur and his works" (1994b p77). This is the personality type of a stereotypical civil servant, but she operates within a much bigger mode of ordering, that of the civil service as an administrative system:

> Administration tells of and generates the perfectly well-regulated organization. It tells of people, files and (to go beyond Weber) machines that play allotted roles; it tells of hierarchical structures of offices with defined procedures for ordering exchanges between those offices; it tells of organized and rational division of labour;

> and it tells of management as the art of planning, implementing, maintaining and policing that structure.

(Law, 1994b p77)

It is these aspects of civil servants and their systems – the emphasis on procedure, the dogged insistence on abiding by a rule book, the countless hours spent overseeing insignificant bureaucratic tasks, which are caricatured in television programmes such as *Yes Minister* and, more recently, *The Thick of It.* In the former, it is the creation of enormous bureaucratic structures to prevent progress or change that is the civil servants' weapon against interfering politicians. In the latter, the civil servants are left haplessly implementing endless changes in policy thought up on the spot by their incompetent Minister and his team of special advisers. In both, the image of the civil service is that of a layer of bureaucratic 'padding' between politicians and society.

Du Gay (2000) offers three suggestions as to why bureaucracy has come to be at best, mocked, and at worst, reviled. He claims there are three ways of conceiving of bureaucracy that represent three aspects of its failure. The first conception of bureaucracy du Gay terms the "popular conception", related to those stereotypes described above. Bureaucracy in this respect refers to large organizations that apply rules to cases, rather than using, for example, initiative or imagination to be more flexible in following procedure. The popular conception, therefore, "often appears to be little more than a long list of what people do not like about their relations with modern, 'positive' government: 'red tape', regimentation, a rising flood of forms, impersonalism and so on and so forth" (du Gay 2000 p1). Du Gay argues that this conception is contradictory, as someone who ridicules government form-filling and paperwork would be equally disdainful if their affairs or documents were lost track of by an official because they did not have recourse to such elaborate filing systems. Also, a person who complains about civil servants being tied to procedure would complain equally vociferously if they found that they had been treated differently to their neighbour in the same circumstances (du Gay 2000 p1). Therefore, he suggests, popular anti-bureaucratic sentiment trades on two dramatic, but rather contradictory representations of the 'typical

bureaucrat'. "One has this creature endlessly drafting diabolical regulations, 'cunningly contriving new controls over the private citizen' while extending its own, malign influence" while the other "has bureaucrats positioned as idle loafers, spending their days [...] reading magazines, planning sailing trips, or buying and selling stocks, all at the taxpayers expense" (du Gay 2000 pp1-2).

The second variant sees what Weber extols as "instrumental rationality" as a negative force, rather than a dispassionate and logical system of government. The bureau, under this conception, "can sustain its identity only through repressing and marginalizing its 'other' – the emotional, the personal, the sexual and so forth" (Du Gay 2000 p2). From this perspective, bureaucratic culture "is assumed to be based upon a series of 'foundational separations and exclusions' – between reason and emotion, pleasure and duty, public and private and so on – whose 'absent presence' erupts on to the organizational surface in the form of cumulatively disabling dysfunctions" (du Gay 2000 pp2-3). The bureaucracy is ethically and emotionally empty. Elsewhere, du Gay challenges this argument, pointing out that as an institution of government, the British administrative system performs not only bureaucracy but also politics, diplomacy, and forms of enterprise. It was instrumental in the creation of a National Health Service, a social security system and the nationalisation of major public utilities that involved managerial initiative and enterprise. As he points out, however, "reduction to any one of these various ethical capacities and comportments alone would undoubtedly damage the purposes the public administrator is charged with fulfilling" (du Gay 2005 p4). The bureaucracy can only survive by finding the middle ground between dispassionate administration and political or managerial purpose.

The third strand of criticism is the 'new public management' or public choice critique that became popular in North America and the UK in the 1980s (as embodied in, for example, Osborne and Gaebler 1992). In the UK, the bureaucracy was scrutinised by the Conservative government, intent on cutting public spending on unnecessary services, and found to be inefficient, wasteful of resources, inflexible and lacking effective management. The solution to this problem was found by introducing business principles to the civil service,

employing managers from the private sector and creating executive agencies that would be run in the manner of ordinary profit-making companies. Attacks were aimed at both the structure of the administrative system and the culture of those who worked within it. Compulsory Competitive Tendering (CCT), designed to ensure value for money in local service provision, exemplified this approach, forcing providers with established contracts to compete more openly and helping to overcome the suspicion that civil servants and the professions were "the source of vested interests, obstacles to change, and inefficient and self-serving working practices" (Gamble and Wright 2004 p3). The chief crime of the bureaucracy under this conception, then, is that the procedures and principles that Weber cherished have failed to keep up with the changing priorities of government. Rationality, for the bureaucracy, should mean operating in a cost-efficient, business-like manner.

There are many stories, then, about being a civil servant, both in popular culture, academic commentary, and government itself. Are these depictions fair? Do civil servants recognise them? In this section I explore the stories told by both civil servants and the others who worked with them (whether vets, scientists, or others) about what it is to be a civil servant (or policy-maker) in Defra. Unsurprisingly, their stories do not fit neatly with those caricatures of pen pushers and bowler-hatted men described above. However, they do describe a world filled with frustrations and fleeting moments of success, procedures to be followed and the shock of an emergency that disrupts them. The policy-makers are all too aware of the inefficiencies and illogical aspects of their work, but it does not prevent them striving to do the best job they can. Their stories, then, amount to a narrative of policy-making, of being a civil servant, as a constant battle for meaning and worth in their everyday jobs. Success and results are achieved against the odds, in a situation where even their own management seem to misunderstand them and make their lives more difficult. It is a tale of heroism as individuals take risks and face emergencies with imagination and determination to succeed.

Telling stories about the bureaucracy

People 'outside' of Defra – especially those who are attempting to hold Defra to account – such as members of auditing bodies and external advisory panels, feel frustration at the difficulty of doing so. Bureaucracy, to them, means a system of anonymous workers and decisions made by committee, making it extremely difficult to pinpoint who was responsible for a decision, or who should be contacted if a complaint was to be made. Staff in liaison roles (for example, in the Science Directorate of Defra, which co-ordinates dialogue between Defra and the Chief Scientific Adviser) commented that many months were spent, upon taking up their position, simply understanding the structure of the Department, identifying who had responsibility for which policy areas and functional tasks, and meeting the most important Defra staff members. They saw Defra as a monolithic, highly complex Department where even identifying and locating people was an almost impossible task. Even when contact is made, there is frustration at the way Defra seemed able to elude 'capture' by their critics. The Science Advisory Council (SAC) is a good example of a group with a scrutiny function that occasionally struggles to engage satisfactorily with Defra officials. The Science Advisory Council was created to monitor and challenge the scientific advice being used by Defra. Much of their work involves writing reports about an aspect of Defra's policy-making (either pertaining to governance or the handling of a particular issue) that are then put to the relevant Defra staff for them to comment and take action if necessary. When Defra receive such a report, there are three categories of response available: accept, accept in principle, or reject. Accept in principle is often used. One of the members explained that:

> Accept in principle is Sir Humphrey speak for we don't want to be seen to be saying this isn't right, but we don't want to actually do anything.

Sir Humphrey (to whom other interviewees from the SAC secretariat also referred when talking about Defra civil servants) is, of course, a principal character in the television series *Yes, Minister*; a Permanent Secretary who utilises every bureaucratic obstacle available to prevent the Minister pressing ahead with new

policies. He is famous for creating endless policy reviews and complex bureaucratic processes until the Minister is forced to give up his policy. Therefore the tendency to repeatedly choose 'accept in principle' is seen as evidence that some people within Defra merely want to obstruct progress and maintain the status quo. The same SAC member wondered whether the details of their meetings with Defra officials ever permeated through the rest of the Department. He felt that many Defra staff were hostile to the Science Advisory Council holding them to account, and suggested there are some of them who:

> regard us with a bit of suspicion and some who just think we're a bit of a nuisance because we keep asking questions and they took over our meeting so for the social science one we saw all the science coordinators and they turn up dutifully and most of them read themselves up for the ten minutes that they're there or the half an hour they're there, but you got the distinct impression that they then go away and forget about it, they've done their bit, they'll see the report, they'll see the response from Defra and they'll carry on.

Although people outside the division interpreted their difficulty in penetrating bureaucratic procedures as a deliberate attempt by Defra to prevent a transparent decision-making process, policy-makers took a different view. They did not talk of intentional obfuscation and opacity in procedures, but of a more benign state of inefficiency and disorder within the division. All the features of bureaucratic life, they felt, are against them: from the way staff are recruited and trained, the way people move within the department, to the difficulty of piecing together scraps of information to make policy and the need to fit work around an excessive amount of meetings. From the moment they enter the civil service, life is difficult as people are recruited to work areas that they usually have no qualifications for or experience in.[9] A Higher Executive Officer (HEO) who had recently taken over a new work area described the usual way in which new staff are inducted:

[9] Page and Jenkins' (2005) extensive survey of middle-ranking civil servants found that although 70% of respondents had a bachelor's degree before joining the service, the subject of the degree rarely corresponded with the policy area they worked in.

> You definitely do get help from people I mean everyone's very supportive and the standard approach is to point you at the website and give you a box of papers to read but people are obviously very happy to give you briefing sessions to try and get you up to speed I mean things that I've found very useful are just looking at powerpoint presentations that people have done in the past. Even if you can't speak the speak there's quite often notes on the presentation and it's the key messages very succinctly and you can pick up the gist.

New policy-makers are expected to 'pick up the gist' and then hone their knowledge through attendance at meetings (however resented they are), by dealing with queries, and by experience of the job. However, the reality is somewhat different. Many of the papers, reports and minutes created within the division are anonymous, and while it may be possible to find out who wrote a particular document, more often than not the author will have moved on to another division or even Department. Staff turnover in the exotic disease division is rapid and continuous. The papers are anonymous because it is seen as unnecessary to include peoples' names; they are, after all, the product of many people's efforts and they will rarely be seen by anyone outside of the organization. There are more problems than simply tracing the author, however. Defra internal papers do not follow academic conventions. They are not referenced, and there are no hints as to where a figure or a 'fact' has been obtained. Minutes or notes of meetings are vague, omitting the details of discussions and failing to attribute opinions to particular individuals. This causes problems for new staff who may be reading them many months after the event. I told the HEO I had been surprised, during my placement in the division, to find that papers were not referenced as academic papers are so scrupulously referenced. He replied:

> It's true, I guess, it would be better if things were referenced. I agree with you, but if it's meeting notes quite often they would be referenced with a name, I guess in some of the larger meetings like

> ADPG[10] you would reference with a name but I guess some of my larger stakeholder meetings rather than minutes as such we take more of a note which reflects what was discussed rather than a 'he said, she said' account because quite frankly we'd never get that cleared by all the people that are at the meeting. I can understand where you're coming from, when you're looking for a file and you find a particular document it's probably best to speak to the author and see what they did and if they're not around you have to take it with a pinch of salt, hopefully you'll be able to guess some of the sources just through speaking to other people or just from the content itself but you're right, when you open a file of papers it could all be true, couldn't it, or not.

A Grade 7 agreed that it was difficult to piece together a decision-making process retrospectively. He described a process like that of putting together a jigsaw without necessarily having all the pieces:

> There are some records [of the policy-making process] but not the whole story. You've got little snippets like I've got snippets from one of the Grade 6s who looks like they were the one who started this about putting advice to Ministers about different ways to approach it, but then the next thing I've got is a draft consultation that doesn't seem consistent with any of our options. So you don't necessarily get the full story and when you talk to the people who were involved they obviously don't quite remember how they got there.

The problem is just as acute for those who are providing the advice, as they find that their recommendations and reports are sucked into a void and never seen again. The scientists tend to see this as a result of the high staff turnover; in their view, the Division was struggling to maintain any sort of continuity when people were constantly leaving and being replaced by inexperienced administrators who

[10] Animal Disease Policy Group. The function of this group is explained in detail in Chapter Six.

need months of training and time to get on top of the job again. One scientist described his frustration at having to repeatedly get in touch with policy colleagues to find out what was happening to a project, when overseeing the progression of the project should be the policy staff's responsibility:

> There's a constant change, a throughput, but there is a continuum of people who have got the knowledge whereas sometimes if you do get a bit of a gap things can fall through the gaps as it were. You get in touch with them [policy-makers] and say 'what's happening with this?' and they go 'Oh God, I don't know, that was my predecessor' and they obviously didn't pass on everything before they left and so that can be tricky. So a bit more continuity in personnel [would be desirable].

For another scientist, this issue of information and knowledge falling through the gaps is inevitable because of the disorganization evident at the advisory meetings he attends. The frequent turnover of staff, the long period of time it takes to train newcomers, and the inability to ensure that information is passed on means that the scientists themselves are constantly called upon to re-educate staff in the basics of the issues they are dealing with:

> Quite often it's the same people in [different meetings] and you're surprised to find everybody in the same meeting. And other times you're surprised to go to the same meeting and find there are different people in who haven't heard what the hell was said at the previous meeting. And sometimes you get people who are completely clueless about the science and you think why the hell are they in it now? They've worked here for the last seven months, where's 'bloggins minor' who at least understood some of the science?

Policy-makers and their advisers identified many features of their working life that make efficiency and effective working difficult, as I have described above. By far the most frequently mentioned difficulty faced by division staff, in their

view, is the number of meetings that feature in their working week. It is something that interviewees from the highest to the lowest rank felt strongly about and they all commented on feelings of frustration at the meetings that everyone else (and it was always everyone else) insisted upon calling. When I asked a civil servant at HEO level how he divided his time during the working week, the first thing that came to mind were the meetings which dominate his diary:

> Unfortunately there are quite a few meetings to discuss various bits and pieces. Do you want an hour total [of time spent in meetings] for the week?
>
> KW: If you could give a rough idea
>
> I'd say worryingly it's probably ten to fifteen hours per week which is quite a lot. Maybe that's a harsh week. Ten would be standard I'd say. I'm just thinking of Friday, at least five hours were spent in meetings and that's horrendous really.

There was a feeling of one-upmanship in the division with regards to the length of the meetings endured and the lack of purpose they held. It is certainly not unique to this division, or even to Defra. A recent scandal involved a civil servant, thought to be in the Department of Work and Pensions (DWP), who wrote a blog about her working life under the pseudonym *Civil Serf*. Before it was removed following investigation by the DWP, one of her entries described a meeting that she was obliged to attend:

> I've received a meeting request that probably deserves a mention in the Guinness Book of Records," she writes. "It is for something called the 'People Action Team' (don't ask) and it is scheduled to last for a staggering seven hours . . . Truly there is no God.

(Source: Oliver, 2008).

Similar experiences were talked about in the division. A Grade 7, when asked how his working week was spent, replied:

> A good half of [this week] would have been in meetings of which maybe half of them were useful meetings. It's probably an unfair comment, that, but half of, probably quarter of the meetings, quarter of the week I have spent in meetings that were of value to me in doing my outcomes, the things I was trying to achieve. The other meetings I attended were usually about corporate issues which weren't always a good use of my time compared to what I should have been doing.

Grade 7s and Higher Executive Officers (HEOs) are often at meetings along with their superiors simply because the Grade 6s who manage them feel that it would be good for them to attend (in order to remain informed, for example, or to provide back up in case a question is asked about their policy area). They are often not at liberty to refuse to attend, particularly if a senior member of staff has called the meeting. Their time is the most dispensable of all those in the Defra hierarchy (except the administrative officers) and they are expected to fit in around the less available senior staff. However, even those higher up the hierarchy were not exempt from the tyranny of meetings. The problem is considered to have reached such epidemic proportions that at times the only thing that could be achieved between meetings was to prepare for the next ones. I put my question a third time to a senior policy manager, and asked him how he spent his working week. Again, the topic of meetings dominated his thoughts:

> It's difficult to see how the week develops. The days are stacked full of back-to-back meetings; it's a matter of how many you do because you've got to have time out of meetings to prepare for the next ones or to write papers or consult or discuss, write things up

At least the senior manager enjoyed the luxury of delegating his attendance at meetings to lower ranking staff. Of course, it is not only the civil servants who are required to be present at meetings. The scientists who are giving advice are also

burdened with many hours spent in meetings. In fact, they report many of the problems faced by their policy-making counterparts, insofar as they have to deal with meetings, report writing, bureaucratic procedure and obstruction from higher-ranking officials. A typical remark came from a scientist who no longer carries out scientific research but heads a team of researchers. For him, the job was virtually identical to that of a policy-maker, in that he spent more time communicating with non-scientific colleagues than actually dealing with the research side:

> Most of my week? My God, I spend a lot of my time actually meeting stakeholders, it's very important to keep stakeholders informed on what's going on and getting soundings and that stuff from them and then the rest of it a lot of the rest of my time is spent producing reports [laughs].

When I asked him who the reports were intended for, he replied with the same mixture of frustration and resignation that characterized the policy-makers' stories about the civil service. He emphasized that without careful attention, the end of one meeting would signal the start of preparations for the next:

> the board will get to see virtually all of my reports yeah I suppose most of them are for the programme board and the programme board meets four times a year so I've got to get all of the papers and stuff ready for that so there's a bit of filtering. Early on the programme board's agenda wasn't very full but there's a hell of a lot happening now so as the secretary to the board I have to be a bit clever on how we run the business of it otherwise you know they wouldn't get anything done so some things have to be either held over to the next meeting or scrapped or given in a very truncated form. So a lot of time is spent putting together all the papers for that we have maybe 10 or 12 papers for each most of which I will put together. The reports are a mixture of sort of meeting reports and what I've achieved at them and yeah lots of bloody things it can be a right pain in the backside sometimes.

All those involved in the division's policy-making process, on both the policy and scientific sides, described their frustration at the number of meetings they are required to attend. In Chapter Six, I explore an alternative interpretation of these meetings, as sites where negotiation of position and influence occur, and argue that meetings are vitally important to an organization as sensemaking activities, regardless of whether substantive 'business' is done within them. However, the interpretation recounted in this chapter, of meetings as meaningless time-wasting, is equally important as it gives us an insight into perceptions of the way the division – and indeed the Department – is run. Meetings appear to embody some of the negative features of life in the civil service more generally. Endless, pointless meetings called by those in authority speak of the demand to fulfil administrative obligations rather than get the job done. The culture of writing reports to present to meetings, which will themselves be written up as reports, presents a strong image of an inefficient civil service. The meetings also present an image of the civil servants themselves: as people who endure difficult, adverse circumstances and battle on to get the job done. They finish their jobs despite their meetings, not because of them; they get the real work done in between this obligatory report writing. The negative feelings towards meetings are bound up in negative feelings towards other elements of working in the division. At the time of the interviews, the Department was undergoing a reform programme called Renew Defra, of which many people were very sceptical, and which seemed to exemplify the failings of Defra management.

Managing in the middle

Renew Defra was initiated in December 2006 as a programme of reform that would change the structure of the whole of the department. The overarching aim of the Renew Defra programme is "to transform the Department into an organization that is more collaborative, flexible and effective in developing policies which deliver the right outcomes" (NAO 2008 p11). The Renew Defra programme has 5 distinctive work streams: Building a high performance culture; Seeing ourselves as the customer sees us; Defining the Defra way of doing things; Delivering the Right Size, Right Shape, Right Skills organization; and Managing

the programme. In practice, Renew Defra is a form of matrix management designed to enable more flexible movement of staff to the areas where they are needed. It separates work into 'core' functions and 'programme' functions depending on whether they are ongoing essential matters or temporary projects. Although it was slow to be implemented, Renew Defra meant significant upheaval for many staff. The names of the Directorate Generals changed, along with the names of the divisions, individual job descriptions and in many cases, the area of work being covered by an individual was split into two work packages and/or combined with another individual's work. A later stage of the reform programme involved moving staff from their office in Page Street to one in Nobel House, and introducing so-called smart working with hot desks, rather than permanent, personal workstations which were the norm for most staff. There were a number of job cuts and early retirements during the initial reform period, leading to a degree of uncertainty and "jitteriness" which many interviewees commented on.

Despite the extensive organizational changes that appeared to happen under Renew Defra, there was a high degree of scepticism that substantive change in working practices would occur. Among the scientific advisors, the name changes and restructuring were something of a joke as they happen fairly frequently (the pre-Renew structure of the exotic disease division had itself only been in place for a short time; before that staff had been organized into teams based on the different diseases for which they were responsible). They felt that it was unhelpful to keep changing the names of the divisions (because it causes confusion) and for the majority, the changes were superficial:

> I mean Defra is always changing their names and no sooner have you got used to working with whatever it is, animal health, then they change it to something else. The divisions I've worked with in Defra in ten years have probably changed their name 6 or 7 times and of course it was MAFF originally when I was first involved and then it's become Defra.

> I think because the individuals in the organization are still broadly the same the key individuals that I contact, whether their

> organogram or responsibilities fluctuate or change it hasn't had a major impact for me.

Policy-makers agreed that despite the upheaval caused by the re-organization, the changes to working practices were at best, superficial, and at worst, actively damaging to productivity and morale. Some felt that the re-organization symbolised the lack of communication between high level management and middle ranking policy-makers (who were most affected by the changes). If they understood how the divisions actually worked, ran their argument, they would not have started to meddle in the organization in such a way. Undoubtedly, the feelings of my interviewees were exacerbated by the circumstances they were dealing with at the time: in 2007 there were three separate outbreaks of Avian Influenza, an FMD outbreak and the emergence of Bluetongue disease, all at a time when the re-organization was beginning to be implemented. The circumstances were fraught and the stress of coping with a heavy workload coupled with a lot of name-changes and movements to new offices did not help to improve the morale of staff in the division. Two policy-makers described their understanding of how Renew Defra would affect the division, expressing a mixture of confusion and a *laissez-faire* belief that ultimately the changes would be minor:

> For some reason, Animal Health and Welfare decided they were going to change things and restructure so they did and they restructured pretty much around programmes and core but the real change in this area was very minimal. [...] What did change was they re-launched the disease prevention programme and defined things as core and they tried to separate people out either into programme or core and then half the people ended up being half of each. It kind of makes sense in a theoretical way, but when you think the programmes dealing with stopping disease coming in, reducing the risk of it spreading till you know you've got it, detecting it early then being prepared to control it when you get the disease outbreaks and then clearing up afterwards, that's the control framework if you like and therefore the programme is

about how do we reduce risks in all those areas [...] But also you've got a core function that day to day is dealing with exactly the same issues.

We have been working, Animal Health and Welfare have been working on a programme/project style of working for... well ever since I joined really, I think that was about 2003. So even perhaps before that, they've always worked in projects. I guess that's one of the big changes in the work that might have affected other people. We are moving over to smart working very shortly so that will be another change in Renew when we all move back to the headquarters building in Nobel House [...] Its going to have hot desks, and that will be a big cultural change but hopefully it shouldn't be too much of an issue.

These remarks show a feeling of ambivalence towards the management of the Department, who were perceived to be imposing unnecessary changes onto the middle-ranking officials who knew that no substantive improvement in working practices would occur. The feeling that the management staff were out of touch with the needs of their juniors was expressed even more strongly when the topic of meetings arose. Some people interpreted the number of meetings they were required to attend as another feature of overbearing hierarchy. One Grade 7, when I asked him why he was expected to give so much of his time to meetings that did not help him to get his work done, claimed that it was:

Because the management structure requires us to have meetings. There's a weekly team meeting which is half an hour but often ends up being an hour on a Monday. In theory it's to discuss key issues for the week, you know, if anyone needs to raise anything and pick up any corporate stuff, but it tends to be a lot of corporate stuff. We're just getting back to "business as usual", I should have got my diary but this week we had Monday morning team meeting for an hour, Monday afternoon it was a meeting about business planning for an hour or an hour and a half or something, Tuesday

> there was another meeting about lessons learned, lessons learned was on Tuesday for two hours. So "business as usual" this week, in the first two days of the week I've probably spent the best part of a day in meetings and had to go to those meetings, particularly lessons learned. I had to sit down and read a wadge of papers, do some thinking, prepare my thoughts about what my lessons learned would have been, and so on, so you're talking about probably a day and a half of this week on things which aren't actually helping me to move forward.

Studies into middle ranking groups in private companies have highlighted the difficulties faced by these workers who often suffer because they have to take responsibility for those lower in the hierarchy but lack the power to determine broader strategy that could help them with their tasks, which is reserved for those higher up. Gouldner (1968) argues that the middle is the most awkward position within a bureaucratic organization, both socially and professionally: "The 'top dogs' have friends because they are powerful, the 'underdogs' have friends because they are powerless, but the middle dogs remain largely friendless. Those at the top make the rules, those at the bottom simply apply them, but what the people in the middle do is harder to understand, as is the mix of creativity and constraint by rules and expectations that characterises their work" (cited in Page and Jenkins 2005 p18). Fry et al (1981) argue that middle groups struggle to establish an identity for themselves within the organization. Whereas top-level groups have highly stressful, but also highly rewarding tasks like setting overall organizational missions and strategy, and the lower levels have clearly defined tasks, making their performance easy to judge, middle groups enjoy neither of these benefits. The middle group, they argue, are "often fundamentally unclear as to whether their goals are, or should be, fuzzy and abstract, or concrete and operational. Partly this results from unclear or inconsistent expectations communicated by top management. Even with clear mandates, however, most middle groups are still faced with the challenge, ultimately, of interpreting higher level expectations and moulding them into an acceptable statement of their group's core missions, goals, and priorities for others to use" (Fry et al 1981 p45).

These conflicts are recognisable in the remarks made by Defra policy-makers: they too struggle with the ambiguity of having their overall goals set at a higher level, and being expected to implement them with some (but not total) flexibility and discretion. One policy official commented that re-organizations only worked because the middle ranking officials involved have to be effective and get their work done; therefore, regardless of the difficulties posed by changes to the structure of the department, they will make it work. However, there was a feeling that this devotion – or duty – on the part of lower ranking policy-makers was not understood or appreciated by those higher up. The Defra policy-makers I interviewed also suffered from the ambiguity in the degree of responsibility they held, particularly when disease outbreaks occurred. While they commented about the extreme pointlessness of some aspects of their work – the meetings, memos and reports described above – at other times, they were crucial to the operation of the department, and helped to successfully bring disease under control. The contradiction of disease outbreaks is discussed in more detail later in the chapter. Overall, both policy-makers and their scientific and veterinary advisers have described the exotic disease division as a typical bureaucracy with all the problems that such organizational styles bring. In particular, they feel that their jobs are a battle against the circumstances they find themselves in: having to make policy when their time is limited by the amount of paperwork to do and meetings to attend, and having to make decisions with imperfect information because papers have been lost and staff have moved on. They have described the frustration at working in an extremely hierarchical organization where they have little option but to attend meetings when required by their superiors, and where organizational changes are made with little consultation with middle-ranking staff who are often the most seriously affected.

Bureaucratic culture and the individual

Despite telling stories about occasions when they have been involved in ridiculous or convoluted decision-making situations, the policy-makers were very critical of this culture, appearing to feel that they usually had no choice but to conform to it. The relationships between bureaucratic organization and the individuals who work within it has been characterised as one in which the distinctive nature of the

working environment has a clear effect on the workers. Weber (1978) believed that bureaucracy could be termed a vocation because of the particular demands it makes of those who choose it as a profession. He argues that bureaucrats have a "duty" to their organization and that taking a job with that organization "is considered an acceptance of a specific duty of fealty to the purpose of the office in return for the grant of a secure existence. It is decisive for the modern loyalty to an office that, in the pure type, it does not establish a relationship to a *person*, like the vassal's or disciple's faith under feudal or patrimonial authority, but rather is devoted to *impersonal* and *functional* purposes" (Weber 1978 pp958-959). Taken to extreme, bureaucrats become devoted to the means of work – the ritualistic completing of forms and following procedures – rather than the ends.

Following Weber, Merton (1957) famously characterised the 'bureaucratic personality' as one of ritualistic behaviour strictly controlled by the norms of the working environment. He argues that the nature of the bureaucracy exerts a constant pressure upon the official to be "methodical, prudent, disciplined" and attain "an unusual degree of conformity with prescribed patterns of action" (1957 p198). The bureaucrat is highly disciplined, with a keen sense of the limitation of their authority and competence, and focused on the methodical performance of routine activities. Hill argues that although Merton's argument is applied to bureaucratic organizations in general it is especially applicable to public administration because civil servants are under a high degree of pressure to conform to rules. Firstly, this is because "They may be putting into practice political decisions with which they disagree; they are facing a public who cannot normally go elsewhere if their demands are unsatisfied, as they often can with private enterprise; and the justice of their acts is open to public scrutiny, by politicians and sometimes by courts of law" (Hill 1972 p129). As a result of this scrutiny they must ensure that they act in a regular way in conformity with rules. Secondly, the careers of civil servants have to be strictly ordered because there is a need for fairness in selection and promotion and for the public service to be able to withstand criticism. It becomes difficult to justify dramatic or unconventional promotions and this career structure "obviously puts an onus upon conformity, and will tend to create a situation in which if a public servant becomes

conspicuous for disregarding rules it will be more likely to hamper than enhance his career" (Hill 1972 pp129-130).

Crozier (1964), in his study of the French bureaucracy, argued that in addition to Merton's 'ritualism', bureaucrats displayed retreatism. He argues that in circumstances where individuals are confronted with a highly demanding situation, but with no expectation of reward for their efforts, "individuals will choose to reduce their involvement and to commit themselves as little as possible to the organization. The pattern of impersonality and centralisation brings great pressure in this direction. On the one hand, it deprives people of the possibility of personally influencing decision-making, and thus precludes any hope of recognition. On the other hand, it does not demand anything but formal compliance from individuals. People are not invited to participate, and, if they retreat, they risk little punishment" (Crozier 1964 pp198-199). Defra's middle ranking policy-makers frequently find themselves in this difficult position: with a high degree of responsibility for ensuring that policy is developed and implemented successfully, but with little chance of reward as they are anonymous to the public and those higher in the hierarchy take credit for the more important over-arching goal-setting work.

Deal and Kennedy (1999) also talk about the implications of bureaucrats working in an environment where criticism is more common than positive feedback. They have characterised various styles of organizational culture and apply the term "process culture" to the way of working commonly found in bureaucracies. In a process culture, they argue, there are few links between the work done by most employees and the people they are actually affecting through their work. There is very little positive feedback, and often the immediate consequences of their actions are unclear, but there is also a high risk of dramatic failure, as they explain:

> no one transaction will make or break the company – or anyone in it. [...T]he employees here get virtually no feedback. The memos and reports that they have written seem to disappear into a void. As a result, they have no idea how effective they are until someone

> blames them for something. In a government agency, for instance, employees may work like crazy, but the only time they get any recognition is when a legislator decides to kill their agency or indicts it for violating the public trust or for promoting inefficiency and corruption.

(Deal and Kennedy 1999 pp119-120)

Deal and Kennedy argue that this permanent fear of attack leads to extreme caution in bureaucrats' behaviour; it is not personal caution, however, but relates to the end product, such as a policy. Echoing Weber and Merton, they argue that bureaucrats learn to focus on how neatly and completely they do a task, rather than on what they are actually doing. An element of self-sacrifice is expected, as the people who are valued in this culture are "those who are trying to protect the system's integrity more than their own" (Deal and Kennedy 1999 p120).

While the arguments in favour of a 'bureaucratic personality' seem compelling, they are not necessarily applicable to the contemporary Defra setting. Weber's notion of bureaucracy as a 'vocation' does not match the experiences of the division where there is a very rapid staff turnover and people are keen to take advantage of opportunities to move jobs, both for personal satisfaction reasons and because it may enhance their career. As one senior manager described, the UK is quite different from its European counterparts in this respect:

> What is noticeable when you go to Brussels is that round the table you have policy colleagues from other countries that have probably been in the job twenty or thirty years and they really are strong because they know everything about it. I'm not sure many policy officials here would like to sit in the same job for twenty or thirty years. So the UK has gone down this route of having generalist administrators and under Renew Defra people move around more rapidly and actually subject expertise is going to be less important than sort of functional expertise, being able to run a project [...] You have a turnover of staff so you bring in skills sets and

> different experience and different worldly experiences, if you like, of working across Whitehall in different jobs and that is really important. Otherwise you find yourself in a very blinkered approach as to the ways you approach things. There are different parts of the department which develop different ways of working, and you need to bring that on board and you bring in wider knowledge.

There is a cross-government consensus that if a civil servant stays in his/her job for longer than two years it can be damaging for their career; in their study of middle-ranking officials Page and Jenkins found that among their interviewees, Grade 7s and SEOs had been in post for an average of only 18 months, and HEOs only 16 months (Page and Jenkins 2005 p43-44). In addition, the sense that civil servants are effectively passive in their adoption of the working culture that surrounds them does not tally with the accounts given by Defra staff. Crozier (1964) criticises Merton for his simplistic approach, arguing that people can hold more complex sentiments than he allows for: in his study of French bureaucrats he argues that in addition to ritualistic behaviour he identified actions and sentiments which could be characterised as rebellious and innovative. The notion that workers conform to ritualistic behaviour because it is expected of them, but resent it and seek opportunities to rebel against it, is supported by the accounts offered by Defra policy-makers. They feel that it is possible to overcome the characteristic obstacles of working in a bureaucracy in the right circumstances and make real, tangible impacts in their work as opposed to their ordinary feelings of producing documents that disappear into a void. The following section discusses the actions they take to move from bureaucratic inertia to bureaucratic 'heroism'.

Bureaucratic heroism

John Law, in his study of the Daresbury Laboratory, writes of the 'technical heroes': the people who are able to physically mend the machinery when it goes wrong, who are therefore, at times, much more important than the scientists and engineers who design and operate the same machines. Law describes how, at the end of the normal working day, the workers go home leaving a group of shift

workers in charge of the machine (1994b pp130-131). He argues that these workers relish this time because they have unsupervised responsibility for running millions of pounds' worth of machinery. The rest of the building is empty and the night workers identify with and become a part of the machine and the laboratory as they watch the equipment through the night. The situation is quite different for Defra's exotic disease heroes. In fact, in many respects, it could not be further from this scenario. The vignette in Chapter One describes the atmosphere in what is a minor and short-lived disease outbreak. There is heightened supervision, interference by managers and politicians, intense public scrutiny of the policy-makers' actions. Rather than being left alone, they have more meetings, with more people present and more colleagues, stakeholders, journalists and bosses clamouring for information. Yet in other respects, there are significant similarities between Law's 'technical heroes' and the policy-makers. They are relied upon like no other employees. Their expertise and knowledge of the job are indispensible. They are in charge, have responsibility for dealing with emergencies, and their failure to act could be catastrophic.

Heroism does not mean single-handedly saving the organization from catastrophe or putting in superhuman effort to ensure a piece of work gets done; it can be simply innovating to avoid behavioural or procedural obstacles to success. For example, one of the problems described by policy-makers as a barrier to effective working is people 'toeing the line', and being unwilling to speak out when they think there is a problem. A Grade 7 suggested this was because people are afraid of looking stupid in a technical area where they have only generalist administrative expertise. He was able to transcend this tendency because, as he said:

> I personally don't have a problem because I'm willing to sound stupid and ask stupid questions and generally they don't always turn out to be stupid questions and you often look around the table even when they are stupid and people go 'Oh, so that's what it meant.' So I don't have any problem.

The same Grade 7 told me a story about his experience of taking over a new piece of work within the division, and described similar feelings of resentment at the fact that established procedures went unchallenged. The proposal, he said:

> Had been out for consultation, been consulted on, they'd had some comments back, and they wanted to put it to the lawyers. I sat down and read it and said 'What's this mean? Why's that in there?' [And the lawyers replied] 'Oh, I don't know, it's always been in there, I wasn't involved at the start'.
> Well, you know, what the hell does it mean? You sit down and go back to the vets and say 'Why do we need this?'
> [And the vets replied] 'Well, I don't know if you do, I'm not sure actually.'

So heroism in this context means having a certain personality, and opposing the civil servant stereotype (bold, honest, willing to take risks, willing to communicate openly with other groups of people). Deal and Kennedy (1982 pp51-52) write about 'outlaws' who are similar to Law's heroes in some respects: they are eccentric, contradict the usual ways of doing business, and make their own rules. They are also deliberate violators of cultural norms, however, and may become whistleblowers and attempt to subvert the organization. The story of Civil Serf, mentioned earlier, could be described as the story of an 'outlaw' for whom her Department had no sympathy. In Defra, however, the positive notion of heroism can be much more strongly identified because there is a common factor which gives almost everyone the opportunity to be a hero: when crisis strikes.

During a disease outbreak, the usual framework of policy-making still applies. There is a hierarchy of the civil service that needs to be followed; experts meetings are still called; notes and reports are still written. However, the feeling inside the division changes. Decision-making is much faster. There is no time to sit and discuss an issue from every possible angle. Meetings are convened on an ad hoc basis, as quickly as possible, with many scientists telephoning from their regional offices. As the vignette describes, these meetings may be confrontational and even boring for some, but they are necessary, and they take the place of less

important meetings in people's schedules. The priorities of the division are different during these periods. Keeping a flow of information in to and out of the department becomes crucial. Communicating with stakeholders, journalists and Ministers is essential. Updating the website becomes more pressing than filing minutes of a previous meeting. The division feels tight knit as everyone – regardless of official status – is called to a bird table for briefing. People are united in their stress, and in their share of the extra workload. Everyone works longer hours to ensure that they contribute to the 'battle.' Indeed, the terminology that is used during outbreaks – "battle rhythm" (following a sequence of procedures and timings), "war-time" and "peace-time" (disease outbreaks and disease-free periods) – all contribute to the sense of urgency and determination to succeed in stamping out disease.[11]

For many actors in the policy process, disease outbreaks are seen in some ways as a blessing, because they made it easier for such 'heroism' to occur. They give some purpose to the job, because if people fail to act then there can be serious consequences (which, interestingly, policy-makers seemed to think was not normally the case). A Grade 7 explained that in one of the latest disease outbreaks, there could have been a serious economic impact if he hadn't been able to quickly take action:

> during the outbreak you're under a lot of pressure, certain meat legislation was complex and you had to get things done. You had to make certain things happen otherwise meat wasn't going to move around the country, we were going to have supermarket shelves without meat on and so on, they were going to start importing it, taking away UK industry share of the market, things like that

He contrasted this with peace-time, when there is much less urgency, and less is achieved. During an outbreak, he argued, the work

[11] This terminology, and the use of organizational tools such as bird tables, became commonplace after 2001. For a detailed analysis of how the war metaphor emerged during the 2001 FMD outbreak see Nerlich (2004).

> had a good point to it and secondly you didn't have any faffing, you focused on the issues and solved them and got on with it. Get back to 'business as usual', suddenly, I've got a very important issue you know, if we don't get [this regulation] finished we're going to end up getting infracted, and so [it's] very important from my point of view, yet instead I'm spending a third of the week or whatever it is doing general management stuff.

A senior policy manager agreed that outbreaks enabled things to happen, because the usual barriers to effectiveness – hierarchy and unnecessary meetings – were taken away:

> outbreak management is very different from peace-time work. In an outbreak it's a very very flat structure, work is produced at extremely high pace and papers for meetings are one page, one to two pages, whereas in peace-time we tend to try to like to cogitate and analyse to a great extent more, but papers at this stage tend to just raise the issues and see conclusions and even writing up meetings is very very brief, it's to keep the pace going. You don't want to waste your time writing things up.

During outbreaks, Defra both makes and implements policy, meaning that there are occasions when officials really do 'make things happen', in contrast with their peace-time work when the production of a report will, at best, lead to action being taken in several months' time. The scientific and veterinary advisers also feel that they benefit from disease outbreaks in that they became indispensable. Their usual barriers to having real input into policy – lack of access to the right people, lost information – are removed as they become key to the management of the disease. Policy-makers are unable to act without the necessary information, whether disease test results or epidemiological advice. The decision-making process becomes more rapid and focused in contrast with the deliberations of peace-time. Two scientists described Defra's need for scientists during an outbreak:

> quite often these guys are sitting at Defra hopping up and down there cos they want to know whether to shoot them [animals] or not shoot them, move them or not move them, so you can't really wait for official reports.
>
> I sit on this experts group and those groups meet, well in peace-time they rarely meet to be honest, but in war time they're meeting almost on a daily basis. So as a scientific question comes along, or as they need to review policy, modify policy in terms of the control of the disease then that group needs to provide regular recommendations.

This is a contrast with the difficulty scientists encountered when communicating their advice to policy-makers in peace-time. There is an issue of proximity: not simply geographical closeness to policy-makers, but being able to give relevant advice as a result of communicating regularly with officials. During an outbreak, scientists are drawn into the heart of decision-making, woven into the process rather than periodically asked for advice or information. One scientist commented:

> it's quite clear when you're in an outbreak it's hands to the pump and you engage with all manner of people at Page Street and provide the advice they need because people are deployed in response to that emergency. What happens in peace-time is perhaps more worrying to me because contact becomes less frequent, you need to make sure you're contacting the right people and the mechanism for actually communicating changes in the structure.

The organizational studies literature provides some insights as to why disease outbreaks revolutionise the way scientists and policy-makers feel about their work. Steele and Jenks (1977 pp93-94) asked a group of business and government executives "what makes an organization exciting for you?" Their replies included time pressure, a sense of achievement, recognition from above, creativity, non-

routine personal contributions, lasting consequences to actions, a special phase in the life of an organization, unpredictability, freedom to act, feeling responsible. In a similar vein, Barlew (1974) identified types of opportunities which can be sources of "meaning" in an organization and included a chance to be tested; a chance to do something well; a chance to do something good (for others, for society); and a chance to change the way things are (cited in Steele and Jenks 1977 p98). Animal disease outbreaks, by these definitions, create both excitement and meaning for policy-makers. They create an environment where heroism can occur, because people who are usually seen as part of a large, homogenous group of middle and lower ranking officials become key to the operation of the division, and are given their own responsibilities and capacities to act. Law argues that, in his observations of the Laboratory, outsiders (and one can presumably include the management of the Laboratory in that category) tend to 'delete' the work, and particularly the heroism that is involved in the efforts of the everyday staff. They tend especially to delete the work of subordinates, and "assume that technical or low-status work gets done 'automatically', as if people were programmable devices" (Law 1994b p131). In an outbreak, the usually invisible (or deleted) work done by junior staff becomes highly visible, and has important consequences, which the management (or critical outsiders) cannot deny. Even junior staff are indispensable in a large outbreak, when situation monitoring and administrative tasks need to be done continuously.

This recalibration of power relationships is also seen in the changing nature of meetings. Rather than a series of small meetings where policy-makers of similar grades discuss issues relevant to their status and remit, in outbreaks non-hierarchical 'bird tables' take place where everyone is able to attend and be part of the outbreak response. There is a sense that everyone is contributing to the "war effort" and even those tasks usually deemed insignificant – such as updating the Defra website – become crucial to the overall success of the division. There is a sense in which, to use Barlew's label, the civil servants are able to do something good in a disease outbreak, because there will be genuine (and more importantly, immediate) negative consequences if they fail to bring the disease under control. Farmers' livelihoods, the national economy, the reputation of the Department, and even the reputation of the UK within the EU may be jeopardised by a badly

handled outbreak. In many ways, disease outbreaks – although they are potentially very damaging for the Department – bring benefits to staff in terms of improved morale, feelings of achievement, and internal cohesion of the division.

Conclusion

In this chapter, I have used excerpts from interviews with policy-makers to tell their stories about what it means to work in a bureaucracy. Their accounts include generalisations similar to popular public conceptions of life in the civil service, such as the tendency to hold endless meetings at which nothing is achieved, and the feeling that memoranda and reports are disappearing into a void, never to be consulted again. They also tell more nuanced stories, however, about their identity as middle-ranking policy-makers, the difficulty of retaining corporate memory, and the challenges of working in a department where high staff turnover means that few people ever reach the status of 'expert' in their policy area. Scientific advisers also give accounts of their impressions of working in and with a bureaucratic organization. Their responses range from sympathetic (because they understand that policy-makers have no choice but to follow certain procedures) to frustrated, as they find themselves having to re-educate policy staff about basic issues and compete to make their voices heard. These stories about the bureaucracy create an impression that to work as a policy-maker is a constant struggle to get things done in a culture offering little reward and many barriers to success. There is also an issue of blame in these stories. Staff feel they are at the mercy of the management structure and management imposes particular behaviours on to the staff. There is resentment at the number of meetings seemingly dictated by the management structure and the inflexibility that means that they cannot be avoided. This blame and resentment is exacerbated by the feeling that ordinary workers are effectively prevented from having meaningful, productive jobs.

These frustrations provide a motive for people to rebel against the bureaucratic culture and the behaviour expected of them, instead choosing to be aggressive, critical, or subversive. The Grade 7's strident questioning of a policy document ("What's this mean? Why's that in there? [...] Well, you know, what the hell does

it mean? [...] Why do we need this?") displays his anger at being expected to follow a particular procedure rather than use his intelligence and initiative to devise a better course of action. His attitude during a disease outbreak is markedly different. He recalls: "There were important things to deal with and you got on and you did them and you might have done long days but you knew damn well what you were doing." Policy-makers are able to display their personal qualities (such as expertise, charisma, leadership, initiative), which their formal roles may not usually allow them to do. During disease outbreaks Defra more closely resembles what Mintzberg and McHugh (1985) term an "adhocracy": a bureaucratic organization which is able to innovate, combine experts in effective teams, operate with less hierarchy and direct supervision, with diffuse distributions of power. This is clearly what the Renew Defra programme is trying to achieve, but the difference between this management-led initiative and a disease outbreak is that staff feel there are benefits involved in changing their behaviour to deal with an outbreak.

While I do not agree with Merton's argument that people are conditioned to behave in an obedient and unquestioning way simply by joining the civil service, it is clear that the situation in which policy-makers find themselves has a profound impact upon the way in which they do their jobs. As the division deals with animal disease, there is a culture of infrequent rewards for staff coupled with a tendency for them to receive high levels of criticism and blame when an outbreak occurs. The potential for litigation by farmers, infraction by the European Union, or criticism by Parliament, means that policy-makers inevitably develop ritualistic behaviour to ensure that they consistently work 'by the book'. Bureaucratic culture, in this sense, has a power to control individuals' behaviour which few are able to resist, and constitutes a fundamental component of Defra employees' identities. To work in Defra is to be the bureaucracy, with all that such a role entails. The effects of these contradictory forces – the need to follow bureaucratic procedures, but also to act spontaneously and imaginatively – are discussed in Chapter Seven.

Chapter Six

On Being 'Expert': What it Means to Give Advice

I think more scientists should go and do a stint in policy. It's just fascinating, you know, the deadlines and the 'Oh my God the minister's ringing in and needs an answer this afternoon', this sort of stuff is fascinating. I find it superb.

Consultant Scientist

You'd be a terrible scientific adviser if you didn't understand the politics of an issue.

Chief Scientific Adviser

Introduction

In Defra, it is clear who is an expert and who is not. The term is frequently used; people are invited to participate in 'Experts Groups' or 'expertise networks' on the basis of their professional qualifications and experience. In the exotic disease policy area, there is a split between 'experts' and policy-makers that is clearly defined and rigorously maintained. Scientific matters are discussed in the many experts groups that exist. There is a Diseases of Poultry Experts Group, a Foot and Mouth Disease Experts Group and a range of other specialist groups that are convened when necessary. At an FMD Experts Group meeting that I observed, the composition of the group was as follows: four scientists from the Institute for Animal Health (which is the reference laboratory for FMD), eight veterinarians in different capacities (including the Chief Veterinary Officers for the UK, Wales, Scotland and Northern Ireland; two senior Animal Health agency staff; an epidemiologist from the National Epidemiology Group, and two staff from Defra's Veterinary Exotic Diseases, Research and Official Controls Division (Verod), while the meeting was chaired by one of Defra's Science Co-ordinators

(who is also head of Verod). Interestingly, there were also seven policy staff at this meeting – excluding the designated 'note taker' – and a memorandum was circulated shortly afterwards criticising the unacceptably high number of policy staff in attendance. Many policy staff attend in order to educate themselves about the area in which they work, as there is a high turnover of policy officials in the division and newcomers have to learn quickly. They certainly would not be able to contribute to the scientific discussion, which is highly technical, involving discussions of the merits of different vaccines, or the epidemiology of a recent outbreak elsewhere in Europe. But both the scientists and the senior policy staff discourage their asking policy questions at these meetings. This is not the place to debate policy; this is a scientific group. As a chair of one experts group described:

> We get experts together and we decide from an expert's point of view the answer to specific questions that are raised by policy colleagues [...] so there are essentially there is a role for bringing together or knowing who you need to bring together to be able to get a consensus view on what the scientific and veterinary issues are and then being able to explain that coherently to policy-makers who can then choose to accept or ignore the advice that has been given to them. Their role is to seek advice from whatever sources they believe necessary and then to recommend what a particular policy should be.

The experts groups produce reports and recommendations that are then presented at their policy counterpart, the Animal Disease Policy Group (ADPG). Few expert advisors attend in person, and never give presentations; their reports are enough. ADPG describes itself as "the key strategic decision-making body. It takes expert advice from the National Experts Group, decides on control strategies and makes recommendations on major policy issues to Defra Ministers" (internal document). It changes its composition depending on whether it is formed during an outbreak or 'peace-time', but its composition at a typical peace-time meeting was sixteen policy staff (including staff from the communications and legal divisions in addition to disease policy staff), two in-house scientific advisers, the Chief Veterinary Officer and the Deputy Chief Veterinary Officer. Other staff may

attend as observers – and many do, if the discussion is relevant to their work area – but they are not permitted to contribute to the meeting. At ADPG meetings, any scientific or veterinary staff are there to provide clarification of the recommendations that have been brought from the experts groups. It is not a forum for scientific debate but the place to set priorities, to formulate policy, and to create recommendations for ministers.

The reason for this split is obvious and logical for Defra staff. Scientists discuss the technical issues of a particular disease in an objective and value-free forum; they do not consider the policy or political implications of their work, but concentrate on the scientific details alone. In this way, they are able to provide the best possible advice to Defra policy staff who can then discuss how to proceed with policy in their own, separate group. As one senior manager explained:

> The experts groups are very carefully chaired in that they are not policy groups. Obviously its very easy to slip from one to the other but they are meant to provide an independent science rationale for action, which doesn't take account of the policy imperatives and very often decisions have to, there's never a clear answer and very often you have to then bring on board when it comes to the high-level meetings the politics and the policy options.

Some of the scientists shared this view of their role in the policy process, and believed that they were able to remove themselves from political debates, as one member of an expert group commented:

> Sometimes even in the course of an expert group debating an issue sometimes one of our policy colleagues will throw in something that's not science driven. To give you an example, 'is it appropriate that we ban shooting in an area where we've got an outbreak?' Now we can say well ok, behind that is if you disperse wild birds you could potentially be spreading the virus, so you might increase the risk of spreading it into poultry as a consequence of that. However the policy [staff] may say well

> actually [we need to consider] the stakeholders, is it appropriate to shut that industry down, people's livelihoods might rely on it. That's got nothing to do with the science, and I think ADPG and how those issues are balanced, how they're weighted, is obviously a matter for the policy colleagues. I think sometimes you do have to detach the science and you should not be thinking about those other aspects. It's not our job in the experts group to do that so I actually can see some benefits [of keeping science and policy separate].

This separation of scientific and policy debate reflects a particular understanding of science as objective, neutral and able to offer definitive explanations of the natural world. Collingridge and Reeve (1986) call this the 'myth of science', arguing that "myths of two kinds are interwoven in traditional thinking about the relationship between science and policy: the myth of rationality demands that political decisions be made only when all rational facts have been gathered, [the myth] of the power of science insists that science can fulfil this role. A fruitful marriage is therefore promised between knowledge and power" (Collingridge and Reeve 1986 p7). In Defra, the belief that depoliticised, objective science exists has resulted in a particularly extreme version of the standard model of evidence-based policy-making, whereby officials believe that it is possible to incorporate expertise at the appropriate juncture of the decision-making process. Not all of Defra's scientists support this model of policy-making, however, and even among those who believe it is possible to provide objective advice there are those who disagree with the practice of separating scientific and policy discussions. Some scientists feel that the format serves (either deliberately or unwittingly) to exclude scientists from the policy-making process and weaken the strength of their advice. There was dissatisfaction among some of the scientists who sit on experts groups with the fact that their views had to be represented by a single person; they would prefer to attend in person and discuss their recommendations with the whole policy group. As one expert commented, as the split between scientific advisers and policy staff becomes more rigid, the less control the scientists have over the way their recommendations are used:

> Because there is less immediate contact between the two there is less expert contact between the two and we don't know how well whoever is putting the case for science is putting the case for the science. If they happen to be a person who is not hugely au fait with the science or has a particular stance already because everybody has a particular stance in policy, then I'm sure that colours the way they describe what the expert committee has recommended. And there have been many occasions when we've sent advice through to core group, the policy group, and it's come back saying that they didn't do that, they decided not to on reflection, which is irritating because its happening more often than it was when things were less rigid. So I would say that's a bad move.

The simple format of an expert group meeting followed by a policy group meeting obfuscates a significant power struggle between the experts and policy staff. The experts give a report or a set of recommendations to the policy group but then relinquish control over the way in which these recommendations are interpreted and used. As one policy-maker commented, this was necessary because policy-making is about making effective choices, not extensively debating the many sides to an argument, therefore scientists were excluded from the process when their initial advice has been given:

> At the end of the day, the experts only make recommendations and it's actually the policy groups that make the decisions. So I think it's also better to go to the policy groups with a recommendation from experts [group] and let them make the decision, because I think if the experts started having all the different arguments you'd never actually reach a decision in the meeting because it would be too confusing, too long-winded.

However, the scientists often saw this quite differently, particularly as they felt they could make valuable contributions to policy debates. As one member of an expert group commented,

> We give scientific advice but we also tell them if their policy is unlikely to be successful. That's quite often accepted in the expert committee and sometimes around some of the policy groups but when it gets up to the final committee it gets watered down. You may have a trail of three different committees before it goes to the Minister. By the time it gets to the final bloke who goes to see the Minister it's been watered down by two or three committees, [the Minister] probably gets 'oh those scientific fellows want us to spend more money but it's not important'. That's the impression we get.

For the scientists, the issue of physical proximity is a crucial one. The task of attending the endless meetings scheduled by Defra was an onerous one for the scientists who work in small laboratories rather than large offices like the policy-makers, yet the disadvantages of not being there in person were considered too great, as one scientist describes below. His team is the only group of scientists working on a particular virus and it is a very small unit so although they were all expected to go to London to form an experts group on the virus, in reality it would take far too much time away from the actual scientific research which needs to be done:

> If there were five of us going to London twice a week that takes two whole days out, that's just not sustainable. So when it started to get a very onerous burden then we started to talk on the telephone, which is much less satisfactory, much less satisfactory, but it's the way we have to work because you just don't have the time [to go in person]. If there is a really important one then we may all go to Page St and sit down and make more of an impact.

The scientists felt that being at meetings was absolutely crucial to ensuring their advice had a real input into the policy-making process, and that being there in person was much more effective than participating by teleconference, for the same reasons as were mentioned by the staff of the devolved administrations. It is

difficult to participate fully when you cannot see the other members of the group and engage in non-verbal communication. Even in a formal or 'boring' meeting, a lot of informal communication takes place in the form of meaningful glances, note-passing and so on, which those who are not in the room will miss. The emphasis put on meetings by my interviewees as the crucible of organizational activity is supported by other academic analyses including Schwartzman (1987, 1989, 1993) who argues that meetings are very important sites of negotiation for determining hierarchy. Although as the previous chapter described, policy-makers frequently deride the amount of time they are expected to give to meetings, the sheer number of meetings that exist give testimony to their importance within the process of policy-making. It is important to recognise, however, that meetings are not simply a time when the business of the organization is discussed. The policy-makers' sense of the futility of many such meetings testifies that some are utterly worthless as a means of making progress with work. However, meetings play another (arguably more important) role; they help organizations to organize themselves.

Negotiating Roles and Status

Meetings, argues Schwartzman, are important for sensemaking within organizations because they "define, represent, and also reproduce social entities and relationships [...] As a sensemaking form, meetings are significant because they are the organization or community *writ small*. There may be other competing symbols for an organization or community, such as individual leaders, a building or territory, an organizational chart or logo. However, a meeting is a powerful and ongoing social symbol because it assembles a variety of individuals and groups together and labels the assembly as organizational or community action" (Schwartzman 1989 p39). Boden agrees, suggesting that "Meetings are where organizations come together. They may be preceded, arranged, complemented, augmented and cancelled by other forms of organizational communication such as telephone calls, memoranda and reports, but meetings remain the essential mechanism through which organizations create and maintain the practical activity of organizing. They are, in other words, *the* interaction order of management, the

occasioned expression of management-in-action, that very social action through which institutions produce and reproduce themselves" (Boden 1994 p81).

Meetings are sites of ordering and re-ordering as individuals negotiate their roles within the organization. In the process of negotiating and accepting the frame of a meeting, individuals are able both to create a series of social relationships (which may or may not last beyond the confines of the meeting boundary) and mark and reinforce their social relationships with each other. Therefore, "the meeting form provides individuals with a structure to use to metaphorically mix their formal and informal relationships and feelings with community or organizational issues, problems and solutions" (Schwartzman 1989 p41). As Boden suggests, "When people talk they are simultaneously and reflexively talking their relationships, organizations, and whole institutions into action, or into 'being'" (Boden 1994 p14). Boden argues that meetings are "ritual affairs, tribal gatherings in which the faithful reaffirm solidarity and warring factions engage in verbal battles [...] Agendas, actors, times and places may vary, but meetings are the proper arena of organizational activity for management, locating and legitimating both individual and institutional roles" (Boden 1994 p81).

It follows that the calling of a meeting, and the decisions to include and exclude certain individuals, is a significant action within an organization. The act of holding a meeting involves negotiating and accepting social relationships which define someone's right to call a meeting, the ways to start and end the meeting, the rules for talking, etc. (Schwartzman 1989 p41). Once a meeting has been constructed, "the event becomes a vehicle for the reading as well as validation of social relations within a cultural system" (Schwartzman 1989 p41). They offer an invaluable insight into an organization's culture because they embody abstract concepts. As Schwartzman puts it, "Structure and culture, insofar as they have any meaning at all as theoretical concepts, are only realised within these occasions, and so it is in the occasion that we must locate our analyses. Another way of making this point is that, whereas no one has ever seen a 'hierarchy' or a 'value' everyone (almost) has been to a meeting" (Schwartzman 1989 pp 34-35).

Therefore, everyone involved in the policy-making process is able to 'read' their position within the hierarchy, as the devolved administrations' interpretation of their inability to call an ADPG meeting when needed, demonstrates. Meetings are one location where the disparity between the formal organization chart and the 'lateral hierarchy' of the informal organization becomes apparent. The role of meetings as sites of negotiation also explains why – despite their often tedious content – many people (especially those with less power and influence) are extremely keen to attend meetings. To be excluded from a meeting (either explicitly, through not being invited, or as a consequence of being physically remote) is to miss out on a key component of the informal organization. Although meetings are formally called and constructed, the most important work conducted within them is often of an informal nature as participants test out ideas, gauge the receptiveness of their colleagues to a particular scheme, find out insider information about a future project and so on.

This alternative function of meetings as sites of negotiation means that official accounts such as attendance lists and minutes should be seen only as one interpretation of the event in question. Much of what we know about the role of scientists in policy-making comes from official documentation: organization charts, documents outlining the roles of different committees, records of meetings and so on. They tell us the official status of different groups and individual advisers, and the routes by which advice is fed into policy. It is easy, as an outsider, to study the minutes of Defra meetings, to compare the list of attendees and conclude that a certain number of scientists, or veterinarians, or policy staff, are represented there. Yet the picture we get of the discussion that has taken place, of the atmosphere within the meeting and the contributions made by different parties, is bald and inferential at best. I asked a senior veterinarian whether or not enough veterinary advice was used in policy-making. On the minutes of every ADPG meeting and Experts group meeting I saw, vets were well represented. The reply was

> I think if you ask somebody within Defra to draw a diagram of how it [policy-making] works, you'd come away quite satisfied that there is adequate veterinary input into policy-making.

What was implied is that such a diagram does not give an accurate picture of reality. Defra has a clear formal organization, as depicted in its organization charts.[12] These charts show the hierarchy of the Department, and the lines of communication between groups. They show which agencies and bodies are 'owned' by Defra, and which people are responsible for different policy areas. Yet behind these sterile charts is a more fluid and complex reality. Despite the fixed creation of 'expert groups' and 'policy groups', establishing membership, hierarchy and influence within these structures is an ongoing process of negotiation. This was hinted at in a report into Defra's use of scientific advice, which concluded that regarding internal sources of advice, "how people behave and their (geographic) location appear more important in facilitating close policy/science co-operation than who appears where on an organization chart" (Taig 2004 p15). This chapter explores this statement by looking at the implications of proximity (or lack of it) and the importance of behaviour and the credibility, status and influence, which can be cultivated through acting in the 'right' way.

Firstly the notion of proximity – in its simple sense of geographic location – suggests that those who are physically marginalised risk being marginalised in a broader sense: being excluded from decisions, or not consulted over policies, or ignored when they attempt to communicate with others. It also suggests a notion of core and proximity; if some people are geographically 'remote' they must be removed from the place where the action is perceived to be happening. An inquiry into the handling of the 2007 Foot and Mouth Disease outbreak contained complaints from Scottish Government staff that they had been marginalised by the 'core' – Defra in London – due to their physical remoteness from the centre of decision-making:

> During the course of the outbreak a range of regular policy meetings were held. These included the ADPG, National Disease

[12] See www.defra.gov.uk/corporate/who-are-we/OrganisationChart.pdf for a more detailed and interactive version of the diagram in Chapter Three.

> Control Centre (NDCC) Birdtables and the CCC[13] of the UK Cabinet. Scottish Government officials participated in many of the meetings either in person or via teleconference. The latter did not facilitate satisfactory involvement as the external participants could not judge the reaction of the other participants nor the most appropriate time to intervene in the discussion [...] Once the outbreak was confirmed on 3rd August the ADPG did not meet for the first time under outbreak conditions until 5th August after which the meetings were held at ad-hoc intervals. Scottish Government officials felt that the meetings were not timely and were often either overly technical or discussed a large number of issues relevant to England which were of little interest to the Scottish Government. If ADPG had met more regularly during the outbreak on more focused issues it would have facilitated a more joined-up approach to GB policy.

(Scudamore and Ross 2008 pp62-63)

One can imagine the frustration of the Scottish Government policy-makers, forced to participate by telephone and unable to gauge the appropriate tone and behaviour to use at the meetings. The participants in the room, sharing office gossip or the latest news on the outbreak over coffee before the meeting begins, not considering that there are others sitting isolated at their desks throughout the UK waiting for the teleconference to start. As I discuss later on, meetings are a significant site for negotiating status within the organization and influencing decisions. Not being able to fully participate can have serious consequences in this regard. Proximity, in the sense of being able to participate in person at the 'core' of the organization, is an important factor in success at achieving personal objectives.

This is not unique to Defra. Farris (1981), who has studied a range of organizations, identifies 'proximity' as a key factor in determining

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communication in a variety of settings. He suggests that at least five types of proximity can be identified: physical, professional, task, social, and formal-organization-created. The first two are most pertinent to this chapter. Physical proximity refers to the fact that individuals are more apt to interact informally when they are geographically closer to one another. People are more likely to discuss ideas with the colleagues in their office or across the hall than those in different buildings, who, in turn, are more likely to talk than colleagues in other regions of the country. Proximity of this kind may arise spontaneously, as in the case of a government agency he studied where an inefficient elevator system in their high-rise office building frequently caused groups of people on each floor to congregate in front of the elevators for several minutes at a time. A great deal of social and business interactions occurred among those waiting for the elevator (Farris 1981 p106). Professional proximity means that people of similar work backgrounds find it easier, or are more likely, to interact informally than people with different professional backgrounds because it is easier to discuss matters with others who share similar approaches to work, have similar cognitive styles, or share interests in similar problems. The ways in which people are able to create and encourage proximity of different kinds is discussed later in the chapter.

If we accept that the phenomenon of proximity influencing interaction is common to many organizations, it may seem that its manifestation in Defra does not deserve special mention. However, it is significant because it reveals the gap between formal organizational charts and the reality of working in a bureaucracy. The conventional picture of bureaucratic hierarchy is overturned by the understanding that it may be people of different rank who communicate more regularly than those in the chain of command set out by the organization. The formal arrangement of 'expert groups' and 'policy groups' giving and receiving advice through established channels has no meaning if some people are routinely ignored and others dominate the decision-making process. It is crucial that we understand the 'informal organization' that exists alongside the formal organization and understand whether the informal complements or supplants the formal.

Informal organization has been defined in various ways ranging from those who see formal and informal as polar opposites (e.g. Simon et al 1991) to those who see formal and informal as a continuum of behaviour (e.g. Hill 1972 pp35-36). Formal organization is defined by Weber as "A continuous organization with a specified function, or functions, its operation bound by rules. Continuity and consistency within the organization are ensured by the use of writing to record acts, decisions, and rules. The organization of personnel is on the basis of hierarchy, the scope of authority within the hierarchy is clearly defined, and the rights and duties of the officials at each level are specified" (cited in Hill 1972 p35). Informal organization, on the other hand, has been defined by Simon et al as "the whole pattern of actual behaviour – the way members of the organization really do behave – in so far as these actual behaviours do not coincide with the formal plan" (Simon et al 1991 p87). Although it is a neat distinction, organizational situations are usually much more complicated than this division implies. For example, it is significant whether behaviour that contradicts formal organization charts is deliberately deviant (stemming from a lack of authority in those who devised the chart, perhaps) or unintentional (for example, as people try to pursue goals that cannot easily be met by following conventional routes).

It is wrong to assume that outside of the formal organization, people act without structures to guide their behaviour. Within the informal organization, there is a hierarchy in the same sense as the one that structures its formal counterpart. This is obvious, argues Farris, because some individuals are more influential than others within the informal organization. What is less obvious is how the hierarchy is created: those with low 'formal' status may have an enormous informal influence. Farris (1981) uses the flippant example of the mistress of a chief executive – who gives her ideas straight to that executive – having more influence than an 'official' of the project team. In Defra it is possible that the Chief Scientific Adviser has less influence than a contract scientist working in a laboratory, as will be discussed later. The hierarchy in the informal organization may be called a "lateral hierarchy", in contrast to the vertical hierarchy of the formal organization (Farris 1981 p105). The lateral hierarchy is organized by a variety of factors. I have already discussed how proximity of various kinds can exert a greater influence over staff interaction than formal organization charts.

Other causes of non-deliberate departures from the chart include staff with strong leadership qualities exercising more influence than the chart suggests; conflicts with deep-seated habits or existing routines which make staff reluctant to change their behaviour; and when following the laid-out channels are too complicated or meaningless for staff to agree with (Simon et al 1991 p88). Some of the factors that influence the lateral hierarchy within Defra's exotic disease division are explored in the following section.

Performing expertise

The discrepancy between 'paper' and reality as far as the use of expert advice is concerned, and the role of meetings in creating and embodying that discrepancy, suggests that expert status relies on more than professional credentials: it relies on performance. It is not enough for a scientist to be invited to a meeting; once there, they have to establish their credentials by performing the role of expert adviser, in ways that are described below. Mieg (2001 p43) argues that we need to understand 'expert' "as a form of interaction rather than as a person". Becoming recognised as an expert does not rely on particular types of qualification or position; rather "almost anyone can – under certain circumstances – act as an expert. We see, even if there is sometimes a mystical note attached to experts, that the interaction involved in consulting an expert or, respectively, being consulted as an expert is based on a simple fact: There is somebody who seems to have knowledge that someone else is in need of" (Mieg 2001 p43).[14] Using experts, in his view, is simply a time-efficient use of knowledge: anyone could become an expert in something if they have long enough to study the subject but it is quicker to consult someone who already has such knowledge: the 'expert' in that context. By this understanding, those who crave expertise (or the power associated with expert positions) must persuade those who are in the position to employ them that they have the requisite knowledge. Latour and Woolgar (1986) describe cycles of credit in their study of scientists in a laboratory. The scientists, they argue, create credit by producing information which other scientists or laboratories then have

[14] It is interesting to note that Defra staff were interested in my social scientific expertise, based on my academic qualifications, but that the relationship that developed during the placement (as discussed in Chapter Four) meant that I did not come to occupy an 'expert' role.

demand for, and in this way the scientist accrues credibility. A scientist, they suggest, is probably not aware of their individual citation rating, or some other indicator of professional esteem, but they are aware of their credibility because success in producing valuable findings means that "people phone him, his abstracts are accepted, he is believed more easily and listened to with greater attention, he is offered better positions, his assays work well, data flow more reliably and form a more credible picture" (Latour and Woolgar 1986 p207).

Expert advisors in Defra likewise need actively to create and promote their status as experts if they are to be successful in influencing policy; paper qualifications are no guarantee that they will be listened to. The scientists involved in experts groups do not necessarily have to persuade Defra that their particular advice is worth more than the advice offered by others – as described earlier, in some cases there is only one research centre or group working on a particular virus. However it is in their interests that their advice is used, not ignored, and this requires more than simply emailing reports to policy-makers or sitting passively in meetings. They must perform the part of an expert adviser, which means doing a variety of things. It means being knowledgeable about the politics of a disease or situation, being part of the 'loop' of internal communications and on good terms with the main policy players, giving 'sensible' advice which doesn't contradict existing policy commitments or require a team of interpreters to allow policy-makers to understand it, and a host of other characteristics. A cautionary tale again comes from the devolved administrations about the possible consequences of failing to perform in an acceptable way. One member of a devolved administration described how, although on paper it was apparently routine to invite representatives from all the devolved administrations to a certain regularly held meeting, in reality there was a degree of negotiation that took place. The representative had to 'perform' in a way acceptable to Defra in order to be regularly invited to participate, meaning:

> Not just sit at that seat and be a part of that discussion but to contribute in a constructive and helpful way and not just constantly be the voice saying 'don't forget [us]' which obviously is not well received. It's to try and earn your position there not just physically

> but in terms of what you have to contribute. It's quite a challenge. [...] I think we have a challenge in trying to get the right balance between asserting ourselves as a devolved administration and not appearing to be bloody-minded about it, you know, there's this balance. We've all got the potential to do our own thing [as devolved administrations] but we need to turn that into positive action rather than just being different for the sake of it.

An ex-Chief Scientific Adviser (CSA) recounted how one of his first tasks had been to embed scientific advice more effectively into policy-making processes. He tried to do this by recommending that some scientists be moved from their offices near Victoria to the main policy headquarters in Westminster. His intention was that by scattering scientists throughout the policy building, the physical proximity that would be created would bring about greater communication between the two groups. What actually happened, he said, was that Defra put all the scientists:

> Up on one floor all together! That upset me a bit. All they did was they moved from Cromwell house to Page Street *en masse*, they didn't distribute themselves among the various divisions as I was hoping they would do.

As this CSA learned, physical proximity is no guarantee of greater communication and integration between groups. Other factors are equally important; in Defra the performance of credibility is perhaps foremost. For the devolved administrations, as described above, credibility relies on the ability to see the 'bigger picture' of policy-making and not be obsessed with parochial concerns. The picture created is one in which outsiders with a tenuous place in the policy process must avoid irritating core Defra who have the ability to exclude them from future meetings. For scientists, credibility means different things to different groups. In the following section I describe three types of scientific adviser (the Science Advisory Council, Defra's Chief Scientific Adviser, and members of the divisions expert groups) and explore how they need to perform in order to be 'acceptable' to Defra.

The Science Advisory Council was formed in 2004 as one of Defra's responses to the criticisms made in the Phillips Inquiry and Anderson Inquiry into the handling of BSE and FMD respectively. It is an independent Non-Departmental Public Body which "helps guide Defra's scientific priorities and work across the complete range of the Department's policy activities, including horizon-scanning and long-range planning as well as dealing with immediate risks and opportunities". It also advises Defra's Chief Scientific Adviser. The SAC includes senior academics from the fields of veterinary science, epidemiology, mathematical biology, marine science, social science and others. Although the Council is made up of eminent scientists, many of whom are professors in their fields, their role and involvement with Defra is contingent and liable to fluctuate. One member described how SAC are viewed by Defra, claiming that the advisory council is regarded as transient:

> I think the perception of SAC across Defra is varied. The science coordinators, particularly in animal health and welfare think SAC's a good thing, but there are others who regard us with a bit of suspicion and some who just think we're a bit of a nuisance because we keep asking questions [...] so for the [subgroup] report we saw all the science coordinators and they turned up dutifully and most of them read themselves up for the ten minutes that they're there or the half an hour they're there, but you got the distinct impression that they then go away and forget about it, they've done their bit, they'll see the report, they'll see the response from Defra and they'll carry on.

A senior policy manager from the division offered an explanation as to why the Science Advisory Council are not always taken seriously despite the eminence of its members. He argued that they were not in touch with the needs of policy-makers and because they didn't have the latest information – for example during an outbreak – their comments were simply not contributing to policy debates:

> [The advice SAC gives] is not always totally relevant, it's sometimes way behind the curve you know the issues they raise

> are things that have been picked up or dealt with separately. But that's not to say that at times some of the things they are saying aren't things that we'll be looking at or working on but very often there's nothing that they say that is surprising or unknown but there might be reasons why we're not approaching an issue or a problem in the way that they suggest. Probably they're not close enough to the issues even though they are all very eminent and capable scientists if you're not actually working directly on something you don't know all the ins and outs. So they're not saying anything that's ridiculous or stupid, far from it, but they are saying things that have already been considered and possibly discounted.

This discord appears to stem from the mismatch between the operation of the committee and the level at which they are engaging with divisions in the department. For example, SAC only has a full meeting on a quarterly basis, at which a range of high-level issues must be discussed. When they need to engage with the exotic disease division (which is often during an outbreak when people are under pressure and defensive) they have to meet staff from the division who deal with exotic disease all day, every day of their working life and are fully immersed in the detail and current status of each disease. Inevitably, there is resentment that outsiders who are not involved in the day to day running of the division are 'interfering' in the business of those who are intimately involved. Indeed, a member of the SAC secretariat argued that Defra staff see SAC as 'the police' who only become involved when things are going wrong. This was exacerbated, she argued, by the fact that Defra staff are not forced to engage with SAC when a request is made for information or attendance at a meeting; it is an optional extra, and one which Defra staff would often rather forgo.

The Chief Scientific Adviser (CSA) also has a contingent position in relation to the division. The main role of the CSA is 'to provide ministers with the best possible scientific advice and build on existing measures to ensure that science and technology are used to inform policy' (Defra 2007b). However, the CSA also engages with individual divisions of the Department. Disease outbreaks are a

good example of where and why this occurs; the CSA may sit in on ADPG meetings to offer scientific advice in addition to that which is coming from the experts groups. The Defra CSA has engaged with the exotic disease division to a far greater extent than any other part of the department as a result of their problems in controlling disease and the frequent disease outbreaks which occurred in 2007/2008. There are other reasons for the close links between CSA and animal disease, however: the position of CSA was created in large part to take responsibility for the science of animal disease away from the Chief Veterinary Officer following criticisms of the handling of BSE, the 2001 FMD outbreak and so on. The role of Chief Scientific Adviser is one that has particularly great pressures to create and retain credibility. While the position is advertised to attract academic scientists, once recruited they find they are expected to understand scientific issues which are well outside of their experience and understanding, and in addition to grasp the political and policy implications of accepting or rejecting a piece of advice. As a former CSA commented:

> I think right from the very beginning it became pretty clear that people were expecting you to know an incredible amount about everything, and that was a steep learning curve and what I found that was fascinating was having to learn a whole load of new science which was clearly alien to me and I mean certainly issues such as climate change, long environmental issues, pesticides, fertilisers, farming issues all of which were quite alien to me. I mean I know a little bit about animal disease and what the impact of that might be on the farming industry but nowhere near as much as I ought to as chief scientific adviser and I suddenly realised that you're chief scientific adviser, you're the person who ministers are going to turn to for advice on absolutely everything.

It was not possible to simply admit a lack of knowledge about an area, because personal credibility would be ruined by the implication that the most senior scientific adviser in Defra didn't understand a scientific issue. He went on:

> The media and stakeholders out there want answers. What's quite difficult to do is to resist the temptation to give an answer to a question asked by [Jeremy] Paxman on *Newsnight* and you just sit there and say well I don't have enough information at my fingertips to be able to give you a sensible answer and they say 'why not? Who are you, what's your job, why are you here?' That sort of thing is an issue. I remember having some of my media training by people like Paxman and one of the questions was 'well you're the Chief Scientific Adviser, don't say you don't know the answer to this, why do we employ you? Why are you employed by this department as a Chief Scientific Adviser if you don't know the answer to a scientific question?'

While these questions were coming from a hostile journalist, even within the Department there were expectations that the CSA would have a grasp of an enormous range of issues, including the non-scientific aspects of a particular policy area. Another CSA explained:

> You'd be a terrible scientific adviser if you didn't understand the politics of an issue. As an advisor, my credibility comes from my understanding of science and technology but it's equally important to understand the politics, otherwise you'd just come across as being naïve.

Defra sets out its expectations of the CSA in helping the department to achieve "public trust of Defra on scientific issues" and "the respect of the science community" (Defra 2007b). Clearly, Defra are expecting the individual holder of the position to have a range of expertise so extensive as to be, arguably, unachievable. However, the CSA is able to counteract this knowledge deficit to some degree by cultivating relationships with other Defra scientists, as described later in this chapter. The second issue, that of knowing the politics behind a particular policy issue, is recognised by other scientific advisers as well; it is not restricted to those who take a 'high level' view and provide advice to the higher levels of government. The scientists who sit in expert groups also recognised the

importance of being aware of non-scientific factors that would influence the situation with which they are dealing. For them, the issue is not of being able to take a high level view but of avoiding their stereotype as academic 'ivory tower' types with no understanding of the 'real world' conditions in which their policy-making counterparts have to operate.

Salter (1988) argues that all scientific advisers implicitly agree to take contextual, political and practical factors on board when providing expertise. The scientists themselves are chosen to sit on advisory committees because they are seen as being free from the pressures of interest groups and so on, but because they are operating in a policy environment they must make choices about which recommendations to give and which policies to provide support for. As Salter (1988 p9) explains,

> The intention is that those choices will be informed by scientific understanding and that their interpretation of the scientific literature will be sensitive to the norms of science and its particular limitations. Nonetheless, we believe that in accepting their task, the members of the expert committee agree to recognise constraints that scientists publicly claim to abide by. They agree to recognise the implications for society of the conclusions they draw from scientific data. They agree to consider moral questions, at least obliquely. And they agree, in most cases, to go beyond the normal activities of science in translating scientific conclusions into recommendations for policy

A recent report on scientists working on the Common Fisheries Policy supports this argument, as the authors claim to have found pressure on scientists to "inflate the science boundary" and deal with problems which are not strictly scientific. For example, they were asked to model the allocation of fish stocks as well as assessing biological condition, which is their usual role (Wilson and Hegland 2005 p.iv). Majone calls this type of science "trans-science" because it deals with "questions that can be stated in the language of science but are, in principle or in practice, unanswerable in purely scientific terms" (Majone 1984 p15). The way in

which scientists involved in policy give advice or recommendations also differs from standard scientific reporting (for example, in academic journals) because government seeks science that can be explained and justified to public audiences. The science must facilitate clear choices and constitute a body of evidence upon which decisions can be based (Salter 1988 p5).

As a result of these particular pressures, the way in which scientific advisors carry out research, debate issues, and arrive at conclusions can be very different from academic procedures. Salter suggests that scientists learn to use different language for their different audiences: "In order to maintain their credibility as scientists, participants in mandated science must adhere closely to conventions of scientific debate that are acceptable to other scientists. They must speak as if they were speaking with other scientists. To be effective in the policy arena, however, these same scientists are often also required to do otherwise. They must speak with an awareness that others – whose preoccupations and interests are quite different – will use what they say to further goals that are unrelated to science" (Salter 1988 p8). For Defra's scientific experts, being sensible (and co-operative) is a concern. In their case, being sensible means giving advice that can be used, implemented, rather than 'blue skies' academic research. Two scientists, one a member of an experts group, the other an employee of one of Defra's scientific agencies, described their perception of Defra's attitude towards scientists. The first said that his research group would be criticised for giving advice which did not offer a clear choice for policy-makers, or which could not be reconciled with the political situation within which the policy-makers were operating:

> I suppose sometimes they [Defra] think 'all these blue eyed scientists look into the sky with their "castles in the air" situation they don't know what they're talking about, we're in the real world'.

The second agreed, and saw a positive side to the demand for 'policy relevant' recommendations, although he acknowledged that this might be a problem in areas with a higher degree of political interference:

> The agencies don't do 'blue skies' research, that's not what we're about. We're doing research with a practical aim to input into the policy-making process to my mind, to facilitate them making the right decision and the fact that you're not doing research for research's sake is good. I think it's good because it's not just 'let's do this for some airy-fairy reason' – you're actually doing it for some end. But the area I work in is fine, there's no real political push or imperative to bias anything in any way or to interpret the research in a funny way, it's pretty straightforward really.

One danger for these scientists, which is not applicable to the Science Advisory Council or CSA, is that their work often depends on Defra for funding so in addition to wanting a place in the policy process, they need to ensure they are putting forward research proposals that Defra will approve of. Again, scientists need to speak the policy-makers' language and ensure that they were putting forward sensible proposals, as the Defra agency scientist commented:

> I think the way the scientists, for instance in the agencies or perhaps even more so from universities, put together [proposals] they don't really show an understanding of what policy people really want [...] I think policy people tend to want clear-cut answers and they want the caveats in there but the scientists tend to talk scientist-speak so much. I've seen so many tenders for funding and it's gobbledygook to me, never mind to a policy person who doesn't have more of a grounding in science.

Occasionally a situation will arise where scientists are able to disregard these norms and behave 'badly' while still having an impact on Defra policy. A notable recent example was the 2001 Foot and Mouth Disease outbreak, when epidemiological modellers engaged in a battle for credibility with the Minister of Agriculture. On 11th March 2001, the Minister of Agriculture Nick Brown said in a television interview that he was "absolutely certain" that FMD was under control. This message was repeated in the following weeks as MAFF sought to reassure the public and industry that the disease was being dealt with. Advice was

being sought from epidemiological modellers who were attempting to predict the spread of the disease and the effects of different control strategies. On 21st March the modellers had a meeting about the outbreak and prepared to send the findings to MAFF so that government officials could make a policy announcement. Despite an agreement that individuals would not talk to the media, Professor Roy Anderson, Head of Infectious Disease Epidemiology at Imperial College, stuck to a pre-arranged appearance on the BBC's *Newsnight* that evening where he said: "I think everybody is in agreement, both government, the farming community and the independent scientific advice, that this epidemic is not under control at the current point in time." He went on to say, "If this cull is applied vigorously and effectively enough you could turn the epidemic in to a decaying process hopefully within a month to two months. Doing something even better than that I am not convinced is possible at the moment" (cited in Anderson 2002 p92).

Anderson's remarks were instrumental in changing the public mood regarding the outbreak and ensuring that his favoured culling strategy was pursued. However, the circumstances were very unusual. FMD was a very high profile issue – much more so than the diseases more routinely dealt with by scientific advisory groups in Defra – and the situation was rapidly turning into a crisis for Government and industry. Moreover, the scientists involved were academics who did not rely on Defra for funding, and who stood to gain from their profile being raised as a result of the epidemic (Anderson went on to become CSA to the Ministry Of Defence from 2004-2007 and was knighted in 2006; another of his team, Neil Ferguson, was awarded an OBE in 2001 and has since become a member of Defra's Science Advisory Council and the Department of Health's Pandemic Influenza Science Advisory Group). They were experts external to MAFF, brought in for the very reason that in-house scientists were not felt to be providing the best advice at the time, and the success of these external scientists led to a drive to institutionalise a role for outsiders to advise policy-makers. The situation for the majority of Defra's exotic disease experts is very different to that of these opportunistic academics, and their attitude quite the opposite of Anderson's combative, media-based approach, as one agency scientist explained:

> You have to be careful how you manage that process and sometimes if it's a sensitive area I will actually involve communications directorate or colleagues at Page Street before I provide a direct response to stakeholders and say 'are you comfortable for me to answer this question?' or 'this is the answer I propose, are you ok with that?' because the last thing I want to do is cause difficulty for Defra policy in dealing with stakeholders.

It is equally rare for scientists who persist in putting forward unpopular ideas to win the plaudits that were subsequently awarded to the FMD modellers. An economist who worked for the division on a consultancy project tells a more mundane story. He described his feelings following an experience where his advice to the division did not fit with the policy agenda they were pursuing at the time. He said that his meetings with policy colleagues became increasingly difficult as their different points of view could not be reconciled:

> [the disputes] made it not a nice place to work and particularly stressful and if I was working for them on a long term basis that wouldn't have been sustainable.

Ultimately, however, it was not the arguments that signalled his exclusion from continuing participation in the decision-making process, but his being ignored. He described the situation after he had completed the consultancy project:

> I'm sure [my recommendations] haven't been taken on board at all. I haven't heard from Defra since I did my work for them. I kind of expected to hear from them because despite what I've said and everything, [Defra staff] seemed keen on having me back to do some extra stuff, which I found strange, but I haven't heard anything from them since.

Being ignored by the Department – in a situation where expert status, research funding, and input into policy depends on their notice and favour – is a disastrous outcome. As the experiences of these scientists show, possessing the right

qualifications and even being invited to participate in discussions is no guarantee that their advice will be accepted and that they will be invited back to Defra. There have been high profile cases of scientists claiming that they have been deliberately excluded from Defra scientific committees. Notable examples include Dr Stephen Dealler and Professor Richard Lacey who, during the BSE crisis, insisted that their advice was ignored by what were then MAFF officials, and that they were prohibited from having access to data about the disease. Their retaliation was to appear in the media criticising government policy and advancing their own theories through publications. The situation in the exotic disease division is often less dramatic, because few exotic diseases catch the public interest. BSE was an extremely serious human health risk and a novel disease with enormous repercussions for both government and veterinary science, but Newcastle Disease and Classical Swine Fever do not hold the same power. Scientists working in these areas may not be considered when tenders for research projects are sent to Defra, and may not be invited to expert group meetings, and may not have their advice taken as seriously as others, but serious conflicts like those between the BSE scientists and MAFF are never seen. Nevertheless, the fact that exclusion occurs has strong implications for a study of how scientific advice is used in policy-making. The subtlety with which research agendas are steered, voices ignored, and expertise weighted means that it is easier to overlook than in high profile policy domains, but the cumulative influence on the policy-making process is just as important.

Cultivating Credibility

The problems that arise for these scientists derive from a number of causes. For some – particularly the SAC who have no place in the routine business of Defra – it is a lack of any kind of proximity with Defra policy-makers, whether professional, physical or otherwise. As a consequence, they have no means of obtaining the latest information, or understanding the culture of the division, or of informally finding out where the priorities, weaknesses, and concerns in the division lie. For the CSA and for the scientists in the expert groups, there is the challenge of understanding the complex contexts in which their advice will be used, whether pragmatic or political. While their advice concerns different levels

of policy (one strategic, one detailed), their credibility rests on both an ability to see matters from a policy as well as a scientific perspective. The CSA, SAC and the experts groups are all able to employ a combination of strategies to overcome their particular problems, cultivating proximate relationships where none formally exist and so creating alternative networks of communication to obtain insider information. Their strategies highlight the importance of personal contacts, alternative means of communication, and informal meetings as a supplement to – or replacement of – formal channels of organization and communication.

As mentioned above, scientists can lose credibility if they are not up to date with the latest policy developments, or are not 'in the loop' of routine Defra communications. Often, this exclusion is not deliberate, but scientists struggle to keep up with what is happening within Defra when the bulk of their time is spent in research laboratories physically removed from Defra headquarters, perhaps even working on projects that are unrelated to Defra policy. One means of ensuring access to information is cultivating networks of professional contacts, usually scientists from other agencies or laboratories. The Chief Scientific Adviser, who has difficulty keeping up with so many different areas of science and policy, described how he had spent months, upon taking up the post, visiting Defra's agency laboratories and other research centres, meeting scientists and hearing about the work they were doing. The rewards of this approach were clear during disease outbreaks or when advice and information was needed quickly:

> If there's an issue over Bluetongue disease, I would call up the guys and say 'look I need briefing, I need a lot of information on Bluetongue, tell me what I need to know'. So that helped quite effectively and so I built up a good rapport with the scientists at VLA[15] and IAH[16] on animal disease issues which was important because if we're going to deal with animal disease on a big scale, and we do, I need to know all the big players and know them well. So like I had all their mobile phone numbers and they had mine and they could call me up and talk.

[15] Veterinary Laboratories Agency
[16] Institute for Animal Health

The CSA recalled how, during one disease outbreak, the informal conversations held with an agency scientist to keep him informed of the latest developments, outside of normal office hours and outside of the formal channels of communication:

> We were on the mobile phone all the time. I remember Sunday morning, I went to see my brother and I was calling [the Agency scientist] up and he was on his bicycle cycling through Richmond Park or somewhere and it was just a bizarre situation of him and me just talking to each other in strange places but you had to do that in order to stay on top of what was happening and I found that really quite important, forming a good close relationship with the scientists so they could always phone me up and say 'well this is what's going on'.

By cultivating professional networks, the scientists are able to create their own forms of 'proximity', either to other scientists with whom they can share information on a particular disease, or the latest news coming out of Defra, or simply gossip or unconfirmed rumours about something happening in the division. The CSA is in an unusually isolated position as someone who is not formally part of the division and so is liable to be (unintentionally) left out from updates during disease outbreaks. Moreover, as a relatively new position created to challenge the dominant role of the Chief Veterinary Officer in influencing disease control policy, the CSA has to work hard to establish a presence in policy-making circles. By getting information from the scientists he is able to maintain proximity to events without waiting to hear from Defra. His advice can therefore be more effectively targeted.

When building up contacts, many respondents spoke of the factors that influenced who they would call for information. Often, there seemed to be little logic in who they spoke to as they were not directly (i.e. hierarchically) linked on organization charts. One agency scientist spoke about his network being comprised of people

he had worked with in the past, who would not formally have had a reason to interact with him since changing jobs:

> There are colleagues that I might not deal with on such a frequent basis but they still come to me because historically we've built up a working relationship and they might come back and ask me my opinion on something or they tap into information. I'll give you a good example: Defra currently writes risk assessments, they review continually the risk of disease coming in to the UK [...] One of the colleagues from International Animal Health is always interested to know what we know about how the virus is changing in Europe so he taps into the fact he knows we have access to international information so he comes to me and I think its, you could argue it is formal, but I think a lot of that's informal as well.

Others had networks of contacts based on friendship. This is not to say that they only spoke to those they got on with but that it made them more disposed to speak to them and to contact them informally. A consequence of this friendship-based communication was some reservations that if their friends left Defra, they were at risk of losing their network of contacts and their input into the policy process running less smoothly, as a veterinary advisor explained:

> If during the summer [i.e. during an outbreak] I started to get worried that we were being left out of the loop I might ring [the Deputy Chief Veterinary Officer] on my way home from work or give [the Chief Veterinary Officer] a text or something, that's fine while you've got characters in place that you have got that working relationship with, but you take me out of the equation, take them [out of the equation] ... we've got to have a system that works that doesn't just rely on personalities.

Scientists had networks within the policy divisions of Defra too, which were particularly valued by those who relied on Defra for funding, as it helped them to

keep up to date with the division's policy needs. An Agency scientist explained that he had regular contact with a few people within the division, in the form of

> Frequent meetings or even a telephone conversation ad hoc or an email exchange – it could be through many forums, formal or informal, I'll always discuss new concepts or new directions for the research to take because clearly it doesn't make any sense for us to produce a research proposal, we might think its addressing policy but actually Defra colleagues might actually attach their own weighting to it. So when we do have what we call the programme meetings like we've got this week there will be issues that come out and [Defra will] give us pointers and they'll say this for us is an important aspect for policy and if we don't have an answer to question x we cant do policy so they do provide feed in to us.

When giving advice, scientists also adopted a strategy of trying to find out what Defra would be receptive to, and pre-empting their concerns or criticisms. A member of the Science Advisory Council described a strategy of building up good will towards a set of recommendations before actually making them:

> In all our reports the majority of all the key recommendations have been accepted. There's some pragmatic politics to play here, so for example in the social science one I let [some people in Defra] and some other people see an early draft of it knowing that it was only going to fly in Defra if they supported it and gave them the opportunity to say something but also gave them the opportunity to think about it and not be surprised by what we said. As I said this is just the pragmatic way of getting things done. If you go for the glory of the big surprise – gosh what a fantastic report, we hadn't thought of that etc etc – you'll actually force people into positions they may not wish to be in. But if you give them some forewarning, [that doesn't happen]. So actually what happened when [some people] came to see the SAC subgroup they almost

> read back to us some of the things that we'd started to put into our draft report so they then had ownership of some of the ideas. Ok, there'll be occasions when you'll need to say to somebody 'this is our advice, you may not like it, you may not want to do it, and you may disagree with us, but this is our advice'. But if you can, it's much better to push at an open door by not surprising people too robustly.

Scientists recognise that their position depends on more than their formal status – they have to maintain their reputation and do so by building networks of contacts and collaborating with Defra. The role of communication is clear and scientists exploit a number of informal means – texting, ringing colleagues on their mobiles at the weekend – which are a stark contrast with the formal, Defra-controlled meetings held in Page St. The use of informal meetings with Defra officials, as described by the SAC member, allows negotiations to happen without either party 'losing face' in the formal meetings that follow. Other informal dialogue, such as that between scientists seeking guidance on which areas of work Defra are more likely to fund, enable the scientists to avoid putting in pointless and time-consuming bids for work that Defra will not support. By successfully negotiating the informal organization, scientific advisers are able to avoid being marginalized and have an impact upon Defra's policy process.

Conclusion

The stories told by Defra's scientific advisers in this chapter suggest that expert status relies on more than academic qualifications and experience. Of course, qualifications are a necessary first step to gaining access to Defra, for the department ensures it has the most eminent and relevant advisors on its expert groups and committees. However, as this chapter has shown, personal, less tangible qualities such as credibility, political acumen, professionalism, networking skills and the ability to negotiate are equally important. It is not a new idea to suggest that scientists are judged on more than just their paper qualifications. Fleck (1998) has suggested that there are as many as six components of knowledge, including formal, informal, instrumental, contingent,

tactic and meta-knowledge, upon which judgements of expertise are based. Collins and Evans (2007 p51) have coined the term 'external meta-expertise' to refer to the phenomenon of non-specialists judging a person's expertise not by understanding the expertise itself but by understanding the expert. What is significant for this study is not that the scientists are judged per se, but by what criteria their expertise is assessed. Collins and Evans (2007) argue that "scientists in white coats" hold authority over many areas because they resemble the image of an academic expert, removed and esoteric in their experimentation. Yet the experience of Defra's science advisors is exactly the opposite: those perceived to be too 'academic' are eschewed in favour of those with a better grasp of pragmatic politics and real-world conditions.

This situation contrasts with Defra's portrayal of a neat science/policy split wherein the scientific advice given is unsullied by consideration of political and practical factors. However, even if we acknowledge that the notion of 'pure' scientific advice being fed into policy and used in an impartial way is not an accurate portrayal of Defra, it does not necessary lead to the critical position of Salter (1988) and others who argue that scientific advisory committees are inevitably peopled by biased, political individuals. That the scientists would like to find out what Defra want and to understand the way policy people think is not a sign that they are willing to unquestioningly bend their advice to that which policy-makers want to hear. Many spoke of the importance of personal integrity and professionalism, even though these sentiments could make life difficult at times. A veterinary adviser described a disease outbreak when an infected animal became a mascot for opponents of the slaughter policy. Despite clashes with policy officials, throughout the episode:

> I didn't, I couldn't, change my veterinary advice. It was never going to change, whereas the policy – the minister may have decided to let that animal live, then it would have been my job to fathom out a way of allowing it to live safely. That would have been tricky for me and I wouldn't have liked doing that because I really believed in what I was doing. [...] Basically I'm a vet and I need to know that I can look at myself in the mirror in the morning

> and say I gave the best veterinary advice that I could and I have to then accept that if there is a political reason for not accepting that advice then I have to live with that. That's tricky.

The role of scientific advisers remains a unique one that is quite different to the experiences of academic scientists or those in private sector research institutes. They are expected to understand non-scientific issues even when they do not explicitly comment on them; they must use policy-makers' language in their recommendations and avoid appearing as esoteric white-coated academics. In summary, they must perform the role of the expert, which means acting in a way that is consistent with Defra's expectations. It can be argued that to be a scientific adviser for Defra it is not sufficient to 'have' expertise; one must *be* an expert, by behaving appropriately. It is interesting to note the difference between the scientific advice Defra professes to want – impartial and objective – and the more politically and pragmatically-oriented advice which the scientists believe they are expected to give. This tension is explored in the following chapter that draws together the stories told about expertise in this chapter with those about bureaucracy in Chapter Five. It discusses the differing interpretations of the policy-making process offered by the two groups, and the implications for decision-making within the division.

Chapter Seven

Organizing Policy-Making in Defra

Introduction

The previous two chapters tell of the activity of policy-making, describing it in turn as mundane, heroic, formulaic, opportunistic, complex, and clear-cut. These descriptions come from government officials and their advisers as they talk about their experiences of working in Defra, telling stories about occasions when they achieved success or were thwarted for one reason or another. The stories in themselves give us an insight into the way people think about their work and their colleagues. But what is the wider significance of studying the meaning that people attach to certain events and experiences, and the ways in which they talk about those phenomena? We know from the organization studies literature that people engage in sensemaking activity by talking about their shared experiences, and in doing so create a common vocabulary for understanding the past. But is there a bigger role still for storytelling within the organization as not just a means for re-thinking what has gone before, but also shaping the present and the future, too? Many proponents of narrative or story analysis argue that they are 'sensemaking' devices or 'schemas' for making sense of past experience (on sensemaking, see for example Balogun and Johnson 2004; Weick 1995; Weick et al 2005; Maitlis 2005; on schemas, see Lord and Foti 1986; Harris 1994) but my observation of their function in Defra suggests that stories are also future-oriented, in the sense that they convey preferences for how the organization should be ordered. In this chapter I suggest that these stories can be grouped together into three broad narrative strands or discourses, which have an organizing function. They are, to use Law's (1994b) terminology, "modes of ordering" the organization.

First, it is necessary to recall what is meant by "modes of ordering." Modes of ordering are stories told by members of an organization, which are not only verbal accounts but are performed or embodied in a concrete non-verbal manner (Law

1994b p20). Modes of ordering are not 'mere talk', but generate materials, spatial arrangements, performances and, together with these artefacts, they generate effects. Law argues that

> these modes of ordering, which are embodied in and constitute a series of materials including talk, agents, devices and organizational arrangements, may be seen as ordering syntaxes, recursive modes for telling and performing, and embodying the organization. [...] the argument is that there *is* no organization outside the uncertain processes by which it chronically produces itself.

(Law 1994a p250)

By studying how and why particular stories are told, the researcher gains insight into the values and beliefs of the tellers. By understanding the ways in which organization members tell stories about their individual circumstances, it is possible to see how they would like to organize the organization in a wider range of circumstances, and the beliefs they hold about how the organization should operate.

This explains how modes of ordering are brought into being; participants are influenced by existing images, objects and vocabularies, such as organizational symbols and the rhetoric of management, and in turn create artefacts and vocabularies and participate in shared understandings of how things are and how things ought to be. But it does not explain how these modes of ordering, once created, are able to endure. At certain times a mode of ordering may lose its explanatory power, as a result of experiences that contradict expectations and cannot be included within the story's network of meaning. Despite this, the evidence shows that modes of ordering persist over time within organizations. One of Law's suggestions as to how this works is that organizations develop multiple stories and multiple strategies for organizing. Law argues that when several modes of ordering co-exist they work together or temporarily replace one another to ensure a level of obduracy in the status quo. He states that

> when one strategy, one mode of ordering, runs into the sands, then another comes to the rescue. For (here is the fatal flaw of simple solutions, single strategies) any single ordering mode will reach its Waterloo, discover its nemesis, and come unstuck. Which means that if the organization were to depend on that strategy alone, it too would come unstuck.

(Law 2001 p4)

Rather than operating in isolation, a number of orders function within a wider economy of sensemaking, interacting creatively to support the overall group of modes of ordering, the organization. What initially appear as contradictory or rival narratives actually lend support to one another, offering a range of explanations through which to comprehend diverse events and circumstances. Instead of collapsing in the face of incongruity, a mode of ordering may temporarily slip into remission – where participants no longer draw on it – but it may return at a later point.

Law's second argument is that modes of ordering survive because they are not only drawn from materials, but also anchored in them, or "materially delegated." In other words, what might have been purely social relations are transferred into other materials. Law does not argue that there are either such things as purely social relations or objects that have an immutable form independent of their network of social relations. Rather, the two reinforce one another (Law 2001). Material objects help to anchor social relations, and social relations help to interpret the material objects. An example drawn from Law's study of Daresbury laboratory is the accounting system, which takes various material forms (office procedures, paperwork, account books, calculators, computers) but which together with the social relations of the people in the laboratory enact a particular strategic order that Law terms "administration". Although Law does not explicitly say that a mode of ordering must be materially delegated in order to persist, he acknowledges that "thoughts are cheap but they don't last long, and speech lasts very little longer. But when we start to perform relations – and in particular when

we embody them in inanimate materials such as texts and buildings – they may last longer. Thus a good ordering strategy is to embody a set of relations in durable materials" (1992 p6).

It is straightforward to claim that each mode of ordering enlists and incorporates materials to ensure its own survival, but how do materials facilitate the complementarity of different orders? Like words, objects have different meanings for different people: the meaning is created intersubjectively, and consequently is not fixed. Latour (1991) discusses the creation of hotel keys with large key fobs attached, designed to encourage guests to leave the key at reception, and argues that if the hotel manager did not tell people to leave the keys, some guests would carry their enormous key fobs around all day. Materials alone are not enough to ensure the persistence of a mode of ordering; vocal interaction is also required. But the same materials can be reinterpreted and appropriated as modes of ordering disappear or mutate. As this chapter demonstrates, while it is possible to identify materials that anchor modes of ordering in Defra, few are exclusively used, and the contradictory embodiment of materials to support different ordering attempts can be observed.

Structure of the chapter

In this chapter I am going to set out the three modes of ordering that can be identified in Defra's exotic disease division. I have termed them rationalism, bureaucracy and expediency. For each of the modes of ordering in turn, I am going to indicate the images, events and ideas that prompt the development of the mode of ordering, referring back to the stories of Chapters Five and Six, and describe the way in which each mode is created and used by the participants. I am also going to consider how each mode of ordering is derived from other images and sensemaking devices such as documents, corporate images, public conceptions and so on, and the extent to which each mode is recognisably materially delegated. Throughout the chapter I will highlight instances of the three modes of ordering interacting creatively with each other to sustain this division of Defra in its current form. Having described the three modes of ordering, the evidence for them and their effects, I will discuss the differences and similarities

between them. In particular I am interested in the different scales at which they operate, and the different effects they bring about such as creating different hierarchies of people and values.

Rationalism as a mode of ordering

The first mode of ordering, which I have termed rationalism, is based on the belief commonly held by officials (and to a large extent by advisers too) that policy-making should proceed along the lines of the rational models of decision-making so prevalent in academic analyses and policy documents. As I set out in Chapter Three, the rational (or "textbook") view of the policy-making process is characterised by the presence of distinct and identifiable stages through which a decision should pass. These stages generally include problem identification, consideration of available options, decision-making, and finally implementation, and the expectation is that 'good' policy-making should flow smoothly from one part of the process to the next. The most recent of these models, 'evidence based policy-making' includes a stage at which scientific advice can be incorporated: typically after the problem has been defined and before the solution has been agreed. While it would seem obvious to the outside observer that policy-making seldom follows this neat and bounded course, we can see in the comments recounted in Chapters Five and Six that the notion of policy-making as a sequential and cumulative activity is strongly held in Defra.

Although neither policy-makers nor scientific advisers explicitly refer to a model of stages through which they pass when reaching a decision, the existing conventions – such as the routine separation of scientists from policy domains – implicitly supports the notion of a sequential policy process. Officials talk about experts groups providing "an independent science rationale for action, which doesn't have to take account of the policy imperatives" and which are chaired so as to exclude discussion of political or economic factors. Policy-makers see experts groups as a preliminary evidence-gathering activity, and that later in the process other, non-scientific considerations will be brought to bear on the policy problem. Scientists also talk about themselves using a very rational decision-oriented representation. When I asked them to explain their work as scientific

advisers, their responses accorded with the role they are given in formal models of evidence-based policy, and in the rational and bureaucratic modes of ordering. For example, scientists described their roles as deciding "from an expert's point of view the answer to specific questions that are raised by policy colleagues [...] and then being able to explain that coherently to policy-makers who actually can choose to ignore the advice that has been given to them". They talk of detached science and recognise the mutual benefits to themselves and the policy-makers of keeping scientific and policy discussions separate. In addition to these positive comments, there is frustration among the scientists at the way in which their advice is seemingly taken out of their hands and swept up into a system that can and does modify, water down, or ignore their recommendations. This suggests that they see themselves as part of an early stage in the policy process and that they have no place in the later stages, where the decisions will actually be made.

The materials and arrangements generated by the rational mode of ordering support the separation of policy from scientific and other interests, and the notion of a policy process that can be divided into neat and bounded parts. For example, the so-called expert group meetings are held in the basement of the building, far from where the policy-makers work. The scientists attending must apply at the reception for a temporary access pass, reinforcing the fact that they do not 'belong' to Defra, and must seek permission to come in, even though many of them are effectively employed by the Department and receive all of their funding or salary to work on research and testing for the exotic disease division. Meetings take place round a large table but for those physically remote from London there are teleconferencing facilities; the scientists forced to use these arrangements spoke of their dissatisfaction in Chapter Six. For the stakeholders (members of pressure groups and so on) the split is even more pronounced; they are met in a separate building altogether, the Defra 'headquarters' where the rooms are much grander and the seating arrangements even less democratic than in the experts groups. The separation of the stakeholders' input from policy-making is complete; they are not even in the building where policy is made. They are present at the invitation of Defra only, and only the most important stakeholders are invited to sit around the table; everyone else must sit around the edges of the room, physically excluded from the inner circle. Within the building where the exotic

disease staff work, they are separated into clusters; sets of desks for each work team, with a sign hanging overhead in their open plan office to denote the area where 'prevention' work is done, for example. The division is confined to a single floor, with in-house scientists on another, and endemic disease staff on yet another, and so on. The building is arranged rationally, not to foster informal communication and pragmatic networking, but to promote people working in their designated team, on their designated work area, and separate from those whose input into the process is contingent.

Embodying and performing rationalism

To understand how rationalism has become established as a mode of ordering in Defra it is necessary to consider the prompts and images that policy-makers receive from the organization and elsewhere. At the heart of all descriptions of the policy process as rational, logical, sequential and goal-oriented is the implication that policy-makers are, in essence, decision-makers. While the stages of problem formulation and evidence gathering are important, they are all leading up to the climax of the process: a decision. Policy-makers recognise and absorb this image of themselves as decision-makers, and organizational life reflects their preoccupation with decisions. As Laroche (1995 p97) argues, in the context of other organizational settings but equally applicable to Defra,

> A striking characteristic of organizational life is that there is a lot of talk about decisions, decisions that have been made, are to be made, will be made, should be made, will never be made; talk about who makes decisions, when, how, why and with what results. Organization members interpret a significant part of activities around them in terms of decisions. Numerous organizational devices (planning systems, committees, assemblies, votes, etc.) are developed, implemented and operated for the purpose of producing decisions. Managers look at themselves as decision-makers.

Managers (or in this case, middle-ranking policy-makers) see themselves as decision-makers for two reasons. The first is simply because they are encouraged to do so by Defra's recruitment and training programmes. Just as managers in private sector organizations are taught using courses and textbooks that aim to give the decision-maker tools to make decisions, which are "their responsibility and their prerogative" (Laroche 1995 p65), Defra officials are given handbooks and web resources on 'better policy-making' that emphasise their duty to consult widely, obtain evidence rigorously, and make decisions wisely. A parallel socialisation happens among advisors to government officials whereby they are encouraged to think of themselves as supporting actors in this decision-centred process. Feldman (1989), in her study of policy advisers (or 'analysts') in the US, describes a situation similar to that of the scientific advisers in Defra, whereby advisers draw up reports that may very rarely, or never, be used. Yet despite this apparent futility in their work, they persist in their jobs because these advisers are surrounded by colleagues who reinforce the image of their role as providing solutions for policy problems. As Feldman argues, the possibility of contributing directly to policy generates much excitement because of the perceived rewards including attention from high-level officials, superiors, and peers, recognition awards, and offers of better and more interesting jobs, as well as the intrinsic rewards of having an influence on policy. Therefore, although opportunities to contribute directly to policy decisions may not happen often, the reward is such that the prospect of such opportunities exerts a strong influence over the analysts and they seize upon stories of other people making a breakthrough. Consequently, the bureaucratic system encourages belief in problem solving even when there is little evidence that it occurs (Feldman 1989 p107).

It is inevitable that Defra's scientific advisers, too, speak in the language of the textbook policy process; they are prompted to do so by the structures and documents of the department into which they are being drawn. The language of Defra's recruitment documents makes clear the view that scientists provide a very particular service to Defra; one which requires packages of objective advice to be provided at discrete junctures in the policy-making process. A recent advertisement on the Defra website to recruit new Scientific Advisory Council members listed in its 'essential criteria' that applicants must have "capacity to be

independent, to provide impartial, objective advice and be prepared to support views with well-argued scientific evidence as necessary." The Department states that it funds research to "investigate specific problems, to develop policy options, to implement solutions and to assess their effectiveness" (Defra 2009). The guidance notes on submitting tenders for research to Defra warn scientists that "Defra funds research to inform its policies. It does not fund research for the sake of the science alone. It is important that the science proposed is sound, but also that the research is relevant to the Department's policies, as described in the specification" (Defra, undated). Those who give advice are strictly segregated into 'expert groups' to reinforce their status as both appointed expert and as distinct from policy-makers.

It seems, then, that both officials and advisers are drawn into believing that they operate in a textbook policy environment, even though reality seems to contradict this. Policy-makers are aware that many of their meetings do not lead to resolution and that, at the time, it is very difficult to say with authority that a final decision has been 'made'. Moreover, they are frequently engaged in activities that have nothing to do with decisions but are being undertaken for other (often unclear) purposes. Likewise, advisers recognise that their reports may go unread, their present actions ignored, their research findings filed away and never used to contribute to policy. Yet they continue to view their tasks as building an evidence base upon which decisions will be based. These discrepancies help to explain the second reason why the middle-ranking officials see themselves as decision-makers: because it gives purpose and structure to their actions. As Laroche (1995 p69) argues,

> Managers see themselves as decision-makers because making "decisions" is a way of being an actor in the world of organizations. Managers make "decisions" because "decisions" give meaning to the processes which surround and concern organization members. Organization members explain what they are participating in and what is happening around them in terms of "decisions" which are made, which will be made, etc.

As people frame their work in terms of decision-making, they create and participate in a world of problems, choices, and key meetings and events. In short, then, they start to structure their work around the idea of making decisions, to the point where the vocabulary and organization of their environment revolves around the decision as its key outcome.

Participants in the rational mode of ordering co-construct what they think a 'decision' ought to be, retrospectively designating a particular meeting as the meeting where the decision was made, and bracketing a period of activity as the 'evidence-gathering' that led to the decision, and terming everything that happens after the decision has been made as 'implementation'. Thus there is a constant stream of activity occurring that, it is argued, continues without the need for specific goals towards which this activity must be directed. Policy-makers are able to follow set procedures and fulfil expected tasks almost unconsciously and then make sense of this activity at a later date by strategically terming certain activities as 'decisions'. As I set out in Chapter Three, this retrospective interpretation of events, which is often referred to as "sensemaking", involves "the ongoing retrospective development of plausible images that rationalize what people are doing" (Weick et al 2005 p409) using "a conversational and narrative process through which people create and maintain an intersubjective world" (Balogun and Johnson 2004 p524). Policy-makers see themselves as 'decision-makers' (because they operate in a rational process that leads to a decision) and therefore look for moments of 'decision' in their past actions.

In other words, there is a mutually-reinforcing cycle of policy-makers 'acting' as decision-makers because they are told that they operate in a rational policy-making style, and the policy-makers perpetuating the image of rational policy-making by interpreting everything they have done as part of a decision-making process. Thus activity is directed towards decision-making; participants have the feeling of taking part in or being witness to 'decisions' because the world of policy-making is represented to them as being a world of decision-making. However, policy-makers actively seek to construct a rational decision-making environment by structuring their working day around meetings where decisions will be made, keeping records of the decisions that have been reached, and writing

press releases that announce their decisions. For example, if a group of people think there is a decision to be made, they will call a meeting in order to make this decision, and at the end of the meeting they will have a sense of whether or not the decision was reached. They believe a decision has (or has not) been made because they expected the decision to be made, since that was the reason for the meeting in the first place. Other colleagues who were not in the meeting, but know it took place, think that a "decision" was at stake and will eventually find a reference to this meeting in a report, note or conversation. They will interpret this meeting as the time and place of the decision (Laroche 1995 p70).

Obduracy and delegation

Although it is obvious to Defra staff that policy-making in the Department does not often follow the textbook model, rationalism endures both as an aspiration and an expectation of life as a policy-maker. In fact, the image of the rational policy process is so deeply ingrained throughout the civil service that some policy analysts feel they will be ignored or dismissed by policy-makers if they try to write about the policy process in any other terms (Nakamura 1987 p152). Laroche (1995 pp71-72), drawing on social representation theory, offers an explanation for this, which is that managers are usually proactive and tend to look forward rather than back. In other words they do not dwell too long on considering whether the course by which they arrived at a decision resembled the rational process they expect. When discrepancies are noticed, they are downplayed and managers pretend that they are an exception rather than the norm. However, this argument does not work particularly well when applied to Defra. The division has been the subject of numerous reviews such as the two FMD inquiries (Anderson 2002, 2008), Newcastle Disease inquiry (Defra 2006b) and many other internal reviews of the policy-making process. These inquiries explicitly set out to uncover instances where policy-making did not follow the expected course, where evidence was not taken on board or policies were not implemented correctly. Consequently, Defra officials are very much aware of how serendipitous the policy-making process is, and yet their view of themselves as decision-makers persists.

Material delegation offers one possible solution, as we can identify many instances where the textbook rational model of decision-making is supported by a range of technologies and artefacts that have been created because officials believe they should be acting in a rational manner. Examples include the texts that accompany policy documents setting out models of EBP and guidelines on the responsibilities of policy-makers, the meetings that form the core of organizational life and the minutes and agendas that anchor them into administrative systems, and the computer databases filled with folders of 'evidence'. All these give real expression to the notion of policy-making as a rational, decision-focused activity. The argument for multiplicity is even more persuasive. Rationalism doesn't have to be successful all of the time because participants are able to find alternative ways of understanding their experiences. If rationalism were the only mode of ordering, the organization could not survive because reality would not match expectation. One of the most common reasons that rationalism loses its explanatory power for the participants is because they attend meetings where decisions are not made, produce documents that are not read and which do not contribute to any decision-making process. In the following section I explain how these experiences are interpreted as part of another mode of ordering, bureaucracy.

Bureaucracy as a mode of ordering

As I suggested earlier, working in Defra does not live up to the expectation of rational policy-making. The reality of life in Defra is one of small, incremental steps towards ever-changing goals. Progress is thwarted by the rapid replacement of staff, changes in political circumstance, poor information management systems, financial constraints and the bureaucratic demand for 'due process'. The current vogue for private sector management techniques means that Defra officials are moved between jobs regularly and have little time to become 'experts' in their field. As a consequence, they feel they are often 'playing catch-up' and are condemned to a treadmill of keeping up with new developments in their field and understanding both political and scientific issues relevant to their policy areas. Many scientists and other 'outsiders', when they perceive that their advice or criticism is unheeded, blame Defra for being deliberately obstructive. Defra staff,

on the other hand, feel that reform of the system to achieve more efficient working is beyond their control. The middle-ranking officials have a particularly difficult time because they are responsible for neither agenda setting nor implementation, but must occupy a difficult role co-ordinating the activities of others. When an out-of-touch top management imposes weak and ill thought-out reforms, policy-makers find ways to implement the proposed changes with as little disruption to their existing ways of working as possible. Management also impose an exhausting series of meetings on the middle-ranking officials, who describe with amused frustration the number of hours spent in meetings compared with the small amount of time 'getting something done'.

Bureaucracy, then, is another of the multiple ordering strategies that enables the organization to survive. By bureaucracy I am referring to the practice of officials believing the procedural, routine and onerous aspects of their work to be consequences of working in a bureaucratic organization and in doing so blaming others for their inefficiencies by constructing these duties as inescapable burdens foisted upon them by the organization and its hierarchy. The way in which I am using the term bureaucracy corresponds closely with the negative stereotypes and clichés I outlined in Chapter Five: bureaucracy is a byword for inefficiency, obfuscation and so on. It also has a more neutral meaning in the sense that it refers to a procedural and hierarchical means of organizing work and people. Bureaucracy is utilised as a sensemaking device by officials because it de-personalises activity. Policy-makers and scientists alike express their powerlessness at the hands of bureaucratic procedure, suggesting that when they fail to act in a rational manner it is not their fault but the result of being swept up into the bureaucratic machine. This is a particularly useful sensemaking device because as Laroche (1995 p71) argues, in most cases in organizations it is not clear why, when failure occurs, things did not turn out in the way they were expected to. This is certainly true of the various Lessons Learned reports, which often struggle to attribute blame or even causality to the actions of Defra officials. Laroche (1995 p71) also hypothesises that "the feeling of not having an active part in the flaws of the process allows participants to readily acknowledge these flaws" though they may be quite bitter about it. This certainly seems true of Defra staff and advisers who openly complain about the constraints of their working

environment and their inability to circumvent the fixed procedures that are an essential part of bureaucratic decision-making.

The policy-makers, who complain that they are forced to attend meetings even though they would get more work done if they were permitted to be absent from them, echo this feeling of frustration. The implication is that attending meetings is an inescapable feature of working in a bureaucracy; work is done despite the onerous burden of routine meetings that are forced upon the workers. In particular, the types of meetings that are identified as pointless are the meetings that could most obviously be described as 'bureaucratic necessity'. One of the Grade 7s lamented the need to attend the weekly 'team meeting', which always runs over its allotted time and which only exists to discuss general corporate issues that bear no relevance to that particular official's daily work. These sorts of meetings are not events where officials expect decisions to be made; they are catch-up meetings or information-gathering meetings for the benefit of others. This 'structural maintenance' work is accepted as an essential part of keeping the Department functioning smoothly, however, and most officials accept it as an inevitable feature of their working week.

The materials of bureaucracy are not difficult to identify. That ultimate symbol of the bureaucrat – paperwork – is to be found everywhere in the division. The farming of livestock and the controlling of disease is a very bureaucratic business. Farmers must register their premises to obtain a holding number; for cattle (and, in a recent development, sheep and goats too) each animal must be tagged, its ear tag number recorded and used to obtain a passport to allow it to be moved on and off the premises. There is a poultry register to keep a record of poultry producers, administered by Defra staff. Those transporting livestock with vehicles need the relevant paperwork signing off to prove that the vehicles were disinfected after the movement; likewise animal gatherings such as markets and shows must have licenses, and be inspected, to ensure cleansing is properly carried out. In the event of an outbreak, there are forms for reporting suspected cases of disease, movement licences must be issued to farmers wanting to move their livestock, and so on. All of these forms, licenses and other documents pass through the division in one way or another, either directly as they are checked and filed, or

indirectly as other agencies report to the division about their progress. Bureaucracy has a centralising tendency, drawing many areas under the oversight of the division through materials such as documents. But bureaucracy in the sense I am using it here – as a derogatory term denoting excessive regulation of procedure and its attendant inefficiency – generates other materials, too. Consider the regulation of the buffet lunch, which can be ordered by staff to sustain them in long meetings. Because lunches can only be ordered for meetings of several hours' duration, a suspicion arose that staff were deliberately scheduling longer meetings than were strictly necessary, and a memo was circulated from management discouraging this practice. Or the use of powerpoint presentations – with the inevitable accompaniment of broken projectors, and forgotten USB sticks, in supposedly short briefings. These seem innocuous, but during disease outbreaks they are tellingly abandoned in favour of rapid oral presentations with no supporting powerpoints, pre-circulated documents or handouts.

Embodying and performing bureaucracy

I argued that rationalism gives Defra officials a sense of purpose by equipping them with the vocabulary and tools of decision-making in an otherwise uncertain and complex organizational environment. What attraction does bureaucracy hold for officials (and advisers)? The key seems to be in the sense of powerlessness described above, and the opportunity it affords officials to abdicate responsibility for the Department's failings. It also helps these frustrated decision-makers to retain a sense of place and worth in the organization: the bureaucratic mode of ordering gives all participants a place in the bureaucratic system that does not depend on the subsequent utility of their contributions. For example, even the scientific advisers whose expertise is rarely used have a place in the bureaucratic organization; whether their advice is used or not, they have fulfilled their 'function' simply by existing and providing advice. Bureaucracy does not weight the different contributions of its participants; the emphasis is on procedural regularity and order. Thus rather than becoming disillusioned when they are ignored, scientific advisers can make sense of events by believing that they have nevertheless provided a necessary service as a fixed component of bureaucratic procedure. As one scientist commented, after giving advice, "there have been

many occasions when we've sent advice through to core group, the policy group, and it's come back saying that they didn't do that, they decided not to on reflection." In other words, what happens 'downstream' from the provision of advice has no bearing on the ability of scientists to give advice, and does not diminish the value of that advice. The same argument could be made of policy-makers who are attempting to carry on their activity without being clear of the objectives of the division, or of the end-point of their project. They can continue to go about their business because they are validated by the existence of a bureaucratic organization in which they have been assigned a role and a place in a hierarchy.

Bureaucracy also puts the emphasis on process; on means rather than ends. When goals are ambiguous, officials can carry on with their everyday work without feeling that their *raison d'etre* (making a decision, which implies having a goal) has been compromised. In this way the emphasis on process clearly complements the rational decision-making representation by enabling policy-makers to interpret their role in the organization even when their apparent function (decision-making) has been taken away. An emphasis on process means that policy-makers are given templates for action: templates for documents; criteria that have to be met before a project is deemed complete; lists of issues to consider when carrying out a risk assessment. Feldman gives the example of writing a report that frequently follows a pre-defined template both for writing and gathering information to inform the report. The process of producing a report

> takes on the appearance of a routine, not in the sense that the same thing is produced or in the same manner, but in the sense that a pattern of behaviour exists that helps people figure out what needs to be done next given what has already happened. People may be working on very different types of papers under very different circumstances, yet they are guided by the general knowledge of how to write a report, how to push it through the concurrence process, and so forth. In the absence of a larger goal, the goal of completing this task at hand becomes the focus of attention

(Feldman 1989 p95)

The primary objectives of the policy-maker may be directed not towards ultimate ends, but towards successfully completing the part of the process that they have been allocated. In Chapter Five I discussed the criticisms of bureaucratic government, which alleged that this process-focus led to an inefficient and procedure-obsessed civil service. However, I am not arguing that a focus on procedure is in some way glorified in Defra; rather that it offers a means for civil servants to conduct their work even in a situation where goals are poorly defined and the immediate relevance of their work is unclear.

The emphasis on process has other implications, too. The bureaucratic style of structuring discussion serves to minimise conflict and simplify complex debates. The bureaucratic process (by which I mean dividing labour so that policy-makers have responsibility for different tasks, following a set of procedures in order to complete these tasks and operating within a hierarchy of responsibility where those in higher authority have the job of co-ordinating action) creates a highly structured environment in which ambiguity cannot be accommodated easily. Individuals and groups must state their positions, views and evidence so that these positions can be fed into a structured discussion process. In this way complex arguments are simplified into usable forms such as 'the Minister favours x' and 'the evidence supports y'. Laroche argues that in this way bureaucratic decision-making "reframes violent political struggles as useful and normal debates – though maybe a little too passionate ones – that give more depth to collective deliberation" (Laroche 1995 pp71-72). The process of decision-making manages to contain disputes by reducing them to a set of arguments that can be normalised and fed into a seemingly more objective decision-making process.

Obduracy and delegation

How does bureaucracy persist as a mode of ordering? It could be argued that bureaucracy is materially delegated into the normal organizational form, as the civil service is essentially a bureaucratic organization, but this needs careful consideration. For the last twenty years the civil service has undergone numerous

reforms to eliminate those elements of the bureaucracy that seem to constitute this mode of ordering. Successive reforms have attempted to reduce inefficiency and waste, to pare back personnel to the minimum, to introduce private sector management techniques that will be more effective and save time, and to flatten and rationalise hierarchies. In other words, the conventional material delegation of bureaucracy has been utterly undermined. Even though Defra staff recognise that hierarchy, inefficiency and the other characteristic features of bureaucracy persist, it is not reflected in their literatures, in the memos and strategy documents that come down from management level. However, the division of labour, although it is now purportedly more rational and streamlined, invites Defra staff to view themselves as segmented groups, playing one part within a machine. The administrative system encourages policy-makers to file, copy, and circulate every document they are given, and recent scandals (such as BSE) have increased the need for obsessive paper trail maintenance.

Bureaucracy as a mode of ordering also thrives because of its interplay with the rational decision-making mode of ordering. The priority given to each seems to vary by group and by situation. The bureaucratic order comes to the rescue for middle-ranking officials when they have no decision to make; it offers a process to follow and in doing so legitimises their actions and their very existence as a group within the organization. Likewise it offers an explanation to scientific advisors when their advice is not used to influence a decision directly. However, as Law (2001) has pointed out, when an organization relies on one mode of ordering, both the mode and the organization itself run the risk of failure. Other modes must come to the rescue, and occasionally the decision-making order does just that. In times of crisis, particularly animal disease outbreaks, the bureaucratic mode of ordering is insufficient. It fails to deliver results. Defra officials cope with this by altering their perspective and reframing themselves as decision-makers first and foremost. If we consider again the comments of policy-makers talking about a recent disease outbreak and we can see how this occurs. They said that during the emergency, they eliminated "faffing" and concentrated on solving problems; meetings were kept to a minimum and nobody "wasted their time" writing up the minutes of these meetings in detail. The emphasis is on decision-making as the primary function of the middle-ranking official; bureaucratic

procedure becomes "faffing" and the officials state the need to solve problems and see results. They reject bureaucratic procedure and take decisions without recourse to the usual channels and processes. To understand how bureaucracy survives as a mode of ordering despite the fundamental challenges to its validity during times of emergency, it is necessary to introduce a third mode of ordering: expediency.

Expediency as a mode of ordering

It appears, then, that Defra officials are told, and expect, to behave as rational decision-makers, but that their general experience is of frustrating bureaucratic inertia. However, there are exceptional circumstances when officials do not behave in a strictly rational manner, nor are they bureaucratic, rather they are efficient, effective and purposeful. These circumstances are disease outbreaks. During disease outbreaks, officials get things done. They talk about 'stepping out of line', asking controversial questions, avoiding bureaucratic procedure, and 'speaking out of turn.' During a disease outbreak, recognisable elements of the peace-time policy process remain: meetings still have to be called, of course, and reports must continue to be written. However, meetings are convened spontaneously, on the basis of need, with priority given to those that will actually contribute to bringing disease under control. Expediency, in this context, means acting in such a way as to circumvent unnecessary paperwork and meeting attendance, cutting down the distractions of everyday policy-making to focus on achieving results. As one policy-maker argues, it is appropriate to completely subvert the conventional values of bureaucratic government in order to ensure that work gets done during an outbreak. Hierarchy, debate, meetings, report-writing are seen as an obstacle to progress rather than a facilitator of good decision-making.

The overriding sentiment in times of disease outbreak is that officials and scientists alike have a duty to get the disease under control as quickly as possible, and this governs their behaviour. Defra officials feel obligations towards many different groups: an obligation to the Government to implement policies successfully, an obligation to the public to avoid overspending and maximise their

use of resources, an obligation to the farming industry to protect livestock against disease, to protect the consumer from harm, and to ensure continuity of the food supply. Although these demands are always present, they are specially prioritised during disease outbreaks. Concerns that are usually abstract, such as the food supply, become exigent when livestock cannot move across a protection zone to a slaughterhouse or when meat products cannot be transported from warehouses to supermarkets because of movement restrictions. The long-term state of the farming industry is extremely difficult for policy-makers to control or even discuss in meaningful terms, as it endeavours to do in peace-time, but finding ways to restore international trade following an outbreak is a specific and pressing problem that they are to resolve as swiftly as possible.

Scientists expressed similar sentiments about being governed by a sense of duty, both to policy-makers and to the scientific community. Their unique capacity as scientific 'experts' gave them a sense that they were under an obligation to be useful to policy-makers, to offer something in return for the research funding given to them by Defra. There was also a sense that in times of national emergencies like disease outbreaks they, as an elite group with specialist knowledge, had a duty to make themselves available as providers of advice and information. Disease outbreaks give an impetus to the scientists in much the same way as they do to policy-makers, in that they feel their advice is needed urgently and could have a significant impact on the handling of the disease. As one scientist described, the lives of animals depended on the advice given, and policy-makers were dependent on their information in order to proceed. This feeling of being obliged to assist in emergencies is tied to a broader sense of duty to provide useful and relevant advice, and to be at the disposal of policy-makers. As one veterinary adviser explained, he felt an obligation to be accessible to policy-makers and make his recommendations easy to understand. By his understanding, being paid to advise policy-makers means putting communication first and minimising academic or scientific jargon. However, it should also be noted that scientific advisers expressed a sense of duty to themselves or to the scientific community more widely not to give misleading or false advice. As another veterinary adviser explained, although there is occasionally pressure to give advice that will support a particular policy or at least avoid making alternative

proposals, advisers should not compromise their integrity as scientists and allow themselves to be drawn too far into politics. In other words, advisers can give useful advice, but only insofar as they do not contravene their own beliefs of what constitute the hard scientific facts of the case.

Disease outbreaks provide the right conditions for expediency to occur; they are time-pressured, goals are clear (getting meat on shelves rather than 'protecting the nation's food supply') and there is a high degree of accountability. The effects of officials' actions are seen straight away and there is a strong link between decisions taken in Westminster and results in the field. For the scientists, too, disease outbreaks provide an opportunity to enjoy heightened control and presence in the policy-making process. Their advice is indispensable and their recommendations cannot be ignored. The usual constraints such as departmental budgets and the need to communicate through written reports and presentations are reduced as the need for rapid information flow and effective solutions becomes more important. Scientists talk about the need to get information to policy-makers as quickly as possible and enjoy the notion that their often esoteric research has genuine and immediate policy applications. Scientists are more successful in gaining access to policy-makers and getting their advice accepted during disease outbreaks because they are asked to provide advice on specific situations, relating to decisions of a more technical nature. They are giving information, rather than the more vague 'expertise.'

To the extent that expediency has an affinity with efficiency and enterprise (as they are used in the New Public Management sense), some of the materials and arrangements generated by expediency are the same as those engendered by management consultants in large organizations everywhere: the open plan office, for example, and most recently the move to 'hot desking' in the division. But there are other more interesting materials that are specific to this part of Defra. The most striking is perhaps the large map, spread out on a table at the centre of the room where 'bird tables' are held during disease outbreaks. The desired effect of this arrangement is to conjure up the spirit of the control room during battle. The reality is rather more mundane, in the sense that it is a group of civil servants in an open-plan office in Westminster, rather than officers on a battle field, but the

feeling of a united group, surveying the state of operations by clustering around a map showing infected premises and protection zones is the same. The materials of battle can seem rather laughable. For example there are instructions for the biosecurity teams in Local Disease Control Centres during a disease outbreak, stating that they should:

1. Set up desk as directed by Divisional Operations Manager [...]
2. The following list of stationery is minimum: blue-tack, stapler, staple extractor, pens, marker pens, highlighters, telephone pad, post-it pads, spare paper.
3. Identify Team by putting a 'Biosecurity Team' sign in a prominent position

(Defra, cited in Donaldson 2008 p1555).

Although they seem silly, Donaldson makes the serious point that these artefacts "denote a performance that is vitally important in mobilising emergency biosecurity. Put into practice, they enact a site for managing biosecurity through a list of mundane materials that also, literally, make the biosecurity team visible." By putting signs and desks in place a routine practice is transformed into a visible component of the battle against disease (2008 p1555).

Embodying and performing expediency

Much of the sense of duty expressed by Defra staff, which prompts them to ignore bureaucratic norms, comes from stimuli generated by the Department and its critics. Defra has a clear set of objectives at a variety of levels (whole Department, directorate general and so on) that are clearly communicated both to staff and stakeholders. These objectives refer not only to specific areas of responsibility (such as safeguarding the food supply and ensuring a thriving farming industry) but also to protecting the general reputation and functioning of the Department. For example, one of Defra's current Departmental objectives is to be "A respected department delivering efficient and high quality services and outcomes." As the website explains, "Respect is gained and maintained in the long-term by doing the

day-job well, developing and delivering good policy [...] But it's also lost easily by messing up in any of our areas: policy, delivery or corporate" (Defra 2008). There are, of course, formal Public Service Agreements relating to animal disease that everyone in the division is aware of. In addition to the heavy emphasis placed on objectives and targets by Defra, the many critical reports written since the Department was created in 2001 emphasise what they think Defra should be doing and the ways in which they are failing to do it. There have been National Audit Office reports into whether Defra has learned the lessons from the 2001 FMD outbreak (NAO 2005), Defra's management of expenditure (NAO 2008) and its management of animal health services (NAO 2009). The Lessons Learned-style reports mentioned previously require Defra staff to devote time from their working week to reflect upon what went wrong and what went right in recent outbreaks. Cumulatively, these stimuli prompt Defra staff to regularly consider the objectives of their working lives and whether they are achieving them, both personally and as a division. Moreover, the number of critical reports written on Defra help to cultivate the conception that it is a Department with a history of failure, particularly in the area of animal disease management, strengthening officials' desire to break out of this cycle of failure and improve.

The demand in government for a more streamlined and responsive civil service has also had an effect. Recent reports have emphasised that civil servants should optimise public expenditure and that they are increasingly being recruited and trained as 'managers' using techniques formerly associated with private companies. There are also conceptions of what the civil servant is employed for, and in particular the sense that they are employed as public servants. It is this rhetoric that has been used in government campaigns to cut personnel numbers and reduce expenditure on the civil service. The civil service should be working for the taxpayer, and not enjoying the perks of public sector employment without a corresponding duty to act for the public good. There are echoes here of the sentiments expressed by Weber that working in the public sector should be seen as a vocation for the dedicated, with civil servants willing to embody the desires and goals of the organization in order to maximise their personal utility. In Chapter Five, policy-makers described their frustration at some of the constraints imposed upon them, particularly the onerous number of meetings to be attended

and the labour of producing written reports of every meeting and task completed. There is a sense that this bureaucratic red tape can be accepted as part of life as a civil servant most of the time, but at moments of real emergency it must be discarded to ensure that the public good is not sacrificed to bureaucratic procedure.

Finally, the professional background and the career trajectories of Defra staff themselves must be considered. Staff are frequently recruited from management or project management backgrounds and it is inevitable that they bring with them the expectations and techniques of managerial work. However, this is frequently at odds with the reality of working as a civil servant. As quoted previously, one official with a project management background commented that in project management the projects are "generally much more focused; you're clear what you want to deliver, you're clear on the cost. Projects that fail and ones that don't are clear. So you're clear what you want to do, you're clear what your costs are, you're clear what your deadlines are and generally you know who's going to make decisions." Policy-making, on the other hand, does not enjoy these characteristics. He described his shock at joining Defra and finding that on his new project the Department "hadn't got the buy-in they needed. They knew roughly what they were trying to achieve, but they were going into all sorts of detail about detailed recovery mechanisms and hadn't got the sign up to actually recover it." Even for those officials without a management background, they are quickly initiated into the mindset of private sector management by the frequent reforms of the Department that take place and the ethos behind those reforms. To recall Renew Defra, for example, the aims of this programme as communicated to staff are "to transform the Department into an organization that is more collaborative, flexible and effective in developing policies that deliver the right outcomes" through five work streams: Building a high performance culture; Seeing ourselves as the customer sees us; Defining the Defra way of doing things; Delivering the Right Size, Right Shape, Right Skills organization; and Managing the programme. Defra staff are taught to think in the way a manager thinks and consequently to reflect upon how objectives will be met and work carried out in the most effective and efficient way.

Obduracy and delegation

The interaction between expediency and the other two modes of ordering is clear but complex, particularly its function as a flip-side to bureaucracy. Expediency as a mode of ordering has become established because it helps officials and scientists to find meaning in their work, something that is lacking from their everyday bureaucratic lives. As was discussed briefly in Chapter Five, the feeling that their policy choices have a tangible impact on the public gives great comfort to Defra officials who otherwise may feel that their working life consists of writing reports that no one will read and attending meetings where nothing is decided. During peace-time, the meaning of their work is closely associated with the continuous and routine tasks of government. During disease emergencies, however, the work that Defra officials do is connected to an end product (the eradication of disease and a return to normal trading conditions) and to the external world. These short bursts of pressured, high-risk activity revitalise the division at times when it is ground down by routine and ambiguity of purpose. When life feels pointless for the policy-makers they have recourse to stories of the time when their decision allowed meat to move around the country or prevented disease from spreading.

There is also interplay with the rational mode of ordering, with its emphasis on 'everyone in his or her place.' In an organization with a rigid formal hierarchy that disenfranchises lower-ranking staff and external advisers, (because they have no place in policy formation) the sense of a 'war effort' during disease outbreaks makes them feel that their expertise is valued and that they had a tangible role in policy formation. The division feels united as everyone – regardless of official status – is called to a 'bird table' for briefing. People are united in their stress, and in their share of the extra workload. Everyone works longer hours to ensure that they contribute to the 'battle.' Disease outbreaks are a temporary suspension of the normal order of things and expediency is the way that officials and advisers tell stories about these anomalous times, thereby making sense of their place and their feelings towards the work and to others. Expediency captures the excitement of working in a division at the heart of the action, crucial to Defra's reputation, and it does this by portraying their actions as, in a way, beyond rational. They are

so rational (in the sense of not expending unnecessary energy, matching inputs to outputs) that they shorten chains of command and make new communication channels based on pragmatism. Rationalism is about 'getting things done', but it is also about achieving this through pre-ordained processes of evidence gathering and decision-making. Expediency is about getting things done by any means necessary, and if the 'rational' way is not the quickest, or the cheapest, or the most effective, it will be discarded.

For rationalism and bureaucracy, I have argued that material delegation plays a role in ensuring their survival over time. It is less clear how this takes place in the case of expediency. Indeed, most of what seem to be attempts to materially delegate expediency (by writing lessons learned reports and so on) are wildly counter-productive. I will come back to this point in the following section. Expediency does endure over time, despite the fact that by virtue of its association with disease outbreaks, expediency is not constantly present in Defra. I observed one disease outbreak during the period of my participant observation, and conducted my interviews during another outbreak, a year later. The same sentiments could be heard, and similar actions observed. Perhaps expediency survives because it is an aspiration, so even when circumstances challenge it (e.g. there is an outbreak where for some reason it is impossible to be expedient) that does not mean it is undermined. The prompts for expedient behaviour – the sense of duty to stakeholders, the critical reports – endure, and each outbreak is seen as a fresh opportunity to perform well. To paraphrase the argument made by Feldman (1989 p107) about advisers quoted above regarding rationalism, although opportunities to act expediently do not happen often, the reward is such that the prospect of such opportunities is attractive and officials seize upon stories of people being heroic.

Creative interaction and an economy of sensemaking

In this chapter I have set out three possible ways in which Defra officials and advisers interpret their experiences and order themselves. I have set out that modes of ordering interact insofar as when one fails because its explanation loses power as a situation changes, then another mode of ordering steps in with an

alternative explanation. But is that all there is to it? No, they have different effects as well; they deal with phenomena of different sizes, react to different stimuli, and enact different hierarchies. Thus their interaction is more creative than simple sensemaking.

Scale and granularity

Following Law (1994b p110), I would like to suggest that the modes of ordering I have identified in this chapter perform phenomena of different sizes in standard or regular ways. In particular, the scale of expediency is much smaller than that of bureaucracy and rationalism. Bureaucracy and rationalism are responses to an enormous system of organization, not only that of Defra but of the entire civil service as it is constituted in central government. These two modes of ordering are ways for participants to articulate abstract concepts such as policy-making and indeed the civil service and relate these concepts to their daily experience. So rationalism is a way for policy-makers to understand what is expected of them as government officials, a way of making clear what the overarching goals of the civil service machine are. Bureaucracy is a way of understanding the inefficiencies of this system and accounting for the mysteries of its operation. In short, these modes of ordering are ways for officials and scientists to understand the system of which they are a part, for them to reconstitute that system and their roles within it. As such, the impetus is internal to the organization; Defra creates the situation, both in terms of management personnel dictating the need to attend excessive meetings, and middle-ranking officials creating opportunities for decision-making. Bureaucracy and rationalism are internally created and as such officials can flip between the two on a daily basis, when for example interpreting a memo or meeting.

Expediency, on the other hand, deals with 'small blocks.' Unlike bureaucracy and rationalism, which are group responses to large phenomena, expediency deals with the particular and is associated with individuals rather than groups. Of course, a mode of ordering could not be sustained if only one person believed in it; but expediency is not universally held as a desirable mode of ordering. As I will discuss later, there are those who want to be expedient and who look for and

create opportunities to do so, and there are those who do not share this vision. It is not the same as Law's order of "vision" – it is not that people are 'born' to be expedient – but a personal response to the crisis situation is required and is not given by everyone. Expediency is also a mode of ordering the small and particular in terms of the phenomena of which it tries to make sense. While bureaucracy and rationalism are modes of ordering that deal with generalities – rationalism tells of how people should behave 'in an ideal world', while bureaucracy deals with the largely faceless enemies of managers and administrators – expediency is largely generated by specific situations, disease outbreaks, that are bounded in time and space. A 'war effort' can be stimulated and sustained precisely because the situation will not last forever; it is a temporary state that presents an opportunity for heroic behaviour. In this sense, then, expediency is not a response to systemic characteristics, but to external events that have suddenly encroached upon their world.

Because it is prompted by external events, expediency is a more contingent and fleeting order than both rationalism and bureaucracy. As I mentioned above, it is difficult to pin down how expediency endures because it is less obviously delegated into durable materials. Attempts to materially delegate expediency fail precisely because Defra officials, particularly senior management officials, try to make it an internal (and essentially rational/bureaucratic) order when it needs to be the opposite. One of the most obvious attempts to materially delegate expediency is in the writing of "lessons learned" reports after disease outbreaks. Perhaps the most prominent in MAFF/Defra's history was the 2001 FMD report, commissioned from an independent expert, Dr Iain Anderson. The report is significant because of its very broad scope and its attempts to capture as much oral and informal evidence as possible. It is a "lessons learned" report in the sense that it is not so accusatory as, for example, the Phillips inquiry into BSE. Since the Anderson report these lessons learned documents have become an almost mandatory feature of the post-crisis period in Defra, with reports being produced after most significant outbreaks of exotic disease. Some are clearly for public consumption, such as the second Anderson inquiry report into FMD in 2007 but there are a lot of less formal, less publicised reports that are primarily intended for internal use. The language of these reports is becoming less formal and more and

more people are being drawn into making contributions. Indeed, as the policy-makers commented in Chapter Five, the burden of producing lessons learned and reporting them to the relevant committee has become a bureaucratic task like all the others.

And this is where the tension lies. Attempts to materially delegate expediency are essentially attempts to bureaucratise it. In addition to these lessons learned reports there are documents saying who should attend 'bird tables' and the order they should speak in, documents about Defra's 'battle rhythm' during times of crisis and documents about stress and the need for senior staff to recognise the contributions of 'heroic' juniors (although this language is not explicitly used). The point is that officials do not consult these reports in times of emergency; the very essence of expediency is acting 'on the hoof', not wasting time digging around in the administrative system. Perhaps it is true that the writing of these lessons learned reports and other documents slowly and incrementally contributes to a 'corporate memory' that officials can draw upon in emergencies without actually needing to consult the documents themselves. But having observed the turnover of staff in the division it seems unlikely that any but the longest serving would be aware of and have read them all. Expediency remains, at its heart, a response that is created anew with each new disease outbreak.

Enacting hierarchy

Just as the different modes of ordering are responses to phenomena of different sizes, and prompted alternately by internal and external stimuli, so they also generate different effects, one of which is hierarchy of personnel. Here, the modes of ordering are split along different lines than when talking about size and scale. Rationalism enacts a hierarchy that ranks those who make policy above those who advise, whereas bureaucracy and expediency rank those who want to be heroic above those who want to follow procedures. Rationalism enacts the hierarchy between scientists and policy-makers because the rational order is very policy-centred. This is the mode of ordering that 'puts scientists in their place'; expediency and bureaucracy are more equalising in this sense, because they rank officials and scientists alike on the basis of their 'usefulness', rather than simply

placing policy-makers in a position of power over advisers. When Defra staff talk about scientific advice and expertise as part of their rational mode of ordering, they describe the need to keep science and policy separate, to maintain a rigid distinction between policy-makers and scientific advisers. This is for a mixture of ideological and pragmatic reasons; on the one hand, because they feel that scientific advice should be impartial and unsullied by considerations of politics and practical situations, and on the other because Defra officials want to retain control over the policy-making process and feel they are in the best position to make balanced decisions. The scientists feel disempowered by the rigid science-policy split that prevents them from attending policy meetings, and feel that once they have submitted their reports and recommendations they are powerless to control how their advice is used.

There is a parallel here with a situation that Law analyses in his Daresbury Laboratory study, where the crew of technicians responsible for maintaining the equipment are ranked below the physicists and treated as inferiors. The crew members are prevented from knowing the broader strategy of the laboratory and even the details of the equipment and what it is to be used for. They learn what is happening, Law reports, on a "need to know" basis (1994b pp122-124). In the same way, the scientific advisers are treated as of lesser importance than policy-makers in Defra, not required to know the details of political discussions and policy implications. Law suggests that the technicians are "being performed *by the physicists* into a set of restricted roles", where the technicians are not passive as such, but the modes of ordering performed by the physicists leave little room for initiative on the part of the technical crew (Law 1994b pp123-124). The scientific advisers in Defra are not passive either, as the defiant comments about not changing advice to suit political ends indicate, but they are performed as an adjunct to the policy process, and in this role they have no place for shaping the definition of problems or advocating radically new approaches.

Bureaucracy and expediency rank people according to their desire to be pragmatic and efficient. They tell that there is nothing wrong with being forced to act bureaucratically, but you shouldn't want to do so. Perhaps there is an implicit suggestion that there are people incapable of being expedient because it demands

higher skills and personal commitment, but this is not prominent. Policy-makers describe wanting to speak out, challenge received wisdom, "not be afraid to look stupid", while scientists talk of not being academic. In other words, they explicitly challenge their own stereotypes, whether of process-obsessed civil servants or 'head in the clouds' academics. They do not deny that these stereotypes exist; on the contrary say that they do exist, and that they themselves are sometimes forced to act in that way, but they do not want to, and they seek opportunities to break out of the stereotypes. In this sense, then, bureaucracy and expediency are more meritocratic than rationalism, which categorises people according to their role and job description before ranking them accordingly. Under rationalism, scientists can never be equal to policy-makers, although within the category of scientists those who are credible and give usable advice are more esteemed than those who are esoteric and remote. Under expediency, on the other hand, anyone can in theory be part of the elite who want to challenge stereotypes and act heroically.

Of course, in its own way this view is as naive as the hierarchy enacted by rationalism. When officials scorn bureaucracy they mirror the arguments set out in Chapter Five about the perceived evils of bureaucratic government and implicitly support the many public sector reforms designed to eradicate bureaucracy and encourage entrepreneurship. Yet this may be short sighted. Defenders of bureaucracy such as Goodsell (1983), Du Gay (2000, 2002) and Rohr (1998) have argued that the campaign to eradicate bureaucratic principles in favour of managerialism and entrepreneurship risks losing the positive attributes of bureaucratic government that are often overlooked. One example of this is the demand for responsiveness in the civil service. As Du Gay (2002) argues, the very notion of a responsive bureaucracy is tautological because the bureaucracy is an institutionalised expression of neutrality that is, in essence, unresponsive to public opinion and political will. Making the bureaucracy more responsive necessarily means diminishing its neutrality, with the possible consequence that the government comes to see the civil service merely as an extension of itself, as Du Gay (2007) argues was already evident in the findings of the Hutton and Butler inquiries. The supposedly excessive rules and regulations that hinder responsiveness also protect the civil service from fraud, political interference and so on. While some reformers advocate running the civil service along business

principles, the bureaucracy is not able, as businesses are, to simply discard practices that seem inefficient or outdated. Often these practices serve a safeguarding function, and the encouragement of risk-taking rather than rule-following is potentially damaging. As Du Gay (2007) suggests, those who promote entrepreneurship and managerialism in the civil service "come perilously close to opening up the door to corruption. And they do so precisely because the oppositions they establish between 'bureaucracy' and 'enterprise' – a bad old past and a bright innovative future – have the effect of evacuating public administration of its determinate content."

Bureaucracy and expediency as modes of ordering must co-exist in an economy of sensemaking. Without opportunities for heroism and entrepreneurship, Defra officials would become disillusioned by the frustrations they encounter in their peace-time operations and the rapid staff turnover that already exists in this unpopular and potentially career-stalling division of Defra would be exacerbated. Yet for Defra to embrace unreservedly an entrepreneurial ethic would be to open itself to bias and corruption, and crave continual crisis. Disease outbreaks are good for Defra: they shake up stagnant working practices, reconfigure hierarchies, and give officials a renewed sense of purpose. But to advocate expediency as the normal organizational form would lead to a civil service perpetually responding to a state of crisis – and so in crisis itself – able only to fire-fight the latest policy problems. Departments functioning in crisis mode, while they almost certainly achieve results, are not able to sustain coherent policy development. Although they are responsive to the emergency at hand, they are increasingly unresponsive to macro-level demands such as strategic decision-making, effective budgeting and horizon scanning. Expediency succeeds because normal organizational forms are suspended: hierarchies are flattened, chains of command shortened, consultations restricted. Between times of crisis, however, it is these structures that sustain the organization. Modes of ordering and organizational stories create a form of corporate memory and without this memory, or 'institutional literacy' to use Rohr's (1998) term, policy-makers lose the knowledge of their constitutional context, Departmental history, and awareness of which policies have succeeded and failed in the past. This corporate memory – understanding of procedures, history, and context – is maintained by bureaucracy, and drawn upon in times of

expediency. Policy-makers can behave in an ad hoc fashion at times because they are versed in and surrounded by bureaucratic norms.

Conclusion

In this chapter I have described three modes of ordering that can be identified in Defra: rationalism, bureaucracy, and expediency. The rational mode of ordering arises from policy-makers' belief that they should be first and foremost decision-makers, and that these decisions should be based upon information gathered from independent experts. They separate science from policy because they make arrangements to fit in with this understanding of how policy-making should work. At the same time, however, they acknowledge that in reality science and policy are not entirely separate, that policy-making does not pass through discrete stages, and that decisions are not really the focus of everyday life as a civil servant. Here the explanatory power of bureaucracy comes to the fore. Bureaucracy enables policy-makers to account for their lack of power to make effective decisions, to distance themselves from failure, and to find their place within a large and complex organization. And yet bureaucracy alone is also not enough to explain life in Defra, as action takes place despite the constraints of bureaucratic procedure. Expediency is put forward as a third mode of ordering, as policy-makers and scientists cite their duty to work effectively as a reason for rejecting bureaucratic principles. They want to meet their departmental objectives and deal with emergencies and this entails rejection of conventional hierarchy and procedure.

Each mode of ordering is incomplete, contradictory and contingent and yet each tells and performs how the organization and its members should be. Law (1994 p250) describes 'the organization' as "a multidiscursive and precarious effect or product" that survives by jumping contingently between organizational narratives. In this chapter I have argued that Defra, as an organization, shapes and is shaped by the multiple narratives told by its staff. These narratives are not mere talk; they actively bring into being different organizational forms. Thus, rationalism encourages the separation of scientists from policy-makers, bureaucracy supports the creation of newer and more complex information storage systems, and

expediency promotes the cultivation of informal communication networks. These modes of ordering also enact hierarchies that influence the ways in which policy-makers and advisers relate to one other. Consequently the rationalism mode of ordering encourages policy-makers and scientists to see each other as 'opposite camps' and for policy-makers to stratify into levels of hierarchy with corresponding tasks in the decision-making process. Expediency, by contrast, frames individuals as holders of expertise and as equal participants in the 'war' on whatever problem they are facing at the time while denigrating those who choose to act in a bureaucratic manner. Ultimately, all three modes of ordering have a role to play in performing the organization of policy-making in Defra.

Conclusion

Introduction

The way that we talk about an object is inextricably linked to the way we think about it. The intellectual framework that we as academics start out from and the concepts we inherit from previous scholars have a significant influence on our own methods for study. Grant Jordan (1994 p1), writing about the British administrative system, asks:

> If the usual tool-kit of terms did not already exist, and if we were starting an account of British policy-making without an encumbrance of intellectual baggage, would we really find it helpful to use as starting positions labels such as Cabinet Government? Would we really start descriptions of what happens when things go wrong in Government by explaining what *should* happen if Ministers *really* believed in a Back to Basics version of Ministerial Responsibility?

The same questions can be asked of policy-making, the study of which has a long intellectual heritage and a well-established mode of inquiry. The conventional language of policy-making speaks of problem formulation, consultation, evidence gathering, decision-making and implementation. Rooted in early systems theory approaches to decision-making, and developed over time into a more explicitly 'political' model, the traditional conception of policy-making is one of sequential processes and formulas. This language is a powerful one: powerful enough, as I have argued in this thesis, that policy-makers themselves have adopted and perpetuated it. It makes the policy process seem bounded and rational; problems can be analysed by locating the stage at which the process deviated from the standard. In this view, all problems are the product of errors within the internal logic of the process. But is it the right vocabulary, or does it constantly force us to revert to a simplistic notion of decision-making and in doing so erase the spaces for irrationalism, informal organization, and other 'non-typical' behaviour? In this

thesis I have argued that a new vocabulary is required to analyse policy-making, which allows us to talk about previously overlooked actors and activities, and to account for disorder and indecision.

In the introduction to the thesis, I posed three research questions that this project would explore. The first asked how Defra officials find or make order in their work. I wanted to know how they create hierarchies, determine priorities, form professional relationships, and structure their interactions with experts all within a working environment that is disordered and ambiguous. I wanted to understand the role of official documentation such as minutes, organization charts, reports and so on in creating order, and the influence of departmental culture (if such a thing exists) and the values of the individual policy-maker. The second question I explored concerned Defra's scientific and veterinary advisors: how they are incorporated into the orders created by policy-makers, and the extent to which they shape these orders. I wanted to explore the concept of expertise with respect to the negotiation of who is permitted to participate in policy-making. The third area of inquiry addressed the changes that take place during disease outbreaks, most notably whether order is created differently during 'peace-time' and 'war-time.' My aim was to explore whether the relationships between officials and scientists change during these different states, and if officials view their roles and responsibilities differently during times of crisis.

In seeking to answer these questions, I felt that the conventional approach to policy analysis would not be appropriate. It does not have the vocabulary of organization, but the language of procedures and outcomes. Where I wanted to study the way that policy-makers understand their roles and obligations, and how they modify their actions accordingly, conventional approaches only permit us to study behaviour within the parameters of the 'correct' model of policy-making. Such models prescribe good and bad behaviour, often based on the successfulness of policy outcomes. Abandoning the decades of insights that have come from conventional policy analysis would be foolish, as well as impossible, but in order to answer my research questions I have sought to reorient my study within an interpretive, sociological tradition. My thesis attempts to bring together two broad and distinctive disciplines – political science and organizational sociology – and

finds a common ground between them from which analytical insights can emerge. The interpretive tradition puts an emphasis on understanding meaning, and how values and beliefs influence actions. While interpretive policy analysis highlights the intersubjective nature of understandings about what a particular policy means and how it should be implemented, what I felt was missing was the explanatory side of things; how meanings influenced actions. Consequently I was drawn to elements of organizational sociology, which overlaps interpretive policy analysis in many respects despite the lack of referencing and acknowledgement between the two disciplines.

Organizational sociology offers insights into the way in which meaning is communicated within groups and organizations. Although the terminology varies (from storytelling, to narratives, to sensemaking, to modes of ordering), the underlying principle is the same: to study talk as a means of organization, linked to action and with an interpretive function. I decided to engage with John Law's modes of ordering approach as my primary conceptual tool because it has both explanatory power and, unlike other approaches (particularly sensemaking), it does not focus on retrospective explanation. Law (1994b) sees stories as attempts to order the organization; they help individuals and groups to make sense of their experiences but also to restructure the organization and reshape their roles within it in accordance with the way they would like it to look. These stories are therefore termed 'modes of ordering' because they are ways for participants to find and create order in their surroundings. Law's approach is also distinctive in its inclusion of materials. He argues that stories are not only verbal narratives but are embodied in materials. They generate materials and are materially delegated into materials to ensure the obduracy of the organization as a composite of different ordering attempts. Consequently, then, my approach to the research has taken two significant turns: first, towards interpretive policy analysis and organizational sociology, and second, towards the work of Law, which goes beyond other organizational studies theory by emphasising ordering and materials.

Addressing the research questions

As a consequence of engaging with the concept of modes of ordering as my primary analytical tool, I set about answering the research questions by searching for the interpretations and narratives created by officials and advisers in Defra. The first part of my empirical work was to collect the stories they told, and to observe their actions and generation of materials. In Chapters Five and Six I reported some of the stories I had gathered, grouped into two sets: the first about policy-making and the second about giving expert advice. In the former, policy-makers talked about the burdens of bureaucracy, the rare opportunities for heroism, and the difficulty of managing all the conflicting demands on their time and resources in an atmosphere of intense scrutiny. In the latter, Defra's advisers discussed the fine balance between fulfilling expectations and acting as impartial and objective advisers to policy and the contrary pull towards taking political and economic factors into account when making recommendations. They talked of their precarious positions as 'experts' to Defra, maintaining this position by cultivating credibility and forming a network of contacts within the division. From these stories I identified three modes of ordering, meta-narratives that show how the beliefs and attitudes voiced are actually put into practice as ordering attempts. In the following section I will explain how this approach has helped me to answer the three research questions.

1. *How is policy-making organized?*

I have identified three modes of ordering in Defra that serve to organize people and materials. The three ordering attempts proposed are rationalism, bureaucracy and expediency. Under the rational mode of ordering, officials explain their role as decision-makers, and assume that everything they do should be directed towards this end. Consequently, they see meetings as sites of decision-making, and the decision-making process as one of logical sequential steps similar to those expressed in conventional academic models of policy-making. Everyone has a distinctive contribution to make at the appropriate point in the process; as a result scientists are consulted to find the answers to problems posed by officials. In this view, there is a rigid separation of science and policy in the belief that policy-

making should be detached from the details of scientific inquiry, and scientists should give impartial advice not affected by political or policy discussions. This vision of the role of policy-makers is reinforced by the many documents on 'best practice' in policy-making and specifically on evidence-based policy-making that are written about the civil service and circulated to officials. However, rationalism is supported in other ways too, particularly through the creation of 'experts groups', the maintenance of databases of "evidence", and the conduct of scientific programmes.

When expectations are challenged by contradictory experiences, a mode of ordering may lose its explanatory power, and other modes may emerge in its place. In the case of rationalism, it is challenged by the fact that decisions are often not made at meetings, and activity is not explicitly directed towards particular ends or organized into logical work parcels. One of the most obvious challenges to rationalism is the amount of time spent on apparently 'meaningless' activity, such as producing reports that will not be read because they are a requirement of a procedure, or attending meetings that exist solely for information exchange and not to develop projects further. In order to make sense of these experiences, Defra staff have developed a second mode of ordering that I have termed bureaucracy. The bureaucratic mode of ordering portrays these characteristics of work – endless meetings, inconsequential reports – as symptoms of working in central government. This order removes agency from the officials and advisers: an out-of-touch management foists these fruitless activities upon them, and they are unable to refuse. It is thus a potent device for helping officials to understand why they are not always the effective, efficient and rational decision-makers they expect to be. It also gives them something to concentrate on (i.e. a procedure to follow, a hierarchy to observe) when tangible or achievable goals are unclear. This image of bureaucracy is supported by the popular sentiment of negative feelings about the civil service, but it is also reinforced by some of the practices in Defra such as the leviathan administrative system into which minutes and agenda for every meeting must be logged.

These two modes of ordering dominate 'peace-time', when there are no disease outbreaks to be dealt with. When disease outbreaks occur, a third mode of

ordering comes into play: expediency. Expedient behaviour, in the sense that I am using it, means finding the fastest and most direct means of achieving a solution to the problems thrown up by the outbreak of disease. In practical terms this means not spending time in unnecessary meetings, only writing up minutes where they will directly contribute to future action, and bypassing procedures that constrain rapid action. Expediency helps to navigate between a sense of duty to Defra's many policy 'stakeholders' (including the government, taxpayers, farmers, welfare groups and so on) and an obligation to maintain the good reputation of the Department, rather than ruin it as disease outbreaks have done in the past. Of course, Defra officials are always engaging with stakeholders in some form, but during emergencies this is not in the sense of 'tick box' exercises such as large-scale consultations, but in the form of a strong obligation to act decisively while balancing these many interests. As a result of the desire for expediency, new practices and materials have emerged, including the use of 'bird tables' with their special format, their laminated maps and special vocabulary, and the use of war metaphors and terminology to engender a feeling of battle against disease. Expediency is useful not only in motivating officials and scientists to work hard during times of crisis, but also in providing hope during times of bureaucratic inertia.

These three orders interact creatively, each providing explanatory power in turn when another fails. In this sense they are all necessary; multiplicity is an essential strategy for guaranteeing the survival of the organization. Were Defra to rely solely on rationalism, the organization would fail because policy-making is not the rational activity that this model portrays it: officials are often working with ambiguous goals, limited resources and imperfect information. However, if bureaucracy were the main mode of ordering staff would become disillusioned as a result of their failure to achieve results and do meaningful work. Finally, if expediency were the dominant order the division would be in a state of perpetual crisis because expediency does not entail long-term planning or sustainable forms of work. An economy of sensemaking is created instead, where one can make sense of conflicting experiences using different interpretations, and different ideal orders temporarily enacted to govern relations and actions. Material delegation is essential, too, for the survival of these modes of ordering and thus the

organization. As is implicit in the summaries above, each mode of ordering generates its own materials and artefacts that make both the mode of ordering and the organization more durable. Rationalism generates separate meetings for scientists, diagrams of better policy-making and 'work areas' on different floors of the building; bureaucracy generates complex filing systems and minutes of meetings and long lunches; expediency generates laminated 'battle' maps, red alerts and contingency plans. It is not an abstract concept of 'policy' that is being organized here, but people and materials and talk.

2. *How is science organized?*

The second question I wanted to address in this research was how scientific advice is organized in Defra. Conventional approaches would derive from a model of evidence-based policy that sees science as a tool to assist policy-making. Within this approach there are those who advocate the use of science from the outset to frame questions, and those who take a more sceptical view and argue that some forms of advice or particular advisers are deliberately excluded from policy-making. None, however, contradict the view that science is discrete from policy. As I have demonstrated in my analysis, this model of evidence-based policy-making is far from irrelevant, as officials have adopted it as part of their rational mode of ordering. I have argued, however, that it is not a neutral vision of how policy and science should be ordered. It enacts a hierarchy in which scientists are seen as less important than the policy-makers, because rationalism is a policy-centred mode of ordering in which the ultimate goal is decision-making. Scientists by this understanding are incapable of decision-making; their role is as auxiliaries, and they are there only to the extent that they support the policy-makers' capacity to reach decisions. Within the rational mode of ordering, the scientists are performed into roles by the policy-makers where there is little room for them to contribute to broader policy issues such as framing problems, advocating new approaches, or cautioning against action because of the uncertainty of science in that particular area.

Bureaucracy and expediency both enact the hierarchy between policy-makers and scientists somewhat differently to rationalism. These two modes of ordering

esteem those who strive to be expedient and denigrate those who prefer to act bureaucratically, regardless of whether they are policy-makers or scientists. Status does not depend on belonging to the category of policy-maker or adviser, or having a particular place in the organizational hierarchy, but on the desire to contribute to the battle against disease. Therefore in disease outbreaks, scientists that have information to offer are as highly esteemed as their policy colleagues. Their advice is more likely to be incorporated into policy discussions, because they are giving current information, rather than abstract expertise. They are being asked to comment on specific situations, making it easier for scientists to give usable advice than when they are expected to contribute to less goal-directed discussions in peace-time. The differences observed in the way that scientists are valued and utilised in peace-time and war-time emphasise the problems caused by studying crises alone to arrive at conclusions about evidence-based policy-making in Defra. Moreover, it is not possible to draw simple conclusions such as 'scientists are ignored in peace-time and utilised in war-time' because in both instances there are still issues of credibility and expertise that must be negotiated. As Chapter Six demonstrated, the proximity of scientists to the policy process depends on many factors, including their ability to communicate effectively with policy colleagues, their knowledge of wider social and political factors, and their informal relationships within the organization.

3. *How do they change in peace- and war-time?*

This question has largely been answered in the sections above, as crises pervade life in Defra and cannot be treated separately from general policy-making. As I have explained, the operative modes of ordering change significantly when a disease outbreak occurs; expediency becomes prominent because the conditions allow this behaviour to occur: goals are clear, work is pressured, and the officials feel a sense of obligation to many stakeholders to work effectively. The way that hierarchy is enacted changes too, with a more meritocratic order that privileges those who desire or choose to act expediently. But there is more to say about crises in Defra. Defra is a government department that constantly anticipates or deals with crisis. Of course all departments have crises; scandals happen, errors of judgement occur, politicians announce drastic budgetary cuts that threaten the

very viability of parts of the civil service. But these are not of the same order as the exotic disease division's crises. Their crises are not only more frequent, but are anticipated by officials, both in the sense that they are expected to happen, and in the sense that officials look forward to them for the clarity of purpose and break from routine that they bring. The flip between abstract policy-making and actually doing something happens on a much more frequent basis that in other departments. Defra has, as a result of this characteristic, developed a highly evolved crisis response with its own vocabulary, technologies and procedures. The distinctiveness of Defra and the implications for drawing further conclusions is discussed below.

Implications of the findings

Having found some answers to my research questions, what conclusions can be drawn from this study of policy-making, and what may be the wider significance of my findings? As I suggested at the beginning of this conclusion, the way we talk about the phenomenon of policy-making and the nature of policy-making itself are intertwined, so my conclusions relate to both policy-making and how we should study it. I propose three broad points: that policy-making is an act of interpretation, that policy-making is a product of organization, and that these processes of interpretation and organization should be studied using an ethnographic approach.

The most important point to be drawn from my study is that policy-making must be seen as an act of interpretation. As I suggested at the start of this thesis, conventional policy analysis considers the process to be a rational and sequential one. Even where external factors are taken into account – for example, lobbying by pressure groups – this is still dealt with in a rational way: groups with more "resources" will have more bargaining power with officials, and officials are ultimately the arbiter of who will and will not be listened to. Likewise, scientific evidence is conceptualised as discrete chunks of information that may be slotted into the decision-making process at convenient intervals. My findings have been very different, but they are also complex. Policy-making is not simply goal-directed action, the end point of which is making a decision and giving this

decision to others to be implemented. The rational model of policy-making does have an important place in policy-making, but not in the way that we might have expected. It is itself an interpretation of events, an attempt to make sense of what is expected and what actually happens in the course of working in Defra. It competes with other interpretations, including bureaucracy and expediency. The way that policy-makers interpret a situation or event affects the way they act, meaning that the same people may make policy very differently if they believe their duties or capabilities to be altered in some way.

I have argued that the form that policy-making takes is determined, at least in part, by the organization of people and artefacts. Thus in 'peace-time', the hierarchy between policy-makers and scientists enacted by the rational mode of ordering privileges policy colleagues, meaning that advice must be given in a more targeted and policy-conscious fashion if it is to be accepted. In 'war-time', by contrast, scientific advice is incorporated with much less resistance because scientists with information to offer are afforded greater status and credibility. Likewise, the arrangement of office space into designated work areas for colleagues working on particular projects to sit together facilitates 'rational', silo-mentality policy-making, the flexible and inclusive space used for emergency 'bird table' meetings encourages expediency through open communication and rapid transmission of information between everyone. The relationship between organization and policy-making is not a straightforward one. I have argued that staff arrange their office spaces and create hierarchies based on the way they have made sense of their circumstances at the time. In this sense, their view of what policy-making should be patterns the organization. But, in a reciprocal fashion, the creation of these organizational forms and artefacts endures to influence and pattern policy-making in the future. In summary, policy-making is an act of interpretation, which takes place within an organization, which shapes organization, and which is a product of organization.

These findings have implications for the study of policy-making, and I would like to suggest four implications here: that policy-making should be studied with a present orientation; that policy-making must be studied using an inclusive approach that does not privilege those of 'official' organizational status and

power; that the potential for interpretation should be acknowledged at every level of the organization and in every form of policy work; and that appraisal of policy-making should be non-judgemental. I will explain each of these points in the following section.

New approaches to policy-making

The study of policy-making should have a present orientation, by which I mean studying officials as they conduct their business rather than retrospectively piecing together what happened from a particular point (usually a decision being made). In this project, I have taken such a 'real time' approach; rather than starting with a decision or policy and working backwards to trace the people and ideas involved, I have started with the people and worked forward, following them in their work to understand how decisions and policies emerge. The policy is, in some sense, an inconsequential by-product, as it seems that officials are generally not working towards producing one decision or another. Therefore, what I have studied is not the policies but the organization that (occasionally) produces them. Beginning from the people and not the policy, brings about a complete change in perspective. It prompted me to emphasise the role of middle-ranking officials because, in my observation of the Department, not only did these officials comprise the bulk of the people involved, but they also appeared to be instrumental in running Defra. Studies that start from policy decisions generally focus on the top stratum of the organization whereas my study had no such assumptions and consequently turned out very differently. Studying policy from an organizational perspective also caused me to see the importance of examining both peace-time and war-time work. During my observation of the division, the vast majority of the time was 'peace-time' with only a small proportion devoted to fighting a disease outbreak. Consequently the greater proportion of my observations were of peace-time work and I came to realise that studying the difference between the two gives much greater insight than simply comparing outbreaks. Finally, beginning from the organization, not the decisions, highlights the irrationality of policy-making as it becomes evident that people are not working towards a particular end all the time but are engaged in a wide variety of

activities, some of which may at some point be drawn in to inform a 'big' policy announcement.

I have already intimated that the accounts of higher-ranking civil servants should not be privileged over those of lower-ranking officials. Others have already made this proposal, either from the point of view that middle-ranking officials have an important role in setting technical details that can affect the overall direction of policy (Page 2001; Page and Jenkins 2005) or because 'street-level bureaucrats' have such discretion in their implementation work that they are able to alter significantly the way that a policy is put into practice (Lipsky 1980; Maynard-Moody and Musheno 2003). My argument is somewhat different. My reason for advocating an inclusive approach is that processes of ordering and sensemaking have the potential to involve everyone as equal participants. Management staff may dictate a new working arrangement, or new directive to be followed, but everyone is able to reinterpret these commands and either incorporate them into existing orders or create new orders to understand the changes. No group is entirely isolated from all others, and although my thesis has focused on middle-ranking officials, I have indicated ways in which they are prompted by senior civil servants, official documents and so on in order to inform their sensemaking processes. I have not discussed the relationship between the middle-ranking officials and their lower-ranking colleagues (such as administrative officers) but there is undoubtedly interplay of ideas and interpretations in that dimension too.

A related point is that studies of policy-making should acknowledge the potential for interpretation not only by all members of the organization, but in every field of work and type of activity. This is in contrast to the assumption of rationality that is so commonly made. To return to the example of decisions imposed by management, it is my argument that we should not assume that officials will respond rationally to commands given by others. As was the case with the Renew Defra reform initiative (see Chapter Seven), officials sought ways to understand the changes that had been made to the organization by placing it in their existing frameworks of understanding and trying to assimilate the novel aspects of their new working arrangements so as to minimise disruption. It should never be taken for granted that changes to the formal organization will simply be adopted in the

form they were intended and the impact that such changes have on policy-making and on Defra officials should also be seen as acts of interpretation. It has already been largely accepted that policy-makers interpret policy problems, that is, they do not objectively 'discover' a problem that needs fixing and likewise 'discover' a solution. Suggestions that problems, or the solutions available, are framed in a particular way depending on the agenda of politicians have been circulating for decades (e.g. Cohen et al 1972, Kingdon 1995). However, my contention is that we need to look more widely at policy-making and see not only the framing of policy problems, but the interpretations that officials make about every aspect of their work: of their roles within their Department, of the role of the Department itself, of their relationships with others.

Because I am arguing that policy-making is an act of interpretation, I also want to suggest that studies of the policy-making process should be non-judgemental. That is, I want to argue against pronouncements of what constitutes 'good' and 'bad' policy-making. Evidence-based policy-making is a useful example to illustrate this point. Studies of evidence-based policy-making often attempt to measure the 'amount' of science that has been used as the basis for a decision, and seek to identify possible biases, either on the part of policy-makers or scientists, to understand why particular types of advice have been used and not others. Some decisions are judged to be "evidence-based" while other forms of decision-making are denigrated as "policy-based evidence-making" (e.g. Marmot 2004), the implication being that science has not been objectively commissioned and used. Yet the situation I observed in Defra is much more nuanced than this. The relationship between policy and science is governed by many factors, including the policy-makers' judgements about the nature of the problem, the need for urgency, the credibility of the scientists, their own personal connections with scientific colleagues, and their ability to take action. For the scientists, too, many interpretations must be made regarding the type of advice required, their ability to give it, and the likelihood of their favoured proposals being accepted. The nature of evidence-based policy-making is very different between peace-time (when officials feel compelled to seek out objective advice and give it a place in some rational decision-making system) and war-time (when officials urgently want relevant information and seek it from the nearest trusted sources). Who is to say

that one form of evidence use is "better" than another? This is only possible by recourse to the rational model of policy-making that I have already argued is discredited.

Arguments about whether or not interpretivists have the capacity to be critical have taken place elsewhere (Schwandt 1994, Bevir and Rhodes 2003 pp41-42). Descriptive techniques, it has been argued, privilege the views of actors and uncritically accept their stories about their experiences (Schwandt 1994 p130). This may mask inequalities and perpetuate discourses of the powerful, because it fails to question the reasons why some interpretations are more successful than others. As Hudson argues in his criticism of Lipsky's (1980) *Street Level Bureaucracy*, "The main danger of Lipsky's phenomenological approach is that it can be construed as a form of ideological relativism, largely ignoring the question of *why* one 'weltanschauung' is considered more legitimate than another. Such studies usually operate at a level of analysis which is divorced from any notion of power in social relations" (Hudson 1989 p52). Other critics of interpretivism have suggested that researchers are liable to be misled if they privilege the accounts of their participants over their own opinions and judgements because actors will always see their own actions in the best light and may actively deceive researchers as to their actions, whether for personal, political or organizational purposes (Dowding 2004 pp137-138). The remedy, Dowding argues, is to weigh their comments alongside other "evidence" to check the veracity of their claims. Dowding's criticisms, viewed in the light of the approach taken in this thesis, miss the point in spectacular fashion. The very point of interpreting talk is to understand *how* actors understand and communicate meaning about themselves and their circumstances; if they choose to talk about their actions in a purely positive light, this can tell us something about how their perceive themselves and their role. Comparing what they say against other 'evidence' (presumably Dowding means records of what 'actually' happened, policy documents and so on) is misleading because it is precisely these 'facts' that are being interpreted by actors.

In this thesis, I have not sought to be 'critical' of Defra in the sense of finding fault with their policy-making process. Partly this is because it would be

nonsensical to do so; as I have already argued, I do not believe that evidence based policy-making can be neatly divided into 'good' and 'bad' examples. But it is also difficult to be critical because of my sympathy with the people involved: as others have identified, it is difficult to write consciously something that may damage the people who have participated in the research (leading to a proliferation of what Van Maanen (1988) calls 'confessional' ethnographic writing e.g. Fine and Weis 1996; Ceglowski 2002; Law 1994b pp38-39). In addition, and again like many who study sensitive contexts, I agreed that all those whose interview data was included would be allowed to see the relevant chapters and give or refuse permission for data to be used. This could be perceived as further encouraging an uncritical perspective by allowing Defra officials to modify their accounts, although none of the participants objected to their words being used, or wanted to disagree with my portrayal of their opinions and actions. However, I also attained critical distance because of the time elapsed between the initial fieldwork and the writing of the thesis, and the fact that I do not work for the Department nor have any obligations to it as a result of funding, for example. And, despite not wanting to criticise the officials themselves, I believe that I have said something about how and why certain *weltanschauung* or modes of ordering come to dominate. I have sought to be critical in the sense of asking questions about why certain arrangements of people and spaces have come about, and whether there is potential for change or resistance by the people concerned.

Latour (2005a, 2005b) offers an alternative way of thinking about the capacity for criticism in social research. He argues that it should be the object that is rendered critical, in the sense of reaching a 'critical mass' of debate and ideas. For Latour, then, the role of the social researcher is to contribute to debates and this is best done through attention to the small scale, being immersed in the detail of the situation and its problems. Critical distance, for Latour, implies the notion that the researcher can stand outside of the group being studied, and also that the actors involved are unreflexive, and unable to see the context in which they are situated (2005b p33). This type of critical distance also involves appeals to the 'old enemies' of empire, corporations, and nation states. Latour denounces the 'utter vacuity' of this wholesale critique. He argues that being critical – being political – is only possible in world that is not totalising, which does not try to seek external

truths or indeed the 'big' enemies such as state and corporation (2005a). He argues that one's actions make a difference in a world of differences, and therefore seeking a unified 'truth' about the way the world is will not facilitate criticality. Latour therefore advocates not critical distance but critical proximity: not trying to step outside of the situation but continuing to open up black boxes and identify the taken-for-granted beliefs (2005b p253). He advocates 'passionate interest for an uncertain and surprising solution', through looking for tiny and unexpected differences. It should not be about 'feeling critical' but inducing criticality (2005a). Seen in this light, my research contributes to debates about the nature of policy-making without seeking to criticise officials on the grounds of well-worn allegations of industry influence, the tyranny of bureaucracy and so on. My research suggests a different direction for discussions of policy-making to take.

I have argued that studies of policy-making need to take into account organizational context and the potential for interpretation while broadening the focus of research to include the widest possible range of actors and activities. Finally, then, I want to make the case again for ethnography as the primary tool for this type of research. It may seem that it is unnecessary to make such an argument, as ethnography is so evidently appropriate for the study of actors in context. However, ethnography as a tool of political research remains staggeringly marginal. Recently, a US scholar pointed out that over the last decade, of the 938 articles published in two leading political science journals, *American Journal of Political Science* and *American Political Science Review*, only one article relies on ethnography as a data production technique. Of the 215 articles published in the leading ethnography journal, *Journal of Contemporary Ethnography*, only 15 focus on politics as their main subject (Auyero 2006). Searching for British examples reveals that even among self-identifying interpretivists ethnography remains a rare tool. For example, Orr (2005) undertakes textual analysis of academic commentaries on local government reform, Needham (2009) conducts a content analysis, searching for keywords in Prime Ministerial speeches and command papers, while Rhodes' (2005) *Everyday life in a Ministry* includes only seven days of non-participant observation, the remainder of the data coming from interviews and content analysis of Ministers' diaries. Longer-term ethnographic

fieldwork is difficult to find (although there are excellent studies with an ethnographic component, mainly from studies of policy implementation e.g. Durose 2009, Sullivan 2007).

The lack of ethnographic research is remarkable when one reflects on the unique access it gives to actors' meanings, and, more particularly, to meanings in action: how people understand what they do as they do it. Ethnographic research is also an excellent way of observing policy-making in 'real time', from the perspective of those doing the work, and a way of gaining access to those who would normally be difficult to interview (such as administrative staff, technicians etc). And, although it is common to rely on a small number of individuals for information and help during ethnographic research, it is primarily a tool for studying groups in context, whereas other methods, particularly interviewing, can only give insight into the thoughts and actions of one person at a time. Ethnography was also crucial to that part of my analysis, which differed from the usual interpretive policy analysis approach: the inclusion of materials. My knowledge of the materiality of policy-making (office plans, maps, signs, administrative systems) would have been non-existent had I not worked in Defra, and it is unlikely that interviewees would have spontaneously mentioned them given the unremarkable and everyday nature of workplace objects and arrangements.

Status of my claims

The three modes of ordering that I have identified in this thesis are my interpretations of the accounts given to me by Defra officials and advisers, coupled with my observations of policy-making. But what is the status of these interpretations? I am certainly not claiming to have produced a definitive account of the organization of Defra; there are without doubt other modes of ordering that would have become apparent had I spoken to different people, observed the Department for longer, or been a witness to events other than the ones I observed. But, of the three modes of ordering that I have identified, what can be said about their authority? It is difficult to say anything meaningful because the language of validity and authority inevitably slips into the positivist lexicon of testing,

measurement, and reliability, about which interpretivism has little to say. But, nevertheless, some sort of position statement should be attempted. Therefore I am going to explore some common criticisms made of the 'authority' of interpretive research and set out how I think my own approach can respond to them.

Firstly, it is sometimes suggested that interpretive research lacks authority because the author's interpretation is simply one interpretation among many, and because social researchers appear to 'guess' what actors' beliefs are rather than finding evidence for them (on the latter point see Brown, 2002). Because there is a common principle of treating all interpretations as equal, at least as far as participants are concerned (in other words, interpretive research does not privilege the discourses of the powerful, or seek out 'true' interpretations and discard 'false' ones), then the researcher's interpretation must be treated likewise. To suggest otherwise is to imply that the researcher has some kind of "external" viewpoint by which he or she is able to understand more about the participants actions and beliefs than they do themselves. Critics are made uneasy by the apparent lack of objective measures for testing the 'truthfulness' of an interpretation. As Schwandt (1994 p130) puts it, in the absence of some set of criteria, interpretive accounts "are subject to the charges of solipsism (they are only *my* accounts) and relativism (all accounts are equally good or bad, worthy or unworthy, true or false, and so on.)" The lack of critical function in interpretive research, as described earlier, is also perceived to contribute to this lack of authority as an outside observer. This desire for certainty and veracity is, perhaps, more prevalent in political science than in other disciplines where interpretive approaches have flourished more readily. Dowding (2004 p137), in his critique of interpretive policy studies, argues that the central aim of political science is "to sift through competing claims to examine evidence both theoretically and empirically in order to distinguish true claims from false ones" and this view is part of the tradition of policy analysis being conducted to provide government officials with advice on how to improve policy-making.

There are various responses that can be made to these criticisms. The first type are the "methods textbook" body of responses, which emphasise the importance of rigour in data collection and multiple data sources. For example, Yanow (2000)

argues that criteria for assessing the "goodness" of interpretations do exist, and that they are similar to those of a good story: internal consistency, a logical flow, and a wealth of details which "persuade the reader or listener that the interpreter knows intimately what happened, has an insider's understanding and a plausible explanation" (Yanow 2000 pp57-58). For others, such as Sandberg, the authority of interpretive accounts relies upon "control" over the data: "researchers must demonstrate how they have controlled and checked their interpretations throughout the research process: from formulating the research question, selecting individuals to be studied, obtaining data from those individuals, analysing the data obtained, and reporting the results" (Sandberg 2005 p59). By doing this, readers can make their own judgments about the quality of the research and subsequently the interpretations made from it. Respondent validation – asking research subjects to give feedback on the written account – has also been suggested as a means of checking the validity of the interpretations made, although others have cautioned that second-order interpretations (which may use complex terminology or impersonal reporting styles) may not be understood by respondents (Bryman 1988 p79) and that feedback should not be taken as 'proof' that an interpretation is correct or incorrect. Rather, it should be treated as another source of data and insight (Fielding and Fielding 1986 p43).

I do not wish to denigrate these types of response; rigorous and reflexive research methods are to be applauded, provided they do not lead to positivist assumptions that truth can be accessed if only the 'right' method of inquiry is used. However, I see the issue of the status of modes of ordering as a more theoretical question. It is something that Law (1994b) addresses in part when discussing how many modes of ordering can theoretically exist. For Law, ordering is a conditional and uncertain process, not something that necessarily happens or is achieved forever and therefore the role of the sociologist should be to try "to occupy the precarious place where time has not been turned into cause or reduction, and where relations have not been frozen into the snapshot of syncronicity" (Law 1994b p13). The researcher makes and remakes this precarious place by telling stories, offering metaphysical redescriptions, ethnographies, histories and 'thick descriptions' (Law 1994b p14). Law terms this "modest sociology" because it does not try to make totalising claims about the results but acknowledges their contingency and

incompleteness. Any orders found should be treated with caution for as Law says, "if there appear to be pools of order it will treat these as ordering accomplishments and illusions. It will try to think of them as effects that have for a moment concealed the processes through which they were generated" (Law 1994b p15). Therefore, the approach I am advocating does not strive to definitively identify all possible orders in an organization, but to identify some, studying their emergence, the differences between them, and the realities they enact to gain insight into the organization as a whole.

Despite the goals of 'modest sociology' to acknowledge contingency, this does not mean that attempts to identify modes of ordering should be abandoned because nothing meaningful can be said. Law goes on to say that he is arguing that the laboratory "was" a particular way when he observed it, and I want to expand on this point to clarify my own claims. It is not my ambition to replace the models of the textbook theory with my own prescriptions about what policy-making 'looks' like. However, at the same time, my claims are rooted in observation, inquiry and triangulation. They are not mere speculation. I would like to say, then, that my analysis of policy-making in Defra is based upon the stories told to me by Defra staff and the actions that I observed during a period of participant observation. The three labels that I have attached to their words during my analysis (rationalism, bureaucracy, and expediency) are not their terms, but they are directly drawn from the data. And although there are undoubtedly other modes of ordering that I did not observe, stories that were not told to me, either on purpose or because I did not think to ask, the three interpretations I have talked about do have a real influence on the way that Defra officials think and behave.

Future research questions

There are several questions that were not within the scope of my doctoral research, but which would enable greater understanding of both the potential of the ordering concept as a means of studying Defra, and of the culture of the Department itself. The main questions that I would like to raise concern the emergence and evolution of modes of ordering, which could not be studied in the

short space of my research, and the extent to which Defra has a distinctive organizational culture, which requires comparative study.

How do modes of ordering appear, change, and disappear?

There are still puzzles to be solved before this approach can more fully explain the organization of policy-making. Most notably, it is difficult to say how modes of ordering change over time. It is not clear how we could observe the creation or modification of a mode of ordering. Although ordering should be seen as a verb, as an ongoing process, researching these processes means taking a snapshot in time.[17] Even researchers fortunate enough to be able to spend a long time in the field are unlikely to discover a new mode of ordering emerging or an old one disappearing. This is so for a number of reasons. Although one observes the actions of people in the present, one asks them about their interpretations in the past tense. It seems likely that this forces participants to make a more coherent narrative than is necessarily the case. Consider for example Weick's (1995) argument about the emergence of battered child syndrome. He states that doctors started to notice anomalous symptoms in children over a long period of time but it was not possible for them to make sense of the symptoms until many others had noticed them – a critical mass, perhaps – and then it retrospectively became a recognised narrative in medical history. So, at the time of doing participant observation, however observant one is, it may be impossible to 'see' emerging narratives because they become stronger retrospectively.

Modes of ordering must surely be long-term phenomena, given the time it takes to establish common understandings and anchor them in materials. It is interesting to note that the research that informed Law's study took place 18 years before my own doctoral project and yet the modes of ordering, the pressures and aspirations of the organization, share similarities. The factors that Law argues shaped the mode of ordering he termed 'enterprise', for example (Thatcherite values of competition, efficiency and so on), persist in central government today. This lack

[17] Indeed, this very process of taking a 'snapshot' through writing research findings has a tendency to reify the verb of 'ordering', turning it into the noun of 'order', and implying a permanence that does not exist.

of empirical and theoretical insight into how orders change is an important one given the very frequent pace of restructuring that occurs in Defra and its agencies. For example, the introduction of 'responsibility and cost sharing' to Defra's exotic disease division is potentially very important, not only because it changes the nature of some of the work they have to do but because it has an impact on some of the drivers that shape expediency as a mode of ordering. I argued above that expediency is driven by a sense of obligations to different groups, one of which is to protect farmers from disease. Under the 'responsibility and cost sharing' agreement farmers will have to take more responsibility for preventing the spread of disease, and receive less financial support from Defra in the case of disease outbreaks. While Defra will still have a statutory obligation to eradicate exotic disease when it occurs, one of the significant obligations to farmers will be diminished. Moreover, it is likely that a new agency or non-departmental public body will be created to handle 'responsibility and cost sharing', taking an important part of work away from the Exotic Disease Division. This could be seen as an attempt to remove expediency from core Defra and delegate it into another body. Opportunities such as this offer potential for a longitudinal approach to see the extent of reactions to new policy imperatives.

How distinctive is Defra?

During the course of my research, my interest in the organization of policy has necessarily led me towards exploring the importance of organizational culture. Indeed, as the modes of ordering approach has demonstrated, culture (in the sense of the way that employees collectively respond to stimuli, are conditioned to behave, condition one another to behave, the materials that are produced, the values and objectives of the organization etc.) is paramount to understanding why certain modes of ordering come into being. This begs an important question that falls beyond the scope of this thesis, namely, am I saying that Defra has a different organizational culture than other central government departments? That is a question I cannot fully answer without further research.

My tentative suggestion here, however, is that the history and culture of the department, as well as the area of policy with which its officials are dealing, has a

very significant impact on the modes of ordering that emerge therein. The consequence for students of policy-making is that it would therefore be futile trying to arrive at any general theories or models of policy-making because each department would have some aspects of culture that are distinctive owing to their differences in policy 'customers' and history of restructuring, prestige and reputation. Each will deal with crises to a greater or lesser extent, and there are practical considerations such as the size of the department and their physical organization. Context is crucial not only to understanding what the different orders are and how they operate but where they have come from: to what they are resistances or responses. Defra is as much subject to attempts by management consultants to engender a feeling of shared organizational culture as any other large organization. Consider the recent story of staff at the newly-created Animal Health agency being encouraged to bang drums on an away-day to demonstrate "how people working together can build up a rhythm" (Bingham 2009). Much could be learned from organization studies to understand the impact of departmental culture on policy-making.

The study of cultural-level phenomena is also important because, as I have argued in this thesis, policy-makers need lots of different stories to tell themselves, and the organization (in this case the government department) needs multiple interpretations of itself if it is to survive. The three identified in this thesis all interact, and indeed the organization would fail if it relied on only one. Thus, when I state that policy-making is an act of interpretation it is important to note that this means not one but many competing or complementary interpretations. There is no single process by which policy is 'made' but many different interpretations that guide officials' actions, and many different ways by which past events are made sense of in order to guide future action. Consequently, studying either a single policy area (for example, FMD policy) or only a crisis such as a disease outbreak would be very misleading to the policy analyst. As I have argued in this thesis, a particular interpretation may dominate when talking about a specific decision or policy field, and different interpretations also dominate during peace-time and war-time. Policy analysis therefore needs to take a broader and less decision-focused approach, and this is why the organization-

level analysis has so much to contribute. A comparative study of government departments would undoubtedly be a profitable area for future research.

Conclusion

My thesis argues for, and demonstrates the value of, developing an interpretive approach to the study of policy-making. By observing Defra, I found that policy-makers do not exclusively follow rational models of action but constantly interpret their experiences in recursive processes of sensemaking. To analyse the interpretations of policy-makers, my research has drawn upon theoretical insights from organizational sociology. The key findings of my research are that policy-making is organized in three different ways, which I have termed rationalism, bureaucracy and expediency. These three modes of ordering each affect the hierarchy of staff in the division, the way that scientific expertise is used, and consequently the way in which policy is formulated. In addition to this new conceptual approach to the study of policy-making, my research is empirically distinctive in looking at both peace-time and war-time, and at middle-ranking officials and advisers. As a consequence, it takes a more comprehensive view of policy-making than studies that are confined to outbreaks or single disease issues, and those that focus only on senior civil servants. The ethnographic method by which the data was gathered is emerging as a technique in policy studies, and my contribution emphasises the insights into policy-makers' behaviour and interpretations that can be gained by this approach.

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Appendix One

Bovine Spongiform Encephalopathy (BSE)

Bovine Spongiform Encephalopathy (BSE) is a neurological disease of cattle that was first discovered by pathologists at MAFF's Central Veterinary Laboratory (CVL) in 1986. It is a Transmissible Spongiform Encephalopathy (TSE) transmitted by abnormal forms of protein known as prions. The more widespread ovine disease, scrapie, also belongs to this group. TSEs are untreatable, invariably fatal and poorly understood; research is difficult and expensive because it is not possible to test for the disease before clinical symptoms show (van Zwanenberg and Millstone 2005 p72).

In 1986, six cases were confirmed in the South West of England. The CVL's senior epidemiologist discovered that the use of commercial cattle feed was the only factor common to all the affected farms, and concluded that feed prepared with rendered slaughterhouse waste contaminated with a TSE agent was the source of the disease. The wastes discharged from abattoirs from sheep, cattle and other animals were at this time routinely rendered into saleable products by crushing and heating the carcass in order to produce fat (tallow) and a solid animal protein residue known as meat and bone meal (MBM). Both were incorporated into concentrates in order to provide a protein-rich nutritional supplement to animal feed. The diets of nearly all UK cattle were supplemented by commercial feed, although dairy cows typically received the largest quantities to boost milk yields. Despite the breakthrough in identifying the cause of the disease, no-one knew the source of the TSE agent which was contaminating the feed and the feed itself could not be tested for the presence of a TSE (van Zwanenberg and Millstone 2005 p75). By January 1989, 2,296 cases of BSE had been confirmed on 1,742 farms.

Initial advice to the government stated that BSE was unlikely to pose a threat to humans, based on the similarities with scrapie which has not jumped species. To

make a decision on dealing with the disease, policy makers had to choose either to accept this advice and do nothing, or to allow for a risk to human health, which would require a significant regulatory response. In the case of such a risk existing, policy options included excluding all animals known to be susceptible to BSE from the food chain, or slaughtering and restocking the entire national herd at an estimated cost of £20 billion at 2000 prices (National Audit Office, 1998). Given the disruption to markets either policy would cause, Ministers chose to wait for further developments in scientific understanding. The Chief Medical Officer was not notified for a further two years, reflecting the low priority given to the disease.

In 1988, as the number of reported cases continued to rise, a compulsory slaughter programme was introduced for infected animals which paid compensation to affected farmers and a ban was imposed on the use of ruminant-derived protein in animal feed. Despite these measures the number of confirmed cases increased, suspected to be due in part to the 'grace period' given for retailers and farmers to use up existing feed stocks. The Southwood Working Party was established with the remit to examine the implications of BSE for both animal and human health (although the role of the group later came under criticism for the ambiguity in its terms of reference regarding whether it should be providing advice on science or policy). The advice provided by the party was presented as the most authoritative available, but experts on TSEs had been deliberately excluded from the group on the grounds that they may hold prejudices about the disease and fail to consider new points of view. The report they published a year later, in 1989, was relied upon for years as a definitive answer to the policy problem. The report claimed that "from the present evidence, it is [...] most unlikely that BSE will have any implications for human health" which was widely cited as proof that the government was pursuing the right course of action. However, they also warned that "if our assessments of these likelihoods are incorrect, the implications would be extremely serious" (Ministry of Agriculture, Fisheries and Food/Department of Health 1989).

In 1989, on the recommendation of the Southwood Working Party, the Specified Bovine Offals (SBO) ban was enacted to prevent the most potentially infectious parts of cattle (for example, spinal cord and brain) from entering the human food

chain, and the human consumption of meat from clinically infected animals was banned (until this point, meat from animals known to have died from BSE could have been lawfully sold for this purpose). The EU simultaneously banned the export of UK cattle born before July 1988 and of the offspring of affected or suspected females. This apparent admission of a risk to human health from eating beef was accompanied by the discovery in May 1990 that BSE had 'jumped' species to a domestic cat. This result was significant for the government because it raised the possibility that BSE was virulent in a way which scrapie was not, because transmission studies had failed to transmit scrapie to cats by intracerebral inoculation (Jensen 2004 p415). Media commentators hypothesised that humans would also be susceptible to the disease; Humberside Education Authority banned beef from school meals and other Authorities threatened to follow their lead (Phillips et al 2000). By the end of 1990, 24,396 cases of BSE had been confirmed in the United Kingdom. The Government embarked on a campaign of reassurance, with John Gummer MP infamously feeding his daughter a beefburger in a misguided PR stunt. Throughout the early 1990s, public fears of the health implications grew, along with a suspicion that they were being kept in the dark about the seriousness of the disease.

Several advisory groups were created including the Tyrrell Committee which took over from the Southwood Working Party in 1989 to advise on research in relation to BSE and the Spongiform Encephalopathy Advisory Committee (SEAC) created in 1990. SEAC had a wider membership and a wider remit than the Tyrell Committee; its task was to advise the MAFF and the Department of Health on matters relating to spongiform encephalopathies. The Permanent Secretary at the time, Richard Packer, later claimed that "Because of the positions and reputations of its members and the fact that most were seen to be outside government, it had prestige and was viewed as independent [...] Ministers quickly recognized that they could not act against SEAC advice. To be more precise, they recognized that they could not take fewer precautions than SEAC had recommended" (Packer 2006 p48).

A critical development in this period was the emergence of BSE-infected animals born after the feed ban, thought to be a consequence of the 'grace period'

described above and the lack of concerted effort to decontaminate the manufacture and storage of feedstuffs as soon as the ban was put in place. Responsibility for enforcing the ban fell to local authorities and MAFF itself had no powers to enter or inspect slaughterhouses, rendering plants or feedmills until 1994 when MAFF, "sufficiently alarmed largely to sweep aside doubts about the legal position which had inhibited them earlier, started testing samples" (Packer 2006 p74). In 1995 the Meat Hygiene Service was created and took over responsibility for enforcing the rules in slaughterhouses with threatened prosecutions in cases of non-compliance, and by 1996 infringements had fallen dramatically.

A turning point for policy-makers came in 1993 when a 13 year old girl was diagnosed with Creuzfeld-Jakob Disease (CJD), a TSE which is usually confined to older adults. By 1995 there were 14 suspected cases including young people and farmers whose herds had suffered BSE. The disease was recognised as a new variant of CJD (nvCJD or vCJD), the primary difference being that the average age of death from vCJD is 29 years, compared with 65 for CJD. Like BSE, vCJD is invariably fatal, and the disease claims the life of its victims one year from the onset of symptoms on average (Department of Health 2009). On the 20 March 1996 SEAC made a statement that in their opinion: "on current data and in the absence of any credible alternative the most likely explanation at present is that these cases [of vCJD] are linked to exposure to BSE before the introduction of the ban on specified bovine offals in 1989. This is a cause of great concern" (Spongiform Encephalopathy Advisory Committee 1996). BSE became the number one political issue for months, keeping on the front pages of newspapers for 20 consecutive days and creating an economic crisis as consumption of beef declined rapidly (Packer 2006 p158). The Government announced its intention to adopt further precautionary measures in accordance with SEAC's advice: carcasses from cattle aged over 30 months must be deboned and the feeding of MBM to all farm animals would be banned. Within two weeks, however, public pressure was so great that these measures were replaced with a total ban on cattle over the age of 30 months being used for human food or animal feed.

In May 1997, the Conservative Party lost the general election and was replaced by a Labour Government. One of the first actions of the new administration was the

announcement of an inquiry into the history of the emergence and identification of BSE and new variant CJD in the UK, and of the action taken in response to it up to 20 March 1996. Lord Phillips, chair of the inquiry, said that his task was "not to attribute blame for what occurred, but to identify what went wrong and why, and to see what lessons can be learnt" (cited in Greer 1999 p598). The report of the inquiry, published in 2000, did none of the 'naming and shaming' that critics of the Conservative government had expected, but concluded instead that Ministers "did not lie to the public about BSE" and in downplaying the scale of the problem the Government was "preoccupied with preventing an alarmist over-reaction to BSE because it believed that the risk [to humans] was remote" (Phillips et al 2000 pxviii). Other aspects of the way in which the disease had been managed were heavily criticised, however, particularly the failure to communicate with departments other than MAFF and with local authorities, and the lack of prioritisation for scientific research and advice. The unique position of MAFF in both promoting agriculture and regulating the industry was blamed for many of the difficulties in handling the disease, and as a consequence the Food Standards Agency was created in 2000 to act as a non-political regulatory body with a stakeholder-style board to ensure consumer representation.

Appendix Two

Foot and Mouth Disease (FMD)

Foot and Mouth Disease (FMD) is an infectious disease affecting cloven-hoofed animals, in particular cattle, sheep, pigs, goats and deer. While FMD is not normally fatal to adult animals, it is debilitating and causes significant loss of productivity; for example milk yields may drop or the animals may become lame. Livestock can be infected either by direct contact with an another infected animal or by contact with foodstuffs or other things which have been contaminated by such an animal, or by eating or coming into contact with some part of an infected carcase. In the past, outbreaks of the disease have been linked with the importation of infected meat and meat products. FMD may, in exceptional circumstances, cause infection in humans, but the risk of transmission is low.

The disease is exotic to the UK but widespread in other parts of the world, and sporadic incursions occurred in this country throughout the twentieth century. A significant outbreak of FMD occurred in 1968, resulting in the slaughter of around 400,000 animals. In contrast, the next major outbreak, in 2001, saw over 4 million livestock culled in what was the largest slaughter of its kind in history. The mishandling of this outbreak led to a series of inquiries and contributed to the break-up of the Ministry of Agriculture, Fisheries and Food.

Controlling the disease

Provisions for the control of FMD in the UK are subject to EU regulation. A number of directives (designed with the international trade regimes in mind) define the actions to be taken in the event of an FMD outbreak. Directive 64/432/EEC (as amended by 89/662/EEC) deals with the imposition of movement restrictions between Member States for animal disease control. Specific European measures to control FMD were introduced with Directive 85/511/EEC,

subsequently amended by Directive 90/423/EEC to take into account the EU-wide cessation of prophylactic vaccination (AVIS, undated).

Article 5 of Directive 90/423 laid down the requirement for all Member States to have an FMD contingency plan. In 2001, the UK's contingency plan had been submitted to – and endorsed by – the Commission in 1992. It was based largely on the findings and conclusions of the Northumberland Inquiry, held after the previous serious outbreak of FMD in the UK in 1967/8. The main instrument specified for disease control was the culling of all livestock on infected premises and movement restrictions on the surrounding area. The contingency planning had been based on a worst case scenario of having to deal with ten infected premises at any one time. However, at the height of the 2001 epidemic – in mid March – up to fifty new cases were being declared in one day. In 2006, a revised contingency plan was laid before Parliament covering generic arrangements for FMD as well as Avian Influenza, Classical Swine Fever, African Swine Fever, Swine Vesicular Disease and Newcastle Disease.

Recent Outbreaks

On February 19th 2001, a Veterinary Inspector with the Meat Hygiene Service spotted symptoms of FMD in pigs at an abattoir in Essex. Subsequent analysis has shown that by the time the symptoms were first seen, 57 farms had already been 'seeded' with the infection (Defra 2002) as far afield as the North East and South West of England. A pig unit in Northumberland in North East England was judged to be the initial source of the infection. As well as having sent animals to the abattoir in Essex, it had also infected nearby farms by air borne viral plumes.

On the day following being notified of the FMD outbreak, February 21st, in accordance with EU control legislation, the European Commission banned all meat and live animal exports from the UK. A ban was imposed on the movement of all livestock in Great Britain. As a total ban, it was in place for ten days. Then, from early March, the transport of some animals to slaughter was permitted, but only under licence. Local authorities were given additional powers to close public footpaths; County Councils immediately closed rights of way and issued 'path

closed' notices to livestock farmers. There was, however, no evidence to suggest that members of the public walking in the countryside played a part in the spread of the disease. The 'closure of the countryside' was admitted to have been an ultra-precautionary step that could not be justified as a practical preventative measure (Defra 2001 p24) and there were soon reports of a damaging impact on rural tourism and other businesses.

There was a rapid acceleration of the number of confirmed cases, and it became apparent that the disease had taken a hold in certain areas. In response, in mid to late March a number of steps were taken to speed up and extend the scope of the cull, to try to get on top of the disease. In certain areas, a policy of contiguous culling – the slaughter of all animals on farms adjacent to an infected site – was to be applied. From the 21st March, the Prime Minister exercised personal control of disease control policy and the Cabinet Office Briefing Room (COBR) was opened, bringing together departmental representatives to oversee the control strategy. The Government's CSA was asked to set up an independent FMD Science Group to advise policy. The core of that group was a small circle of epidemiologists convened to model and predict the spread of the outbreak. Part of that group, a team of modellers from Imperial College, demonstrated a need to drastically reduce the time between report and slaughter. Their predictions suggested that a 1.5km cull and a 24 hour report-to-slaughter time would bring the disease under control and the so-called '24/48' slaughter policy was announced on March 27th. The army was brought in to manage the slaughter and disposal of the animals. At the height of the cull in April, around 100,000 animals were being killed daily.

Slaughter on this scale provoked widespread opposition and public misgivings which led to questioning of the disease control strategy. Hastily constructed burial pits began 'weeping' into water supplies, and animal corpses had to be exhumed. Horrific tales – of incompetent slaughtermen, live animals crawling out of burial pits, and wagons transporting corpses leaking blood onto roads – abounded in the media. While the footpath closures had deterred tourists from visiting rural areas, television images of burning carcasses deterred international tourists from coming to Britain at all. What had begun as a crisis for farmers soon escalated into a crisis

which cut across many economic sectors. The direct economic effects of FMD in the years 2001-2005 were estimated at a £355 million loss to the agricultural sector, compared with a loss of £2180 million to tourism (Defra/Department for Culture, Media and Sport 2002 para.16).

Opponents of the cull pressed the case for a shift to the use of vaccination. The Northumberland report had recommended vaccination under certain circumstances in future outbreaks, and vaccination had been used effectively in several member states. There were two vaccination options open to the government: protective vaccination – to safeguard a limited number of animals in a restricted area (such as the distinctive Herdwick sheep of the Lake District); and suppressive vaccination, on a much larger scale but where the inoculated livestock would eventually be culled. A critical issue for commercial producer interests was the different lengths of time required to regain recognition of disease-free status and the freedom to export: a 12 month delay was required following vaccination, as opposed to 3 months following completion of stamping out through slaughter.

Some 500,000 doses of the FMD vaccine were reserved from the EU vaccine bank and the European Commission formally authorised its contingent use. 156 'vaccination teams' were recruited and kept on three-day standby, and farmers were sent information leaflets explaining what a change of strategy would imply (Anderson 2002 p126). However, the rate of the spread of disease began to slow and then fall sharply in April. Less than three weeks after the vaccine was made available the last of the pyres was lit. On May 9th Tony Blair declared the disease had been beaten and called the general election, which he had postponed because of the outbreak, for June 7th. International recognition of the UK's disease-free status was officially regained on 22nd January 2002 with the OIE's imprimatur.

In August 2007, an outbreak of FMD occurred in Surrey, with the source of the disease being traced to Pirbright, Surrey, where the Institute for Animal Health (IAH) and two private companies, Merial Animal Health Ltd and Stabilitech share a site. All three work with the FMD virus in high-containment facilities. It is thought that the virus leaked from drainage pipes that had not been adequately maintained, partly as a result of disagreement between IAH and Merial as to

responsibility for such maintenance (HSE 2007). Overall 2160 animals were slaughtered in the two phases of the outbreak. While the disease was relatively well contained, and Defra praised for its readiness and capacity in comparison with 2001, the outbreak led to significant divisions between Westminster and the devolved administrations. Great Britain-wide movement restrictions had a significant impact on the Scottish and Welsh farming industries despite their geographical remoteness from the site of the outbreak and London-based officials were perceived to be delaying relaxations that would help the devolved regions to recover (Anderson 2008 p12).

Appendix Three

Bovine Tuberculosis (bTB)

Bovine Tuberculosis (bTB) is caused by the bacterium *Mycobacterium bovis (M. bovis)*. It remains a relatively uncommon disease in Great Britain, and for many years was largely confined to the South West of England, where new cases occur in more than 1% of herds each year. However, since 1988 the level of bTB has been increasing, and the long term trend has been an incidence rate increase of 18% p.a. This is accompanied by a 20% increase in the number of cattle culled following a positive result to the skin test (Defra 2005 p15). The disease has spread geographically to Wales and the West Midlands, and sporadic cases occur throughout Britain. Due to the pasteurisation of milk and tuberculin testing of cattle, *M. bovis* is currently a negligible risk to humans but the potential to become a significant health risk remains. At present, less than 1% of confirmed cases of TB were attributed to *M. bovis*. However, the greater source of concern is the impact of the disease upon the livestock industry and, by extension, the taxpayer.

From the farmers' perspective, a bTB breakdown (the term given to a herd when an animal from that herd tests positive for bTB) has many consequences. The disease causes reduced productivity and premature death in animals, thus affecting both animal welfare and the economic output of affected farms (Krebs 1997 p13). A survey by Reading University in 2004 found that 79% of dairy farmers and 65% of beef farmers suffered net losses from a TB breakdown of up to £17, 000 per farm (Defra 2005 p26). In addition to the costs borne by taxpayers, Defra estimates that the net costs to farmers will be £20m p.a. if the disease continues at its present levels. This figure includes £13m in costs of TB breakdown plus £7m in costs to cover cattle handling and vets (Defra 2005 p17). Other impacts include accommodation and welfare problems for all animals on the farm, arising from the over-stocking that movement restrictions can lead to; and personal costs to farmers in terms of uncertainty about the duration of

restrictions, the difficulty of business planning and the emotional trauma of losing animals. There are also feelings of acute frustration amongst farmers about losing their animals when they see insufficient (in their view) action being taken to tackle badgers, which they believe are the cause of the bTB spread (NAO Wales 2003 p2).

The disease is equally problematic for government. Total Government expenditure on tackling TB in cattle has risen from £38.2m in 1999/2000 to £90.5m in 2004/05. By far the largest proportion of spending went on cattle testing and compensation; in 1999/2000 this amounted to 79% of the total spend (Defra 2005 p16). The number of cattle compulsorily slaughtered in connection with bTB has risen from 638 in 1986 to 5884 in 1998 and 22,571 in 2004 (Defra 2005 p15). Until December 2005, animals slaughtered in this way were valued individually and compensation awarded accordingly. As a result, many overpayments were made, with some farms making a net *profit* following a breakdown. A National Audit Office inquiry was conducted in Wales which concluded that in 2002 alone the Welsh Assembly paid an estimated £2.6 million in compensation payments more than it would have done had valuations been consistent with market values (NAO Wales 2003 p3). The compensation scheme has been recently reformed, but long term financial burdens can only be prevented by stopping the spread of the disease.

In the 1950s, when the disease reached significant levels in the UK cattle population, a compulsory eradication programme began, which involved slaughtering herds in the least badly affected areas in order to facilitate subsequent restocking in the worst affected areas. However, it became evident in the 1960s and 70s that the prevalence of bTB remained high in South West England despite the slaughter programme, and MAFF began to seek other sources of the bacteria which could account for the continuing spread of infection of cattle. A link between badgers and the spread of bovine TB was first suspected in 1971 when a dead badger infected with TB was found on a Gloucestershire farm which had recently suffered a bTB outbreak (Enticott 2001 p54). Although no firm conclusions could be drawn about the mode of transmission, experiments in which badgers and cattle were housed together to ascertain whether badgers could pass

the disease to cattle led MAFF to conclude that they were the single most significant source of the problem, and in 1973 MAFF resolved to deal with badgers where they posed a threat to the health of cattle. Although several reviews were conducted in the 1970s and 80s, these led only to changes in the means of culling badgers, and the efficacy of the strategy was not seriously challenged until the publication of a report by Sir John Krebs in 1996 .

Krebs highlighted the flaws of previous experiments and proposed a new approach, involving systematic culling, known as the Randomised Badger Culling Trials (RBCT) or 'Krebs Trials'. The Independent Scientific Group on Cattle TB (ISG) was set up to design the RBCT, under the Government's objectives of identifying "a sustainable policy to control bovine tuberculosis, based on sound science" and to clarify any link between badgers and bTB using scientific evidence rather than "folklore and guesswork" (Agriculture Select Committee 1999 para 2). The RBCT investigated 10 matched triplets each consisting of three trial areas of approximately 100 square kilometres located in areas of the highest TB incidence in cattle in England. Within each triplet, trial areas were randomly allocated to one of three experimental treatments: proactive culling; localised reactive culling in response to TB being confirmed in a cattle herd; or no badger culling (this being the scientific control against which the findings of the other two treatments are measured). The badger culling programme ended in 2005 and the final trial surveys are currently in progress (ISG 1998, 2006b).

In 2005, Defra announced a new set of measures to tackle bTB: the introduction of pre-movement testing, aimed at reducing cattle-to-cattle transmission of the disease, and a new valuation and compensation scheme following findings that the current scheme was making serious overpayments to farmers. The pre-movement tests are accompanied by a cost sharing agreement under which the government pays for routine herd surveillance tests and the costs of any further tests are paid for by the animals' owner. In addition, a public consultation on the principle and method of badger culling ran until March 2006 and generated over 47, 000 submissions. Only 4% of the total number of responses received were in support of using a cull of badgers as part of the strategy to control bTB, with 95.6% opposed and 0.4% neutral (PKF/Defra 2006). Defra responded by stating that

"Ministers have said that they will base a decision on badger culling on a sound scientific and practical foundation and are not yet in a position to do this" (Defra 2006a). In 2008, Secretary of State for Environment, Food and Rural Affairs Hilary Benn announced that £20 million would be spent on bTB research over the following three years, and that an injectable badger vaccine will be used from 2010.