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**FOOD SCARES AND NEWS MEDIA:
A Case Study Approach to Science and
Risk in the News**

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A thesis submitted in partial fulfilment of the
requirements of London Guildhall University for
the degree of Doctor of Philosophy

London Guildhall University

February 1999

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Abstract

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This thesis examines the importance of 'food scares' as a form of news which can be understood partly in terms of traditional academic models of news production, news values and the sociology of journalism, while also reflecting more recent concerns around the conjunction of science, health risks and the 'public sphere' role of the media. I have adopted a case study approach in which two specific instances of 'food scares' are analysed from various perspectives, both quantitative and qualitative, and particularly with regard to Ulrich Beck's 'Risk Society' thesis and the role of science as the supreme source of cognitive authority in news accounts. In addition, the crucial importance of the relationship between source and journalist is examined via interviews with representatives of both of these groups in relation to the case study examples. The thesis argues that the food scares analysed here can be understood and explained in part as reflecting divisions within the coalitions of interests which comprise the news sources involved. They can however also be seen as an expression of the competing frameworks of scientific rationality and social rationality, of which the latter, in Beck's analysis of 'late modernity' as derived in part from Habermas, represents the emergence of a 'reflexivity' which has the potential to challenge societal conceptions of science and knowledge.

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Introduction

"Salmonella still a threat in eggs", *Daily Telegraph*, 9.4.98.

"Tories considered destroying entire beef industry", *Guardian*, 1.8.98.

The news items from which the above headlines are taken are evidence of the continuing interest exhibited by the news media concerning the two stories which are examined in some detail in this study. The first item - a short, page one article - refers to a *New Scientist* report which notes that food poisoning in general, and salmonella infection in eggs in particular, has been discovered at levels similar to those which were present at the time of the "egg crisis" in the winter of 1988-89. The second item, from the inside pages of the *Guardian*, presents details from previously confidential government documents which highlight the extent to which the "BSE crisis" provoked discussion of what the documents describe as "cataclysmic" solutions. The papers were released to the BSE inquiry which was set up by the new Labour government in December 1997 to investigate the causes of the BSE affair. Both of these news items, while referring to recent events, also represent a continuation of long-standing news stories. These long-term stories - concerning salmonella in eggs and BSE, or mad cow disease - can also be understood to be perhaps the prime examples in recent years of the news 'genre' known as the 'food scare'¹. The stories which correspond to this category of news can perhaps be defined as those which derive from the revelation of a health risk (whose existence, or *scale*, was previously unknown) associated with the consumption of particular foods or beverages². Of course, the category also includes the news items which explore the *consequences* of the initial revelation; indeed, it is

¹When using the term 'food scare', I will generally be referring primarily to the *news coverage* of the events concerned. However, the term can also slide into including the possibility of a wider social phenomenon whose boundaries are necessarily vague. Although this may represent an unfortunate terminological inexactitude, it is one which is essentially bound up in the problems of the public sphere, and the role of the news media in both disseminating, debating and reflecting issues and concerns of public interest. It is arguable whether such 'scares' can necessarily be found in the opinions or attitudes of particular social groups or media audiences; equally, it should not be assumed that they are purely media 'inventions'.

²The 'food scare' can arguably be considered to be a sub-division of the wider 'health scare' category which would also include news stories concerning, for instance, recent scares over the health risks associated with contraceptive pills, or with the Lariam anti-malarial drug (refs?). Likewise, this might represent a further sub-section of the category of 'media scandal' as discussed by Lull and Hinerman (1997), which would embrace the O J Simpson affair, the infidelities of Charles and Diana, and the kinds of sexual/political scandals which emerged (mainly) from the Conservative party during the early and mid-1990's.

the continuing 'fall-out' from such stories which provides the impetus over weeks, months, and in certain cases years for journalists to return to the primary story as contextualising, explanatory detail.

Part of the impetus for this study derives from an interest in examining the phenomenon of the food scare, and its position within the wider processes of news production, and a case study approach to the subject therefore seemed the most appropriate method of analysis:

"A case study is an empirical inquiry that:

- investigates a contemporary phenomenon within its real-life context;

when

- the boundaries between phenomenon and context are not clearly evident; and in which

- multiple sources of evidence are used." (Yin 1984: 23)

Such a definition would seem to include a study into the phenomenon of the food scare, particularly in the sense that the present study does elicit evidence from various sources, using different methodological approaches (see below). Yin also discusses the characteristics of different case study designs, suggesting that such studies can be categorised firstly according to whether they focus on one single example or 'case', or whether they examine a number of cases. A single-case approach may be appropriate if that case is seen as critical for the testing of a proposition, or if it is considered to be extreme or unique. By contrast, a multiple-case study is more likely if similar examples are available, and is argued to require a 'replication logic' in which the cases are compared and contrasted. Secondly, case studies can be categorised as 'holistic' or 'embedded' respectively according to whether a single unit, or a number of units of analysis is applied. The study presented here applies a number of analytical approaches in which various analytical units are employed, and draws comparisons and contrasts between one minor, and two major cases; its can therefore be characterised in Yin's terms as having a multiple-case, (embedded) design (ibid: 41-53). A further benefit of the case study approach, at least in comparison with more 'synchronic' methods, is its flexibility in dealing with events and topics which occur and develop over a period of time; such a characteristic is clearly evident in the food scares studied here.

The adoption of a case study approach to food scares also allowed a number of different theoretical perspectives to be pursued. Food scares can be understood according to contemporary models of news construction and production, and in this

sense can be taken as evidence in the debates surrounding the ideological power of those who contribute to news-making, and the extent to which 'media-centric' analyses have over-stated the definitional powers of media institutions (Schlesinger 1990). Thus the sociology of journalism becomes a key field in which food scares can potentially provide empirical data. Additionally, as mediated discussions of scientific issues, food scares are examples of a specific media discourse. Science as it is discussed in the media arguably carries particular authoritative weight, and is therefore of particular interest as an element in the construction of news. Related to this is the factor within food scares relating to risk, and the extent to which such news can be conceptualised as an opportunity for media audiences to re-assess their own lifestyles and patterns of consumption in light of the (explicit or implied) risk analyses presented in news accounts. More specifically, Ulrich Beck's 'risk society' thesis provides a wider sociological perspective on the notion of risk in modern industrialised societies.

Across all of the above-mentioned approaches to food scares, the notion of the public sphere, and its theoretical foundations as set out in the work of Jurgen Habermas, act as an over-arching theme. Thus, while the analysis of source - journalist interaction can be seen as a specific study of a few of the factors which might arguably impede the emergence of a truly open, unrestricted and rational public sphere, the issues of science as the ultimate source of authoritative information, and of the dissemination of risk information, can also be addressed through Habermas' concerns with rationality and communication which underpin the notion of the (normative) public sphere.

Along with these different academic perspectives, this study also employs different methodological tools in investigating the case studies and gathering primary data; the most fundamental division being the split between quantitative and qualitative methods. Each type of analysis was used according to its suitability for the particular task involved; thus a quantitative content analysis approach was used in order to assess the broad structure of the news texts which represented the coverage of the food scares, while a more qualitative approach prevailed during analysis of interview material.

The various data gathering methods and analytical approaches described here were focused on the two main case studies, and it is therefore necessary to set out, in very broad terms, the background to each of the food scares in order to provide some brief descriptive context prior to the more detailed analyses which follow.

In late 1988, the infection of eggs with the salmonella bacterium became a major news story in Britain when a junior minister in the Department of Health, Edwina Currie, made what was seen as a highly newsworthy comment concerning the extent of the poisoning. A particular strain of the bacteria - *Salmonella enteritidis*, phage type 4 - was blamed as the main culprit in eggs, although other strains were also identified which were more common in other foods. As we shall see, the salmonella scare should be seen in the context of earlier news reports concerning salmonella in eggs, official concern over rising food poisoning statistics, and wider news interest in food adulteration and poisoning and the health risks which this might represent (Fowler 1991: 154). The salmonella scare generated much news coverage and led to the resignation of Edwina Currie, new codes of practice for the egg industry, a government sponsored 'culling scheme' (British Egg Information Service 1990: 4) and also prompted a parliamentary inquiry into the issue. Egg industry representatives also noted a fall in sales as the public apparently avoided the possible risks involved in eating eggs (British Egg Information Service: 1990: 3; North and Gorman 1990: 1). While salmonella poisoning is generally unlikely to provoke serious illness in healthy adults, the young, elderly and ill were all warned by the Department of Health (DoH Press Release 26.8.88) not to eat raw or lightly cooked eggs (Currie 1989: 257), advice which is still in effect. A number of deaths were also attributed to salmonella poisoning during the period studied.

BSE is a degenerative brain disease in cattle which was first identified in November 1986 (MAFF, 1994: 1), although a similar disease in sheep known as scrapie has been recognised for approximately two hundred and fifty years (Anand 1998: 54). For some time there was no official recognition that the disease posed any threat whatsoever to human health, even though its composition, and its method of transmission, were and still are unknown; official recognition of the possibility of a risk to humans came in March 1996 in the form of a government statement, leading to intense and sustained news attention. The continuing uncertainty surrounding the causes of BSE makes a clear and unambiguous description of the underlying 'facts' surrounding the issue particularly problematic; the orthodox explanation argues that cattle feed derived from other ruminants (i.e. cattle and sheep remains) had become infected with an agent which caused cattle to develop a fatal brain disease (MAFF undated). The infective agent itself is hypothesised to be a particular type of protein molecule known as a 'prion' which attacks the nervous system in general and the brain in particular, is "highly resistant" to attack (Dealler 1998: 35), and is the cause of similar spongiform diseases in other species. This hypothesis is considered controversial by some scientists, not least because 'prion theory' seems to argue that this agent is unique in

that it is a protein which, contrary to the 'laws' of traditional biological science, carries no genetic material (nucleic acids) of its own (Green 1997; Lacey 1994: 158). Alternative explanations discussed in the media include an "allergic autoimmune process" triggered by a bacterium (Tucker 1998), a particular kind of virus known as a 'nemavirus' (Martin 1994) and cattle poisoning due to the over-use of organophosphate based pesticides (Woffinden 1994). The official response to BSE in cattle included various regulatory changes such as a ban on feeding ruminant remains to cattle (July 1988); compensation for farmers with BSE infected cattle - firstly of 50% of the market value (August 1988) and later 100% (February 1990); and a ban on the use of certain "specified offals" in human foods (November 1989), later extended to their use in any animal feed (September 1990) (Demko 1998: 209-11). Alongside such changes, a number of bans by various countries were imposed on the importation of British beef (*ibid.*: 212). Meanwhile, similar diseases were reported in various species (Lacey 1994: 147), and news reports were also speculating on the links between BSE in cattle and apparently similar illnesses in humans (*ibid.*: 163). The official announcement of a presumed link in March 1996 led, as we shall see, to massive media coverage, and arguably played a small part in the loss of public confidence in the government which ultimately led to its removal from office the following year. Indeed, one political commentator attempted to encapsulate the different aspects of the BSE 'crisis' by describing it as:

"A foreign policy debacle; a financial black hole; a public health disgrace. The BSE scandal is Suez, the poll tax and thalidomide rolled into one." (Rawnsley 1998)

Chapter summary

The first three chapters present reviews of literature concerning different aspects of the issues surrounding food scares, and represent an attempt to situate this study within the respective academic fields from which the literature is drawn. The first is focused on the literature concerned with the processes of news production and what has been called the 'sociology of journalism' (e.g. Schlesinger 1987: xxxiv; 1990), and highlights a number of the points which emerge from the literature and are relevant to food scares as a particular form or genre of news. In particular, the relationships between news sources and journalists are examined and discussed as a key nodal point in the news production process.

The second chapter focuses on the literature concerned with a particular aspect of media output which has specific relevance for food scares. Media coverage of science and scientific issues relates directly to the elements of science within most food scares, and certainly within the two main case studies presented here. Science plays a particularly important role in food scares as a supremely authoritative source of health and risk information, and its authority is therefore often enlisted, and sometimes contested, by news sources with different and opposing perspectives.

The third 'literature review' chapter surveys some of the research and theoretical arguments surrounding the field of risk analysis and communication. For media audiences and consumers, food scares can be an issue of risk assessment, and much of the controversy surrounding them derives from the different judgements made regarding the relative safety of the foods concerned. The ways in which public risks are measured, understood and presented in the media are therefore of direct relevance to the wider understanding of food scares as media phenomena.

These first three chapters are linked in that they are each relevant to the topic of food scares. However, they are also connected more explicitly in that the presentation of science in the media (chapter 2) can be seen as a specific sub-section of the wider question of the influences and pressures involved in the production of news, and therefore follows on from chapter 1. Likewise, chapter 3 follows on from chapter 2 by focusing on 'risk' as a particular kind of scientific discourse; as we shall see, the news coverage of the food scares investigated here represents a particular form of the divisions and debates found in the literature on media science more generally.

Chapter 4 moves on to provide an initial analysis of the case studies by focusing on a number of the more structured models and theoretical approaches to news, in order to test the appropriateness of these to the specific news genre of the food scare while also illustrating some of the main features of the salmonella and BSE scares. The perspectives applied are Galtung and Ruge's model of news values (1973); Ericson et al's adaptation of Goffman's psychological 'regions and closures' model to news source activity (1989); Fishman's 'News Phase Structures' (1980); Molotch and Lester's 'purposive behaviour' schema (1973); and the Moral Panic thesis generated by Cohen (1972). This is followed in chapter 5 by a description of the methodological approaches employed in the collection and analysis of data from the food scares which are the subject of this thesis.

The following four chapters relate the various results and analyses of primary data. Chapter 6 presents the 'calendars of coverage', which amount to content analysis-style quantitative 'maps' of the food scares over their 'lives' as news phenomena. These are preceded by brief accounts of each of the scares in terms of its news coverage, in order to provide some explanatory context for the calendars. Following the approach of the Glasgow University Media Group in *Bad News* (1976), this chapter also includes comparisons between the news accounts of the scares and official statistical measures of the extent and duration of the respective food hazards.

Chapter 7 provides a more detailed and complex content analysis through the application of an analytical framework designed to clarify the structure of the news coverage in terms of the positions and arguments presented. In particular, the 'thematic grid' analysis presented here attempts to make explicit the interests and definitional perspectives of the main interest groups involved as they are found, in differing quantities, in the coverage itself. The chapter begins with descriptions of specific news reports which act as illustrative examples of the categories employed; the analyses of each of the main case studies, which are repeated over a number of time periods, are then presented.

The following chapter moves on from the preceding chapters' emphasis on quantitative analyses by presenting the results of interviews with journalists and news sources involved in the production of news concerning food scares. These data are treated as ethnographic evidence of the relationships between sources and journalists and the strategies and techniques which are employed in the negotiations from which news stories emerge. While some of this information is directly related to the salmonella and BSE food scares, much of it is of a rather more general nature. Chapter 9, by contrast, focuses on four particular examples of news coverage of food scares and provides data from interviews in a more specific analysis of the processes of news production.

Chapter 10 returns to the issue of risk with a discussion of Ulrich Beck's 'risk society' thesis and how it applies to the issue of food scares. This follows on from the discussion of the 'risk' literature in chapter 3 whilst also making use of the wider understandings of food scares derived from the primary data presented in chapters 6, 7, 8 and 9. In particular, the notions of scientific and social rationality are addressed as a potentially powerful explanatory framework deriving from Beck's thesis. Hansen has noted recent criticisms made of studies of news which have concentrated on the organisational structures and professional strategies of news makers and news sources (Hansen 1994: 111-2). The discussion and application of the 'risk society' thesis can

therefore be understood as an attempt to examine some of the "wider 'cultural givens'" (ibid.: 112) which such studies have been accused of ignoring, by linking the specifics of the news process with the social and cultural forces which are also an element within the wider phenomena of food scares. Similarly, in this respect the present study can be seen as a further challenge to those studies which have been accused of 'media-centrism' (Schlesinger 1990; see also Miller 1998: 66).

The concluding chapter includes an attempt to situate this study in relation to the work of Jurgen Habermas from two distinct but related perspectives. Firstly, the study of news production processes has often been justified as a way of testing the existing role of media organisations in democratic societies against Habermas' normative model of the public sphere (Boyd-Barrett 1995; Curran 1991; Stevenson 1995: 47-74). The study of source-journalist interaction can therefore be seen as an examination of some of the forces which work to restrict the possibility of the kind of open, rational and informed public debate which the notion of the public sphere promises. Secondly, the criticisms made by Beck with regard to the effects of 'scientific rationality' on modern industrial societies clearly derive from Habermas' concerns regarding 'purposive-rational action' in relation to communicative action (Habermas 1971). The theoretical background to Habermas' arguments is therefore discussed briefly in this concluding chapter in order to demonstrate the links between the various strands of the thesis as they are presented in the preceding chapters.

One food writer, in discussing the consequences of the BSE affair, noted the "symbolic importance" of beef as a national signifier which far exceeds its actual significance in nutritional terms:

"Beef is one of the great unifying symbols of our culture." (Fort 1996)

Fort notes how the cuts of beef - from the expensive rib cuts to the cheap 'left-overs' used to make pies and sausages - epitomises and reflects the British class structure. On a less elevated level, a similar case could perhaps be made for the role of the egg in the British breakfast in that, fried with bacon or boiled and eaten from the shell, eggs also occupy an important symbolic position in the eating habits of the nation; thus, food scares, among other things, represent an evident attack on foods *as signifiers*. It is not one of the aims of this study to investigate the semiotics of food; however, the meanings mentioned above do indicate the cultural importance of food and as such provide further evidence of its worthiness as a topic of empirical investigation.

Chapter 1

Literature Review: News Analysis and the Sociology of Journalism

Emerging from the inter-war consensus on media effects (Curran et al 1982:11), post-war studies of the news media have focused on the activities of journalists and the organisations within which they work, with the early emphasis of this sociology of journalism on the selection of news by journalists and the opportunities afforded them to control the news agenda. The 'gatekeeping' conception of news production gave way to a more complex understanding of news as an outcome of a process of social construction whereby journalists take the accounts of sources (which may already be regarded as constructions) and create news stories using the tools of journalistic practice. Marxist versions of this conception emphasise the power of official source organisations to control the boundaries of the news agenda, while a liberal/pluralistic understanding of (Western capitalist) society implies a more equal struggle between competing social groups for definitional dominance. A more recent development proposes a study of the influence of non-dominant sources "*from within a theory of dominance* [by official source organisations]" (Schlesinger 1990: 63), thus attempting to narrow the distinction between the two perspectives. It would be impractical to present here a review of the field of news research as a whole; instead, this chapter attempts to select and discuss a number of the main issues that have emerged concerning the processes of news production, and which are relevant to the study of food scares.

Professionalism and Objectivity

The notion of objectivity in journalism is considered by Schudson to be a key issue in any attempt to understand modern news media. He argues that it was not until after World War I that the ideal of objectivity gained a foothold within (American) journalism, when wartime propaganda and post-war public relations techniques began to wear down what he describes as a "naive empiricism" in which 'facts' were considered to be a part of the world itself, rather than human constructions *about* the world (Schudson 1978: 6). Journalists could no longer rely on simply setting out the facts of a situation when such facts were themselves contestable, and thus began to develop an understanding of objectivity in which assertions about reality are considered valid providing they conform to the rules laid down by a "professional community":

" Facts here are not aspects of the world, but consensually validated statements about it" (Schudson 1978: 7)

In this way journalists could fall back on their own professional practices as a guarantor of objectivity; news reporting came to rely on a kind of "no-nonsense fact-telling" (Willis 1991: 56). However, Schudson notes the anomalousness of this position in that, unlike other professional groups such as lawyers or doctors, nothing in the training or practice of journalists provides any framework of self-regulated authority under which objectivity might be guaranteed (ibid: 7). While Schudson's account of journalistic objectivity falls well short of that traditionally asserted in the sciences (see Scheffler 1981), it is nevertheless clear (in the literature as well as in the research data which follows) that the notion of professionalism is seen by journalists as a bulwark against the incursion of 'values' and biases into the news. The "institutional lie" (Weaver 1994: 23) of journalistic objectivity can therefore be seen as both an assertion of, and guaranteed by, the professionalism of journalistic practice.

Generalists Specialists and 'the Beat'

The type of work done by journalists is often divided into two main sub-sections: general reporting and specialist reporting (e.g. Gans 1980: 143; Negrine 1993). Generalists are those who are assigned to work on stories on the basis of their own availability and are expected to adapt their methods to the needs of each story whatever its origin or subject matter; specialists are those reporters dedicated to certain subject areas which can be defined by the organisational layout of the newspaper (into particular subject-specific columns, pages or sections), which follows from editorial decisions concerning the taxonomy of news. Alternatively, the boundaries of the specialism might be defined by the divisions in the source groups and organisations which predominate as the subject of news stories. Fishman suggests specialist reporting can be understood either

"...as places to go and people to see or as a series of topics one is responsible for covering." (1980: 29)

'Beat' reporting (in Fishman's definition) is therefore conceived of as either *territorial*, or *topical*, and the beat consists of a series of events structured into a chronology or "career path", with each point or "phase" a possible news event (1980: 54). For instance, the "phase structure" of a crime story might begin with the crime itself, followed by an appeal by police for information, arrest, committal for trial, the trial itself (which could also be broken down into separate sections), sentencing, and

perhaps eventual release¹. This approach to news implies a journalistic imperative to find news 'events' which fit into the 24 hour news cycle: Galtung and Ruge's 'frequency' news value. It could also be suggested that Fishman's phase structures are an attempt to ease the burden of the journalist by providing a predictive schema against which the news events at each phase could be interpreted. This in turn implies Galtung and Ruge's 'consonance' news factor; in order to qualify as news, the event must fit, or be made to fit, into the phase structure as it has previously been understood (Galtung and Ruge 1973: 52; see also a further discussion of news values in chapter 4, 'News: Models and Approaches'). In the same way that the division of news specialisms reflect the structure of those organisations on which they report, the journalists understanding of the 'script' - the "news phase structure" - is likely to derive primarily from the "bureaucratic phase structures" of the source organisation, which comprises their view of how the world is or should be organised (Fishman 1980: 58).

Gans suggests that general reporters tend to be "audience-related" while specialists are more likely to be "source-related" (1980: 143). This seems best understood as a process of positioning: generalists will tend to identify with the news audience, taking a position as an interested outsider; specialists are more likely to see themselves as equal partners with their sources, charged with helping their sources to provide a clear account for the lay person. Tunstall's distinction between journalists who are "news processors", oriented towards the audience, and "news gatherers", those who are oriented towards news "performers" (1971: 34), offers a slightly different perspective². The difference between processors and gatherers is less about any official designation of role and more about self conception, but the groups might well overlap with those noted by Gans. General reporters, working mainly from the news office, dealing with different kinds of sources to which they may not need to return on any regular basis, are perhaps more likely to identify with the corporate need to produce news which appeals to the audience (see 'Attitudes to Audiences' section below). Specialists however are continually dealing with sources in the same subject area, often in the sources' own physical environment; leading some analysts to suggest

¹Fishman's schema has been compared with the notion of 'narrativity' (Jacobs 1996). The phase structure understanding similarly bears comparison with the attempts of Artificial Intelligence researchers to devise computerised 'scripts' of everyday tasks and processes which would aid the 'understanding' of human cognition (Schank and Abelson 1977). These scripts were essentially chronological maps of such processes as ordering food in a restaurant; the details were variable, and could change at each point on the chain, but the generalised script itself represented an ideal-typical restaurant visit and worked to narrow down the possible variables to a number acceptable to the program as designed.

²Tunstall also notes that specialists' attitudes to a third kind of reporter - feature writers - are often dismissive; they are seen as "...piratical and often ignorant intruders..." (1971: 34).

that this produces a form of socialisation whereby the journalist develops a more sympathetic attitude to the needs and objectives of the source organisations (e.g. Sigal 1973: 46; Negrine 1993: 15). The division between specialist-gatherer and processor is illustrated in the formers' belief that the latter are ignorant of the world outside the newsroom;

"Sub-editors [as 'processors'], of course, insist that gatherers become spokesmen for a particular sport, team or country and forget the interests of the ordinary reader." (Tunstall 1971:41)

A specialist reporter might be "source oriented" in the sense that what she writes will produce direct feedback from her sources, while audience feedback is much less likely: the reporter might therefore tend to err on the side of the source in order to avoid negative feedback, or be less insistent that the source takes responsibility for what is said (Sigal 1973: 46-7, 54).

In discussing the 'Standard Operating Procedures' of news organisations, Goldenberg differentiates between the specialist system, (in which journalists range over a number of different source organisations often of varying size and importance to their general subject area) and the beat system in which the reporter is almost exclusively dedicated to one particularly newsworthy source organisation (1975: 78). The most obvious examples of this occur in the coverage of government activity, where for instance Westminster reporters deal only with MPs and parliamentary officials within a small geographical area (as detailed in Cockerell et. al., 1984). American equivalents include the White House and State Department beats (Sigal 1973: 38), while away from politics in its narrow sense, the crime beat often produces a reliance on one main source and could, as Chibnall notes, perhaps be considered the 'police' beat (Chibnall 1973: 77; also Fishman 1980: 44-5). (In practice the difference between the 'specialist' and 'beat' systems is largely a matter of degree - to what extent the journalist relies on a small number of sources - and I will therefore use the terms more or less interchangeably, with 'beat' often being the preferred term in the American literature.) The practice of assigning reporters to particularly prolific news sources conforms, as Tunstall notes, to Walter Lippmann's suggestion that one way of ensuring a constant supply of news was to "...post journalists at fountains of interesting 'facts'" (1971: 17-18).

While the White House, Westminster, and police/crime beats are well delineated, Ericson suggests that the journalistic policing of private organisations is much more difficult: the procedures to enforce compliance are less clear, and enforcement is less

visible (certainly compared with the criminal law); prosecutions are rare and such enforcement as occurs is often part of a drawn out, lengthy process with neither a clear framework of reference (in Fishman's terms, a phase structure) for journalists to follow in order to "produce news stories routinely", or any final and dramatic outcome (1989: 284).

Although dedicated to specific substantive areas, specialist reporters should not be regarded as experts, at least not in the sense of having any pre-existing qualifications in their subjects:

"...a specialist is a particular category of journalist who 'has developed an expertise interest' rather than one who comes to his/her (original) specialism with that expertise or interest already developed." (Negrine 1993: 11).

Tunstall found that most specialists were previously general reporters (1971: 102); what matters most is their journalistic skill, not their in depth knowledge of the subject. Specialists are therefore not confined throughout their careers to one particular subject, and often move between related areas; Negrine notes journalist Clare Dover's transition from her position as Science Correspondent for the *Daily Telegraph*, to reporting on social and welfare issues, and then as a medical correspondent, for the *Daily Express* (Negrine 1993: 12). She was interviewed for the present study due to her work in the latter capacity on the issue of Salmonella in eggs, although at the time she was working as a freelance, which presumably allowed her the opportunity to work across the range of her specialisms.

Moving between specialisms can also be important for journalists in maintaining a career, not least because particular areas of news interest shift over time, and certain designations (such as the 'Labour correspondent') can disappear. This can be due to the restructuring of the boundaries of the specialisms within each individual news organisation, but also reflects changing emphases in the wider definition of news and news worthiness (Negrine 1993: 8-9).

The flexibility of specialist journalists to 'cover' for each other and to move between specialisms is in one sense a consequence of the indeterminacy of the boundaries which delineate them. Clearly, 'medical' stories are often also 'science' stories, and will often have consequences in areas of social policy; likewise economics, welfare, business and consumer stories might well overlap. In all areas however, there is at least the *potential* for overlap into the arena of formal politics; Negrine notes that when a

political angle does emerge, it is that perspective which tends to "gain precedence" (1993:17). Hansen found that political discourse was the primary perspective which inflected the science agenda during coverage of the BSE issue (1992: 7), and as we shall see, this was also apparent during news coverage of the salmonella in eggs scare.

Attitudes to Audiences

Journalists work in a highly competitive industry and while news organisations constantly try to increase their audience share through restructuring and repackaging their output, studies have found that journalists themselves often pay little attention to the perceived demands of the audience (Bell 1991: 88). Gans suggests that as part of a journalistic 'paraideology' reporters produce news not with the audience in mind, but primarily for themselves and their superiors (Gans 1980: 230). Another study extends this:

"...journalists write for other journalists, their bosses, their sources, or highly interested audiences." (Schlesinger 1987: 107)

A specialist audience - perhaps of policy-makers or others within a particular elite - might be considered when stories are being written, not least because, as previously discussed, journalists working in a particular 'beat' or specialism can come to identify and sympathise with such a group whether or not it also represents a source group. Otherwise, reporters write for an audience consisting of the peers and superiors whom they consider to be the best qualified critics of their profession; indeed, it is the ideology of professionalism which provides the justification for such an attitude and its corollary, in which those members of the general audience are routinely dismissed as unrepresentative 'cranks' whose opinions should not and need not be entertained (Schlesinger 1987: 107)³.

Source Selection, Source Authority

The relationship between sources and journalists is clearly of prime importance to any understanding of the process of news production (Sigal 1973: 5; 1987: 15). The ways in which that relationship is structured has been the subject of a good deal of analysis:

³Growing competition in the news industry might suggest that such attitudes are now less sustainable; however, a more recent study confirms the continued existence of this journalistic outlook (Jacobs 1996: 386).

"Typically, the journalist seeks a source in the know to say it is so, and has a routine, predictable supply of such sources in established organisations." (Ericson et al. 1989:1)

Journalists need to ensure that the sources they rely on will provide the right kind of information for inclusion in their news stories. Gans notes the "prime significance" of the considerations made in selecting sources (1980: 281), and suggests a number of criteria which sources need to satisfy in order to be perceived by journalists as a routine 'source in the know' (129-31) :

i) Previous suitability - has the source been used before? In the same way that events previously defined as news stories are (*ceteris paribus*) likely to continue to be so defined (Galtung and Ruge 1973:55), news sources are also subject to this kind of conservative assumption.

ii) Productivity - journalists favour sources who can provide large amounts of information quickly and cheaply. Fishman describes the way a journalist following up the consequences of a forest fire began telephoning individual insurance offices. This however was time consuming and produced some duplication of information; eventually he discovered a 'clearing house' which collated all claims (Fishman 1980: 46). This single official, institutional source provided the same information more conveniently and is therefore privileged above other sources:

"As a practical matter, reporters rely on bureaucrats to do much of their account-producing work for them" (Fishman 1980: 143).

Fishman suggests that the principal of "bureaucratic affinity", whereby only large official source organisations are capable of providing the regular supply of raw materials necessary for the news bureaucracy, is another reason for journalists to rely on them (*ibid.*: 143)⁴. The relationship between news organisation and regular, official source organisation therefore needs to be actively maintained; by contrast, relationships with smaller non-official sources may be neglected; indeed, they may be actively diminished in order to gain favour with officials (Ericson et al 1989: 296).

iii) Reliability - information which requires little or no checking is clearly of more value to the hard-pressed journalist than that which has to be confirmed by others. However, there is ultimately no way for a journalist to measure the truth-value of any information received, and therefore this criterion depends in turn on other judgements on the source concerned; the test is for a "*socially acceptable* standard of factual

⁴'Productivity' in this sense is similar to Gandy's (1982) notion of 'information subsidies', which is examined more fully on p17.

accuracy" (Murphy 1991: 38-9, emphasis added). The social sanctioning of official sources means that journalists can shift the responsibility for accuracy onto the source. Fishman calls this the "normative logic of news reporting" (Fishman: 144), while Willis argues that 'traditional objective journalism' of this kind may sacrifice the 'truth' for a spurious kind of accuracy (1991: 64).

iv) Trustworthiness - the honesty of sources is again a judgement made on other criteria such as previous good character, although reporters might well invoke journalistic 'nous' or intuition as one element in their deliberations.

v) Authoritativeness - sources who can lay claim to a position of authority in society will be preferred to those who are considered not to be socially sanctioned. In practice, this also can be argued to lead to a reliance on those sources which already hold powerful societal positions (Schlesinger and Tumber 1994: 25; see 'Primary Definition' section); it is certainly considered safer to do so⁵. Stories (or at least potential stories) from non-authoritative (i.e. non-official) sources, especially those without a 'balancing view' are likely to be treated as advocacy rather than objective news (Goldenberg 1975: 100). Murphy notes that when an official source speaks "within the competence of his institutionally determined role" (1991: 12) his version is effectively accepted without demur.

vi) Articulativeness - this is not merely concerned with the ability of sources to be clear and eloquent, but also tests their knowledge of the particular practices of language in the news, such as the ability to provide concise and relevant quotations in a style suitable for the medium concerned. MacShane's handbook for pressure groups and activist organisations dealing with the news media recommends adopting the "terse, economical style" of the (1978) *Daily Mirror* in their press releases (1979: 73) (This could perhaps be characterised as a further kind of subsidy in which the journalistic work of interpretation/translation is pre-rendered by sources.).

The overlaps between these six criteria present some analytical problems in that classifying news items (and their sources) according to such a schema might easily falter on, for instance, the practical distinctions between trustworthiness and authoritativeness, or indeed the way in which 'previousness' is always likely to be intertwined with the other criteria. Nevertheless, Gans' criteria do help to illustrate the importance of source selection, not least by highlighting the role of official institutional news sources. The criteria tend to favour such sources, as it is these who can provide cheap, pre-verified information on the institutions "which define society and polity"

⁵This attitude is illustrated by one interviewee for the present study who noted that "Nobody ever got sued for libel for quoting a Ministry source" (Richard North, interview 1994).

(Murphy 1991: 16) - i.e. themselves. Journalists therefore rely on those 'newsmakers' who can provide information pre-rendered into a journalistic style:

"Generally, this means government ministers rather than their political opponents, government departments rather than individuals or pressure groups, and large businesses rather than consumer or citizens' groups"
(Bell 1991: 59)

Official source organisations are perhaps likely both to have access to large amounts of information and to be seen by the public as authoritative; however the *assumption* of authoritative competence by journalists helps to produce the social endorsement that they rely on:

"In short, news workers are predisposed to treat bureaucratic accounts as factual because journalists participate in upholding a normative order of authorized knowers in society." (Fishman 1980: 95-6).

The suggestion of a general reliance on official sources is clearly relevant to those specialisms which are predicated on an official bureaucracy (such as the Westminster lobby or the US State Department); Ericson et al suggest it also applies to those specialist reporters who focus on "private sphere" arenas such as business. Reporters in these areas often see their news beats as being grounded in the relevant Government department, and therefore treat this source as the "ultimate hub and repository of the story" (Ericson et al 1989: 269).

Primary Definition

Echoing Tunstall's distinction between gatherers and processors, Gans notes that different kinds of journalists have different priorities. While acting as arbiters between the interests of sources and the interests of audiences, 'beat' reporters will tend to favour the former while editors and other 'processors' favour the latter. Nevertheless, there is a constant struggle between sources and journalists:

"...although it takes two to tango, either sources or journalists can lead, but more often than not sources do the leading." (Gans 1980: 116)

Elsewhere Gans has insisted that an emphasis on the role of sources is the most useful way of linking the analysis of news to the wider structures of society (as quoted in Schlesinger and Tumber 1994: 16), an objective which derives from his assertion that the structures which produce news reflect the wider social structure (Gans 1980: 81).

The production of news depends on the supply of information from source organisations as its raw material; however, this raw material is in fact prepared and organised in the "manufacturing process" (Ericson et al 1987: 20) of the source organisation before it is received by newsmakers.

While an assertion of the importance of the role of sources in the construction of news has, as above, been made from an essentially pluralist perspective, stronger descriptions of the power of elite or authorised sources derive from a Marxist approach. Gandy's thesis that dominant source groups assert their power through economic means via information subsidies (see also chapter 8) tends to portray journalists as the dupes, unwilling or otherwise, of source groups who enlist the credibility of the journalist to carry their message:

"Journalists, garbed in the cloak of objectivity, are valued as channels through which to deliver an information subsidy without having to pay a credibility tax." (Gandy 1982: 198)

In this scenario, the journalist is marginalised; the power lies overwhelmingly with the source. The information passed to the audience is not only subsidised (and therefore potentially inflected to favour the source), but that subsidy is hidden by the supposed impartiality of the journalist.

Propaganda models of the mass media perhaps offer the strongest assertion of the power of authorised sources. Such accounts tend to imply, if not assert, an elite conspiracy in which "dissident themes" appear only rarely, in circumstances designed to bolster the 'impartiality' of the system within which they are produced (Herman 1995: 89). By contrast, Hall et al's primary definition thesis rests not on the existence of an elite conspiracy as such; instead they argue that the structural position of those who comprise the main sources of news - that is, the official authorities who wield social and political power - provides them with the opportunity to promote understandings of news which favour their interests and preserve the status quo (Hall et al 1978). The demands of 'objectivity' and the pressures of constant deadlines within news organisations mean that they become 'secondary definers' who can explain and inflect news stories only *within* the pre-established primary definition set out by the source organisation, which effectively

"...sets the limit for all subsequent discussion by *framing what the problem is.*" (Hall et. al. 1978: 342)

The primary definition thesis avoids arguing the existence of an organised conspiracy of the elites in the transmission of ruling class ideology by proposing an essentially structural explanation of the relationship between news sources and news producers, while nevertheless asserting the subordinate position of the latter. Recent critics of the thesis such as Schlesinger and Tumber suggest that it does not adequately explain the journalist-source relationship in a number of respects (1994: 17-21):

- i) It assumes that the elite or dominant group which forms the core of official source groups (and which inscribes within the news its own ideological perspective) is a unified, undifferentiated whole; critics have suggested that interests within this group vary widely, and that such a collection of interests is always (at least potentially) unstable and prone to division and realignment.
- ii) Within the elite of attributed sources there is a clear hierarchy of access to the media, with inequalities between senior and junior members, an aspect of the elite group not dealt with by the proponents of the primary definition thesis.
- iii) Shifts over time mean that organisations which were previously considered part of the elite, such as the TUC and even the CBI are no longer recognised as being accredited in the sense that they were. Primary definition fails to explain how such changes could occur; that is how organisations lose or gain elite status.
- iv) In such a model, the media are portrayed as essentially passive, reacting only to pre-processed information; this denies the possibility of investigative journalism and the uncovering of scandals which is often seen as the pinnacle of journalistic activity.
- v) Non-official sources can provide a 'counter definition' prior to dominant primary definition taking place, perhaps by negotiation with officials, or simply by taking pre-emptive action with regard to a particular news event.

Furthermore, as Negrine notes, none of this completely discounts the possibility that media representations may still to some extent reflect an unacknowledged public concern which may have 'non-media origins' rather than simply reflecting the interests of the elite news sources (Negrine 1994: 128).

Ericson's study of the source-journalist relationships (focusing mainly on Canada's criminal justice system, but also on the public relations of large businesses) suggests that, from a source perspective, they do not routinely have the 'upper hand', and that a more complex, contested situation is apparent (1989: 24). He suggests that when media attention is directed at the activities of private corporations (for instance), practices previously considered to be acceptable by both the corporation and the appropriate Government regulatory agency can be re-assessed, leading to substantive change (*ibid.*: 286).

Murphy's analysis of the news coverage surrounding what became known as the Stalker affair provides a clear illustration of how the critique of primary definition has developed (1991). In 1986 John Stalker was suspended from duty as the Deputy Chief Constable of Manchester ; he was to be questioned about unspecified 'serious disciplinary offences'. Following the initial announcement, there was what amounted to an official news blackout; however, it was known that Stalker had been investigating allegations of a shoot-to-kill policy in the Royal Ulster Constabulary. The two most important questions (as far as the journalists involved were concerned) - why had he been suspended, and who was responsible for the decision? - were left unanswered by official sources, and set the agenda for subsequent journalistic investigation (ibid.: 43). The routine, competitive aspects of news prompted journalists to find alternative sources, and these were available to provide explanations which ran counter to the requirements of the Government and British security forces in Northern Ireland. These accounts suggested that Stalker had been removed due to his success in uncovering the truth of an RUC 'shoot-to-kill' policy, and that allegations of misconduct represented an attempt to smear him and mount a 'cover-up'. The spread of this version of events, which was entertained in traditionally conservative newspapers such as the *Daily Telegraph* and the *Daily Express* (ibid.: 260), is presented by Murphy as evidence that in this particular case alternative, non-official versions of news events can become predominant in the mass media; the dominant ideology which should have ensured a positive response to Government and police actions failed to suppress an alternative version of events.

A similar conclusion was reached in Curran's study of the news coverage of the Greater London Council (GLC) leading up to its abolition by the Government in the mid 1980's (Curran 1987). He suggests that at the time the intended abolition was announced, the GLC was not well liked by the London public and the decision was not particularly controversial. The Council's leader, Ken Livingstone was the subject of a "sustained press attack" as part of the so-called 'loony left', and the GLC was criticised as deviant and unrepresentative (ibid.: 116). However, a survey suggested that latent public support for the GLC could potentially be tapped; and while Livingstone promoted the issues on which the GLC was supported, such as transport and services, the Government failed to put their case. The impression grew that the abolition was a result of political prejudice rather than practical reasons (ibid.: 126) and Government plans to cancel GLC elections in 1985 were characterised as being undemocratic. Curran suggests that differences within the Conservative Party led to a lack of organised campaigning, while the GLC's campaign combined advertisements,

'grassroots' agitation, and policies (such as the 'Fares Fair' subsidising of public transport) popular with London residents. The attacks in sections of the press (notably the tabloids) on the GLC rebounded by reinforcing the impression that the abolition was politically driven (ibid.: 129).

It is important to emphasise that the case studies made by both Murphy and Curran look at relatively established sources. Stalker's assertions that he had been harshly and suspiciously treated relied for their effect on his previous position as a highly authoritative official source⁶, and his personal authority and credibility was presumably a factor in the subsequent coverage. Another important source who questioned the official version was Social and Democratic Labour Party MP Seamus Mallon, who spoke of "sinister forces" (Murphy 1991: 131), and again represented a well established authorised source. The GLC may have been unloved, but it was nevertheless a powerful organisation both economically and socially, and within London had the resources to challenge the tabloid-led attack. Nevertheless, such examples as these can be employed to challenge at least the 'strong' versions of the primary definition thesis; in both cases a failure to provide a coherent response to events led to alternative definitions, incompatible with official versions, becoming common currency in media accounts.

A further study selected media coverage of Northern Ireland as a topic precisely because for decades any dissenting views have been subjected to close policing, and it has become a focus of conflict between the media and the state (Miller 1993: 386). Miller found that divisions within organisations such as the Northern Ireland Office (between different sections such the Prison Department and the Information service) and between official organisations such as the Royal Ulster Constabulary and the British Army have contributed to non-official perspectives gaining news coverage, while the effects of news values do not always and unproblematically operate to the advantage of official sources (ibid.: 387-397). During the Ulster Workers Council strike of 1974, the lack of official information forced journalists to turn to other sources, notably the strike leaders, allowing them to define the news agenda (ibid.: 399). Similarly, Miller and Williams' study of media coverage of the AIDS issue found

⁶ Murphy in fact notes how a different analysis of the situation, which included a critique of Stalker's hypocrisy in complaining about the police disciplinary system which he had previously used against junior officers, was not taken up by the media; the story of a man "brought down by an establishment plot" became the prevailing line in media narratives (1991: 112). While this could perhaps be explained by the 'primary definition' of the story, it might also be due in part to the need to avoid ambiguity in news, in that Stalker was required to be the 'good guy' rather than a more complex and ambivalent figure.

that non-official source organisations such as the Terrence Higgins Trust employed a strategy which allowed them to emerge as a credible information source for journalists (Miller and Williams 1993: 132-3). Miller does not suggest that such strategies are routinely successful;

"When the state is relatively united and actively pursuing a media strategy, then it is rare indeed to find a strong media opposition."
(Miller 1993: 402)

Schlesinger for instance notes how the BBC has generally followed a Government and British Army line, asserting independence only when poor official handling of an issue has in sense forced the Corporation to offer an alternative perspective in an effort to avoid being seen to bow to overt pressure (1987: 242). Nevertheless, there can be opportunities for oppositional definitions to gain ascendancy in the struggle for the news agenda. Sigal stresses the "bargaining interplay" between sources and their journalist counterparts (1973: 5); elsewhere, he suggests that while the reliance upon official sources might guarantee these organisations a hearing,

"...it is no guarantee of a "good press" so long as other sources are willing and able to talk to reporters." (Sigal 1987: 22)

Fishman also asserts that journalists might begin to question 'bureaucratic accounts' of news events if alternative official accounts emerge (1980: 100). This carries the assumption that, as Schlesinger and Tumber insist, the elite sources are subject to internal conflicts of interest, and are not a unified whole.

One of the most important questions to be generated by the primary definition thesis is whether the above examples (or indeed any others) can be considered to have generated genuine *counter-definitions* from truly alternative, non-authorised perspectives, or whether such illustrations produce versions of events *within* the larger framework of dominance. In their insistence on the Gramscian notion of negotiation in the winning of consent, and their arguments concerning the 'exhaustion of consent', Hall et al allow the possibility of escaping the dominant frameworks (1978: 219); nevertheless, this may not necessarily provide an explanation for the specific instances mentioned. Each of these examples is more or less susceptible to the charge that the 'alternative perspectives' presented are in fact well within the parameters of the initial primary definition of the story, or at least that they fail to make any real challenge to a wider pre-established definitional framework. Any empirical analysis from such a perspective therefore demands that any particular primary definition is clearly explained and delineated in order that potential transgressions can be measured.

News as Routine

Almost all large organisations attempt to promote efficiency through routinising their procedures and activities; the working day, week and year follow predictable, organised patterns, and the workers in such organisations know, with varying degrees of accuracy, the pattern of their individual work within particular timeframes⁷. Tunstall suggests that while such a model generally applies to the wider activities of news producers, journalism itself is an activity which is not based on clear guidelines or patterns, because it

"...emphasises personal qualities and interpersonal skills - rather than being capable of systemization." (Tunstall 1971: 7)

Schlesinger insists that the impression of chaos in the newsroom is largely superficial. The news process is geared to last minute changes as part of the imperative of immediacy, and that the newsroom disorder is in fact structured⁸ (1987: 87). Much of the analysis of news since Tunstall's study has emphasised the way in which routine newswork is in fact the norm. Schudson for instance discusses the pressure to be first on a story, but notes that the myth of the scoop is a way of denying the reality of everyday journalism:

"...news gathering is normally a matter of the representatives of one bureaucracy picking up prefabricated news items from representatives of another bureaucracy..." (Schudson 1987; 81)

Sigal's study of the news production process within the *New York Times* and the *Washington Post* focused on the essentially routine nature of the "organizational processes and bureaucratic politics" which, he suggests, account for the content of news output (1973: 5). The routine of the daily news cycle means for instance that following the quiet news day of Sunday, stories appearing on a Monday are likely to gain more comprehensive coverage than on other more 'news-intensive' days; the regular use of particular news channels (such as handouts and press conferences) also serves to routinise the processes of news gathering (ibid: 104-15)

⁷Indeed, the notion of routinisation can be seen to underwrite a number of the issues already discussed, not least the reliance on authorised sources in official positions.

⁸While Schlesinger's analysis (1987) is focused on TV news, there is no reason to deny its applicability to the press. His emphasis on the pressure to meet the broadcast deadline, which may occur regularly throughout the day, is analogous to the newspaper deadline which arrives (at least) once each day.

One of the tools with which news organisations structure the news production process is by means of a 'news diary' or 'daybook', a list of forthcoming events and potential stories for the following days and weeks such as press conferences, demonstrations and marches, Parliamentary activities, visits by royalty, and sports events (Schlesinger 1987: 67; Sigal 1973: 103). This of course conflicts with common sense definitions of news as unpredictable; but is essential in planning the news.

While much of the output of news organisations can be characterised as 'routine' in the sense that it is predictable and fits into a pre-established frame of reference, other news is clearly unforeseeable. 'Spot news' consists of events such as crashes, deaths, earthquakes and disasters of various kinds; while a third kind of news is the running story which transcends the daily cycle and is featured over days, weeks or longer (Schlesinger 1987: 101-2). Individual stories which can be linked to long-running issues gain their news value through a process of 'co-option' (Bell 1991: 159). Some types of news are perhaps more prone to routinisation than others; Fishman notes that crime news is almost always derived from official sources such as the police and law courts (1980: 8), while studies of news coverage of formal politics make a similar point (e.g. Sigal 1973)⁹.

Studies emphasising the routinisation of news are often informed by an explicit understanding of news as socially constructed. Molotch and Lester's definition of 'events' as those happenings which are reified by social beings in a social context into meaningful, *useful* occurrences emphasises the construction of a social world prior to any media involvement (1973: 119). The construction of news which then follows can be seen as a similar, additional process. Similarly, Fishman insists on a "reality construction perspective" in opposition to what could be considered as a naive 'gatekeeper' understanding which sees the news event as a pre-existing objective reality 'out there' in the world, and the news worker as simply selecting from those events to produce news (1980: 13).

News Values, News Selection

News values are the criteria by which journalists select and order news stories. They are therefore also important as the characteristics with which source groups can negotiate for access to the news media; nevertheless, as defined by journalists they

⁹Indeed, Tunstall implies some routinisation when he notes that one of the reasons for specialist journalism is the need for a constant and steady flow of news (Tunstall 1971: 17-18).

seem to consist of a mix of received 'common sense' and mystifying journalistic intuition (Hall 1973: 234). Journalists' insistence on an indefinable 'knack' or 'nous' is reflected in the lack of any clear professional structure:

"...not only examinations, but any other impersonal criteria are widely regarded as poor guides to ability in journalism." (Tunstall 1971: 60)

There is a belief that while general journalistic skills can be taught, there is something about the practice of journalism that cannot be written down. This assertion can also be employed to excuse the absence of the trappings of professional culture (specialised training, state licensing, specialised expert knowledge, formal peer review) which exist in other 'professions', whilst simultaneously allowing journalists the authority which comes from such an epithet (Weaver 1994: 125).

Nevertheless, a number of elements can be found in the literature which can be characterised as news values. One of the more 'common sense' understandings of news defines it as that which is out of the ordinary; studies of media constructions of deviance can therefore be understood as investigations into the application of this particular news value by journalists:

"...deviance is the defining characteristic of what journalists regard as newsworthy..." (Ericson 1987: 4)

Social deviance involves a violation of common sense knowledge; by defining deviance within news reports, journalists delineate the boundaries of acceptable social behaviour (ibid.: 4)¹⁰.

Goldenberg's list of standards for selecting news include the need for a story to be objective and balanced, to have authoritative sources, and to have a 'news peg' on which the details of the story can hang (1975: 85), while Ericson suggests that among criteria for newsworthiness are the involvement of an "authorized knower" (i.e. a socially sanctioned official source), elements of deviance, and efforts at control (1989: 283). Gans observation of a set of "enduring values" in the news is an elaboration of the underlying themes, such as "responsible capitalism", which are represented in the US news media (Gans 1980: 42). A more systematic breakdown of news values as criteria for the selection of news is Galtung and Ruge's twelve factor codification,

¹⁰ Journalistic notions of what constitutes deviance are nevertheless tightly constrained, including only those stories which can be understood and explained from within a particular worldview or perspective; thus, the journalist deals with the "standardized exceptional" (Sigal 1973: 66).

which includes 'culture-free' and 'culture-bound' elements (1973: 56), although they acknowledge this is a relative distinction and is perhaps more a matter of degree rather than a qualitative difference in the factors listed. Tunstall (1971: 21) notes the limitations of the study while acknowledging the applicability of their hypotheses to other news production situations; Galtung and Ruge's schema is discussed in more detail in chapter 4: 'News: Models and Approaches'.

The 'gatekeeping' understanding of news, typified by White's now classic case study (1950), is also criticised by Tunstall (1971: 24) for its emphasis on the processing of news, and its consequent denial of the importance of news *gathering*. This is effectively an attack on the media-centrism of such studies. Nevertheless, the processes which animate the selection of news stories according to news values is a continuing concern, and is an issue which is addressed in subsequent chapters of this study.

News Management, Source Strategies

The concentration on the practices of journalists and the organisation of the newsroom evident in much of the literature has been criticised as tending to neglect

"...the interrelations between media and the social institutions that they report." (Schlesinger and Tumber 1994: 2).

Schlesinger and Tumber suggest that Sigal's study of the relationships between Washington 'beat' journalists and their official sources (1973) was one of the first to take a "source-media analytic approach" (Schlesinger and Tumber 1994: 29-30); it emphasised the interplay between the two groups in the process of news production. Gandy's contention (see quotation in 'Primary Definition' section above) that sources enlist the supposed objectivity of journalists to avoid the "credibility tax" inherent in direct appeals to audiences (such as in the case of advertising) seems to accept as unproblematic the compliance of willing journalists. Reporters themselves may however impose a credibility tax on sources whom they feel are unreliable or otherwise undeserving of attention;

"While sources attempt to manage the news, journalists attempt to manage sources." (Gans 1980: 117)

Source organisations therefore need to overcome journalists' scepticism if they are to reach their target audiences; one way of achieving this is the 'leak'. Gans describes how the FBI leaked a story about a mafia boss in an attempt to enhance the Bureau's public

image, and notes how such stories invariably serve the organisation's self interest in one way or another (Gans 1980: 121). For journalists, the attraction of leaks from large organisations lies in the possibility that the information is an unauthorised disclosure illuminating some part of the 'true' picture hidden from public view behind the organisation's overtly promoted image. We can then distinguish, analytically at least, between those leaks which are at some level authorised and are intended to benefit the organisation concerned, and those which are not .

Ericson et al (1989) have taken Goffman's social psychological schema of self (1956) and adapted it on a sociological level to news source organisations. They suggest that organisations, like people, have certain parts of their identity that are routinely made public (their 'front regions'), and others that are kept private or 'secret' ('back regions'). While organisations will generally attempt to promote the former and protect the latter, information concerning the front regions may be held from the media, while information from the back regions may be released. Thus, both the public face and the private activities can be subject to either enclosure or disclosure:

Front Regions: Enclosure = Censorship
Disclosure = Publicity

Back Regions: Enclosure = Secrecy
Disclosure = Confidence

Front region disclosure consists of all the organisation's publicity, while enclosure in this region can be considered as censorship of that which is generally disclosed. Back region enclosure represents the (normatively legitimate) secrecy of the organisation, while disclosure here occurs when normally secret information is passed on as a display of confidence in those who receive it (Ericson et al. 1989: 8-9). These variations represent the intentional actions of the source as it attempts to manage its position as a public entity; journalists however attach more value to information which unintentionally escapes the enclosure of the organisation, whether by accident or through the actions of others hostile to the organisation. This can be exploited by the source, which can surreptitiously 'leak' information or otherwise engage in activities or make decisions which may seem initially to be damaging to its image or objectives, but is part of a strategy which it considers to be of long term benefit. Miller's study of the news coverage of Northern Ireland (1993) explains how a television documentary team was allowed to film within the H-blocks of Northern Ireland's Maze prison even though this seemed to be a guarantee of critical coverage. The unacknowledged

strategy of the Northern Ireland Office's prison department was however to 'defuse' the controversy surrounding the prison in order to allow for the later closure of the prison; an understanding of the interests served by this media coverage would not have been available from a reading of the texts themselves (Miller 1993: 389-90). A similar example concerns the Home Office's collusion with the National Association for the Care and Resettlement of Offenders (NACRO) in publicising a particular element of the 1988 Criminal Justice Bill. The criticism that followed from other pressure groups allowed the section to be dropped, which was the Government's intention, but in a way which suggested a willingness to listen to advice, rather than an admittance of its own mistakes (Schlesinger and Tumber 1994: 72).

Molotch and Lester discuss news production as a form of 'purposive behaviour'; their assertion of the constructed nature of news (see 'routine' section) leads on to the suggestion that this construction is made as part of a promotional source strategy (1973: 119). They go on to highlight the distinction between those who acted to produce the 'event' upon which news is based (the effector), and those who promoted it as a (potential) news item (the informer). In this schema routine news is that which concerns an event which is accomplished intentionally and promoted by the effector. The example of a presidential visit to the site of an oil spill which had been cleaned and restored (*ibid.*: 127) refers to sources ('promoters') who have 'habitual access' to the media, while those who need to generate shock or surprise rely on 'disruptive access'. Events which are promoted not by the effectors but by others with divergent, possibly hostile intentions, are defined as either 'scandals' or 'accidents' depending on whether or not the original event occurred through the intentions of the effector (*ibid.*: 133)¹¹. It is through this kind of news that the routine nature of other news can be most clearly contrasted, as it allows insight into those areas which are routinely policed and controlled (*ibid.*: 134; see also Tuchman 1977). Despite its rather rigid abstract formulation, Molotch and Lester's model helps to illuminate both the constructed nature of news and its reliance on events intended primarily, if not purely, to provide media coverage. Also (and notwithstanding the general news reliance on official accredited sources discussed above), this schema allows the possibility that unofficial, relatively non-credible sources may be employed under the rubric of 'scandal' reporting; thus, scandals can be seen to some extent as representing exceptions to the 'rule' of routine news which has often been the focus of academic discussion.

¹¹ See later discussion in 'Applications' section.

Sources can also 'stage' events, attempting to maximise the news value of the information they wish to promote; Boorstin calls these 'pseudo-events', arguing that more and more of the events presented as news have their origins in such staging (Boorstin 1961). Gans notes the choice that each journalist can exercise in such circumstances:

"If they [journalists] suspect an event is being staged for their benefit, they may refuse to cover it" (Gans 1980: 122)

This may well be true to some extent; however, their disinclination to report such events is tempered by competitive pressures, and the fear of missing a story attended by rivals may impel a sceptical journalist to attend despite his or her reservations.

Source groups of all kinds do not simply react to approaches from journalists, but actively pursue opportunities to gain access to the media. Schlesinger and Tumber's study (1994) examined the relationship between policy-makers, the media and various pressure groups attempting to influence the public debate around issues of law, criminal justice and penal reform. They identify six ideal-typical goals for (prospective) news sources:

- i) Ensure that you have a clear, newsworthy message;
- ii) Identify the most productive media outlet and target audience;
- iii) Satisfy the pre-conditions for success; for instance, by judicious timing of a 'leak' or the cultivation of a particularly useful contact;
- iv) Anticipate the strategies of other sources, whether sympathetic or opposed;
- v) Monitor results for future reference;
- vi) Aim, if possible, to have both public and private effects; that is, to have an effect on more than one level.

These aims are applicable to most source groups, but some need to work harder in order to achieve them than others. While official authorised sources are often taken seriously by journalists even when they are not believed, non-official sources, with fewer resources, need to be much sharper in their strategies to gain legitimacy and credibility. This is not, however, to suggest that such groups generally *are* more active in pursuing these objectives; Schlesinger and Tumber for instance note that their data on professional associations suggests that few of them actually monitor the effectiveness of their media strategies, although some did collect cuttings (1994: 66).

The processes through which such 'resource-poor' groups¹² attempt to gain access to the media is the focus of Goldenberg's research (1975), which she sees as a corrective to the emphasis in previous analyses on the relatively resource-rich, such as Sigal's focus on Government officials. Goldenberg identifies a number of resources which are important in attempting to gain access to the press (ibid.: 40-47):

- i) *Status/officiality*. This is the resource which is by definition not available to non-official pressure groups, at least not in the short- or medium-term; it applies only to those organisations granted a 'social sanction' via official state acknowledgement and/or support.
- ii) *Location*. Groups which are physically close to the media they are attempting to gain access to are likely to be more successful than those who are distant. While the continuing revolutions in electronic communications do limit the importance of this resource, it is nevertheless still the case that journalists seem to prefer 'face-to-face' contact with sources (see chapter 8, "News Production and News Management"). Also, a prestigious location close to centres of policy-making can provide connotations of credibility¹³.
- iii) *Information/knowledge*. While pressure groups are unlikely to be able to compete in terms of the amounts of regular, new information produced by larger official sources, some do either produce their own research and/or interpret and analyse information from other sources¹⁴.
- iv) *Money*. Clearly this is the most flexible resource: it can be used to provide the other resources which are necessary, such as a prestigious location or the skills of a PR professional.
- v) *Size/legitimacy/intensity*. These are connected in the sense that the bigger the group the more likely it can claim legitimacy, and the more intensive its campaign can become. However, the greater the gap between the size of the group and its claimed constituency (that is, on whose behalf the group claims to speak), the less legitimacy the group can reasonably claim. For instance, a group claiming to speak on behalf of all consumers would perhaps provoke more scepticism than one of a similar size which speaks on behalf of those in a particular location or of a particular age or occupation.
- vi) *Credibility*. This is a "higher order resource" in the sense that it relies on other resources for its generation. However, credibility as a resource does tend to reproduce

¹²In using this term, Goldenberg refers, in a U.S. context, to those organisations which have no direct access to government and no official state recognition. While this does not necessarily mean that the groups are small in numbers, it does imply a lack of status and financial strength (1975: 47)

¹³For example, the UK Agricultural Supplies Trade Association (UKASTA) maintains an office in Whitehall which helps to produce an impression of being a part of the policy community which may or may not be justified.

¹⁴For example, the Pesticides Trust undertakes research on behalf of other organisations, collates information and maintains a subject specific library.

itself, even after the resources which produced it have faded; indeed this point is the basis of much of the criticism of news' reliance on authorised or official sources. Goldenberg suggests that the latter two resources may be more abundant for resource-poor groups rather than the first four (ibid.: 47).

If one of the main aims of non-governmental source organisations is to influence government policy, then it is the resource-poor groups, Goldenberg suggests, that are more likely to need the media to provide access to Government; more powerful groups will tend to have direct links to Government which to some extent make the media channel unnecessary (ibid.: 1). Even so, access to policy-makers does not guarantee success; it is "necessary but insufficient" to generate a favourable response (ibid.: 11), and this point is also true with regard to source relationships with the media, where access to journalists is not a guarantee of sympathetic, or indeed any coverage. Ericson et al make a similar point with regard to the media audience by using the terms slightly differently: they suggest that *access* to the audience, via news-space within which the source organisation is free to pursue its own agenda without editorial interference, can be considered a successful outcome, while *coverage* of the source's viewpoint, with editorial control remaining with the news organisation, represents a less clear-cut victory (Ericson et al 1989: 5).

Goldenberg (1975) focuses on 'resource-poor' pressure groups, and discusses the need for these groups to identify targets by distinguishing between media targets and others. Non-media targets include officials, legislators and policy-makers, as well as members and potential members of the source group itself. This latter target group needs to be reached as a long term measure, in order to reinforce the morale of current supporters and help to enlist others; this is in a sense an act of maintenance of the group itself (ibid.: 38). Media targets can be further divided: the newspaper is the *organisational* target, and the source group needs to understand its audience, political stance and organisational structure. In attempting to gain access to the media however, the *practical* target is the individual reporter, and there is a need for source groups to avoid conflating the individual with the organisation; the characteristics of the newspaper may not be shared by the journalist (ibid.: 110). For resource poor groups, most advantage is to be gained by establishing a regularised relationship with a specialist journalist (ibid.: 135); that is by becoming part of his/her journalistic routine.

A different approach to the activities of source organisations relies on an economic model of the source-journalist relationship. Gandy's application of an economic metaphor (as opposed to the social metaphors used in other studies such as Gans

(1980)) characterises information as a commodity which has an exchange value, particularly for those who need information in order to make decisions (Gandy 1982: 31). Source groups who wish their information to be accepted by policy makers need to make sure it is available to them in the most convenient way possible; this leads to sources providing what Gandy calls an 'information subsidy':

"An information subsidy is an attempt to produce influence over the actions of others by controlling their access to and use of information relevant to those actions. The information is characterized as a subsidy because the source of that information causes it to be made available at something less than the cost a user would face in the absence of that subsidy." (Gandy 1982: 61)

Private companies who conduct research for Government departments provide an information subsidy direct to the decision-making elite (*ibid.*: 84-5); however, this process might well be conducted entirely in private, and for the purposes of the present discussion it is the involvement of the media in a "two-stage subsidy" which is most relevant. The first stage consists of the lowering of the news organisations' costs through the provision of information which would otherwise prove expensive to procure; the second stage occurs in the passing on of this information to decision-makers or policy actors at near zero cost in a useful form (such as a news report) via a credible intermediary (the journalist and news organisation) (*ibid.*: 198).

Gandy's 'information subsidy' approach to the relationship between sources and journalists is most useful in its emphasis on the inequality of access which is a recurrent issue in discussions concerning the ability of sources to define and limit the media agenda. Those organisations with substantial economic resources are able to provide the biggest subsidies, and are therefore more likely to see their versions of events reproduced in the media:

"It is through the provision of information subsidies to and through the mass media that those with economic power are able to maintain their control over a capitalist society." (Gandy 1982: 8).

Official source organisations provide subsidies by collating and arranging information in a way that is both easily assimilable to journalists and likely to cast the organisation in a favourable light. Fishman (1980) notes how the US Forestry Service provides information on "rocks trees and squirrels";

"It is no exaggeration to say that the world is bureaucratically organised for journalists" (Fishman 1980: 51)

Such bureaucratic structure is prior to any involvement by news organisations, and may well be undertaken for reasons other than 'news-friendliness'. Nevertheless, the costs of news production are effectively underwritten by all those organisations, agencies and corporations who provide this "invisible" subsidy (ibid.: 151); the earlier example of the reporter who discovered the clearing house for forest fire insurance claims (Fishman 1980: 46; see 'Source Selection, Source Authority' section above) was therefore, arguably in receipt of an information subsidy. Gandy's discussion emphasises the purposive nature of these subsidies, suggesting that they are produced consciously in order to attract journalists; however, I would argue that the bureaucratic and information-processing activities of powerful source organisations (as in the examples above) mean that they effectively provide unintended subsidies in their work. This may be a further 'structural' reason for journalistic reliance on official sources.

In a similar vein, Tunstall's 'market' model of news suggests that when demand for information outstrips supply, the deficit is filled by rumour and speculation (Tunstall 1971: 17); this perhaps labels as 'rumour' what might otherwise be seen as an alternative supply of information. Murphy's account of the Stalker affair suggests that sources of various kinds are routinely available, and therefore what Tunstall would describe as an information 'deficit' is merely a lack of *official, authorised* sources.

Meta-theories of News and Society

The studies discussed above offer different and often contending perspectives on the particular subjects on which they concentrate; nevertheless, most can be characterised as reflecting, often implicitly, their positions within wider frames of understanding concerning the role and importance of news in society.

Perhaps the clearest and most frequently discussed distinction is between the pluralist and Marxist conceptions of the news media. Curran reminds us that the opposition between the two perspectives evident in two influential 'reader' collections (Curran et al. 1977; Gurevitch et al. 1982) was, in part, an attempt to reassert the importance of the Marxist conception against the "sterile consensus" of the "largely 'taken-for-granted' pluralist model of society" inherent in much of the media research produced in America (Curran 1990: 137). The assumption of a basic correspondence between media institutions and output and the publics they serve, inherent within the

liberal/pluralist perspective, can lead to a conception of any perceived or empirically derived disjunction between the public and the media as a minor, rectifiable deviation from a democratic tradition which is seen as a norm rather than an ideal-typification. Goldenberg's study of resource-poor source groups for instance highlights the various inequalities faced by such organisations, but implies that minor adjustments to the funding of such groups (1975: 147) and an increase in the number of media outlets (1975: 4) might ameliorate the problem.

The Marxist-structuralist conception of the media, most influentially delineated by Hall et al (1978), places them, as we have seen, in a position subordinate to those source groups which, by way of their location within the social power structure, can define and delimit the boundaries of public debate and reproduce dominant ideology. While defining his own position as "...somewhere between the instrumental and structuralist positions..." (within a 'radical' perspective that he opposes to the pluralist perspective), Gandy (1982: 5) shares a similar view in his assertion that it is through the structures and products of the media that economic power is converted into social and political domination (1982: 8). He suggests that any growth in the number of media channels available is more likely to be used by the dominant elites against the interests of the public:

"The popular mythology that sees the avalanche of new information technologies as heralding a new democratic, egalitarian age is little more than a cruel hoax - the product of marketing hype, or self-delusion." (Gandy 1982: 187)

This clearly contradicts Goldenberg's assessment of any increase in media outlets as providing greater opportunity of access to the resource poor groups which are her main subject (Goldenberg 1975: 4).

It has been suggested that the differences between these two general perspectives has been exaggerated (Schlesinger 1990) and that shifts and realignments within each has led to a narrowing of the distance between them (Curran and Gurevitch 1991: 8; Schlesinger and Tumber 1994: 14-15). While the shape and effects of such a change are far from settled, recent studies such as those mentioned above do represent a focus on the circumstances in which the media can provide alternatives to the dominant ideological perspectives which are implied by a rigid application of the Marxist-structuralist position.

As I emphasised earlier, this chapter is intended to highlight a small selection of relevant issues from the literature, and does not represent an exhaustive review of what is a vast field of research. It is nevertheless evident that the roles, strategies and tactics of both news sources and news producers, the relationships between 'routine' news and scandals, and the importance of authority and credibility in news are the kinds of issues which are crucial to a thorough understanding of food scares in general, and of the particular case studies examined here.

Chapter 2

Literature Review: Science in the Media

There seem to be two distinct approaches in the academic literature to the presentation of science¹ in the media. The first entails a focus in the literature on science in news and documentary formats, and the presentation of scientific 'discoveries' and scientific research. This approach embraces questions concerning the public understanding of science, how scientists can 'popularise' their activities and 'educate' the public in the importance of science, while also questioning the status of science which such questions imply. This also implies a focus on the ways in which journalists and scientists interact, and therefore can be understood as part of the sociology of journalism. The second approach focuses on other, wider cultural understandings of science and scientists, such as those in fictional representations; artists and cultural workers use and appropriate science and scientific images in various different ways and for various purposes. Linking both of these approaches is the debate concerning the ideology of science and how this is carried through into media representations. While the latter approach has a general cultural relevance for the present study, I will focus here on the more direct importance (in the understanding of food scares) of science as news.

Science and the Sociology of Journalism

As we have seen, the sociology of journalism focuses on the constraints and determinants which affect news organisations, their personnel, and the production of news. The specialism of science news carries particular pressures and can to a certain extent be differentiated, both from general news reporting, and from other specialisms.

Journalistic backgrounds: scientific vs. journalistic

¹While some definitions insist on the separation of science and technology (e.g. Wolpert 1992: 25-34; see later in this chapter), it has been argued that such a distinction is often used to shield scientists from responsibility for the application of results of their work. Kriegbaum for instance adopts "the embracing definition" of science which includes both pure and applied science (i.e. technology), not least because scientists themselves often disagree about the boundaries between the two (Kriegbaum 1968: 2). Other studies have either avoided an explicit distinction (Nelkin 1995), or taken science as a generic term to include technology and medicine (Gardner and Young 1981: 171). I would therefore argue that a flexible definition of science is acceptable while bearing in mind that distinctions between science, technology and medicine are on occasions both useful and necessary.

As we have seen, a tension exists for journalists between the necessity for immersion in a specialist subject and the dangers of acculturation into a particular worldview. Such issues are relevant to science journalists, where an understanding of the subject might be seen as essential to the task of reporting. Kriegbaum found that science journalists (certainly in the past) are more likely to have studied English Literature or journalism than have an academic science background (Kriegbaum 1968: 84). One science writer noted that while doctors see science news as educational, he sees it as *news* first and foremost (ibid: 28). There is a concern among science journalists that a reporter with a science background can 'know too much':

"When news men have extensive specialized training, there is some danger that they will assume that all potential readers have their own mental cargoes and so type out stories incomprehensible to all except specialists." (ibid: 21-2)

While some of Hansen's interviewees had an academic background in science, they did not necessarily see it as an advantage; one journalist was wary that his interest in some stories might be driven by his own *academic* curiosity rather than his *journalistic* instincts. Also, his PhD. in biology was, he felt, of little use when talking to scientists from other disciplines (Hansen 1994: 114). More recent studies have also noted the perceived dangers of journalists becoming overspecialised (Nelkin 1995: 95). Indeed, some science specialists rely on news editors to check that their stories aren't too technical and are readable (Hansen 1994: 123).

Science news specialists often see more of (and are closer to) their competitors on other newspapers than their colleagues on their own paper. This "collegial relationship" (ibid: 125) can occur in different types of specialist reporting, but is particularly important in science news, partly because of the assumption that it is a topic which is less subject than others to the political biases of individual reporters (or the newspaper they work for), and partly because science news covers such a wide range of fields that the views of others can often help to clarify a particular question or point raised in a press release or conference.

The 'hazy' notion of the audience which is common in many journalists is shared by science journalists; they generally rely on their own and their editor's instincts, and write for themselves and their peers rather than a well-defined audience profile (Hansen 1994: 126). However, broadsheet newspaper specialists can feel a need to appeal to both the lay audience *and* the professionals and experts in their own area who also read the paper. Similarly, the broadsheets have a little more freedom,

particularly in their specialist sections or pages, to be more 'in depth', while tabloid newspapers are more constricted in their need to link any science stories to issues of interest to a wide audience (Hansen 1994: 124).

Science and the news cycle

Science, as a process, tends not to fit in with the news cycles of the media; its importance often lies in its "long-term consequences" (Nelkin 1995: 105). Conventions and conferences help to locate science in time by providing a focal point at which theories, developments and research can be announced (Kriehbaum 1968: 106). The newsworthiness of science (not least because of its lack of consonance with the 24 hour news cycle) is not always considered to be high, but is often an adjunct to other news stories in which science plays a supporting role:

"Science becomes newsworthy when it becomes part of wider social and political problems, or when it is linked to major accidents and disasters" (Hansen 1994: 116)

Such links are clearly present in the case of food scares, where the political, economic and public health issues are underpinned by the science concerned. In terms of the news production process, these links can also work to draw science into the news cycle as part of 'breaking' news stories. It is also possible that science correspondents might therefore provide scientific 'background information' for stories written by other journalists and with other central issues, in which case the former may not be credited on the story's 'byline'.

Science journalism and personalisation

Another of the wider news values which have particular resonance in the field of science reporting is that of personalisation. Silverstone suggests that researching a TV science documentary entails a search "...not just for the fascinating facts, but for the fascinating individuals who can communicate them." (Silverstone 1985: 18), which perhaps illustrates the needs of the medium over the needs of the sources. He suggests that the presentation of science on TV involves "transformations and translations" from scientific discourse to TV discourse, and that it is the latter which "holds all the aces" (ibid: 163). The implication that television holds a definitional advantage may be due in part to the particular dynamics of the TV documentary format which, unlike science news, is not subject to constant imminent deadlines, and may therefore be more able to assert the editorial independence which is the notional prerogative of the

media generally. Nevertheless, the powerful cognitive authority of scientists means that science journalists in all media may be more susceptible than most to the pressure for personalisation.

'Elite' science from elite journals: journalists' sources of science news

Jones et al. suggest that science news tends to focus on what they describe as "'elite' areas of science as reported in 'elite' journals" (Jones et al 1977: 17); this means stories about the latest advances at the 'cutting edge' of science - speculative, even 'borderline' science, which is unrepresentative of the work of the vast majority of scientists - reported initially in the prestige journals such as *Science*, *Nature*, and the *British Medical Journal*. This of course represents a specifically science-oriented version of Galtung and Ruge's 'elite' selection factor. The selection of stories was unproblematic for the editor of *Horizon*, who suggested that they are essentially self-selecting by means of their appearance in the elite journals of science (Gardner and Young 1981: 181). Hansen also notes that some areas of science receive more coverage than others (Hansen 1994: 111). Clearly, the credibility of a source is enormously enhanced if a paper is published in one of the major peer-reviewed journals. In such circumstances, journalists feel they can to some extent dispense with their normal practices of verification; this is one of the main elements which sets science journalism apart from other kinds of journalism (Hansen 1994: 123).

Government departments are as important a news source for science specialists as for other journalists, although the prevailing concerns with regard to government news management are particularly relevant when the science is funded by government ministries. Even so, government scientists are generally considered to be authoritative, particularly in contrast to industry scientists, who are assumed to have "something to promote" (Hansen 1994: 120, quoting Technology correspondent of quality daily). Hansen notes the routes which journalists can take to find relevant sources, suggesting that research councils, professional associations, government departments and pressure groups are all "useful conduits" to experts in particular areas. However, he does not consider the wide variation in resources between these groups and organisations; those with fewer resources can resent the way in which they can be 'used' by journalists. Gandy's conception of the role of information subsidies is also relevant here, in that collating, organising and disseminating information in a journalistically useful form is likely to be the prerogative of large-scale, official scientific sources.

Science journalists generally see their role as providing interesting, informative entertainment rather than education (ibid: 127), although it could be argued that when a story such as BSE or Salmonella emerges, the need for scientific information as a background to the story in a sense moves 'education' up the agenda. Such specific stories change the role of science journalism; it becomes subsidiary (rather than self-contained), and the need for explanation becomes the main imperative.

Presentation of Science

The presentation of science in the media is criticised from a number of different perspectives, and there is some dispute as to who is responsible for the perceived failure to present the 'reality' of science to the public.

Importance of/Need for science news; scientists' attitudes to media

The democratic argument for the dissemination and popularisation of science information asserts the need for some public awareness and understanding in order to avoid the ceding of power to 'experts' (Kriegbaum 1968: 10); the public need to understand

"...enough to keep informed on a vital segment of contemporary culture [science] and thus participate meaningfully in public decisions that are part of the democratic process." (ibid: 51)

This clearly echoes the Habermasian concept of the public sphere, implying that scientific information is perhaps as important as other forms of political and social knowledge in the development of a participatory democracy². The necessity for public understanding of science is also emphasised by the growing influence that science has on our lives; it is not simply that science is an external influence on society, but that it is "reconstituting" from within many of the spheres of human activity (Gardner and Young 1981: 173). As this happens, the need for a critical assessment becomes more pressing (ibid: 177). Ericson et al. note "...the power of translation of specialized and particular knowledge into common sense" which is exercised in media representations of science (ibid: 378). The way in which the media present science can be argued to be more important than in other subject areas, simply because science (particularly in some areas such as particle physics and genetics, which are technically inaccessible to

²A further implication surrounds the assumption that science has a particular role to play in modern industrialised societies; these issues are explored in more detail in the concluding chapter.

'amateurs') (Jones et al. 1978: 27), is unavailable to the public as a discourse. It needs to be 'translated' in a way that is less necessary for other subjects which may be more susceptible to 'common sense' understandings. Science is in this sense more dependent on the media to provide that translation.

The relationship between scientists and journalists is in some ways an ambivalent one; Jones et al. note an "undercurrent of unease regarding contacts with the media" in scientific circles, which is a symptom of the scientists' concern that mainstream journalistic treatment of their work will inevitably involve trivialisation, sensationalism or some other distortion (ibid: 18). This also extends to distaste for those scientists who appear regularly in news items as expert commentators (see also Hansen 1994: 118).

Jones et al. feel that although, due in part to their "professional ideologies" (Jones et al. 1977: 30), broadcasters have a significant degree of control over the presentation and form of science on television, it is the scientists who are ultimately the primary sources of definition. In the fifties and sixties the Reithian BBC allowed scientists to deliver, in effect, a lecture direct to camera; the Royal Society's evidence to the Pilkington report (1962) recommended more science coverage but had nothing to say about the style of presentation. Jones et al. take this to imply that scientists were generally happy to be allowed this kind of unstructured access. Changes in the broadcasting environment, not least the advent of ITV, meant that television science needed to become more entertaining (a prerogative of the broadcasters) as well as educative, an imperative which could be seen to reduce the definitional power of scientists. Nevertheless,

"...for science, the primary definitions of topics offered by the "best exponents available" constitute the broadcasters baseline." (ibid: 44, quoting Sir Hugh Greene)

Interviews with scientists for documentaries such as *Horizon* are generally information-seeking rather than confrontational, although those programmes which attempt to challenge scientific orthodoxies - on issues such as science ethics - are more probing (ibid: 52-3).

Image without content

One feature of popular science is that "imagery often replaces content". Nelkin takes as an example news coverage concerning the drug interferon; the news stories

concerned made much of the hope that this could mean the eventual defeat of cancer, but little was written about the actual research which had led to the development of the drug (Nelkin 1995: 5). In the popular press in particular, science is used as a device:

"The name of science is used here, but not much of its content. The actual explanatory value of feature articles and advertisements is low: it is basically the symbol of scientific authority and impartiality which is being evoked." (Jones et al.: 6)

Jones et al.'s position seems to imply that this is essentially a failure of the popular press to use such opportunities to educate their readers, an argument which might well be echoed by those scientists who are eager to promote the 'public understanding of science'. Such a position could easily accept the narrow scientism which Dunn criticises (see below), as, potentially, it could ignore other, ideological aspects of scientific exposition. The evocation of the symbols of science is useful not merely to provide authority, but might also have the effect of de-politicising the issue in question, transforming it into simply another example to be resolved through the unproblematic march of progress³.

Science as competition

Another element of science news is the way in which science is represented as a competition, despite the professional ideology of science which emphasises collaboration and the sharing of information which is considered to be crucial to the advancement of science (Scheffler 1981: 257). Nelkin's analysis of the coverage of interferon found that it stressed the 'race' for a cure, and the competition to be first in the development of the treatment rather than the gradual accumulation of knowledge (Nelkin 1995: 6). US coverage of nobel prize ceremonies also focused on the international competition for such prizes, in the manner of the Olympic medal chart. This approach, which also involved a nationalism which is not part of the ethos of science (ibid: 15), could in part be seen as the encroachment of journalistic news values into the construction of media science; however, news producers might argue that such an approach to some degree reflects a significant strand of the social practice of scientists.

³The question of the depoliticisation of science (and the scientisation of politics) is also explored via Habermas' discussion of rationalisation in my concluding chapter.

Science and Gender

The presentation of science in the media also carries a gender bias. The predominant image of the male scientist highlights the intensity of his work ethic and the lack of any external social elements in his life. The image of the female scientist - who might be praised for managing to be feminine and a mother while also being a driven, determined, hardworking scientist - only emphasises the predominant male image of scientists as aloof and insulated from the 'real world' of human interaction (Nelkin 18-19).

Science as PR

The influence of industry on the presentation of science is discussed by Nelkin in her analysis of news reports about "Estrogen Replacement Therapy" which tended to emphasise its effectiveness in keeping women "young and lovely". This was the result of the successful public relations exercise of the drug company promoting the therapy, which managed to minimise coverage of the scientifically significant risk of endometrial cancer associated with 'ERT' (Nelkin 1995: 39-41):

"Just as academic institutions sell the importance of their science to attract a favorable press, so corporations use the prestige of science to enhance their own goals." (ibid: 135)

The practice of science journals issuing pre-publication press releases to journalists, together with contact names and numbers (and 'fax-back' access to particular research papers, as mentioned by an interviewee - see 'Paul Brown' section, chapter 9) amounts to pre-selection of the news, something which is tempting to journalists under extreme deadline pressure, but against their professional ideology (Hansen 1994: 117). In choosing some articles over others, the journals which provide this pre-selection service are in a sense promoting a certain position concerning science as news, which is at least in part intended to bolster their own position as important and newsworthy. The pre-packaging also means that the journalist can be sure that her 'opposite numbers' on other papers have the same information, and therefore it is unlikely that it will produce an original story.

Gandy agrees with Kriegbaum's point that science writers are more likely than others to rely on their sources in that they will accept pre-packaged news; and also suggests that they are less likely to write about conflict within the scientific community than general 'staff writers' (ibid: 106). Thus the general issue of socialisation or

acculturation of specialist journalists (as discussed in the previous chapter) takes on particular significance here. As an example of how science employed news management, Gandy explains how "interest-laden content" (ibid: 120) was placed in the media coverage of the benefits of CAT scanners in various forms of medical treatment. Stories concerning lives saved by (and threatened by the absence of) CAT scanners were part of the manufacturer's campaign to persuade the public that the scanners were essential, even though there was a valid argument that the resources necessary to buy them would be more effectively used elsewhere. Hansen notes a science editor who gets "a huge wad of press releases" (Hansen 1994: 121) from industry, 99% of which he throws away because they are trying to sell something. The resources of these companies allows them to produce this information subsidy 'overkill', presumably in the hope that a small percentage of it will make it into the newspapers.

The imbalance of resources between various groups means that the impression of scientific authority can be enlisted not just in promotional material but also in the personal representatives of the 'resource-rich'. Whatever the 'rhetoric' of value-free science, large corporations can hire a prominent scientist in order to enlist not just her expertise but also her authority; in this way, science and its cognitive authority is bought by those who can afford it (Ericson et al. 1989:279)⁴.

Scientists as detectives

In the dispute over the possible health risks associated with artificial sweeteners, some of the news coverage implied that "...scientists were the detectives investigating the allegations or the judges who would discover the truth" (Nelkin 1995: 52). The detective story has been described as a particular presentational strategy which represents a "...major form in television science.."; Silverstone notes that in his case study this element was reinforced in order to 'strengthen' the story (Silverstone 1985: 171). The "detective model" of science is also noted by Jones et al; they see it as presupposing a 'problem-solving' account of science:

"Like a professional scientific paper, this process of unravelling can be regarded as a polished reconstruction of how results...were achieved"
(Jones et al.: 66)

⁴Further anecdotal evidence (in which, for instance, a medical science charity promoted certain news stories in order to gain publicity for the issues on which it was campaigning) suggests the need for further exploration of what might be called 'science PR'; however, there is little evidence in the literature of any focus on this particular aspect of the conjunction between science and news.

This sanitised, streamlined version presents the processes of science as orderly, sequential; questions are always provided with answers. This can promote a notion of science as leading inevitably to the desired conclusions. While not expanded upon, this can be taken to imply the correspondence between the detective model and positivist scientism which Dunn (1979) identifies in television fiction (see below). This is also linked to the structure of television science, which has been described as "narrative, linear, expository and didactic" (Gardner and Young 1981: 177).

Audience understandings of science

Nelkin implies that the influence of the media depends on how much the audience can judge the science on the basis of their own (direct or indirect) understandings, knowledge and biases (Nelkin 1995: 68-9). Macdonald's study of audience attitudes to science information took as its sample the visitors to "Food for Thought: The Sainsbury Gallery", which was intended as a 'fun' museum exhibition concerning the science of food. Macdonald found that two particular attitudes, or 'orientations' to the exhibition could be discerned. Those visitors who exhibited the 'history' orientation saw the narrative of the exhibits as a progression from the old days of food preparation and consumption to the present; this could be understood as a positive or negative process. The 'good and bad food' orientation was held by those who linked together certain parts of the exhibition to see it as a prescriptive, 'what you should eat' exposition. Neither understanding was intended by the producers of the exhibition, and Macdonald suggests that these orientations are due to wider cultural assumptions about the uses to which the communication of science information is put (Macdonald 1995: 21). Although visitors assumed (wrongly) that food retailers Sainsbury's were involved, there were no questions asked about the authority of the exhibition, perhaps due to an assumption that any bias or partiality would be screened out by the inherent objectivity of the institutions of the museum in particular and of science more widely (ibid: 21). The intentions of the exhibition's producers was to empower the audience by showing the commonplace nature of science in food; Macdonald suggests that their reactions reflected a distinction between 'pure' science, which was difficult and obscure, and the more practical everyday knowledge of which the exhibition was seen to be a part, and which was therefore not considered to be 'real' science. Visitors attitudes towards the exhibition represent their understandings concerning how science information is usually encountered; this might be used as evidence of a need for scientific education, but could also be seen as an illustration of the ways in which context and social understandings can inflect the meanings of science information.

Durant et al. (1989) have made a study of the public knowledge of science, but not specifically about the media. The main finding in their survey results is that the public (US and UK) generally has a poor understanding of science. The study takes a cautionary view, suggesting that science educators need to find ways to address what they see as both a cultural and a practical problem. Durant et. al. (1989) imply that their findings suggest that public ignorance of science correlates with a more negative attitude, and that this must be countered with more informative and educational presentation of science. This contrasts with Dunn who suggests that science, in its narrow positivistic sense, has already been successful in promoting its ideological worldview in the media, and that a more critical attitude is necessary (Dunn 1979); this view is examined below.

Problematizing Media Science

The arguments concerning the presentation of science in the media have their roots in a more fundamental disagreement about the nature of science itself. The argument concerns the kind of ideological force which science exerts, and whether such force is justified. Ericson et al (1987), for instance, suggest that science is a system for legitimising the (partial) accounts of organisations by grounding them in neutral terms (ibid: 279).

Changing attitudes: the 1970's and the 'environmental scare'

Nelkin notes the change in science reporting which occurred when the largely uncritical coverage of the space program of the 1960's

"... gave way [in the late 1960's and 1970's] to concern about environmental and social risks." (Nelkin 1995: 10)

This can be argued to be the point at which science began to be seen not so much as a means of solving problems, but also as a cause of problems which need further solutions (see chapter 10). Jones et al. also note the change of emphasis in 'recent years' following the 'environmental scare' of the early nineteen-seventies which has led to the slightly more critical stance of some media correspondents; however, they feel that there is still a good deal of agreement between scientists and journalists (Jones et al. 1978: iii).

Scientism

Kreighbaum suggests that science as a subject in the news is less likely than others to be subject to the biases and prejudices of the audience (Kreighbaum 1968: 51); his position seems to be that, for instance, political news has to get past the 'ideological filters' of the audience, while fewer if any such 'filters' exist with regard to science. Nelkin believes that this view of science as essentially non-ideological is shared by journalists who expect science to provide answers:

"Attracted to catastrophic incidents, journalists emphasize competing interests, disputed data, and conflicting judgements, and then they turn to science as the source of authoritative evidence and definitive solutions - as the arbiter of truth." (Nelkin 1995: 48)

This is an understanding of science as essentially value-free, a view which is clearly dismissed by those who find a strong ideological element in the media presentation of science which reflects and reinforces existing social inequalities and power structures. Such a position can arguably be traced back to the anti-positivism of the Frankfurt school whereby science and technology is seen as inextricably linked with the inequalities of wealth and power between dominant and subordinate social groups within modern industrialised societies. While it would be inappropriate to explore these issues in detail here, they emerge in the later discussion of the work of Habermas and Marcuse in the concluding chapter.

Dunn suggests that the media presentation of science, specifically its depiction in popular TV drama, reinforces a positivistic image of technical control. This kind of scientism in general is linked to the legitimation of the state, in that

"...the practical problems of politics are converted into technical problems of administration and the official ideology of the State draws upon the universalistic claims of science." (Dunn 1979: 344)

This ideological function of scientism is, Dunn suggests, reproduced in television fiction. He notes the "chronically ambivalent" attitude to science and scientists in the popular culture of the thirties, forties and fifties, and how this began to shift in the middle fifties with *Dragnet's* empiricist "fetishization of the facts" (ibid: 345). Various shows are mentioned which developed these themes, which were modified in the seventies when elements of individualism and cynicism were introduced in shows such as *Starsky and Hutch* and *Kojak*. While ostensibly representing a repudiation of bureaucratic structures, Dunn argues that such adjustments were in reality a hegemonic co-opting of particular social trends in order to reinforce the essential scientism of much of TV drama. While his analysis is specific

to the particular cultural form of popular TV drama shows, it nonetheless offers a reading which could in principle be applied to other spheres of media representation of science.

Dunn's analysis of various police and detective TV fictions (Dragnet, Mannix, Ironside) explains how such stories characterise social problems as susceptible to "...technical solutions [which are] linked to the political and moral authority of major institutions, most notably the state." (Dunn 1979: 345) The technical and technological tools available to these detectives is allied to the bureaucratic structures of the state:

"Hence, the crime drama merges the goals of official institutions and the goals of positivistic science, reducing the activities and claims of both to a single rationale. Ultimately, this rationale is the preservation of order at almost any cost." (Dunn 1979: 348)

While television science documentaries (such as the Horizon programme analysed by Silverstone) may not be directly comparable to the detective shows mentioned by Dunn, they nevertheless also combine the authority of science with a linear narrative structure which can work to emphasise narrow, 'instrumental' problem-solving. TV science documentaries have attempted to address questions which go beyond the simplistic explanation of science, but they usually do so in a relatively "uncritical" fashion. Gardner and Young provide as an example the Horizon programme about Brazil's sugar industry which asserted unproblematically that Brazil "has plenty of cheap labour" (1981: 175). The instrumental mind-set meant that the issues of 'cheap labour' and the wider economic and social system of Brazil was simply not considered to be relevant.

Lee Wilkins found three tendencies in the coverage of CFC's effects on the ozone layer:

- i) an emphasis on the importance of scientific progress,
- ii) a promise to resolve problems via technological solutions,
- iii) and a focus on expert opinion.

All these 'tendencies' in the coverage imply a technical rationality; a narrow view of science⁵. The ideological force of scientism is also found in the subject which produces the majority of science news: medicine.

⁵Wilkins L (1993) "Between Facts and Values", Public Understanding of Science 2, Jan 1993; quoted by Nelkin (1995: 51)

"The dominant medical ideology in the U.S. is one that focuses on cure rather than prevention, and is driven by a view of the body as a machine, hospitals as repair shops, and physicians as master mechanics." (Gandy 1982: 96)

Others have also noted the emphasis that the 'medical model' puts on a mechanistic, instrumental approach to illness (Karpf 1988: 10; Capra 1983: 118), and its predominance in media representations of science and medicine (Karpf 1988: 25-6). To the extent that this position is reproduced in media science, medical and health news also reinforces a view of science as a purely technical form of knowledge, privileged above all others, which can provide answers without recourse to wider social or cultural rationalities. A similar point is made by Hales in his description of the so-called 'Green Revolution' (in which 'high yield' varieties of grain were sold to developing countries, ostensibly in order to eradicate hunger) as a "technical fix" which failed to account for the specific social contexts into which the changes were introduced, and which effectively worked as a "Trojan horse" for the economic interests of Western elites (Hales 1982: 42).

Scientists often help to mystify science themselves by implying that it is an esoteric, arcane pursuit (Nelkin 1995: 16), which requires from the public an attitude of "reverence and awe" (ibid: 73); Gardner and Young note the comments of a BBC TV producer of popular science programmes, that he desired "an awed 'Gee Whiz!' from the viewer" for each item on the programme (1981: 182). Indeed, most of the positive coverage of scientific issues is focused on what Jones et al. call 'gee-whiz' technology or medical break-throughs; that is, on technological applications.

Scientific Authority

The notion that exceptions to normal routine procedures can provide an opportunity to observe the "hidden structures, ideologies, and powers" (Tuchman 1977: 43), can be applied to scientific practices as well as those of journalists. Scientific fraud is such an exception, in that it is a scandal which is considered to be unforgiveable, and relatively rare. Where political fraud is often taken as grounds for criticising the institutional system, science fraud, is a "contamination" or "taint" which must be "purged"; a more moralistic tone may be employed, but the institutions of science are rarely questioned (Nelkin 1995: 29)⁶:

⁶Indeed, it could be argued that even in the political sphere the questioning of the wider system is

"Although individual scientists are sometimes criticized as biased, science as an institution is assumed to be a neutral source of authority, the engine of progress, the basis for just solutions in controversial public affairs." (Nelkin 1995: 63)

Much of the literature notes how journalists acknowledge the authority of science and scientists, particularly those who are legitimated via the peer review system. Such authority needs to be protected, and Gieryn and Figert (1986) have taken Garfinkel's notion of the 'status degradation ceremony' to help examine the strategies which scientists employed when it was threatened in one particular case. The eminent psychologist Sir Cyril Burt was posthumously accused of faking data by the then medical correspondent of the *Sunday Times*, Oliver Gillie in 1976⁷. Burt was investigating the possibility that variations in IQ were due more to heritable genetic factors than social causes, but analyses of some of his statistics suggested, in Gillie's view (later supported in Leslie Hearnshaw's 1979 biography of Burt), that much of his data were either impressionistic guesswork or pure invention. Gieryn and Figert suggest that in order to protect the cognitive authority of science, Burt was symbolically excluded from the science establishment, destroying his reputation while leaving the institution of science "squeaky clean" (Gieryn and Figert 1986: 70). They propose eight stages in the 'status degradation ceremony':

Ignorance

Scientists claimed ignorance of the apparent fraud, although there is evidence of some suspicion in the 1950's. A report was written but never published, perhaps due to Burt's personal authority in his field at that time, as well as the inherent conservatism of the science establishment (ibid: 72).

Denial

Some scientists denied the validity of the evidence against Burt, suggesting that a newspaper was an inadequate arena to discuss such complex issues, that any

itself suppressed by the scientism which is working to reduce such issues to narrow technical questions, a point examined later with regard to Beck's Risk Society.

⁷Much of the detail of Gillie's article had been uncovered in the preceding years by other psychologists, including the inconsistencies in Burt's data and the apparent mystery of his 'missing' assistants, Howard and Conway: "All Gillie did was to expose and sensationalise the problems" (Hearnshaw 1979: 236). This is important however, because it was this publicising of the issue which began the debate and led to the 'status degradation ceremony' which Gieryn and Figert describe. Keeping the 'problems' within the confines of the scientific establishment and away from the wider public sphere would have been an *a priori* protection of scientific authority.

misconduct had been exaggerated, and that the politics of the 'nature/nurture' debate had provoked the attack (ibid: 74).

Stacking the Jury

The criticism of the *Sunday Times*, amounting to a cry of 'trial by media', was followed by calls to conduct an investigation under the auspices of the psychology journals. This led to the Council of the British Psychological Association deciding to wait for a verdict from "one of its number", Leslie Hearnshaw, in his biography of Burt (ibid: 76).

Plea Bargaining

Burt's defenders (most notably H J Eysenck) suggested that the inconsistencies in his data were due to carelessness, and that there was no intent to deceive, and therefore no fraud.

Blaming the Accusers

The conviction that the Burt affair was a political attack on all those who considered themselves 'hereditarians', led them to argue that only the faulty sections of Burt's work should be disregarded, and that his wider arguments remained valid. For their part the 'environmentalists' called for his entire contribution to psychology to be excluded from their academic canon. Gieryn and Figert note that the suggestion of a political motive for the criticisms of Burt could provide the scientists with some protection of their authority, as it contrasts such 'low' dealings with the high ideals of objective science (ibid:78-9).

Perpetrator as Victim

Gieryn and Figert give examples of psychologists defending Burt by suggesting that "personal crises" had in effect made him a victim of circumstance, understandably unable to 'do science' rationally (ibid: 79); a strategy which begins to move Burt and his work away from 'real science'.

The Sentence

The publication of Hearnshaw's biography in 1979 made it difficult to argue that Burt was entirely innocent; Hearnshaw's conclusion was to suggest that Burt's background in *applied* psychology made him unsuitable for "scientific work"; that is, in 'pure science'. In essence, Hearnshaw suggested that Burt was never a real scientist, and therefore his actions can be dismissed as non-science:

"The public message is clear: legitimate scientists do not engage in fraud, fudging and fakery; if they do, as Burt did, they are not scientists." (ibid: 80)

Hearnshaw also believed that his verdict of Burt's guilt - "beyond reasonable doubt" - should be tempered by the positive personal assessments of his closest associates (Hearnshaw 1979: 259). The implication is that a dry scientific assessment of Burt's empirical data cannot stand alone and must take account of personal and social factors; a position which implies a need for a more inclusive understanding than the strictly scientific approach could provide.

Recovering the Authority of Science

A final step in the rehabilitation of scientific psychology was the assertion that science itself was not, could not be damaged by Burt's fraud. Scientists on both sides of the nature/nurture debate suggested that science is a "self correcting exercise" which, through the processes of hypothesis testing, peer review and verification, will always find the truth even if momentarily diverted by occasional 'deviants' such as Burt. Such an argument is echoed in a more recent discussion, which asserts that the question of the heritability of IQ is an objective one which can be (perhaps already has been) answered by science; Burt's contribution was only to muddy the waters by providing ammunition to "...science's enemies, who claim there are no such things as objective facts". (Morgan 1995)

The story of Sir Cyril Burt's exclusion from 'real science' is one of definitional power; the scientists concerned repositioned Burt in relation to science so that he became an outsider, a non-scientist. Thus, criticism could be levelled at Burt without affecting science itself as an institution of supreme cognitive authority. This authority is clearly a major part of the understanding that scientists wish to instil in the minds of the public, and while much of the detail of debate occurred in science journals, the involvement of the *Sunday Times* ensured that the popular media presentation of the Burt affair was a matter of intense concern for those involved.

Documentary Science

Gardner and Young note the way in which the presentation of science documentaries tends to imply a process which is inevitable rather than one which develops through the making of social choices, and that issues such as the organising of research

agendas are "rarely examined" (1981: 173). They suggest that TV science is positivistic:

"It is positivist in that it privileges scientific knowledge above other forms of inquiry and in that it separates facts from their contexts of meaning and represents them as above the battle of competing interest groups and classes." (ibid: 178)

When noting their commitment to the notions of objectivity and empiricism, Gans calls journalists "perhaps the strongest remaining bastion of logical positivism in America." (Gans 1980: 184). Clearly this would correspond with any scientism in journalistic accounts of science itself. Nelkin suggests that the notion of objectivity links "... the ideals of science and the norms of journalism." (Nelkin 1995: 85)

Silverstone describes (one aspect of) the argument which goes to the heart of the relationship between science and the media. From one perspective TV science is criticised for being "blinded by an ideology of scientism" (Silverstone 1985: 4) (A charge also made more generally against fictional representations of TV science; see earlier discussion of Dunn 1979). It suggests that the media become dazzled by scientific progress, presenting it as an essentially positive, perhaps inevitable evolution with only minor, if any, drawbacks, and that, when harnessed to prevailing societal arrangements, this produces a conservative aspect which denies the possibility of other ways of producing knowledge and organising society. Silverstone notes the protestations of the producers of science documentaries who point to examples which challenge scientific orthodoxy and can therefore be said to empower the audience.

A counter argument emphasises (negatively) such programmes and suggests that BBC science is *too* radical, too critical, and not sympathetic enough to the complexities of real science. From this perspective the media's predisposition towards controversy and confrontation, and its bias (with regards to the 'two cultures' debate) in favour of the arts, mitigates against a serious and truly informative discussion of scientific issues. The struggle to steer a course between these two positions is one of Silverstone's main themes in his discussion of the production of the Horizon documentary (Silverstone 1985: 17).

Defending Science

Criticism of scientism and scientific rationality has provoked some scientists into a defence of the "scientific enterprise" (Wolpert 1992: 109). For instance, biologist Lewis Wolpert has argued that much of the criticism is due to a lack of understanding

which borders on fear of science (1992: preface). He reasserts the distinction between science and technology: the former is about ideas, while the latter is concerned with artefacts (ibid: 25). Thus he suggests that the Chinese inventions of printing, gunpowder and the magnetic compass were great feats of practical engineering, but do not reflect any contribution to science because China "...never developed a mechanical view of the world."; that is, their inventions were not derived from generalised ideas about the nature of the world, but were unconnected, practical inventions to solve particular problems (ibid: 46). Wolpert despairs of the relativism of some philosophers and sociologists of science. He believes that social factors do influence scientists on a day to day level, but have no lasting effect on the production of scientific knowledge. Indeed, Wolpert comes close to accusing those who support what he calls the 'strong programme of the sociology of knowledge' of jealousy towards the achievements of traditional science (ibid: 122).

Wolpert argues that the doctrines of falsifiability and experimental reproducibility should prevent any fraudulent or otherwise incorrect science from gaining any but the most temporary kind of validity. The Cyril Burt affair does however seem to provide some evidence against this, in that there is still some dispute as to the scope and consequences of Burt's alleged fraud, twenty years after the accusations first became public. A recent analysis of the Burt affair explicitly set out to clear Burt's name, criticising sensational media coverage and those scientists who

"collaborate with these middle-men of the media, lending apparent authority, and therefore credibility, to the positions being advocated"
(Fletcher 1991: xix)

Fletcher notes with dismay how Hans Eysenck, who was at one stage strong in his defence of Burt, came to change his mind following the publication of Hearnshaw's biography. This raises the question of the strength of the evidence which has been produced: how can two scientists such as Fletcher and Eysenck examine the same *scientific* (often statistical) evidence and come to such different conclusions? Fletcher's conception of science would suggest that scientists of goodwill should be able to assess the evidence and objectively, impartially, arrive at broadly similar conclusions. It is not just the apparent fraud involved, but also the violent disagreements *surrounding* the Burt affair which seem to challenge the notion of a privileged, disinterested science which Fletcher, Wolpert and others argue is the true nature of the 'scientific enterprise'.

To summarise, the journalistic specialism of science reporting can be argued to differ from other specialisms in a number of ways, including the apparent over-reliance on the credibility of 'elite' sources, the difficulty of adapting stories to the news cycle, and its occasional role as a subsidiary informational element in stories grounded in other fields. Criticisms of mediated science include the accusation of 'scientism', in which the media privilege science as a uniquely authoritative discursive form, leading to an approach in which any technical solution is likely to be presented as an unquestionably 'good thing'. Scientific rationality, from this perspective, represents a distorting factor with regard to the presentation of science in the media.

Chapter 3

Literature Review: Risk

Like some accounts of the need to popularise science, some of the literature concerning risk focuses on the ways in which an irrational public can be persuaded that expert analyses are the only valid way to understand any particular phenomenon, and argues that such analyses should not be replaced by panics or apathy. Indeed, it might be argued that the perceived lack of success among those attempting to communicate about risk has in part led to a wider concern about the issue; the description of risk as an "Emerging Area" of communications research (Covello 1992) is perhaps due to the apparent misunderstandings of the lay public concerning various kinds of risk. The issue of risk perception (as opposed to technical risk assessment) is of particular concern, firstly because it has been used to contrast the 'faulty' perceptions of the public with the accuracy of expert understandings, and also because it is used to justify news coverage: whether or not the risk is 'real', if people perceive it to be a risk then it becomes worthy of news attention. Food scares can be defined precisely in these ways, and clearly represent case studies of risk analysis, assessment and management. By contrast (and also reflecting similar differences surrounding alternative conceptions of the role of science, as discussed in the previous chapter), more recent understandings of risk have attempted to problematise the role of the expert in the communication of risk information, suggesting that traditional risk analyses represented a particular kind of 'rationality' which often failed to account for lay perspectives. Any attempts at risk communication would need to acknowledge the importance of these public understandings or 'social rationalities', and avoid asserting the absolute superiority of expert risk analyses. This chapter presents a discussion of these contrasting perspectives on the relationship between risks, experts and the wider public derived from the relevant literature, and concludes with a number of illustrations of research into the area of risk communication. Firstly however, it is useful to set out briefly the various definitional understandings of 'risk'.

Risk: Definitions

The numerous and conflicting definitions of risk are in a sense symptomatic of the arguments within the "emerging area" (Covello 1992) of risk analysis. Warner's introduction to The Royal Society's recent report sets aside five and a half pages to definitions of some of the key terms, including the explanation which forms part of British Standard 4778 1991 which is used by engineering specialists. He also

acknowledges that social scientists have different interpretations of risk, and includes some of their criticisms of the technical approach (Warner 1992: 2-8). He initially defines risk as:

"...the probability that a particular adverse event occurs during a stated period of time, or results from a particular challenge." (Warner 1992: 2)

This is linked to other terms by the illustrative example given by Warner, in which Nelson's Column can be considered as a hazard in that it may be damaged by weather, and pieces could fall on to people below. Risk would in this case be a measure of the probability of specified damage or harm in any particular period of time. Further concepts are those of *risk assessment*, which refers to the study of decisions subject to uncertain and potentially hazardous consequences, and *risk management*, which concerns the making and implementation of risk decisions (ibid: 3). This distinction has been characterised as that between the *science* and the *policy-making* by a 1983 US National Research Council study of risk decision making (Lofstedt 1996). A further conception suggests that while 'assessment' refers to the process of identifying and calculating risks, 'decision-making' also includes the identification and evaluation of benefits, and a comparison with the assessed risks (Kasper 1980: 72). Nevertheless, risk management, policy-making, and decision-making are clearly similar concepts in terms of risk analysis. The process of risk assessment has been broken down further into risk *estimation* (which includes the identification, and estimation of the magnitude and probabilities, of potential outcomes), and risk *evaluation*, in which the meanings and values of the risks involved (including perceived risks and perceived benefits) are considered (Otway and Pahner 1980: 150). Risk management then flows from, and is presumably guided by, estimation and evaluation (Warner 1992:3); but it is conducted within the sphere of policy-making.

Hayes' review of the "spheres of literature" around health risks found three distinct approaches:

Health Risk Appraisal (HRA) is concerned with assessing the individual's chances of illness and death by looking at their 'health related practices', as well as genetic pre-dispositions. This approach limits its understanding of risk to the boundaries of the individual.

The *Risk Approach* (RA) is characterised by attempts to aim health resources at those groups (or nations) who are in greatest need, and accepts that some of these needs may be due to 'socio-ecologic' factors. This then would accept a wider definition of risk in an attempt to reduce health inequalities; Hayes notes however that the RA

solution is to provide further health services to deprived groups while failing to confront the underlying inequalities - of *wealth* - which help cause the consequent health problems. This approach is therefore in effect inherently conservative.

Risk Analysis/Management (RA/M) incorporates a different understanding of risk, and "...concerns the evaluation of technical hazards, product safety, and public perception of risk..." (ibid: 402); this is a much wider approach, and perhaps approximates to what Warner describes as risk assessment.

Hayes also notes that other understandings of risk include a "...measure of the magnitude of impact or consequences" (Hayes 1992: 403), rather than just a probability that a particular outcome might result. This inclusion (particularly when consequences are followed through in all their manifestations) is something that is often absent from the more technocratic approaches to the analysis of risk. Douglas notes that the definition which includes only probabilities of harm rather than specific *degrees* of harm seems to be widespread even in technical 'risk-benefit' analyses (Douglas 1986: 20). Indeed, Warner's initial definition (see above) refers to a "*particular* adverse event" (Warner 1992: 2; emphasis added) which suggests a lack of consideration of the *range* of possible consequences from a particular risk.

Traditional approaches to Risk

Mary Douglas traces the emergence of the 'new subdiscipline' of risk perception (Douglas 1986: 19) back to an article by the dean of the School of Engineering and Applied Science at the University of California, Chauncey Starr, in 1969. His paper was one of the first attempts to include a social element in the calculation of risks, and was driven by the public criticisms of various technologies which had arisen in the 1960's. As Starr himself notes, prior to this the assessment of the impact of technological advances had focused largely on the balance between the direct costs of the technology and the benefits it might provide; furthermore, such decisions were taken largely within a narrowly drawn political-scientific policy community (Starr 1969: 1232). The nascent ecological movement had made it necessary for some concessions to be made to the social costs of technological advances.

Starr took the historical precedents of established social risks ("historically revealed social preferences") as a basis for predicting the level of acceptability of more recent technological risks; that is, risks which had (in Starr's view) already been accepted by the public as worthwhile were assumed to carry benefits which were publicly acknowledged to outweigh any negative 'costs' which might accrue. Thus Starr

attempted to provide a model for weighing *social* benefits against *social* costs (derived from those already accepted) as opposed to the measurement of *technical performance* and *financial* costs. He suggested that the need to predict the likely level of acceptability for modern risks was due to the increasing speed at which new technological advances were being implemented; the social costs which these imposed could no longer be allowed to work themselves out through trial and error, as such issues had done previously. The impact of new technologies therefore needed to be predicted in advance in order to reduce the possibility of finding out too late that a particular advance was perceived by the public as imposing risks that were unacceptable.

Starr differentiated between voluntary risks, which people freely chose to take on in order to gain the perceived benefit (e.g. smoking, skiing etc.), and involuntary risks which were generally imposed on society by a "controlling body" (p.1233) such as government. With regard to the latter, the public often have little direct knowledge of the decision-making processes involved in the acceptance of the risk and its presumed benefits. Starr suggested that some people might be unduly influenced by the perceived authority of the 'controlling body' to acquiesce; nevertheless, he argued that such official policy decisions were generally arrived at fairly and rationally, and public acceptance of those decisions was therefore quite justified and unproblematic. This illustrates the consensual underpinnings of Starr's approach, although, as we shall see, there is a good deal of evidence to suggest that the public now treats all the dealings of 'controlling bodies' with some scepticism (for instance, Bord and O'Connor 1990).

The methods by which Starr quantifies the risks he discusses are acknowledged by him to be crude, and are worth examining. As a rough measure of the riskiness of any particular activity he takes the number of deaths incurred by those taking part and produces a probability factor of "fatalities per hour of exposure of the individual" (p.1234); To calculate the benefits of the activity he assumed that the 'cash-cost' of the activity could be considered a measure of "integrated value" to the participant. Taking the example of skiing;

"The estimate for skiing fatalities per exposure hour is based on information obtained from the National Ski Patrol for the 1967-68 southern California ski season: 1 fatality, 17 days of skiing, 16,500 skiers per day, and 5 hours of skiing per day. The estimate of benefit for skiing is based on the average number of days of skiing per year per person and the average cost of a typical ski trip [data from "The

Skier Market in Northeast North America," US Dep. Commerce Publ. (1965)]. In addition, it is assumed that a skier spends an average of \$25 per year on equipment." (Starr 1969: Appendix, p.1238)

This quote is typical of the calculations which Starr's approach demands, and illustrates the boundaries of the basis upon which the subsequent argument is constructed. Starr applies his model to the issue of "Atomic Power Plant Safety", and arrives at the conclusion that the upper limit of acceptability would be roughly four deaths per year per million-kilowatt power station. He quotes "technical studies" of the likely consequences of a nuclear power catastrophe to calculate that a major disaster every three years *at each such power plant* would still be within his notional safety limit. This might be considered evidence that Starr's approach is unrealistic; he is suggesting that the US public's estimation that nuclear power plants are an acceptable social hazard would not be fatally undermined by a nuclear catastrophe every three years. Even if such accidents caused very few deaths (directly or otherwise), it is difficult to believe that there would not be a huge public outcry and a subsequent, hasty programme of decommissioning.

Starr goes on to suggest that the prohibitive cost of rebuilding a power plant every three years would force the owners to build in safety mechanisms which would far exceed the safety threshold demanded by social criteria (p.1237). This suggests that the economic factors involved are likely to provide a far greater level of protection than the constraints imposed by societal pressure; in other words, the market will provide safety as a built-in addition to the economic benefits of nuclear power. The implication is that governmental regulation is at best a waste of time and money, and at worst an unwarranted intrusion into the workings of the market.¹ The comparisons Starr makes between various types of risk provide a number of interesting conclusions, including the suggestion that risks voluntarily incurred are likely to be more acceptable than those which are involuntary. While he suggests that involuntary risks are those imposed by group decisions which cannot be avoided, others have suggested that the difference is rather one of degree; involuntary risks are simply those "which you have to 'pay' a lot to get out of." (Juas and Mattson 1987: 134). Thus the possibility of avoiding those group risks which particular individuals feel are unacceptable depends to some extent on their financial resources, and the poor are likely to be subject to

¹The connections between such conceptions of risk and their underlying politics is highlighted in a discussion of the economic implications of risk in which the author describes himself as a "right-wing economist" with the belief that government should allow people to "do more of their own deciding" (Lave 1980: 126)

more 'involuntary' risks than the wealthy². Starr also notes that acceptability is linked to the public awareness of the benefits ("real or imagined" - *ibid*: 1237) which might be gained. Nevertheless his approach is an attempt to provide 'controlling bodies' with the kinds of information which might help them to make "judicious national decisions on new technological developments" (*ibid*: 1237) within the framework of a largely consensual society. In a later address to a group of risk 'experts' Starr makes clear his attitude towards public understandings of risk:

"Their [the public's] perception may be so far from reality that you and I know they're absurd, but that's how they feel about it and that's the way they perceive things." (Starr 1980: 4)

Starr's approach displays a reliance on a mathematical scientific model of risk, a further characteristic of the 'conventional approach' (Irwin 1994: 169); this implies that factors which cannot easily (if at all) be converted into a quantitative measure can be ignored. This reliance can perhaps be understood to result from an understanding of the science which underpins it, which privileges science as a unique form of knowledge [see LR2]. It also derives in part from the earlier academic analysis of risk (as opposed to later concerns around *technological* risk) which Douglas has traced back to Von Neumann and Morgenstern's *The Theory of Games*, published in 1944. Game theory focused on the local and individual aspects of risk, emphasising the role of rational self-interest as the primary factor in decision-making. Its mathematical approach influenced economic theory, and clearly also had an effect on the later emergence of risk analysis as an essentially quantitative science (Douglas 1986: 42).

The attitude within some sections of the scientific community - where the gap (in the understanding and appreciation of science) between scientists and the public is one which can be solved by "more vigorous *dissemination*" (Irwin 1994: 169) - is also shared by some of those specialising in the developing area of risk management:

"The main thrust of the discipline will be in educating the public to understand the risk trade-offs that are part and parcel of modern life."
(Kloman 1990: 201)

The traditional technocratic approach to the public understanding of science emphasises the need for more entertaining or "exciting" (Wolpert 1992: 178) ways of presenting science to the public, but is essentially concerned with the 're-education' of the public into accepting the scientific view. Similarly, traditional risk analysis relies on

²This issue is of particular importance in Beck's Risk Society thesis, and is discussed in chapter 9.

the dissemination of the 'real' and 'correct' understandings of the risks with which the public are presented in everyday situations. Changes in presentational techniques are suggested as ways in which the message might be made more palatable for the public, but the message itself is not the locus of the 'problem', which instead resides in the failures of public understanding. This position also allows scientists to criticise media coverage of risks which, in their view, has distorted the 'scientific reality' of the dangers of certain activities. Slovic and Fischhoff suggest that even those explanations in the media of low-level risks, intended to reassure, can increase the perception of risk (1980: 127).

Slovic and Fischhoff's study is implicitly critical of the opponents of nuclear power, and apparently offers a strategy for the nuclear industry to gain greater public acceptance by making a comparison with fears of nerve gas exhibited in a particular case study. They describe the intention of the US Army in 1969 to move stocks of nerve gas to a depot in Hermiston, Oregon; while the state as a whole was 90% opposed to the move, the residents of Hermiston were 95% in favour. The authors suggest four factors for this apparent discrepancy: the previously good safety record of the establishment; the clear economic benefits to the community; patriotism; trust in the institution of the US Army (Slovic and Fischhoff 1980: 130). The authors suggest that these factors may represent the blueprint for a strategy that could be applied to the problems encountered by the nuclear power industry; however, they do not examine in any detail the validity of such perceptions. There seems to be an assumption in their analysis that the residents of Hermiston knew something that the rest of Oregon did not, and that their trust in the Army and expectation of jobs and other benefits could be clearly, unproblematically relied upon. Otway and Pahner note similar studies in which those living nearer a nuclear power plant consider it to be less risky than those living further away, and suggest that two possible explanations arise: either that the local population are simply better informed as to the risks they face, or that they are affected by some process of psychological denial as to the true risks involved (Otway and Pahner 1980: 157). Slovic and Fischhoff apparently believe the former. Neither they nor Otway and Pahner discuss the possibility of a further potential reason: that such perceptions may be subject to pressure from the various groups involved, who may have disproportionate access to the resources necessary to communicate their positions to the publics concerned.

Slovic and Fischhoff are critical of some aspects of Starr's 'revealed preference' approach, which they acknowledge is inherently conservative and takes no account of the qualitative changes in the types of risk which are increasingly apparent (1980:136);

nevertheless, their psychological approach generally promotes an educative solution to the problem of the gap between expert risk analysis and public risk perception. Similarly, Slovic (1987) problematises Starr's assertions concerning the receptiveness of the American public to the risks implicit in nuclear power by suggesting that there is evidence of resistance to such risks. He notes for instance that while the Three Mile Island accident killed no-one, it nevertheless produced "costly societal impacts", including the ruination of the company operating the plant, stricter and more expensive regulatory controls, greater opposition to nuclear power and subsequent reliance on arguably more expensive sources of power. These were "higher order impacts" on systems rather than individual health effects (Slovic 1987: 284). This understanding of the socially produced costs is an interesting corrective to Starr's apparent dismissal of such issues; however, the emphasis is still on quantitative financial costs, with an implication that these problems need to be avoided through the re-education of an irrational lay-public.

Recent approaches

Risk analyses such as Kloman's (1990; see above) have often taken the position that differences between expert assessments of risk and those of the public are due to the faulty perceptions, misunderstanding, or irrationality of the latter. The emphasis was on educating the public to accept the experts' view:

"So, instead of a sociological, cultural and ethical theory of human judgement, there is an unintended emphasis on perceptual pathology."
(Douglas 1986: 3)

This focus on public irrationality works to provide some protection for what Douglas believes is a "too narrow definition of rationality" in more traditional approaches to risk. The emphasis is often on potentially misleading statistical explanations:

"...it pays to be sceptical of quantitative results of risk assessments and to recognise that the appearance of great accuracy that precise numbers in such analyses carry with them is spurious" (Kasper 1980: 71).

Those who use and promote the conventional approach to risk tend to become frustrated when their quantifications of risks are ignored by a seemingly irrational public; they want to see the public *perception* of risk fall into line with the narrow scientific rationality of the expert risk analysis. Fischhoff has noted that such an understanding ignores the subjectivity involved in both 'real' and 'perceived' risk; from

this perspective, the differences between the two are simply those between two sets of perceptions - those of scientists and risk experts, and those of the public (Pidgeon et al. 1992: 97). Douglas argues that the quantification of risk perception is doomed to fail, as such a process requires a "fixed scheme of valuations" in order to begin its calculations; but such valuations cannot be made until the acceptability of a risk has been defined. This 'catch-22' is further underlined by the point that values are in any case culturally defined and unlikely to yield to quantification (ibid: 14); furthermore, one result of the social changes since the 1960's (a period in which risk has become an "urgent social concern" - Sjoberg 1987: 1) is that quantifications of risk are well understood to be "highly manipulable" and therefore likely to carry very little authority (Douglas 1986: 23). The emphasis on the notion of an ideal 'rational man' (sic) reacting to expert assessments of risk is mistaken, because:

"...behavior can be intelligent ("functional") without following 'the standard procedures of calculated rationality'." (Bjorkman 1987: 30)

The implication is that such a definition of 'intelligent' comprises more than the assimilation of information provided by the narrow rationality of traditional approaches to risks.

The traditional approach to risks can also be criticised as an essentially individualistic understanding which ignores the dynamics of collective social behaviour. Garrett Hardin has set out a hypothetical situation concerning the use of common land as an illustration, in which the land is available for farmers to graze their flocks. Acting 'rationally', each individual farmer would attempt to maximise her own gain from the land by increasing the size of her flock; but if every farmer does this (as, on an individual rational basis, they should), the land will be destroyed for everyone. This is one aspect of what Hardin calls the 'tragedy of the commons' (Hardin 1991: 37-9): the 'rational' actions of *individuals* can lead to *communal* disaster. From a similar perspective, Douglas describes Fried's notion of the 'risk-pool' as an approach which moves away from the emphasis on individual risk-decisions. In this model, an individual in a community is allowed to take on a risk on behalf of the group, thereby dipping into the risk-pool (in which the communal risks to a society or community are collected), in order to enhance her own well-being. In return, she must accept exposure to risk from the actions of others when they too attempt to gain benefit for themselves (p.14). This is clearly far from a comprehensive model (not least because, as formulated here, it has no notion of inequality among members of the community), but at least both Fried and Hardin are pointing to the *collective* nature of many modern risks. It might be argued that the move from a focus on individual risks to a more

collectivist approach is one of the defining characteristics of the development of the more recent understandings of risk. One discussion of issues around environmental risks suggests that:

"...environmentalists 'threaten' us with collective risks whereas supporters of growth 'threaten' us with individual risks" (Selin 1987: 157)

These 'supporters of growth' are those who assume that the dangers of losing your job, for instance, should outweigh fears concerning the environment which affect everyone; opposing such a view are those who emphasise collective risks in which everyone is threatened³.

The measurement of the public awareness of risks is particularly problematic. Douglas notes studies that suggest, for instance, that individuals overestimate the dangers of rare events and underestimate the risks from common events (Douglas 1986: 21); but such rational assessments of probabilities do not necessarily translate into effects on attitudes and behaviour. The conventional approach to risk, in which the public require an education which will provide them with a full understanding of any particular risk factor (and thereby close the gap between expert and layperson) assumes that a 'full' understanding in an absolute sense can be achieved.⁴ Providing the statistical evidence, however, simply may not be enough to convince any particular individual of the wisdom or folly of accepting a risk. Indeed, it is arguable that the gambling industry is founded on the psychological factors which convince people to take risks on things which mathematically - that is, in terms of quantitative, scientific rationality - should be avoided (Bem 1980: 5). This perhaps highlights the problem in the traditional risk management approach which Levidow characterises as the 'reification of risk' (Levidow 1994); by treating risks as things, discrete and unproblematic, a simple explanation of the risk would seem sufficient for each individual to grasp the essence of such an object. The resistance of the public to such arguments then leads directly to an emphasis on public (mis-) perceptions, or what Douglas calls "perceptual pathology" (Douglas 1986: 3). Levidow contrasts this approach with that of social scientists who question the assumptions on which such analyses are made:

³ Again, this issue re-emerges in my later discussion of the Risk Society thesis (Chapter 9)

⁴ Starr considers this problem from the perspective of the expert when he discusses the problem of the need for 'full disclosure' in their explanations of risks and their consequences, and how it is often difficult for scientists to decide how 'full' is 'full' (Starr 1980: 3)

"The former approach favours a quantitative risk assessment as the basis of scientific rationality, seeking a single measure of objective risk. By contrast, social scientists investigate how efforts to quantify risk always entail some cognitive framework." (Levidow 1994: 442)

This acknowledgement of the relative nature of 'scientific rationality' opens the way for an examination of other forms of rationality which take some account of the complex social factors that affect attitudes to science and risk. Irwin notes that a number of terms have been used to illustrate these "public knowledges", but that they all relate to how bodies of everyday understanding are worked on outside of the laboratory, and relate only indirectly to the "...apparently...decontextualised languages of science" (Irwin 1994: 170).

Perrow's attempt to underline the poverty of traditional risk assessment highlights what he sees as three kinds of rationality: absolute, bounded/limited, and social.

i) Absolute rationality

This is roughly equivalent to what Irwin calls 'scientific rationality'; it "...requires narrow, precise, quantitative goals..." (Perrow 1984: 321), and is exhibited by the strict risk-benefit approach in which, for instance, nuclear power can be shown to be the 'best', and preferable to coal. Clearly, such an understanding is evident in Starr's approach (which Perrow describes as the "first body-count analysis" (ibid: 364)) as well as in others; Perrow notes a 1979 study by Combs and Slovic which, he says, "...deplores the public's unawareness..." that diabetes causes more deaths than murder. The study implies a perceptual bias in the public, perhaps caused by media sensationalism, but Perrow highlights the lack of the social dimension, in which (in our society and many others) murder is an almost uniquely powerful social taboo, an affront to human dignity and sense of security. He further points out the assumption of equality between deaths with different causes such as fifty thousand road deaths per year and the same number killed in a single catastrophe (Perrow 1984: 308). The inadequacies of absolute rationality as a guide to risk judgements is illustrated in Perrow's hypothetical example of a corporation which takes the advice of a risk assessor and decides not to install an expensive safety device which would, statistically, save the life of one of its workers. The decision will avoid the need for product price increases and cuts in share-holder dividends, and competition for jobs at the corporation will not be significantly affected (due not least to mass unemployment). Only one, anonymous worker will die - so it is clearly worthwhile: "...

in risk analysis terms, it is a good bargain." (Perrow 1984: 309). Absolute rationality, in effect, takes a positivist view of risks, and is therefore insufficient as a framework for the understanding of public attitudes:

"For most [risk assessment], the focus is on dollars and bodies, ignoring cultural or social criteria." (Perrow 1984: 314)

ii) Bounded/limited rationality

Derived from cognitive psychology, this form of understanding takes into account the human factors which limit our ability to take in all the possible information which would aid decision-making. Here, rationality is limited due to memory and attention span; to lack of education and training; and also to the 'heuristics' - that is, the rough estimates - that people employ to make decisions, which may not follow a strictly rational pattern. Perrow gives the example of the availability heuristic, in which people base decisions on the examples or choices most easily available to them rather than on the full range of possible alternatives. Basing your holiday plans on the news of the latest plane crash, rather than on the longer term safety record of commercial flights, is an illustration of the application of the availability heuristic to produce a form of limited rationality. Clearly this approach exhibits more sympathy for public resistance to absolute rationality, and an understanding of the reasons for such "technically faulty" logic; it is still however considered to be an 'error', and ultimately implies a solution in public conversion or education to the expert view.

iii) Social rationality

Perrow proposes a third form of rationality which values and takes seriously the psychological limits which constrain attempts to think and act on a purely rational basis. He accepts the 'psychometric' dimensions of risk judgements posited by (among others) Slovic (1987) whereby the public make decisions on the basis of their perceptions of whether a proposed risk is, for instance, voluntary, well understood, controllable, has catastrophic potential, and presents a threat to future generations. However, Perrow views these 'perceptions' not as examples of flawed logic, but as valuable traits. The different emphases which individuals place on these limits represent the social diversity which enhance co-operation and promote "social bonding" (Perrow 1984: 321). These psychological limits also provide a framework in which different values can confront each other in a legitimate debate without being dismissed as 'irrational'. Perrow suggests we should learn to love our limits, and accept their role in the process of risk assessment:

"A technology that raises even unreasonable, mistaken fears is to be avoided because unreasonable fears are nevertheless real fears."
(Perrow 1984: 321)

Risky technology may, by the definitions of absolute rationality, be considered 'safe', but may nevertheless cause psychological harm, and is therefore to be avoided. Perrow sees social rationality as providing a 'thick' explanation rather than the 'thinness' of the explanations offered by a narrow, quantitative, absolute rationality (Perrow 1984: 328).

Popular Epidemiology

Other attempts to take into account public understandings of risks have focused on specific incidents within the sphere of medicine and health. A study which highlights the differences between lay and professional approaches to epidemiology takes as a case study the pollution and resulting childhood leukaemia cluster which emerged in Woburn, Massachusetts over a period of more than a decade beginning in the early 1970's (Brown 1992: 267). Brown notes that in this particular case, as in others (such as the earlier Love Canal case), a 'popular epidemiology' develops in which local people challenge traditional epidemiological approaches by emphasising social structures and taking a broader approach. While conventional epidemiology studies the distribution of a disease and the causes for that distribution in an attempt to explain and prevent the spread of the disease, its 'popular' variant involves the affected community (rather than outside experts) in the gathering of scientific data and the marshalling of knowledge and resources. These laypeople include social structural factors as part of the causal chain, and ignore the boundaries (an essential part of the scientific conception of traditional epidemiology) between science on one side and judicial and political action on the other; that is, they become both *scientifically* and *politically* active (Brown 1992: 269). Nine stages of 'citizen involvement' are suggested:

- i) Both health problems and pollutants are noticed by local people.
- ii) A connection between the two is hypothesised.
- iii) The residents share information and develop a common perspective.
- iv) The group contacts officials and requests information on the subjects concerned.
- v) The group becomes organised, develop pride in their own researches and learning.
- vi) Official agencies investigate and deny a link, asserting their own unique authority in definition and ownership of the problem.

- vii) The residents recruit their own experts to conduct scientific research.
- viii) Confrontation and litigation occurs.
- ix) Group presses for acceptance and corroboration of its findings.

Brown conceives of popular epidemiology as a way for communities to take control of science by directing it in their own interests:

"While epidemiologists admit to the uncertainties of their work, their usual solution is to err on the side of rejecting environmental causation, whereas community residents make the opposite choice" (Brown 1992: 271).

This provides the basis for a critique of the notion of a 'value-free' science; the citizen-activists of Woburn saw themselves as tackling problems which traditional approaches had failed to investigate due not to any objective weakness of their case, but because of the various social forces which had defined their situation as non-hazardous. The experts' assertions of impartiality were countered by the argument, derived from the sociology of science, that all science occurs in a social, political and economic context.

The disputes between the two approaches to epidemiology are evident in a number of areas. Firstly, the standards of proof demanded by scientists and officials are often higher than seem necessary for those involved, and the experts are seen as grasping for an impossible perfection in the construction and analysis of their research. This often becomes a demand by the residents concerned for a 'better safe than sorry' approach which may be more in evidence in clinical medicine than in the laboratory science standards of traditional epidemiology (Brown 1992: 274). Institutional constraints also work to direct scientific investigation. Brown notes the increasing reliance of (US) universities on corporate and government research, and official reluctance to support scientists who challenge orthodoxies or existing canons (*ibid*: 275). Also, official information and research data can be lacking; the data from the Department of Public Health was found to be poorly constructed and methodologically weak. A further dispute concerns the mystification of scientific understandings which Brown suggests occurs when traditional epidemiology asserts its unique status. Citizens groups help to de-mystify scientific authority and to move the issues from the purely technical arena to that of political action. In a parallel situation, Wynne's studies of the use of dangerous herbicides found that the assumptions concerning working conditions made by toxicologists were idealised, and that the real conditions of use of such products (initially dismissed by the authorities as anecdotal) did represent a serious health risk.

The assumptions made by the experts illustrate a purely technical rationality; as a model of the real world, they were completely inadequate (Pidgeon et al. 1992: 117).

Brown contrasts his notion of popular epidemiology with that of an anti-scientific 'folk knowledge'. The former works *with* scientists, but explicitly includes lay perspectives and concerns. In this sense it can be seen as an alternative, more explicitly inclusive *kind* of science rather than an alternative *to* scientific enquiry (ibid: 278); this, as we shall see, is echoed in Beck's call for a more reflexive science (Beck 1992)⁵. This approach implies that public understandings need to be incorporated not just at the stage of policy-making (or risk management), but during the scientific analysis conducted in risk assessments.

Lay epidemiology

A similar understanding of public attitudes to health is described in Frankel et al.'s discussion of the reasons for scepticism concerning health education messages. 'Lay epidemiology' is defined as a process in which

"... individuals interpret health risks through routine observation and discussion of cases of illness and death in personal networks and the public arena, as well as from formal and informal evidence arising from other sources, such as television and magazines." (Frankel et al. 1991: 428)

Thus, the public take into account diverse sources of information in assessing risks. Frankel et al. suggest that health risks are perceived on a number of criteria as either 'bad but desirable', or 'bad and poisonous', and it is this distinction which helps people to judge risks. Thus a potential risk which is perceived as having acute effects of a specific nature, which is imposed by others, and with no accompanying benefits, might be categorised, in Frankel et. al.'s analysis, as 'bad/poisonous'; the hazards are "easily imagined" and are unlikely to be deemed acceptable by those with such perceptions. By contrast, a risk whose impact is seen as distant, variable or vague, and brings benefits to those who choose to accept it, would be classified as 'bad/desirable', and therefore might be judged to be worthwhile. The authors suggest that specific food scares such as listeriosis in soft cheeses or salmonella in eggs may generally fall into the former category, while dangers deriving from the links between, for instance,

⁵Beck's approach has, in turn, been criticised as an apologia for science (see Bauman 1992, and the discussion in chapter 9)

cholesterol, heart disease and certain foods, are perceived as less immediate, and therefore less risky (Frankel 1991: 429). The classification of risks along the continuum between 'bad/poisonous' and 'bad/desirable' is not a technical question, but involves the various diverse understandings which might be applied to each particular risk situation. Risks about which the public are sceptical might therefore be perceived as being closer to the 'desirable' end of the spectrum, even though health education messages might be produced to explain the dangers they entail. Non-technical messages about the risks, including such things as advertising and popular jokes might work to negate the technical health messages, and imply that the risk is more desirable and acceptable (Frankel et al. 1991: 429). Frankel et al.'s approach differs from that of Brown in that the former is more concerned with public resistance to official health messages, and how such resistance could be countered; the latter, by contrast, questions the basis on which such messages are constructed. Nevertheless, both accept the failure of traditional technical explanations to account for the complexity of responses to perceived risks, and call for a more inclusive form of epidemiology. Frankel et al. conclude that a more successful approach to health education might be to explain the balance between current knowledge *and ignorance* towards risks; this might help to build trust in what is seen as a sceptical public (ibid: 430).

Slovic compares expert assessments of risk with what he describes as "...intuitive risk judgements, typically called 'risk perceptions'." (Slovic 1987: 280)⁶. He attempts to highlight the weakness of earlier approaches by contrasting Starr's 'revealed preference studies' (which take current levels of social risk as a baseline for calculations) with his 'expressed preference' approach, which allows people to explain their own assessments of risk (ibid: 281). This, he suggests, helps to emphasise the differences between public understandings, in which the more dreaded a risk, the greater the need for regulation or risk reduction, and those of experts who measure riskiness along one main measure: expected annual mortality. This uni-dimensionality of conventional risk assessment has been criticised by others, such as Hansson (1989) who attacks the "technocratization" of risk and calls for an understanding of the complexities of risk perception. It is this distinction which Slovic sees as crucial to the difference between expert and lay understandings:

"To many people, statements such as 'the annual risk from living near a nuclear power plant is equivalent to the risk of riding an extra three miles in an automobile' give inadequate consideration to the important

⁶ The language here betrays the bias which, to some extent, is inherent in most discussions of risk, from whatever perspective, in that the experts 'assess', while the public merely 'perceive'.

differences in the nature of the risks from these two technologies..."
(Slovic 1987: 285)

To many conventional models of risk there is no difference in outcome between the two activities and therefore no reason to distinguish between them other than groundless irrationality; others however assert that people do differentiate between such outcomes. Juas and Mattson for instance note the difference in public attitudes towards 'catastrophes' and 'common-place accidents' (1987: 133). Slovic makes a similar point, although his analysis tends in parts to imply that the gap which he identifies between *perceived* and *desired risks* can be closed by changing public attitudes - one suggestion is to "...broaden people's perceptions..." perhaps by including information on comparative risks. In some senses then, Slovic seems to revert to a traditional form of risk analysis; nevertheless, he concludes that risk communication and management must become a two-way process in which lay understandings ('intuitive risk judgements') are given their full weight (Slovic 1987: 285).

Covello's review of the problems found in studies of risk communication (1992) notes four stages in the chain at which difficulties can occur. Firstly, the scientific data about risks is often uncertain, provoking different assessments from different groups. The science also often fails to provide information on the underlying assumptions upon which data is interpreted. Secondly, the organisations which produce risk information, such as Government and industry officials, are considered untrustworthy; Covello refers to a "heritage of mistrust" (in the US) between the public and industry (1992: 361). This is exacerbated by poorly resourced and co-ordinated regulatory systems. A third area concerns media reporting of risks; Covello notes that much of the research has focused on the ways in which the media create problems, rather than how they can help. Nevertheless, he emphasises the effects of news values (the 'bias' towards drama, conflict and uncertainty), the tendency to over-simplification and lack of contextualisation, and the pressures of organisational constraints on journalists (deadlines, lack of specialist expertise, need for 'balance') as elements which have been presented as problems for risk communicators. Finally, public evaluation and interpretation of risk is also problematic; risks are inaccurately perceived, complexities are ignored. The public hold on to their opinions in the face of strong evidence to the contrary, demand scientific certainty, and hold unreasonable expectations of the effectiveness of regulatory action (ibid: 366). Covello's definition of this last area as problematic might imply a perspective sympathetic to traditional forms of risk analysis; however, his assertion that risk acceptability "...involves not a technical question but a value question." (ibid: 367) suggests a critical attitude to the conventional approach.

Power, Politics and Risk

The explicitly political aspect of risk decisions is addressed by Nelkin's introduction to a collection of essays on occupational health (Nelkin 1985). She asks whose judgement is to be considered in the evaluation of risk in order to highlight the various interests which have a say in such decisions. In considering occupational risks, she suggests that it is not just workers and employers who are involved, but also "...scientists, company directors, lawyers, agency administrators, journalists and policy experts." (ibid: 13). It is the conflicting values of these different groups which are brought to bear in risk disputes, and different groups define risks and their solutions in different ways. Defining risks in terms of technological problems implies the need for a technical solution arrived at by objective and neutral experts; definition as a matter of social justice by contrast suggests the need for a political settlement with input from all those concerned (ibid: 21). These different approaches talk in different ways about the definitional process:

"The dialogue about risk and justice tends to be conducted in two languages: traditional English rhetoric on behalf of regulation and mathematical language on behalf of principles of free choice." (Douglas 1986: 13)

This highlights the link between the statistical, quantitative language of traditional risk analyses and the ideological position which it supports. As a "technical-legal term" (Levidow 1994: 440), risk defines a specific role for experts and confines the search for solutions to "...a terrain of correctable defects within industrial-capitalist progress..." (Levidow 1994: 440)⁷. Levidow contrasts this with an approach which accepts that all such definitional positions presuppose particular cultural values, and that such values need to be seen in terms of social power relations (ibid: 448).

In a further study which illustrates the need for a wider, more political analysis of risks, Lowrance has drawn attention to a 'recent' US Food and Drug Administration proposal to limit exposure to the carcinogenic hormone diethylstilbestrol (DES), which is used to fatten cattle (Lowrance 1980: 12). He mentions a "...risk level of one in one million over a lifetime..." and suggests that if accepted, the proposal would be

⁷Watson has characterised the notion of a value-free understanding of risk as the 'phlogiston theory of risk', in which objective risk is a "unique substance, given off by a physical process, and at a rate which can be determined precisely by risk assessment." (Pidgeon et al. 1992: 94).

"...one of the first regulations explicitly to acknowledge a specific contribution to the overall human carcinogenic burden." (ibid: 12)

Leaving aside the precise meaning of the 'risk level', Lowrance seems to see this as a necessary step on the road to balancing risks and benefits, in that the risk should be seen as acceptable when balancing the benefits to be gained from the (regulated) use of the drug. However, such a position fails to question the actual benefits accruing; who actually gains, and who is most likely to be exposed to the 'one in a million' risk? It is arguable that there is no substantial 'social' benefit in accepting such a risk, and that such issues need to be understood in terms of the power differentials between the groups involved.

Risk in the Media

Studies of media representation of risk (and audience reception of those representations) can be seen to reflect the approaches discussed above. Some analyses of media coverage of risk issues for instance are critical of what they see as a failure to present the complete picture. Wilkins and Patterson (1987) surveyed the news coverage of a number of 'disasters' such as the chemical leak at Bhopal and the explosion at Chernobyl, focusing on the way in which the risks involved were represented. They criticise the effect of news values in focusing on 'novel' risks such as unusual disasters and ignoring well known risks such as car accidents; furthermore, news is 'event-centred' and fails to explain the system within which events are embedded. News accounts also fail to present the technical arguments clearly, because they:

"...use images that carry with them such strong cultural and emotional overtones [that] translation of the mathematical precision of risk analysis is problematic." (Wilkins and Patterson 1987: 82).

They found that the coverage of Bhopal and Chernobyl reflected this analysis; news accounts used a "cultural and dramatic frame" for problems which were considered by experts to be "primarily technological". This is presumably the kind of analysis which Douglas, Irwin and others would criticise for its emphasis on the technological aspects of risk; while a manipulatively emotive representation might well be unhelpful, defining risks as purely technical problems inhibits any understanding of the political and ideological elements concerned. Indeed, Wilkins and Patterson's analysis does seem to exhibit a lack of awareness of the issues of power relations:

"In news accounts, the problem with Bhopal and Chernobyl was people - or perhaps a corporation or government - rather than a collective societal decision to assume a series of risks and their attendant benefits. Journalists' versions of risk, in this sense, were more like those of the lay public than those of experts." (Wilkins and Patterson 1987: 89).⁸

They go on to admit that this correlation between journalistic and lay perspectives - and the distinction from expert understandings - might not be "completely undesirable", but the emphasis is clear: journalists should be trying to present the technical, expert perspective. A further implication is that the risks involved at Bhopal and Chernobyl were indeed accepted on the basis of a "collective societal decision", a position which clearly takes no account of the various political and social structures and pressures under which such decisions were taken. It could therefore be argued that in both cases risks were imposed on the public by agencies (a massive foreign commercial power, and an authoritarian government respectively) controlled by elites who were in a position to gain most from the benefits while passing on most of the negative possible consequences to the local populations. The balance between risks and benefits, even on quite narrow measures, differed greatly between those who made the decisions and the individuals within the local community. Wilkins and Patterson's call for more journalistic attention to 'context' however does not seem to be intended to illuminate this particular perspective; rather, the kinds of contextualising information which they feel is lacking contains "crucial comparative data" (ibid: 82) such as, for instance, lives lost per thousand, or additional cases of cancer in the next twenty years; that is, quantitative information⁹. This contrasts with Keane's emphasis on the media's role in his call for renewed democratic procedures which could provide a more balanced public approach to risk issues. His assessment of the need for 'context' relates to alternative scientific interpretations and links between various risks (Keane 1991: 175-182). This is perhaps an illustration of what can be understood as an "incomplete risk characterisation", in which different groups have different concerns with regard to a particular risk decision (Lofstedt 1996); a complete risk characterisation would take account of the definitions of risk produced by the public or by 'external' or dissident scientists.

⁸By contrast, Keane suggests that media coverage often follows the conservative orthodoxies of "governments, corporations and professional information czars", with little attention given to dissident scientists or events which are not pre-packaged (Keane 1991: 176)

⁹The question of what constitutes relevant 'context', and what represents 'decontextualisation', is an issue which also emerges in my interviews with representatives of food industry organisations concerning their relations with the news media; see chapter 8)

In the same way that individual 'objective' facts can be understood as part of an argument with an underlying ideological component, calls for contextual information are often intended to highlight a *particular* context in which the argument is strengthened; they have nothing to do with uncovering a more fully objective 'reality'. This is further illustrated in a study of media coverage of stories with risk elements in a sample of newspapers, magazines and television news from 1984 (and 1960 for comparative purposes). Singer and Endreny (1987) found that the media emphasised the seriousness of the outcomes of the risk issues they covered:

"But they fail to put such risks into perspective - not only the perspective of alternative hazards, which would be asking a good deal, but even the perspective of how likely such outcomes are: that is, the risk of their occurrence." (Singer and Endreny 1987: 25)

In their view, the missing perspective is that which can be provided by the risk expert: the context of other hazards and the statistical risk assessment. The authors conclude that the information presented by news media in such cases is "woefully inadequate" (ibid: 25). Other studies deplore the lack of correlation between news coverage and scientific assessments of risks, finding that the main criteria for the coverage were journalistic news values, and calling for a 'mirror model' of news to reflect the reality of risk situations (e.g. Greenberg et al. 1989).

The views of scientists concerning the representation of risk was one of the elements of a study by Salomone et al. (1990). They tested the reactions of a number of five-person panels (each consisting of an industry representative, a government official, an environmental advocate, an academic scientist, and a journalist), to a series of news stories about environmental risks, with each person classifying each story in terms of its success on a number of criteria. It was found that in general scientists gave relatively low ratings of quality while environmental advocates gave relatively high ratings. The scientists felt that many of the stories omitted relevant information, and included out-of-context quotes and misleading headlines (ibid: 118). Salomone et al. initially hypothesised that journalists might prefer stories which were about serious, alarming risks, but found that the journalists' criteria for evaluation emphasised the credibility of the sources used rather than the substantive content of the reports. Both scientists and industry representatives favoured stories which promoted trust and reassurance; that is, those which provided "accurate risk information" (ibid: 126). By contrast, the advocates were not as concerned with the need for stories to be alarming and imply a sceptical approach to the authorities, an attitude which Salomone et al.

suggest is due to their perceived need to support those industries and regulations which they see as progressive:

"...traditional news sources - scientists and representatives from government and industry - are more interested in supporting the status quo than journalists are in undermining it." (Salomone et al. 1990: 117)

This study therefore suggests that 'official' sources seem more likely than 'advocate groups' to be able to control the media construction of risk definitions, a point made elsewhere in this study (see chapter 1). Nevertheless, its orientation is clearly towards the examination of the 'problem' of alarmist or inaccurate risk information. Sjoberg notes that there has been rather more research on risk *exaggeration* in the media than on risk *indifference*, perhaps reflecting the position of funding agencies in the power structures which are implicitly criticised by some oppositional perspectives (Sjoberg 1987: 240). It might be argued that, just as there are 'significant silences' within the media coverage of risks, there are similar absences within the research literature; these may well feed in to the definitional perspectives from which risk news is constructed and presented.

As we have seen (see Nelkin 1985 above), occupational risk is one area in which the political dimensions of risk are perhaps more apparent. Raymond's comparative analysis of 'mainstream' press and 'advocate' press coverage of occupational hazards considered whether the stories concerned defined the issues involved as either a scientific and technical issue; a legal or bureaucratic issue of regulation and control; an economic issue of production costs and jobs; a political issue of workers against bosses; or as a 'sociocultural' issue (Raymond 1985: 99). In one case study she analysed the news concerning temporary, casually employed workers who undertook brief assignments in the nuclear power industry under conditions of relatively high radiation. These were jobs which the skilled technicians employed by the power companies could not undertake as it would mean them exceeding the maximum dosages allowed, and being therefore unavailable to undertake the more complex skilled tasks for which they had been trained. Raymond found that while mainstream newspapers portrayed these 'jumpers' as well-informed and well-paid, the advocacy press found them to be generally frightened of, and uninformed about, the risks they face (ibid: 100). In another example, the illnesses caused to workers who produced a toxic chemical (Dibromochloropropane) were considered by mainstream news accounts to be unfortunate but largely unavoidable, while advocacy newspapers specifically blamed industry and government for the failure to protect those workers (ibid: 109). In general, Raymond concludes that the different definitional positions of

the two presses (particularly the "...technical/bureaucratic orientation..." of the mainstream press), can be traced to the models of society which they implicitly endorse. The conflict model of the advocacy press provides the opportunity to highlight the power relations which affect the imposition of occupational risks, whereas the consensus model held by the mainstream newspapers leads them to emphasise technical solutions and the economic balance of costs and benefits in production and jobs (ibid: 119).

In a similar study which focuses more particularly on the definitions provided by the groups and organisations involved, Hilgartner compares industry representations of a number of issues with those produced by 'labor advocate groups' (which apparently includes both trades unions and the regulatory agencies which are part of government). On the issue of economic risks for instance, Hilgartner finds that industry emphasises the dangers of higher prices, fewer jobs and businesses, whereas labour groups argue that such risks are exaggerated, and the real threats are to profits. Industry sees regulation as an attack on freedom, un-American and bureaucratic; indeed, Hilgartner notes the reaction of a US senator, who described the actions of government inspectors as "Gestapo tactics" (Hilgartner 1985: 40). Labour groups treat regulations as essential protection of workers from exploitation. More generally, Hilgartner (like Raymond, above) detects a clash between a consensus model of society on one side, and a conflict model on the other (ibid: 49); and it is via these conceptions that each side works to impose its own definitions of occupational risk. While he asserts that both sides use, among other tactics, the language of 'facts' and 'science' in their arguments, the examples offered arise from the industry representatives. For instance, industrial definitions of risk emphasise low doses, minute quantities and traces, offering a quantitative account and implying that the corresponding risks are likewise small; when they assert that there is 'no evidence' of any particular risk consequence, they are implicitly employing a *scientific* model in which evidence needs to be above certain thresholds, be reproducible and quantifiable (ibid: 29).

A further study into audience responses to different approaches to risk compared the accounts of audiences for three films concerning nuclear power (Corner et al., 1990). The first film was a broadcast documentary, aiming at a 'balanced inquiry' into the issue. *The Uncertain Legacy* contrasts the benign appearance of Trawsfynydd lake with the hazardous reality of the radiation which it contains (due to the nearby nuclear power station). The narrator mentions statistical evidence, but immediately undermines it by asking where it came from, a rhetorical device which helps to erode the apparent authority of such quantitative information. The second was a promotional film

produced by the Central Electricity Generating Board (CEGB) which uses a news-style approach in emphasising the 'normality' of nuclear power. A well-known TV current affairs presenter, Brian Walden, is seen to be 'investigating' the issue, while objections to nuclear power are aired and answered. This 'ventriloquistic device' allows the film, in the researchers' views, to feign objectivity while retaining control of the debate and effectively silencing dissent; it is stated, for instance, that there is "no risk" of a Chernobyl-type accident in Britain "to set against the benefits." (Corner et al. 1990: 115). The film represents a "sustained technical exposition" (ibid: 113). The third film is an independent production made for Trades Unions and community groups as input for a wider debate. It was not intended as a 'balanced account', but instead aims to be provocative, and relates the fictional accounts of those involved in an accident at a British nuclear power station. Corner et al. contrast the CEGB film's reassurances, based on technological rationality, with this third film which implies that an emotional response, to such a risk situation, is a valid and rational one, "considering the scale of the risks involved" (ibid: 115).

The researchers chose nuclear power as an issue because its scientific complexity makes the viewer more than usually reliant on media explanations and representations of the debates. They found that the audiences for the three 'texts' were not necessarily convinced by the apparent rationality of the CEGB film; its "dense factuality" only served to highlight its occasional lapses into rhetoric and persuasion (ibid: 117). The assertion that "the risks are small" also implies an unbalanced view of risk, with no account taken of the negative effects of the possible outcome. This is again contrasted with the trades union film, which includes an assessment of what those possible negative consequences might mean. In general, Corner et al. found that audience perceptions of risk texts were critical, and did not particularly favour those which professed a rational or scientific basis (ibid: 118).

Another focus group study, focusing on women's attitudes to food irradiation, found that wider social factors were more relevant in explaining their perceptions of the risks involved than technical explanations:

" These results suggest that effective risk communication may be more a problem of ensuring trust than it is an issue of explaining risk/benefit analysis in lay terms." (Bord and O'Connor 1990: 506)

The respondents' need for a relationship of trust between themselves and those institutions and organisations responsible for food safety contradicts the 'deficit model' of risk communication, in which the public needs only to understand the scientific

'facts' of such cases to gain reassurance; nevertheless, the problem of providing and promoting trust - in industry, government, and science - remains. Luhmann suggests that experts occupy positions of authority in order, in effect, to relieve the public of the need to understand each particular issue as it comes along; that is, they provide authority in order to alleviate the need to communicate the complexities of their fields to every member of society. The loss of faith in experts of all kinds over the past three decades means that this is now called into question, but Luhmann warns against assuming that better explanation of the issues involved can compensate for the lack of trust in expert opinion:

"In brief, authority that serves to ease the burden of communication cannot be replaced by communication." (Luhmann 1993: 116).

Warner acknowledges the call, among those approaching the study of risk from a social science perspective, for a more inclusive process of risk management (1992; also, Lofstedt 1996), whereby non-expert opinion and evidence is given greater weight. He contrasts this with the opposing view of those who defend the privileged position of scientific rationality, who insist that extending the ambit of risk decision-making would result in ill-informed contributions, scares and over-politicisation (Warner 1992: 12). Such arguments however need to provide explanations for the loss of trust in industrial, governmental, and scientific authority, and make clear exactly how more scientific 'education' of the public would restore that trust.

Summary

Food scares can be seen on one level as issues of risk, and in particular of risk communication. Traditional understandings of risk, deriving from a mathematical and quantitative perspective, emphasise the need for increased dissemination of risk information from within a theoretical framework which problematises public and media understandings of probabilistic data. Media representations of risks are often assumed to be sensationalistic and statistically naive, generating unfounded fears in the public. This traditional, technocratic approach also tends to focus on the effects of risks on individuals who would, with the appropriately 'accurate' risk information, act rationally in rejecting emotive and scare-mongering conceptions of risks. By contrast, more recent approaches to risk have emphasised the importance of perceptions and perspectives which, while not fitting into traditional notions of rationality, nevertheless provide useful frameworks for measuring and evaluating social risks. Rather than emphasising *probabilities* measured in quantitative terms along a small number of dimensions (if not a single dimension), these 'social rationalities' can often focus on the

magnitude of the risk, and the implications of the negative hazards which might be unleashed. Thus, these recent approaches are less concerned with the precise *likelihood* of any particular hazardous outcome for any particular individual, and more interested in the impacts of such hazards on social groups *if it did happen*. Furthermore, from this perspective models and methodologies of traditional risk analyses are viewed as hopelessly narrow and abstracted from the reality of an unquantifiable, unmeasurable social world in which human perceptions must be acknowledged, understood, and accounted for.

Chapter 4

News: Models and Approaches

A number of studies of news, from various perspectives, have offered specific models, theories and frameworks with which to analyse and understand the processes and final products of news production. Applying these to the current food scare case studies helps to illuminate the particular characteristics of the case studies while also testing the models of news against specific examples. More detailed empirical data are examined in later chapters; the case studies are examined here in a relatively generalised manner, although some brief empirical examples are discussed where necessary.

Galtung and Ruge: News Values

The selection of news by journalists as one element in the production of news is discussed in anecdotal terms in many studies of journalistic practice (e.g. Willis 1991; Miller and Williams 1993). This particular element of news production was examined more systematically by Galtung and Ruge in their now classic study on the structure of foreign news in four (Norwegian) newspapers. Although the criteria through which journalists measure the newsworthiness of particular stories can only be one element in a wider understanding of the news process, it is nevertheless worthwhile applying Galtung and Ruge's 12-factor codification to the case study food scares in order to assess the particular news values which may be inherent in this kind of news.

Frequency:

Also referred to as periodicity (Cohen and Young 1973:22), this factor is present only occasionally throughout the main case study scares. The element of science in food scares means that much of what occurred in the scares in terms of the long term understanding of the spread and risk of salmonella poisoning and BSE did not provide events which fit into the 24-hour news cycle of daily newspapers. That is, the periodicity of science is not commensurate with the periodicity of news. However, events such as the publication of scientific research, and announcements of statistics, bans, and government programmes and policies, provide scares with the 'points' of news which do fit, and which therefore help to shape the coverage.

Threshold:

As essentially health risk stories, food scares can perhaps be expected to display a level of risk which marks them out from other risks which are not considered to be newsworthy. Criticism of the media coverage of food scares often rests on the assertion that the reality of the risks involved is not exceptional, and that therefore intensive news attention is largely unwarranted. Nevertheless, the statistical increase in salmonella poisoning in humans, of BSE in cattle, and of pesticide residues in carrots, could be argued by journalists to be of sufficient magnitude to lift such stories over the threshold of newsworthiness. With regard to BSE in particular, the news threshold was perhaps reached on the criterion of *potential* risk: that is, accepting (at the initial reporting in 1988) only a slight chance that BSE was transmissible to humans, the consequences of that possibility being realised provided for journalists ample justification for inclusion. The announcement in 1996 of a probable connection between BSE and the new variant of CJD clearly established the magnitude of the story as well beyond that necessary to reach the news threshold, not least because it signified what in political terms might be characterised as a government 'U-turn'.

Unambiguity:

In this criterion the news value of food scares resides in the extent to which there is a clear threat to public health. Again, while the 'reality' of this threat is contested, the news construction of the scares indicates a clear focus on the possible dangers in consuming the foods concerned. Moreover, the fact that someone, particularly a credible and authoritative source such as a government minister, says that a clear risk exists, then this as a news event in itself is relatively unambiguous.

Meaningfulness:

The risks apply firstly to UK citizens, but more specifically to those who consume eggs, beef, or carrots; to the extent that these are common, popular foods, the associated risks will presumably be of direct concern to a wide section of the population. But there is also meaning in another sense. The connotative aspects of beef as symbolic of Britishness, implicit in much of the earlier coverage of BSE, was expressed openly in the campaign to lift the EU ban, which in some quarters developed into a wider attack on the institutions of the EU itself. A wider emphasis on the cultural meanings of food (e.g. Beardsworth 1990:13; Smith 1991) also provides evidence of the importance of the subject for the journalist and the assumed news audience.

Consonance:

Perhaps food scares are consonant with journalistic expectations in the sense that they embody the failure of official regulation, a general theme which might be said to be expected, particularly in a period of increasing public disillusion with government and politics. More specifically, the threat of food poisoning was a 'frame of reference' for news organisations well before the emergence of the case study scares (see for instance the pre-1988 salmonella stories). Later coverage could certainly be said to have fitted in to the "food scare paradigm" (Fowler 1991: 202), while the most recent coverage of BSE has been consonant with a nationalistic, anti-EU frame which was already apparent in the coverage of political debates, particularly but not exclusively within the Conservative Party, concerning British membership of the European Union. Within the criterion of consonance, Galtung and Ruge include the notion of audience demand; that is, the "normative interpretation" of the term 'expects' (Galtung and Ruge 1973: 54). Some studies have suggested a form of cultural estrangement from food (Gofton 1990; Beardsworth 1990; Smith 1991), and this could suggest that there is in a sense an audience demand for stories which reflect this "gastro-anomie" (Gofton 1990: 93). Indeed this latter point opens up the question of exactly where such consonance exists. While consonance between (potential) news events and the attitudes of journalists has been discussed above, it might also exist between events and the corporate position of a particular news organisation. More widely, consonance with the wider culture (as implied in the notion of 'cultural estrangement from food' mentioned above) is also a possibility, and while these different possible loci need not be understood as mutually exclusive - journalistic perspectives may well coincide with wider societal expectations - particular analyses perhaps need to specify the particular kind(s) of consonance which are relevant.

Unexpected:

This news value perhaps corresponds most closely with 'common sense' notions of news; Ericson et al have suggested that deviance, which includes "...violations of common sense knowledge..." can be characterised as:

"...the defining characteristic of what journalists regard as newsworthy"
(1987: 4)

Within the criterion of consonance, food scares can be said to be unexpected in that they break the norm of safe consumption of food. The increase in salmonella poisonings were unexpected in this sense, while the emergence of BSE has been presented as particularly novel in that, according to the scientific orthodoxy it has apparently 'crossed the species barrier' from sheep, to cattle, and then to humans (Brouwer 1998).

Continuity:

The salmonella scare and the BSE scare were self-evidently continuing scares in that news coverage appeared over weeks and months; in the latter case over years. The issue of pesticides in carrots by contrast did not recur over a period of time; apparently journalists did not consider it newsworthy in the same way as BSE for instance. If, as Galtung and Ruge suggest, stories continue to make the news partly in order to justify the original attention, then the massive initial coverage of salmonella and to a lesser extent BSE might help explain the extended journalistic interest which followed. Conversely, Palmer also notes the link between *continuity* and the possibility that newsworthiness can also be found in those stories which are likely to produce *consequences* which can be followed up in later reports (Palmer 1998: 380).

Composition:

This criterion undoubtedly has an effect on the margins of newsworthiness; for instance, in the different sections of a newspaper (home news, politics, foreign news, economics/business) a story of marginal significance might be discarded due to the lack of space on the page(s). However, events which qualify as newsworthy on a number of other factors (such as food scares) would presumably find news-space, either by relegating a less deserving story, or by a readjustment of the boundaries between sections¹. Alternatively, the extent to which major stories such as BSE are broken down into component sections in which particular elements of the story are analysed - such as 'science', 'farmers', 'politics' etc. - could reflect the reassertion of such sectional divisions.

Elite Persons:

It is tempting (if essentially fruitless) to consider whether the salmonella scare could have unfolded in quite the way it did without the intervention of Edwina Currie. Of course she fulfilled much of the criteria for 'elite person' as one of the few female Government ministers; however, her previous remarks and advice on health matters made her pronouncements even more newsworthy (Headline: "Edwina does it Again!", *Express*, 7.12.88). In terms of salmonella-in-eggs, Currie's involvement therefore involved the news values of both 'elite persons' and 'continuity'. In a wider sense, food scares present opportunities for other kinds of elites to be represented in the news such as publicly authorised scientists, and leaders of industry and consumer groups,

¹In the case of BSE, the Guardian's coverage following the announcement on 20 March 1996 of a possible link with CJD covered two or more pages headed 'Beef Crisis'; the story had in effect demanded a section of its own

although the relative importance of these fields needs to be stressed. Other elite persons linked to the main food scares include members of the royal family who offered opinions on the issues involved (e.g. "Charles Hits Out on Eggs", *Daily Mirror*, 15.12.88), and the celebrities who were also asked by tabloid newspapers about their eating habits ("Come Fry With Me!", *The Sun*, 24.5.90). However, these examples followed the initial news coverage, appearing when the stories were well established, and were far from central to the main themes of the scares. This suggests that criteria such as this can in a sense be imposed on the framework of the story in order to provide justification for its initial inclusion as news; these are 'news-value-added' stories, again involving the criterion of 'continuity' along with that of 'elite persons'.

Personalization:

The political future of Edwina Currie was inextricably bound up with the salmonella-in-eggs affair, and her resignation after two weeks of press speculation was the result of a campaign conducted, at least in part, through the news media. Her positioning as the individual who 'caused' the crisis in the egg industry may well have its origins in the arguments of those who represented the egg farmers, but the newspapers' acceptance of this position can still be seen as an example of personification. Another example is the treatment of Professor Richard Lacey, who seemed to become the main dissenting voice with regard to both salmonella and BSE in terms of media coverage. During the parliamentary inquiry into BSE in 1990, Lacey was singled out for criticism despite there being other scientists with serious doubts about the efficacy of the government's strategy; indeed Lacey's appearance at the inquiry was as part of a panel including three other scientists who were critical of what they saw as the Government's complacency (Dealler 1996: 100). These examples are related to the previous news value of 'elite persons'; however, personification also occurred in the news coverage of the victims of salmonella poisoning and CJD. For example, a number of newspapers reported the death of a 10-year-old boy of salmonella poisoning, and his father's insistence that eggs were to blame, following up with reports on the inquest and the coroner's comments (*Independent*, 20.1.89; *Mail* 19.1.89; *Mirror* 19.1.89; *Express* 19.1.89). Later coverage of the possibility that BSE might be transmissible to humans focused on the illnesses and deaths of a number of young people and others connected with beef and dairy farming (e.g. *Times* 24.10.95; *Mail* 25.10.95; *Independent* 27.10.95; *Guardian* 6.11.95;). Although personalization in news stories is often assumed to be primarily a feature of tabloid news, the examples offered above confirm other research suggesting that 'elite' news is also subject to this particular news value (Sigal 1987: 9). Galtung and Ruge give a number of possible

reasons for such stories: they represent a wider cultural idealism; they provide opportunities for audience identification; the frequency of personal actions make them more amenable to news coverage than long-term 'structural' changes; and that modern news gathering techniques makes such an approach more likely (1973: 57).

Elite Nations:

This is perhaps the only one of Galtung and Ruge's factors which does not readily apply to food scares; the focus on the European Union ban on British beef perhaps implies that the EU is more important to British interests than other nations, but this cannot be sustained from the coverage alone. In essence, the case study food scares are domestic stories, with international implications only as a consequence of their magnitude as economic problems.

Negativity:

This criterion, like 'unexpectedness', reflects traditional understandings of what news is. The news coverage of food scares indeed highlights the widespread health risks from contaminated food, and the illnesses and deaths already caused by them. On a second front, the economics and industrial consequences of food scares are also a major news focus. Galtung and Ruge emphasise that negativity can be seen as a consequence of other factors such as the frequency, unexpectedness, consonance (with public anxieties), and lack of ambiguity (1973: 58-9).

These factors provide a useful codification of the criteria through which news stories are selected, particularly as journalists' own conceptions of what constitutes newsworthiness are so often vague and mystificatory (e.g. Tunstall 1971: 60; Hall 1973: 181; Tiffen 1989: 69; Sigal 1973: 1). Nevertheless, news values are clearly not sufficient to completely explain the presence of particular news stories. More fundamentally, news values should at best be considered to be descriptive rather than predictive; it is tempting to believe that news stories can be predicted by the application of the various news value criteria to the initial events they are constructed to describe. However, these 'events' are generally not available either to the researcher or the journalist, not least because the majority of news stories are pre-selected and constructed by source individuals and organisations prior to the point at which they come to the attention of journalists. News sources work to ensure that the information they wish to promote or publicise corresponds to the criteria of news values, in order to maximise the impact of that information. Moreover, bearing in mind the notion of the routinisation of source-journalist relationships, it is likely that sources are already to some extent selected prior to any particular story coming to the attention of the

news organisation. Therefore, the process of news production begins before journalists and news organisations become involved with specific stories, and the examination of this aspect of news can be understood as part of the drive against a "media-centric" approach to news (see Schlesinger 1990). Furthermore, the notion of news selection from 'real world' factual events is disputed by those who insist on a social constructionist account of news production (see for example Romano 1987).

Ericson et al: 'regions and closures'

Much of the previous literature on news has analysed the source-journalist relationship primarily from the perspective of news organisations themselves (e.g. Schlesinger 1987; Fishman 1980; Gans 1980); Ericson et al's (1989) study attempts to focus on the source organisations, and their priorities and needs with regard to news exposure. Specifically, they propose a schema derived from Goffman's (1956) and Giddens' (1991) analyses of the presentation and preservation of the self, which suggest the need for an individual to organise her own public face whilst maintaining privacy in certain areas. Ericson et al's extension of this framework to the organisations which regularly feature in the news centred on two types of access potentially available to the journalist: access to the physical spaces used by the organisation concerned, and access to the information which the organisation generates. The physical spaces are termed 'regions', and are divided into those areas in which public business is undertaken, and which is therefore open not just to journalists but often members of the public (front regions), and those where the internal organisational work and decision-making is done (back regions). Access to information - the "signs which are given off" by an organisation (Ericson et al 1989: 10) - can be allowed or provided (disclosure) or denied (enclosure) depending on the needs and priorities of the organisation. Clearly the back regions are routinely places from which information is not provided (secrecy), and front regions are routinely the arena in which informational disclosure does occur (publicity). However, there are occasions when this pattern is disrupted. Ericson et. al. label as 'censorship' those occasions when information that has emerged in the front regions is subjected to some kind of enclosure; the example given is that of events in a public courtroom which are nevertheless subject to publicity restrictions (ibid.: 10). Conversely, journalistic access to information which is usually restricted to authorised individuals in the back regions (and is therefore not intended to be more widely publicised) is defined as a 'confidence'.

In keeping with their interest in lawmaking and law enforcement this schema is applied by Ericson et al to the institutional areas into which organisations are grouped: (Canada's) courts of law, the police, and the legislature, as well as the 'private sector'. Their analyses are supported by detailed empirical data; for our purposes at this stage, a brief comparison with food scares will suffice in order to assess the relevance of this approach. Food scares can be seen as being structured in the media via three institutional groups: the state (most particularly, but not exclusively, the ministries of Agriculture and Health), the producers, and consumer organisations.

State

Whitehall is perhaps the most obvious example of the back regions of government ministries such as MAFF and the Department of Health. While much of the work here is kept secret not just through organisational constraints but also by means of legal sanction, disclosure, in the form of off-the-record briefings and tip-offs, is clearly a common occurrence. The lobby system which provides much of the 'background' information received by some political correspondents could perhaps be categorised as a form of back region disclosure, in the sense that the briefings concerned are not attributable. By their nature, back region 'confidences' are difficult to confirm; it is possible nevertheless that, for instance, some journalists' attitudes to Professor Lacey with regard to his position on salmonella in eggs was influenced by disclosures by MAFF to the effect that he "had an axe to grind" with the ministry; this was certainly the view of at least one specialist correspondent who covered these events (interview with journalist).

As much of the literature has established, government is the single largest source of news, and front region disclosure consists of massive amounts of publicity material. The fact that more information is produced than can be used leads to the possibility that parts of this output, that which is uncomfortable or in some way negative for the government, can be subtly censored. The press releases which accompany most reports and other documents stress those elements most favourable to the state; pressures of time as well as the more direct official source pressures can lead to journalists concentrating on these issues at the expense of others which may be more ambiguous or uncomfortable (Ericson et al 1989: 224). An illustration is provided in Bernard Ingham's description of the decisions made prior to the publication of the Franks Report into the Falklands War. The Prime Minister was concerned that any advance copies provided to journalists (even the lobby journalists who were sworn to uphold secrecy in such cases) would be leaked to hostile sources who would provide

negative comments for news reports. As Press Secretary, Ingham had already drawn up a list of the numbers of those paragraphs which contained the "key news passages" (and which were presumably also most favourable to the government). When the report was published at 3:30 pm, the lobby journalists immediately asked Ingham for copies of the paragraph list (Ingham 1991: 303). Thus the pressures of competition with other journalists and their own deadlines meant that, rather than reading and assessing the report themselves, the journalists effectively relied on a 'pre-digested' summary of what Ingham considered the most relevant key points. Again, while conclusive evidence from the present case studies is rare, the presentation in the press of the Agriculture Select Committee report on salmonella in eggs, published at the beginning of March 1989, tended to concentrate on its assertion of a 'tiny risk' rather than its criticism of ministers (with *Today* being a notable exception - see later). This might well be due to the 'spin' applied by a judiciously drafted press release. MAFF's chronology of events with regard to BSE lists August 1988 as the date at which 50% compensation was introduced for each BSE infected carcass, and February 1990 the date when 100% compensation was introduced. The chronology departs from its 'dates and facts' format to assert that there was "no sudden surge of cases" to indicate that previously farmers were failing to report cases (MAFF Chronology, undated); but it does not explain the reasoning for the increase in compensation, and it seems that encouraging reporting is the most obvious reason for such a change. A further question which is left unasked is why full compensation was not introduced in the first place. By emphasising the information which is most favourable, such publications effectively censor the initial news coverage. News conferences can also provide enclosure in front regions when they are only called to support favourable news; questions concerning other, less 'positive' issues can be brushed aside as 'irrelevant' to the issue concerned.

Industry

The food industry consists of many different industries which each comprise many separate food production companies; nevertheless, for our purposes they can be regarded as an institutional group in the same sense that Ericson et al refer to the 'private sector'. Compared to the state arena, secrecy is generally an accepted part of commercial activity, and the great majority of the work of the corporations concerned is conducted as back region enclosure. The meat producers feel that almost any disclosure is potentially hostile, and back region enclosure is therefore their primary aim:

"In an ideal world, we wouldn't do it [publicity] at all. Because in an ideal world the public wouldn't want to know anything about the abattoir industry. [...] If I could get away without the public being aware that animals are being converted into meat, that would suit me absolutely fine!" (Interview: Peter Scott, Secretary, Federation of Fresh Meat Wholesalers)

As most of food production is separate from retailing, the producers themselves have little need for public approbation and become "very defensive" (according to one journalist interviewed) when subjected to journalistic attention. Disclosure in back regions might consist of assurances that, for instance, the industry was complying with the regulations, and that therefore any problem was the fault either of regulators or consumers, not producers. This would not be intended as an official statement, as it might appear callous or disingenuous; as a back region disclosure however, it might help to steer journalists towards a position more favourable to the industry. Generally however, such disclosures are of less utility to organisations which in contrast to ministries of state, do not feel pressured by any obligation to explain themselves to the public. As Ericson et al. suggest, confidential exchanges are more likely to pass between industry and government than between industry and news media (Ericson et al. 1989: 288).

Those food corporations which produce generic foodstuffs (as opposed to those which manufacture processed foods, which can be branded and marketed like other consumer goods) do not routinely operate in the public arena, and therefore have little use for front regions as such. As an industry however, they do come together to produce publicity for their products in a collective way. The Meat and Livestock Commission promote meat and meat products precisely in this fashion, and their promotional press events constitute an industry-wide front region disclosure. When things go wrong however, the need to present an appearance of calm responsibility might mean that a scientific officer, or someone else with more authoritative credentials, is presented in order to put the best 'gloss' on the affair. This is a defensive strategy in order to protect the organisation(s) from potentially damaging media coverage; controlling the agenda is the aim here. Official statements to the effect that eggs have always been subject to some salmonella infection, and that correct hygiene procedures are all that is necessary to remove any risk (see chapter 8) imply that consumers are indeed at fault, and in Ericson et al.'s terms act as an attempt at censorship to the extent that they divert attention away from industry practices (an act of 'enclosure') which producers feel are justifiably secret (and should therefore not be present in the 'front regions').

Industry protestations of impending commercial collapse could also be seen in this light. While some organisations or institutions (such as police and courts) have the means to control the news agenda directly via legal or other sanctions, other groups such as industry groups struggle for such control indirectly by diversion and promotional 'sleight of hand'.

Consumer Groups

The non-commercial and non-governmental groups and organisations which appear in news coverage of food scares are generally resource poor in comparison with government and industry. Nevertheless groups such as the Food Commission and the Consumer Association do act to police their own boundaries. Ericson suggests that 'citizens' interest organizations' can keep secret some of their internal values if these might be disagreeable or alienating to their wider base of support (ibid.: 286). The Food Commission might well believe that a more fundamental change in the system of food provision and distribution is necessary and desirable, but as a former member of the organisation stressed, it was important not to impose their political beliefs on the issue of food poisoning (interview with author, 4.10.94), not least because such a position could have diminished their level of public support as well as reduced their credibility in the eyes of journalists. Disclosure from back regions of consumer groups is less easy to envisage. Such organisations are not the subject of routine news, and therefore rarely have the regularised access to journalists which makes the controlling of news accounts possible. Sympathetic journalists may be actively cultivated by consumer groups, but these are rare and often need to balance such sympathy with the need to demonstrate their own independence and credibility.

The denial of credibility and authoritativeness which afflicts most consumer groups means that front region enclosure is also more difficult to achieve. Censorship by organisations other than those with authorised or official status (such as police and the courts) relies on the ability to control and manage news coverage, a strategy which is largely unavailable to those with modest resources and without routinised access to the media. Ericson et al. suggest that the negative portrayal which some advocacy groups receive in the press amounts to "structured enclosure" (ibid.: 296) by journalists on behalf of their more powerful official sources; however this could clearly not be considered as front region enclosure in the way that it has been defined, simply because Ericson et al's model emphasises the purposive actions of organisations rather than the unwelcome activities of outside agencies.

As others have noted (Molotch and Lester 1973: 128; Goldenberg 1975) some organisations need to act disruptively in order to generate publicity. Clearly there is a potential for dramatising, for instance, animal welfare issues via demonstrations and sit-ins; however, such activities were not a major part of the present case study food scares. More traditional means were employed by the Food Commission when for instance their press conference in the summer of 1988 emphasised their concerns about the rising incidence of food poisoning. The January 1995 press release from the Pesticides Trust which announced their reactions to government findings of excessive pesticide residues in carrots was the catalyst which led to the story in many newspapers in May 1995. The press release highlighted a story which appeared in the March issue of their quarterly news magazine *Pesticides News*, and could be defined as censorship in the same way that government press releases can be, in that it effectively diverted attention away from other issues covered in the magazine. However, the Pesticides Trust would no doubt be pleased to gain attention for any of the issues contained in the publications they produce, whereas the same cannot be said for governments who are obliged to provide information which may well be detrimental to their cause. Nevertheless, more generally the Pesticides Trust's attitude to publicity perhaps reflects a disillusionment with the mainstream media; they "prefer to work with decision-makers" (interview with representative, 27.11.95) directly, rather than via the news media. In this way maintenance of their public face is of less concern.

Clearly Ericson et al's model does help to highlight the ways in which news source organisations work to optimise their positions with regard to news coverage and access. The organisations involved in food scares can be described in terms of the 'regions and closures' schema; however, its focus on organisations, and institutions, implies an internal coherence which may not always be accurate. As we shall see, the present case study food scares were notable for the divisions within certain groups, and the failure of organisations to 'police their boundaries', elements which Ericson et al's model might not detect. It is also most useful in providing a framework for an analysis of the way in which organisations routinely attempt to limit and control news accounts; it is less effective in explaining the occasions on which that control fails, and exceptions to the routine flow of news emerge.

Fishman: News Phase Structures

Fishman's notion of phase structures suggests an understanding of potential news events as elements within a storyline or narrative. The power of bureaucratic

definitions is in part a product of the frameworks which institutions and organisations produce. These frameworks consist of events structured into a "career path" (Fishman 1980: 54), and they constitute an ideal-typification of the way in which events routinely unfold. In Fishman's example, describing the criminal legal process, such a bureaucratic phase structure might follow a pattern such as: commission of crime; arrest; charge; committal for trial; trial commencement; trial conclusion and verdict; sentencing. This is a pattern imposed by the police and courts on the events concerned. Fishman suggests that news organisations and journalists assume a news phase structure which is usually a truncated version of the original bureaucratic phase structure. This newsmakers' version then forms the basis of their understanding of how a story will progress, and can be used to distinguish between those events which fit the structure and are therefore legitimate news events, and those which are 'non-events'. Fishman illustrates this with a description of an occurrence, witnessed during his research, at a public debate concerning the allocation of funds to the local sheriff's department. A woman used the opportunity to complain about her own treatment at the hands of the department and condemned any such funding as 'shameful'. The points she made were direct and relevant, but both officials and journalists treated the incident as a 'break' in the real story of budget allocation; her intervention could not be accommodated within the appropriate phase structure, and was therefore dismissed as a non-event (ibid.: 78). It could be argued that phase structures also reflect, in part, the needs of news organisations to find events which fit into the news cycle. Each phase or element represents a discrete event which becomes available to be reported on within each 24-hour cycle.

The events which began with Edwina Currie's comments on eggs could be seen as conforming to a crude 'ministerial faux pas' phase structure: comment; critical reaction; defence; further reaction; resignation. The fact that in this particular case Currie herself did not seem to offer much in the way of defence does not in itself negate the main argument; her determination not to correct herself (Currie 1989: 261) does fit into the schema at least to the extent that it provokes questions about why such a decision - to go against the ideal-typical phase structure - was made. Indeed the importance of journalistic phase structures lies in the pressure they apply to events to conform to the pattern.

Fishman's suggestion that news phase structures are derived from bureaucratic phase structures does not seem to apply in the example above, in that there is no obvious institutional narrative which corresponds to a ministerial resignation. A more fitting example might perhaps describe the development of food scares as following the

pattern of problem-solving apparent in the government ministries concerned. The initial announcement of the problem is immediately followed by a promise that an official inquiry will be held into the reasons for, and the solution to the problem that has been identified. Further questions are then dismissed as speculation, and public are asked to wait for the results of the inquiry. The acceptance by the media of this kind of phase structure, which is clearly designed to minimise the opportunity for public debate, would depend on whether other events which did not fit into the framework were considered to be 'non-events'. In the case of stories such as food scares, the framework is perhaps less likely to follow along the grain of bureaucratic accounts, and more likely to take up a more oppositional perspective; certainly this seemed to be the case with the present case studies. Reports concerning rising salmonella poisoning statistics and individual cases such as the death of a ten-year-old boy from salmonella poisoning, were also derived at least in part from bureaucratic accounts; but these were not under the control of the government ministries, but were produced by other agencies. Fishman's account assumes that the specialist 'beat' reporter will derive her phase structure from her particular official institutional source alone, the "ultimate hub and repository" of the story (Ericson et al 1989: 269); however, both the salmonella and BSE scares suggest that different and often conflicting positions were used in the framing of the stories, and that these conflicts between institutional perspectives were reflected in the news coverage (see below, chapters 7 and 8).

The phase structure approach offers some support to the primary definition thesis in its elevation of bureaucratic perspectives into a position of ideological domination from which they help define journalistic understandings:

"Ultimately, routine news places bounds on political consciousness"
(Fishman 1980: 138)

This position also makes the schema subject to the same criticisms levelled at primary definition (see earlier notes on Schlesinger and Tumber 1994 and others, chapter 1). Its emphasis on the routine construction of news tends to ignore the moments when bureaucratic accounts fail and other perspectives enter into the news process. As with Ericson et al's (1989) analysis, there seems to be an assumption of news source control which is not always justified by the empirical evidence. It may well be that phase structures are largely applicable only to particularly routine news items, and that as examples which represent breaks from the bureaucratic routine, food scares are not susceptible to this kind of conventionalised narrative analysis.

Molotch and Lester: News as Purposive Behaviour

Molotch and Lester's approach to news emphasises the construction of news stories and thereby rejects the notion of an objective world existing 'out there' from which journalists select items on which to report (Schudson 1991: 148). The news 'event' therefore does not have an existence prior to attention by news promoters - that is, those who work to organise and present an occurrence as being of interest and importance to others. The circumstances of this "promotion work" (Molotch and Lester 1973: 125) allow a distinction to be made between those events promoted by the individuals or (more commonly) the organisations who were the primary actors within the event, and those promoted by others not originally involved (in Molotch and Lester's terms, *effectors* and *informers* respectively). A second distinction is made on the basis of whether the happening which becomes an event occurs intentionally or not. These two distinctions then produce four possible varieties of event type, and is summarised in the following table:

	<u>Happening</u> <u>accomplished</u> <u>intentionally:</u>	<u>Happening</u> <u>accomplished</u> <u>unintentionally:</u>
<u>Promoted by Effector:</u>	Routine	Serendipity
<u>Promoted by Informer:</u>	Scandal	Accident

(Molotch and Lester 1973: 133)

Routine news events are characterised as being both intentionally accomplished and as being promoted by those involved; press conferences are the archetypal routine event, and they constitute the majority of news stories. Serendipitous events are those which occur unintentionally but are promoted by the effector, often as if the occurrence *was* planned; this makes the investigation of such events problematic, and Molotch and Lester largely dismiss this particular category as "least sociologically useful" (ibid.: 132).

Events which are promoted by agencies other than those involved in the original occurrence are of more interest. 'Scandal' events are those which, while derived from an intended occurrence, nevertheless are promoted by others as newsworthy. The example given concerns Ronald Reagan's non-payment of tax in 1970-71; this was presumably a purposeful act, but was not promoted as a news item by Reagan for

obvious reasons. The promoter was perhaps a tax office employee who was able to provide the information; Reagan was therefore unable to control how the story was produced. A more recent example might be the 'scandal' of dining clubs set up to aid the Conservative Party by providing, for a price, access to government ministers for business executives (and others)(*Observer* 28.7.96). The clubs were presumably set up as a fund-raising activity for the party, but were promoted as a news event by others who saw the organisations as potentially, if not actually, vehicles for the peddling of influence. The promotion of such stories by actors not involved in the occurrence itself raises the likelihood of news coverage hostile to the effector organisation; this can also mean that the processes through which news is routinely produced are disrupted and therefore made more visible to the wider audience.

Molotch and Lester see 'accident' news events as most important in that they are both promoted by an informer and result from unintentional occurrences; environmental disasters are perhaps clear examples of accidental events. This type of event is most interesting because the effector loses control both because of the unforeseen nature of the occurrence *and* because it is promoted by others as a news event.

The importance of Molotch and Lester's analysis lies in their insistence that there is a power imbalance in the kind of news which gains coverage. As Schudson has observed, study after study has found that:

"...the story of journalism, on a day to day basis, is the story of the interaction of reporters and officials." (Schudson 1991: 148)

Molotch and Lester agree: most stories are based on routine events, and most routine events are effected and promoted by an elite of powerful individuals and organisations; those who have 'habitual access' to the media (Molotch and Lester 1973: 127). They make the not unreasonable assumption that any occurrence in which such organisations are involved that *can* be turned into a news event in their own interest *will be*. Therefore those events promoted by informers other than the effector organisations themselves are likely to be framed as hostile to them; this is why accidents and scandals can, as exceptions to the norm, be assumed to highlight the routine nature of most news.

Salmonella in eggs

In the particular case of the Salmonella in eggs scare, the main source of news at the moment of massive media coverage was clearly the junior health minister Edwina

Currie, who has confirmed that her intervention followed requests from media organisations over a period of weeks for a comment on the question of egg-borne salmonella (Currie 1989: 258-9). This implies, firstly, that media organisations considered her to be a pre-eminent source for such comments, and as such provided *habitual access*; and secondly that Currie herself was aware of this and was therefore prepared when the (previously agreed) question was put to her on Saturday 3 December 1988. In the sense that Currie was announcing Government policy and advice, this was a routine event in which the effector, with habitual access to the media, promoted her own, intentionally accomplished actions. The self-serving aspect of this activity (an aspect of the routine event which is again a presumption of Molotch and Lester) is manifest in the Government's wish to protect, and be seen to protect, the public from a recognisable health hazard.

However, by the following Monday most of the news coverage was emphasising the reaction of the egg producers' and the perception that Currie had 'blundered' (*Daily Express* 5.12.88). Such an approach seems to confer no benefit to the Government, and it would therefore seem that this cannot be classified as routine. The occurrence had been promoted by the producers as a monumental, but presumably unintended, faux pas, and could perhaps be considered an 'accident'. It could be argued that the reaction in itself constitutes a discrete and intentional occurrence, effected and promoted as a news event by the egg industry, a relatively powerful group; certainly many of the headlines at the time focused on the industry response:

Currie provokes storm with salmonella claim (*Independent* 5.12.88)

Egg row farmers may sue Edwina (*Sun* 5.12.88)

Axe Edwina call in egg poison row (*Daily Express* 5.12.88)

If in this instance the occurrence on which the news event is based is taken to be the reaction of the producers, then this suggests that, from the perspective of the egg producers (as news sources) such stories are routine in nature. One of the difficulties here then is to isolate the particular occurrence which is the focal point for the news event; Molotch and Lester's model, like that of Galtung and Ruge, seems to be focused on the single, discrete news item, and has less to say concerning continuing, developing news stories.

A further analysis, evident in a later review of the affair (North and Gorman 1990), suggested that the increasing number of salmonella outbreaks, particularly in institutional settings such as hospitals and old peoples' homes, had created the need for a scapegoat to deflect criticism away from the Department of Health. Eggs were available as a likely suspect, and the 'scare' which followed Currie's comments can from this perspective be viewed as an intentionally produced event which would therefore perhaps be classified as a scandal². Admittedly, this perspective was not readily apparent in the early days of the salmonella scare. Nevertheless, the implication is that such an understanding would affect the classification, in Molotch and Lester's terms, of the events concerned.

BSE

In the case of BSE similar alternatives arise. The occurrence of feeding infected material to cattle was an intentional activity which was promoted in the media by consumer groups and concerned scientists as a dangerous and reckless activity which produced a fatal disease in cattle and, potentially at least, in humans. This is a 'scandal'. However, the occurrence of the passing on of the infective agent and its development into BSE and the new form of CJD was presumably unintentional, and promotion by informers in this case would lead to the classification of this news event as accidental.

An accident is defined as:

"...purposive activity which leads to unenvisioned happenings which are promoted by others into events." (Molotch and Lester 1973: 130)

One of the questions which arise from stories such as these concerns the extent to which these 'unenvisioned happenings' were foreseeable, and whether the agencies involved - in Molotch and Lester's terms, the effectors - can be held responsible for the "miscalculations" which produce the unexpected consequences. There is often a suspicion that the (invariably negative) possible consequences were indeed known to the effectors who nevertheless went ahead with their plans on the basis that either the risk was in their view acceptable, or that their own culpability could be avoided or contained. Such questions coincide with Molotch and Lester's concern with intentionality; but they are rarely resolvable via analysis of the news items involved, and in the particular food scare cases they continue to be contested.

²This kind of conspiracy theory also fits in with Ericson et.al.'s notion of 'secrecy' in that the 'real' cause of the scare is part of back region information which is not intended to be disclosed.

Molotch and Lester's schema usefully focuses attention on the intentions of effectors and promoters - what might elsewhere be discussed under the heading of 'source strategies' - and on the ways in which news is constructed by those in a position to undertake the ideological work which this entails. The model also, along with Tuchman (1977), emphasises the importance of exceptions to the routines of source - journalist interaction, an emphasis followed up by a number of the studies discussed previously (e.g. Curran 1987, Murphy 1991, Miller 1993). Nevertheless, their suggestion that it is the "records which are produced" (Molotch and Lester 1973: 133) that should form the basis of news analysis denies the contribution of other research methods and makes problematic the analytical definition, in specific cases, of the identity and intentions of effector and promoter.

Food Scares and Moral Panics

The application of the main elements of the theory of moral panics to specific instances of food scares has, as we shall see, been criticised as failing to fit (see analysis of Miller below); nevertheless, studies of food scares have made use of the model, and the elements which *are* appropriate are worthy of some consideration.

The theory of moral panics derives from an analysis which in contrast to 'classical criminology' views social deviance not as an inherent and unproblematic attribute of a particular activity, but as a *label* applied to transgressive behaviours via complex social processes (Bennett 1982: 296). The question of how and by whom the label is applied then becomes crucial. Deviant social groups are, it is suggested, labelled as such in order to delineate the boundaries of socially acceptable behaviour, and to reinforce existing social inequalities. Cohen's seminal exposition of the moral panic thesis (1972) takes the construction of a scare around news of mods and rockers in the 1960's as an example in which a relatively powerless social 'out-group' were demonised as 'folk devils', a new and serious threat to the social order. Media presentation of this new threat created a moral panic whereby the authorities increased their powers and enforced new rules in order to deal with the supposed danger. The mods and rockers were therefore

"...participants in a kind of modern morality play in which they serve[d] as the negative symbols of disorder, thereby pointing to the need for society to mount a permanent patrol along its normative boundary-lines..." (Bennett 1982: 297)

Cohen has suggested that a moral panic can lead to more generalised and ambiguous fears, such as those around violence and young people, coalescing around a particular kind of issue or incident. This gives the media a focus on which to concentrate their activities. It could be argued that the food scares of the past decade represent specific targets derived from a more generalised concern over the issue of food. Smith (1991) has suggested that de-politicisation of food issues from the 1950's was reversed in more recent times due to a number of factors including the growing influence of large retailers, European Union control of food production via the common agricultural policy, the increasing influence of consumerism and the corresponding decline in the strength of the 'farming lobby'. Evidence of links between diet and disease has also helped to produce growing concern since the 1970's about the purity and safety of food. Smith suggests that it was these long-term elements which helped produce the (re-) politicisation of food (ibid.: 247-50); such a climate of concern represents the "Ambiguity...[which] gives rise to anxiety..."(Cohen 1972: 77), and in which concerns over listeria, salmonella and BSE became the focus of media coverage. For Cohen, previously uncoordinated news of hooliganism and violence involving young people became organised within the framework of the clashes between mods and rockers. This 'sensitisation' of the press led to greater interest in any potential story which concerned violence and young people, and also to a "reclassification" in which ostensibly unconnected stories were linked to, and even presented as part of the mods and rockers phenomenon (ibid: 82). A similar process was arguably at work in the production of recent food scares; stories concerning other foods and other contaminants were linked to salmonella in eggs; other types of poisonings and infection were also given news-space in the wake of the salmonella scare. Related to this notion of a kind of paradigm (similar to Fowler's 'food scare paradigm') is Cohen's suggestion that, in another 'theme' within moral panics, news coverage can often find evidence of the wider problem which is generating the panic in many other areas, which previously might not have been considered as connected to the problem area. The "It's not only this" theme presents the problem as the 'tip of the iceberg', and is again perhaps reflected in food stories such as 'aluminium coating on sweets' and the problem of pesticide residues (Fowler 1991: 146-7). The front page coverage of the death of a 10-year-old boy from salmonella poisoning (e.g. *Today*, *Express*, 19.1.89) could be seen as an example of the greater interest that such cases were generating at the time.

One element which is consonant with the peak of a moral panic occurs when "general reflections" (Cohen 1972: 59) on the issue appear; there is ample evidence that such news items were published. The *Daily Express* for instance printed an article on its

comment page concerning the growing power of a 'green' consumer lobby and its influence on government ("Now the consumer is king"; 30.12.88), while an *Independent* series on farming concluded with an analysis of the failures of MAFF with specific reference to eggs as one such example ("Bleak centenary in prospect for friendless ministry"; 30.12.88). With regard to BSE, the *Guardian* ran a series of articles reviewing the practices and problems of the meat industry, taking different types of meat in turn ("The Meat Business: Cattle"; 29.1.90).

The assertion that the moral panic generated around the mods and rockers did not correspond to any substantively new phenomenon of youth violence (Cohen 1973: 265) talks of 'exaggeration', 'distortion' and 'over-reporting') allows a comparison with food scares. The massive coverage of, for instance, salmonella in eggs, is compared to the particular health risks concerned in an attempt to show that the news construction of the scares is exaggerated. The supposed creation of public anxiety around the issue is therefore seen as proof of a moral panic; however, Cohen's conception of the model includes elements which render this analysis untenable.

Gofton asserts that the moral panic theory is relevant to "food fears"³:

"The parallel with food scares hardly needs to be laboured. Initial disquiet over the activities of the food industry have led to full-scale demonisation as one scandal after another has been revealed." (Gofton 1990: 83)

It is clearly arguable that the food industry has been heavily, perhaps unfairly, criticised as these 'scandals' have appeared; but this understanding ignores the importance of the role of 'folk devil' in Cohen's model. To suggest that the food industry is a marginalised out-group, presented in the media as a "negative symbol of disorder" (see Cohen quote above), is simply to turn the politics of the model on its head. The issue of social and economic power is fundamental here; Cohen explains how the 'control culture' selects an "easy target" (1972: 138) in order to provide justification for an increase in state power without tackling a substantive problem. The mods and rockers whose lifestyles were demonised as a social problem requiring a 'law and order' response had little opportunity, and perhaps little inclination, to put their own case in the media and become a force in the process of definition of the issue. The contrast with the issue of food scares is striking. The food industry is generally well represented

³The argument that food scares are media-created panics is perhaps also powerful in that it implies a need to examine the media themselves; such a position arguably promotes a kind of critical approach which increasingly chimes with public attitudes to the media.

in the news; the public relations offices of the major producers and retailers (who of course also have an interest) are supplemented by the activities of the industry-wide representative organisations as well as the comments from (apparently) independent, individual farmers and food workers. It may well be the case that the food industry was slow to react during the initial stages (see below, chapter 7) but their voice(s) did gain coverage, much of it favourable, in newspaper reports. In this sense then, the industry is part of the 'reality definition' process, and not merely its subject.

Cohen's study examines the construction of news as a process of interaction and negotiation between the media and "...the reality defining practices of other social agencies and institutions..." (Bennett 1982: 299). The case study example suggests that national press exaggeration concerning the clashes between groups at seaside resorts led to concern and demands for action by local business organisations and the local press; increases in policing activity provided further examples of apparently anti-social activity which were then exaggerated by courts and the press in turn. This is the 'amplification spiral' which helps provide the impetus for the control culture to increase the level of state power. Referring to local police actions, Cohen suggests that:

"...it was the logic of their own definition of the situation which forced them to escalate the measures they took and proposed to take to deal with the problem." (Cohen 1972: 87)

It is argued that in this case the state, in the form of various agencies, welcomed the chance to re-draw the boundaries of police power and of socially acceptable behaviour which the panic offered. This conception of the moral panic as a tool of the state (extended by Hall et. al. 1978; see chapter 1) is a barrier to such an analysis of food scares in the sense that much of the news-making activity of government was apparently devoted to minimising the importance of the issue and the threat which it represented. The effectiveness of this strategy (in the face of the divisions and conflicts which, as we shall see, may have worked to smother the intended message) may be a matter of debate, but the general thrust of the government's attitude to food scares present in the news media - that they are under control, that no one is at risk, that current restrictions are adequate - suggests that they were not, explicitly at least, promoting a food scare amplification spiral. In order to justify an extension of police powers, the mods and rockers scare had to be defined as a legitimate question for the 'suprasystem' - that is, the wider state authorities (Cohen 1972: 116). A conventional reading of both the salmonella and BSE scares suggests that in these cases the government was anxious to avoid taking responsibility for any problems, and to avoid placing restrictions on the foods concerned. Indeed, it would seem that only by

inverting the politics of Cohen's moral panic thesis can it be made to fit, approximately, the case study food scares. By taking what might be called a right-libertarian perspective, the government can be seen to be extended its regulatory powers over the 'free market' by employing the food scare to demonise industry; such a position is, as we have previously noted, outlined by North and Gorman (1990). Thus, via a conspiracy model, they argue that the panic was driven by a section of the state apparatus as a way of extending bureaucratic control of industry while also shifting blame for the outbreaks of food poisonings in various state-run institutions.

A further comparison between Cohen's conception of moral panics as generated by the mods and rockers case study and the construction of food scares relates to the ability of the public to measure the media representation of the phenomenon against their own lived experience. Cohen notes that opinion polls at the time suggested that many people felt that the young people involved were "ordinary kids" (Cohen 1972: 67), and were therefore not the moral threat that the news coverage suggested. This could perhaps be due to their own personal experiences, a factor which might also influence people to dismiss food scares as exaggerated. However, the debates around food issues are not only enveloped within frameworks of moral or legal acceptability, but most importantly within a scientific discourse which is generally less available to and susceptible to public debate. While people might feel confident in dismissing the mods and rockers scare on the basis of their own assessment of the actions and attitudes of young people, they are perhaps more wary of weighing, for instance, the scientific probability of a connection between BSE and CJD; the currency of science is more abstract, less available to them as resource for decision-making. This could be taken to imply that issues taken up in the media with significant scientific elements are likely to have a greater effect on the public than those with which they feel more comfortable (a point explored by Beck; see chapter 10).

One of the main implications arising from the application of the above accounts of news-making to the manifest content of food scare news stories is to re-emphasise the need for research to explore not just the content of news accounts but the processes which generate those accounts. Food scares clearly need to be understood in terms of the underlying activities which go to produce them.

Another difficulty which arises concerns the problem of a precise definition of the object of study. As we have seen, both Fishman's phase structure approach and Molotch and Lester's model rely on a relatively clearly defined news story which, certainly in terms of food scares, does not seem to be appropriate; notwithstanding the

element of *continuity*, Galtung and Ruge's approach also implicitly concentrates on relatively short-lived news items. The complexities of the reporting over time of such issues militate against a concise definition of 'the story', and it is one of the relative strengths of Cohen's approach to 'moral panics' that it provides an opportunity to follow an issue as it develops over a period of time. Furthermore, the limitations of those models which assume or imply a 'single-event' approach to news also suggest the need for the kind of 'longitudinal' study which a case study methodology is more likely to provide. As we shall see, the food scares analysed here are discussed from a number of perspectives, and continually generate further factors which are then incorporated into the story as it progresses. As long-term, developing stories, food scares require some attention to the processes through which such a news 'career' emerges.

Chapter 5

Methodology

The initial impetus for this research project can be found in a perceived need to investigate the development, structure, and social meanings of a particular form or type of news story - the 'food scare'. Thus, an empirical, case study approach was implicit from the outset. Two main cases were chosen for analysis: the 'salmonella-in-eggs' scare from 1988-89, and the ongoing 'mad cow disease' scare. At the time, the former appeared to have attracted more (and more concentrated) news coverage than the latter, and was considered to be the paradigmatic 'food scare', "massive" (Fowler 1991: 146) and unprecedented in its scale (North and Gorman 1990: 1). Since then, of course, mad cow disease has come to be seen as an even bigger, more alarming, and more newsworthy scare. Other food scares of various kinds have also arisen (concerning, for instance, bacteria such as listeria and campylobacter); nevertheless, these two represent the largest, in terms of news interest, and arguably most important in terms of social and political policy impact.

The concentration on newspapers and the corresponding lack of attention paid to broadcast news in this study was largely due to practical considerations concerning resources, in that assembling a reasonably coherent database of such items from the respective archives would have been costly and unfeasibly time-consuming. The huge amount of media coverage devoted to these stories meant that a cross-media study was likely to be unwieldy. Newspapers' capacity for detail (relative to television news bulletins), and the relative accessibility of newspaper archives were factors in the decision largely to ignore television news. This is not to suggest that television did not play an important role, not least in its capacity to provide graphic illustrations of the effects of mad cow disease on cattle, and of the conditions within British abattoirs; a number of documentaries from such production 'stables' as *Panorama*, *World in Action* and *Dispatches* also provided further investigative media coverage. Nevertheless, newspapers were chosen as the medium through which the case study scares would be addressed.

While the case studies can be described as food scares, they can of course also be characterised in other ways. They discuss scientific issues and processes, and therefore contain examples of science communication; furthermore, they are presented as issues of public risk on which news audiences (may) need to take some kind of decision or make some choices affecting their own lives. Thus these particular kinds of news

stories have specific elements which need to be addressed¹. It could also be argued that long-running, diverse 'stories' such as the BSE affair might better be understood as a series of separate, if related stories. As we have seen in the previous chapter, some of the analytical approaches discussed seem to rely on a more restricted, discrete definition of the news story as a unit of analysis (e.g. Molotch and Lester 1973; Fishman 1980), and this may well be appropriate for relatively self-contained, short-term news stories. However, unless such individual items were presented as part of a wider trend, it would be unlikely that any generalisations, either in terms of news representations or of correlations with wider social themes, could be convincingly drawn. By employing broader definitions of the case study food scares which include, for instance, news of individual poisonings and personal cases as well as news of institutional policy changes, and scientific debates as well as political themes, this study can trace the development over time of the wider issues which emerge through the prism of the particular food scare.

Food scares are by no means a purely British phenomenon; indeed, as mentioned below (see chapter 6), the salmonella scare could in some ways be traced to concerns emerging from the Center for Disease Control in Atlanta Georgia, USA². News coverage of salmonella infection in pork occurred in Denmark in 1993; Danish public service television channel Danmarks Radio for instance described the problem as the country's worst salmonella epidemic ever (Whimster 1994). This study however focuses primarily on British newspaper coverage of two British food scares, and while some of the findings may well be relevant to other situations, care must be taken not to extrapolate to other national contexts without qualification. While debate continues concerning the extent and effects of the globalisation of culture, such pressures have not, in my view, produced changes to the structures of British national news media significant enough to warrant any assumption of universality. From the opposite 'direction', it might be argued that a more differentiated, localised media analysis is necessary, perhaps focusing on particular cities or regions affected by the particular 'scares' concerned. It should perhaps also be acknowledged that the existence of Scottish 'national' newspapers, and idiosyncracies such as the relationship between the *Daily Mirror* and its Scottish counterpart the *Daily Record*, could be argued to render problematic the characterisation of the London-based newspapers as 'national'. However, in 1971, Tunstall argued that Britain was particularly suited to national

¹Such issues have previously been studied using a similar case study approach: see for instance Nordfors (1987), or Macdonald (1995).

²Indeed, North and Gorman describe the USA, somewhat contentiously, as the "home of the food scare" (1990: 3).

media analysis due to its "centralised media pattern" (1971: 5); despite the changes of the past 25 years, I would argue that this is still the case, and that, in contrast to many other countries, British media exhibit a relatively high degree of cohesion at the level of the nation, and, notwithstanding the above examples, relatively less regional or local character.

As explained in the Introduction (and explored in later chapters) this study takes its theoretical grounding from the work of Habermas and Beck; its empirical base derived from data gathered and analysed in three particular sections. The first is wholly quantitative, consisting of a content analysis of the newspaper coverage of the two case study food scares, and producing two 'calendars'. The second quantifies particular samples of the material classified according to criteria derived from a discourse-analytic approach in order to assess the relative importance of some of the underlying meanings present. The third methodological approach is, by contrast, wholly qualitative, relying on interviews with journalists and news sources in an essentially ethnographic attempt to analyse the processes through which the presence and absence of particular issues, events and perspectives within the particular news texts are determined. A minor element of the study will also consist of an assessment of the suitability of the different research approaches taken. As Rosengren suggests, research methodologies "are never good per se; they are good *for something*" (1981: 14); I will therefore attempt to measure the appropriateness of the methodologies concerned for the tasks set. These methodologies are set out in detail in the following three sections.

Calendars

The calendars of the newspaper coverage of salmonella in eggs and BSE are intended to illustrate the chronological development of the two food scares. They allow a comparison between the 'peaks' and the 'troughs' of news interest, and connections to be drawn between specific news items and their position within the ebb and flow of this interest. Comparisons can also be made with corresponding official measures, and although such juxtapositions need to be treated with care, these can help to emphasise the discrepancies between perceived 'real-world events' and news accounts, particularly with regard to the (often apparently abrupt) endings of food scares.

The news articles selected for the calendars are sampled from national daily newspapers. Sunday newspapers are excluded for two main reasons: firstly, while some are clearly 'sister' publications of daily papers, others do not correspond in this way with a daily counterpart, and would therefore not fit into a '7-day a week'

framework³. This would therefore necessitate a separate analysis for Sunday newspapers which would have been overly time-consuming. Secondly, I would argue that Sunday newspapers occupy a particular position in Britain in that while producing 'hard' news is undoubtedly part of their work (and this can have an important 'agenda-setting' role with regard to the 'dailies' which follow), they also have a 'weekly review' role which inflects their position in relation to the dailies. Indeed, the widely accepted distinction between 'dailies' and 'Sundays' both in the literature (e.g Curran and Seaton 1988) and elsewhere suggests that such differences are implicitly understood. This is not to suggest however, that the shape of the Sunday coverage is likely in general to differ markedly from daily coverage; while making no claims in terms of extrapolation in such a direction, it seems probable that Sunday coverage would to a large extent reflect the depth of coverage found in the previous week's daily newspapers.

Selection from the newspapers is also restricted to those found in the 'main news section'; this is defined in order to exclude items from those second sections or supplements (which appear mainly in broadsheet newspapers) which primarily contain 'soft' news or focus on particular sub-sections of the news audience (such as business or education sections). Other exclusions include pages within the main body of the newspaper devoted exclusively to particular sub-categories of news such as business and finance, sport, entertainment, obituaries, letters, women's pages, and regular 'opinion' columnists. Again, one of the reasons for these exclusions is a practical one in terms of narrowing the amount of data; however, a more compelling reason is to pare down the data to that which can be recognised as the primary role of newspapers in the provision of 'hard' news to its broad audience-public. 'One-off' opinion articles and comment pieces, as well as editorials and leader columns are included as part of the 'main news section' in this definition as, from a Habermasian perspective, these also arguably perform a primary public sphere function in their daily assessment and discussion of issues of public interest.

Salmonella in eggs

Sampling

³This has perhaps changed somewhat since the late 1980's; both the *Independent* and the *Express* now publish on a seven-day basis, and other titles are more closely integrated, with for instance the *Observer* effectively the '*Guardian-on-Sunday*'. It is also worth noting that the uniformity of the Monday to Saturday editions has been strained to some extent by the emergence, in the broadsheet sector particularly, of the expanded 'Weekend' edition on Saturdays.

In attempting to quantify the coverage as a whole, the sample and the population are in this sense co-extensive; I am not attempting to generalise from a selected sample at this stage, merely to record the coverage from start to finish (while acknowledging that such cut-off points are never wholly sustainable, in that salmonella poisoning continues to reappear as a news issue). News items are characterised as part of the salmonella story if they:

- Appear in the main news section of any of the ten national daily newspapers published at that time, *and*
- Are primarily concerned with any aspect of the link between salmonella bacteria and eggs.

It soon became clear that such criteria produced a sample largely confined to a specific time period; despite the occasional item outside of this period, the huge majority of salmonella in eggs stories occurred within a period of approximately three months. Nevertheless, in order to ensure that a temporary 'trough' in news interest was not mistaken for the end of the scare, the calendar is continued for a period of twenty eight months. A third criterion for inclusion therefore presents itself, which selects for inclusion items which also:

- Are published in editions of the newspapers from 1 September 1988 to 31 December 1990.

The sampled articles are therefore limited in time, as well as by their position within the structure of the newspaper and their ostensible manifest content.

Units

One possible measuring method would take the news item or story as the 'smallest unit', and a count of these units might provide a useful quantification; certainly in some cases the use of the story as the unit of analysis can be justified (Gans 1980: 5). In this case however, a quantification which takes account of the size of article is more likely to reflect the importance attached (by journalists and/or editors) to the story as well as, perhaps, the importance perceived by the audience. The measurement of the length of the story, in column centimetres, ensures that smaller stories are not given a spurious equality with much larger items. The unit of measurement is therefore the column centimetre; however, this raises the further difficulty that such a measurement takes no account of the available space in which such stories might be published. It might be

argued that stories of equal absolute size should be considered to be of equal value in any quantification system; however, I would argue that, because editorial decisions concerning the final published length of news stories after editing take into account not just the newsworthiness of the story but also the amount of available space (that is, the number of pages to be filled with news), the size of those stories should be calculated relative to the size of that space. The size of a story should therefore be measured as a *percentage* of the total news-space. The 'news-hole' is a US journalistic term for the amount of space waiting to be filled (Palmer 1998: 386), and for each edition of each newspaper it is likely to vary to some degree (not least due to the different amounts of 'routine news' from official sources available on different days). It would be impractical to measure these individual variations for each edition of the newspapers from which items were sampled; therefore, a brief calculation of the 'news-hole' for each of a number of copies of various daily newspapers concerned was carried out.

Average Column Centimetres of News (Averaged over 8-10 editions)

Telegraph	3635	Express	2346	Mirror	2184
Independent	3635	Mail	2650	Sun	2145
		Today	2546	Star	1835

As these are approximate figures, and as the figures within each sector seemed to cluster around particular round figures, they were simplified as follows:

Average Column Centimetres for each newspaper sector⁴:

Broadsheet: approximately 3500

Mid-Market: approximately 2500

Tabloid: approximately 2000

By producing counts of column centimetres (of news coverage) as a percentage of these rounded 'news-hole' figures, a more accurate representation of the apparent newsworthiness of the stories concerned is recorded. The monthly aggregates of

⁴While the division between broadsheet/quality newspapers and tabloid/popular newspapers is generally accepted in accounts of the British newspaper industry (Negrine 1994; Curran and Seaton 1988), a particular problem concerns the notion of a 'mid-market' sector and its boundary with the tabloid sector. In particular, Today, as a relative newcomer (1986), might be considered to be a tabloid in the sense of its 'populism', and certainly in its physical format; nevertheless, the calculation of each newspaper's 'news-hole' suggests that, on this measure at least, the three-fold distinction can be sustained, and that Today does indeed, as Schlesinger and Tumber suggest (1994: 202) fall into the 'mid-market' category.

coverage expressed in this way produced a chronological series of figures which were further aggregated for a final 'all newspaper' total.

BSE

The calendar of coverage for BSE is not directly comparable with that for salmonella, not least because it is based on only four newspapers: *Times*, *Telegraph*, *Guardian* and *Today*. This makes the data less complete and more open to criticisms concerning its validity in terms of generalisations made to British newspapers as a whole. This limitation was again a matter of resources; it became clear that due to the longevity of the BSE story it would be impossible to collect data using the same methods as those employed for the salmonella calendar. A decision was made therefore to use a computer database (FT Profile) to select items rather than trawling through the archives held by the British Newspaper Library, necessitating the exclusion of those publications which were not (for the periods in question) transcribed into the database. This means that the sample for the BSE is weighted towards the quality/broadsheet end of the newspaper spectrum, which might for instance effect the data by exaggerating the longevity of the story whilst minimising the size of the 'peaks' of the coverage. Such a 'distortion' might occur if it is accepted that tabloids tend to provide relatively more coverage at the height of such stories whilst being less likely to continue that coverage over a period of days, weeks or months. Such possible effects should be borne in mind when considering the data; nevertheless, this does not diminish the validity of the general argument presented.

The use of an on-line database also meant that the column centimetre measurement was also impractical; thus the BSE data was compiled using the wordcounts provided by the database. The loss of the aspect of relativity provided by the 'news-hole' comparison is to some extent rendered superfluous due to the above-mentioned emphasis on broadsheets; a further difference however is the exclusion of photographs which were included in the column centimetre measurements used in the Salmonella calendar. These differences mitigate against any attempt to make comparisons between the particular shapes of the coverage presented in the two sets of calendars, but it should be emphasised here that no such comparison is necessary or intended. The complex of factors involved in the construction of each of the case study food scares (including those which are inaccessible to purely textual analyses) means that any direct comparison would in any case be problematic and in need of substantial qualification. The calendars are worthwhile primarily for the *internal* comparisons

which can be made between different points in the chronology of coverage within each case study.

News items about BSE were selected from the database via the use of the keywords 'BSE' and 'mad cow disease', which were considered sufficient to gather all the relevant items. The stories were then scanned to 'weed out' those items which were clearly not relevant (many of these were for instance items using the BSE acronym for other purposes such as Bombay Stock Exchange). Initial data collection spanned over six years from July 1988 to November 1994; the period was extended when it became clear that the coverage during March 1996 was likely to rival if not exceed that which had gone before⁵. Thus the shape of the newspaper coverage of BSE could be traced over a period of almost eight years. The wordcount figures for each item were added together to produce a monthly total for each newspaper title, and then aggregated further to provide the 'four-title' figures presented below (see chapter 6, 'Calendars').

Measures of the 'Real World'

While the mapping out of the shape of the news coverage for each case study scare is in itself a worthwhile exercise, comparisons between these 'news versions' and other statistical measures can, as the Glasgow University Media Group have suggested (1976), add weight to claims of "distorted presentation". While such arguments about 'bias' have largely given way to a more nuanced understanding of the ideological aspects of news, the two calendars were compared with official statistics concerning, respectively, the incidence of salmonella poisoning in humans and the prevalence of BSE in cattle, in order to assess the extent to which the 'real world' existence of these issues might be assumed to be affecting, and perhaps generating, the corresponding news coverage. Both the sets of statistics are problematic (see sections on 'official statistics' in chapter 6); nevertheless, the comparison does provide some evidence that 'real events' cannot be presented as sufficient explanation of the coverage.

Thematic Grid

News reports in general tend to be focused on one particular aspect of what might be a quite complex occurrence; the 'hub' of the story can usually be found in the first one or

⁵Indicative of the impact of the 1996 coverage is the way in which some journalists and commentators have referred to that period as *the* BSE scare, with little or no reference to the substantial previous news coverage. A Guardian article headed "Tories considered destroying entire beef industry" (1.8.98) for instance refers to "the 1996 BSE crisis".

two paragraphs, with explanation, background detail and justification following in the later paragraphs (Murphy 1991, p.31). The lead paragraph(s) contain the 'pared back', essential element of the story (Bell 1991, 150;175-6); indeed, the news selection process privileges those stories which can be presented without ambiguity (Galtung and Ruge 1973: 54) and news items can be understood as having a particularly strong form of what discourse analysis calls "global coherence" (Van Dijk 1985: 115). It is therefore quite valid to take the individual news item as a discrete instance (from within the newspaper) of the continuing news story surrounding the particular food scare concerned. However, each item is quantified not as a minimal unit, but weighted according to its size, either in terms of area (column centimetres) or wordcount.

The calendar coverage provides little in the way of detailed analysis, being largely descriptive in its account. A more detailed analytic framework was clearly necessary in order to investigate what kinds of coverage occurred, which elements of the story were focused on, and whose arguments were included. My initial readings of the newspaper coverage of the salmonella-in-eggs affair suggested that the stories could be analysed along two axes: firstly, each story could be categorised according to its ostensible subject - the social location on which the story is focused. There seem to be three main arenas to which the articles are addressed: egg production and the egg industry; egg consumption and consumer interests; and the role of the state/government. In a relatively direct and straightforward manner, each news item can be classified according to its explicit social setting - that is, whether it looks at, is concerned with, the state, the food industry, or consumers. Gans for instance takes a similar approach in his categorisations of 'activities in the news' (1980: 16), although where his framework is designed to cover all news items, the present study is designed to address the particular characteristics of food scares.

The second axis involves categorising the stories according to their discursive position, which might well be implicit, but is nevertheless immanent within each article. Again, the three categories of industry, consumer, and state are useful, and refer to the way in which each individual story can be seen to sympathise with, or provide media access for, the perspective of a particular group of actors within the salmonella affair. This does not necessarily mean that the stories are slanted or biased in anyway, and is not in itself a comment on the ideological direction of the newspapers or journalists concerned. At this stage I am simply indicating that in focusing on certain events often using specific sources, a story can be characterised as offering the perspective of a particular group, privileged (to a greater or lesser extent) over other views. In many cases the main point of a story concerns the reactions of a group, and in this sense

alone it may allow their position to predominate within that particular report. These three positions also correspond to the kinds of organisations from which most news sources involved in the Salmonella scare are drawn⁶, although this is not necessarily a criterion on the basis of which the classification is made.

Combining the two axes of analysis produces a nine-category grid which represents the three arenas of activity divided among each of the three discursive positions; each newspaper story can be categorised within one of the nine boxes according to both its explicit subject and its underlying discursive approach.

Thematic Analysis

	<i>Arena</i>		
	State	Industry	Consumer
<i>Discourse</i>			
State	*	*	*
Industry	*	*	*
Consumer	*	*	*

This framework can also be applied to stories concerning BSE; there are similar 'coalitions of interest' at work. Indeed it could be argued that most long-running news stories which present an actual or potential conflict between commercial interests and public interests (and thereby invite or imply the possibility of governmental action) could be broken down into the three categories along the two axes of *Arena* and *Discourse*⁷. In discussing a variety of approaches to discourse analysis, Van Dijk summarises the notion of 'ideological analysis' as one with a critical dimension which

"...intends to reveal underlying class conflicts, power relations, and ideologies through discourse analysis [and] is therefore often applied in

⁶Schlesinger and Tumber, in their analysis of criminal justice news, make a similar set of distinctions when they distinguish between official sources, professional associations and trades unions, and pressure groups (1994: 3).

⁷It should be made clear that the term 'discourse' is employed here not in its specific Foucauldian sense, but in its wider linguistic sense as a form of language, ranging over more than one sentence, perhaps inflected by a certain ideological position or standpoint.

the analysis of public discourse such as political discourse, news, or the texts of governments or big organisations." (Van Dijk 1985: 8-9)

The thematic analysis presented here is intended to provide evidence concerning the power relations within the news coverage of the food scares concerned, and therefore fits quite neatly into Van Dijk's definition.

There is a further group which can be seen in the coverage as having a particular interest in both the salmonella affair and the BSE issue: the scientific/medical profession provide much of the 'raw data' which become the ammunition in the arguments between the other groups. However, much of the coverage of this can be assimilated into other arenas or discourses. For instance, most of what might be considered to represent medical discourse, such as the statistics and information concerning salmonella poisoning from the Public Health Laboratory Service, is subsumed within the consumerist discourse, as it tends in general to support the position that salmonella infection in eggs is a serious health risk. The news values within the discourses of medical science are produced *within* and *through* the framework of the discourse of consumerism. Despite the efforts of some source groups, the scientific background to the salmonella affair was not presented as a major issue. This meant that there was little debate in the news coverage about the validity of the science involved, and the medical/scientific community was not presented as an 'interested' group in the way that consumers, producers, and of course the government were.

With regard to BSE, the question of scientific evidence and the legitimacy of official scientific explanations did become a major topic of interest. However, this was similarly subsumed within the discursive positions of the other interest-groups. While articles concerning the need to 'listen to the experts' can clearly be argued to legitimate 'science' as such, they were generally tied to specific positions (generally those of either the industry or the state), rather than representing a separate argument of their own⁸.

While far from exhaustive, the 'thematic grid' breakdown allows a certain amount of diachronic understanding of the salmonella affair, showing some of the changes which occurred in the newspaper coverage (see chapter 7).

⁸This should not be taken as a comment on the sociology of science *per se*; in this context the role of science is discussed simply in order to illustrate the methodological approach and its derivation from the specifics of the coverage in question.

There are some limitations to this approach. One drawback is that it does not comment directly on whether the subjects discussed in the stories are treated positively or negatively in the texts; in this sense the ideological positioning of the newspaper articles is not immediately apparent. However, the organisation of the nine-box grid means that in most cases a story is likely to be 'positive' or 'negative' depending on whether the Discourse under which it is categorised is the same as the Arena on which it is focused. For instance, a story classified as *Consumer Arena, Consumer Discourse* is likely to contain, implicitly or otherwise, a positive mention of the consumerist position. On the other hand, an item classified as *Industrial Arena, Consumer Discourse* (in which the consumerist position focuses on the egg industry) is more likely to imply a negative mention for that subject.

Further elucidation of the 'thematic grid' analysis can be found in the Thematic Analysis chapter which provides examples from the newspaper coverage of the salmonella-in-eggs affair and the BSE scare in order to illustrate the categorisation criteria employed. The examples are presented in the 'Thematic' chapter (rather than here) because, while they do help to explain the categorisations used, they are also examples of the specific *content* of the newspaper coverage; thus they do not solely represent a methodological matter.

Salmonella

Thematic analysis was applied to selected periods for each of the two main case study examples. For Salmonella-in-eggs, three periods were chosen: June-November 1988; January 1989; and March-June 1989. As discussed in the Thematic Grid chapter, these periods correlate approximately with the immediate 'build-up' to the scare as a major news event, the height of the scare, and the subsequent falling-away of coverage, respectively. While these periods are not of the same chronological duration, the length of the 'pre-' and 'post-' scare samples are such in order to gather enough data to provide some comparison with the main January 1988 figure. Nevertheless, the figure for the build-up to the scare should perhaps be treated with more caution due to the relative lack of material found over that period:

Total data collected for each period:

- June-November 1988: 664 col.cms.
- January 1989: 6248 col.cms.
- March-June 1989: 3146 col. cms.

By selecting three separate periods, the intention is not only to trace the shape of the coverage in terms of the focus of the news attention and the interested positions inherent in that coverage, but also to provide some diachronic analysis of the changes and shifts which occurred in the 'career' of the scare. It was speculated that the shifting elements of the arenas and discourses expressed in the coverage over time might provide some evidence concerning the reasons for the rise and decline of interest in the scares. Potentially then, this kind of analysis might be able to provide a little more insight into the issue of food scares than is likely to be produced through the simple descriptive 'calendar' analysis.

For each period of analysis, the news articles classified into each of the nine categories of arena and discourse from all the newspapers sampled were aggregated together in terms of the column centimetres measured in each category. These 'raw' figures were then converted into percentages of the total column centimetre count for each period. The final grids presented therefore show the percentage of the total coverage (in column centimetres) devoted to each of the nine categories. Row and column totals are also provided to give the percentage 'splits' between the three discourses and the three arenas respectively (see chapter 7, 'Thematic Grid'). Thus the *relative* amounts of coverage allotted to the different categories can be compared *within* a particular period, and over time *between* periods.

Each of the main food scares has also been analysed briefly using the thematic grid with regard to the distinction between tabloid and broadsheet newspapers. While this does not represent a major element of the analysis, it does provide a further perspective on the presentation of the news concerning food scares. As a period at the centre of the three-month scare, January 1989 was selected as the sample period for the salmonella scare. Broadsheet newspapers were represented by the *Daily Telegraph* and the *Independent*, while the three 'red-top' tabloids - the *Sun*, the *Daily Mirror* and the *Star* were taken to represent their 'end' of the spectrum. For reasons of data availability - and because, again, no *direct* comparison is to be made between the two case studies - the tabloid-broadsheet distinction with regard to BSE was examined using different newspaper titles, with the broadsheet *Telegraph*, *Guardian* and *Times* compared with the tabloid *Sun* and *Mirror* over the sampling period of May-July 1990.

BSE

The shape of the BSE coverage differed from the salmonella coverage in a number of ways, but in particular there was little evidence of any closure; the story has of course continued to evolve and is still newsworthy (see chapter 6, 'calendars'). It was therefore not possible to select periods which were recognisably 'before', 'during' and 'after' the main part of the BSE scare. The tracing of the 'career' of the scare would clearly be premature, and therefore two periods of relatively high coverage were selected: May - July 1990, and 19-25 March 1996. Again, the differences in the duration of these two periods masks the fact that the latter term encompassed a huge amount of data, and that the two periods therefore cover comparable amounts of news coverage. The thematic analysis of the BSE data also differs from the salmonella analysis in that, as in the 'calendar' analysis, the wordcounts for each item, rather than the column centimetre measurement, is used as the basis for the aggregated totals found in the completed results. Again this is not considered to be problematic as no direct comparisons between salmonella and BSE are made on this basis; indeed, comparisons between the two periods of BSE analysis must be handled with some care because their relationship is less clear than that between the periods of salmonella analysis. That is, the links between the thematic analysis and the calendar analysis are perhaps less reliable in the case of the BSE scare. The sample of newspaper titles selected for this analysis was expanded from the four used in the calendar analysis to include tabloid newspapers. Six papers were used for the 1990 period - *Daily Telegraph*, *Times*, *Guardian*, *Daily Mail*, *Sun*, and *Today* - while the latter was replaced by the *Mirror* in the 1996 period as it ceased publication in November 1995. In other respects however, the BSE analysis follows a similar procedure to that of salmonella, with the wordcount data aggregated for each arena/discourse category, converted to percentages of the total count for the period, and presented for each of the nine categories within a grid.

Coding difficulties did arise with some news articles from both of the case study food scares. One 'salmonella-in-eggs' item in the *Sun* for instance - "Taxpayers Shell Out £500,000 To Prove Edwina Was Right" (15.12.88) - was problematic in that while the Discourse of the consumer seemed fairly clear (in that the story argued that a new advertising campaign aimed at reassurance had nevertheless accepted that a risk similar to that which Currie had implied did exist), its ostensible subject was less clear. It might be argued to refer primarily to the State arena by focusing on governmental action in the form of a (ministry -backed) campaign; however, I would argue that the main subject of the article was the level of risk which was present *in the consumer arena*, and therefore the correct classification was *Consumer Arena, Consumer Discourse*. Of course, in one sense, virtually all of the food scare coverage has as its

ultimate subject the risks to the public, and this leads to the *Consumer Arena*, *Consumer Discourse* category effectively becoming a default category in which all items might be argued to fit. Therefore this category is generally used sparingly, only when it is clear that articles do not fall into other categories. Thus, notwithstanding the above example, the figures for the *Consumer Arena*, *Consumer Discourse* category in each case should be seen as relatively conservative.

The categorisation in this sense is not strictly objective in the way that traditional content analysis is expected to be; nevertheless, this does not, in my view, invalidate the procedure. The attempt to produce data on the underlying arguments and interests in the coverage militates against a simple count of 'manifest content' (Krippendorff 1980: 21), not least because each item requires a relatively detailed assessment in order for it to be categorised. In his study of the news-making process, Gans described how the FBI leaked a story concerning a 'mafia boss' whose manifest meaning was unclear, but which implicitly supported the FBI position, and argued that such stories often serve the source organisation's interest without saying so directly (Gans 1980: 121). Gans' focus on the underlying, implicit meanings here is roughly analogous to the issue of discourse in the present analysis, and I would argue that any attempt to enforce rigorously 'objective' categories would be likely to miss the important latent meanings which this thematic analysis is aimed at investigating. McQuail emphasises the 'elasticity' of the boundaries of content analysis, suggesting that a relaxation of the need for reliability can provide the opportunity to use categories and variables which might be "'low' in 'objectivity'" but useful for interpretation (McQuail 1987: 185). I would argue that such a characterisation is applicable to the nine-category thematic analysis presented here, and hope to provide evidence that the interpretation and understandings it produces make the 'trade-off' worthwhile.

Interviews

In a broad sense the thematic grid analysis described above is intended to outline the shape of the coverage in terms of what kinds of things were said about the case study food scares in the newspapers, and which ideas, opinions and subjects were considered newsworthy. Potentially, this also provides some implicit evidence of what was *not* being discussed; however, this effectively speculative approach to those issues excluded from the news defines the boundaries of a purely textual analysis. While some empirically informed analysis might be able to outline the omissions, it would be impossible to explain why such decisions were actually made in specific instances. It is therefore useful and enlightening to go 'behind' the text by talking to those individuals

who help to influence the news production process. This of course includes not just those who are employed by news organisations, but also the news sources who provide them with much of their 'raw material'.

My initial intention was to contact the specific individuals who had played a role in the case study food scares: the journalists who had written the stories, and the sources who had featured in them. However, it became clear that since the emergence of the scares, many of these individuals had moved on from the positions they had occupied and were therefore difficult to trace. Apart from this pragmatic difficulty, there was also a theoretical justification for being less concerned with individuals, in that news sources are generally⁹ selected on the basis of their *structural* position with regard to the issue at hand; they represent organisations and institutions rather than simply presenting an idiosyncratic personal opinion (see, for instance, Fishman 1980: 130). Thus, interviewees were selected on the basis of their position in the news making process, and while they may not have been able to provide information on specific news items from the coverage, they nevertheless offered insights into their particular 'corner' of the news process and how it related to the issue of food scares. In his discussion of the different types of interview available to the researcher, Flick denotes the 'expert interview' as one in which the emphasis is not on the interviewee as a 'whole person' but as "an expert for a certain field of activity" (Flick 1998: 92). While some particular personal or idiosyncratic elements may be of interest, the interviews conducted for the present study largely fell into this category, with the interviewees generally considered to be 'expert' in their understandings and knowledge of (some aspects of) the source-journalist relationship. A further element of what Flick describes as the 'ethnographic interview' is however also represented in that the questions asked are intended to elicit answers which show how the interviewees "organize their knowledge about the issue" (Spradley, quoted in Flick 1998: 93). Therefore, elements of both the 'expert' and 'ethnographic' style of interview were employed.

The methodological literature suggests a number of other different styles of, or approaches to interviewing. While Priest contrasts the quantitative survey interview with the qualitative depth interview (1996: 241), others distinguish between various qualitative approaches. Smith and Manning for instance suggest three interview styles: *unstructured*, in which respondents are free to discuss what they want, and at their own pace; *focused*, in which a specified and limited subject is addressed in depth and with no particular order; and *structured*, with set questions in a fixed order (1982: 99).

⁹This is not always the case however; the personalities of the individuals concerned can also play a role, as is discussed in the following chapter.

For this study, interviews were generally unstructured, certainly in the sense that respondents were free to answer in their own words and at their own pace. While they were also free to digress, provide illustrations and otherwise change the subject, I did attempt to ensure that questions were not ignored or obfuscated. Nevertheless, it should be emphasised that all those interviewed were familiar with the media and most were, in one sense or another, professional communicators. Thus the priorities necessary in interviews with people with little or no experience of the interview process - such as, for instance, the need to ensure a relaxed and conducive atmosphere - become less important. The interviewees needed little reassurance or 'coaxing' in order to offer their arguments and positions, and thus the main imperative was to make sure that questions were answered and issues fully explored. In a list of 'continuing problems' in interviewing, Simons suggests the difficulty of getting "beyond the institutional response" quickly in order to arrive at more specific, personal attitudes and beliefs (Simons 1981: 41). Again, in the context of the present study this is not a significant problem, not least because to some extent the 'institutional response' is the kind of data in which I was interested; certainly with regard to the news source organisations, evidence concerning their 'corporate' attitudes is, for instance, helpful with regard to the assessment of the success or otherwise of their communication strategies. A further contrast with other types of interview (and thus, other kinds of research) is evident in the relative lack of information concerning personal attitudes sought; while such information was generally welcomed, it was not the main focus of the interviews. Instead, the primary concern was with professional (and therefore largely public) attitudes and positions. This also helps to justify the general absence of anonymity in the interviews; while the occasional 'personal' comment necessitated anonymity, the interviewees generally were happy to speak 'on the record', and as media-literate professionals were aware of the implications of this.

Twenty-six essentially unstructured interviews were conducted: fourteen with journalists (mainly in the relevant specialist areas of agriculture, science, health and food) and twelve with representatives of organisations featured in the coverage as sources (see appendix 1). While a number of the journalists spoken to were characterised in their job descriptions as 'editors' of their respective specialisms (i.e. 'medical editor', 'science editor'), none of them were confined to a dedicated 'gatekeeping' role, and therefore no desk editors were interviewed. This was partly due to a particular research focus on the interactions between source and journalists (to which, by definition, in-house editors are not privy), but also due to the relative lack of access to the internal workings of the news organisations concerned. Any understanding of the sub-editing role (and indeed the other roles of those further up

the news hierarchy with an editorial function) was therefore limited to that derived from these journalists. With regard to news sources, a number of those spoken to were officially designated as press officers or public relations managers, mostly when dealing with larger organisations. While this was to some extent problematic (in that 'back region' views (Ericson 1989) were in this sense made unavailable to me even though they might be available to journalists via contacts), the 'official positions' presented by these accredited news sources were of interest in their own right, not least because they were often the basis of news items and discussion.

Interviews were unstructured firstly because this allowed flexibility for the conversation to follow the issues and ideas which the interviewee felt was interesting or important, and secondly because I felt that as professional 'communicators' the interviewees might feel the formality of a structured interview to be constricting and they might therefore not respond as freely or as positively. Interview schedules were tailored to each individual, and for those who had been directly involved in either (or both) of the case studies, the initial focus was on their part in the news as it had been produced. For instance, one medical correspondent who had reported on the unfolding salmonella scare was asked about his relationships with the various sources which he had quoted in his articles. For those who were not involved (or could not remember any details about being involved), initial questions centred on the relationship between journalists and sources. For journalists, one of the main issues was that of credibility and how sources were assessed on that basis; for sources, questions were centred around the 'problems' of access and 'getting the message across', and the extent to which a 'pro-active' media strategy was felt to be necessary. Other issues addressed included the notion of newsworthiness - how did journalists measure it, and how did sources ensure that their messages provided it.

Throughout each interview I attempted to relate answers to the specific issues of salmonella and/or BSE, and often interviewees would provide illustrative examples which were similarly directed. Nevertheless, much of the data gathered was of a generic kind which although useful, was not always specific to food scares. This is one of the reasons why further specific research centred on a small number of 'sub-case studies' in which a particular news article or story was focused on and analysed in greater detail. Each of these short case studies (described in more detail in chapter 6, 'sub-case studies') is informed by an interview with a relevant individual who was involved with the particular story, and helps to provide more specific data on the interactions and negotiations which work to produce such news items. These also help to illustrate the variety of ways in which 'food scare' news items are produced. These

interviews were able to focus more directly on specific news items and relationships between journalists and sources.

Interview material can be problematic in that its reliability is often likely to be called into question; interviewees may be providing the answers which they think are required, or which cast them in the best possible light, or which are part of the public agenda which research such as the present study is intended to 'get behind'. The researcher's task in such cases is to judge the correct balance between paying the appropriate respect to the interviewee and providing a sufficiently critical perspective, both during the interview and in the analysis of transcripts. Dean and Whyte for instance list a number of strategies for interviewers who want to detect any distortion (conscious or otherwise) in the accounts of interviewees, including having some knowledge of the informant's "mental set" (1978: 185). I have attempted to acknowledge the organisational position of the interviewee in my interpretations of the data whilst taking care not to make too many assumptions about the extent to which those positions affect the arguments they put forward. I am not sure that it is possible to provide clear and unambiguous evidence that a fair balance has been achieved, other than that which can be found in the analyses themselves as they are presented in the following pages.

The 'multi-method' approach to media research outlined above is intended to allow a more comprehensive assessment of the particular food scares discussed, and therefore to avoid the short-comings of any particular method. Thus, the longitudinal case-study approach is balanced by the synchronic 'snap-shot' element present in the thematic grid analyses of specific short sections of the coverage, the quantitative content analytic sections are followed by a qualitative assessment of interview material, and the early focus on texts gives way firstly to discussion of the processes through which news texts are constructed, and secondly to a wider analysis via the social theory of Beck and Habermas.

Chapter 6

Contours of Coverage: The Food Scare Calendars

In this chapter, the main food scares which are the primary subject of this study are described in terms of the kinds of news coverage surrounding each of them, together with a quantitative analysis of the magnitude of that coverage. The calendars show the amount of coverage devoted to each food scare, either as a percentage of the total amount of news-space available in the newspapers, or as an aggregate word-count (see chapter 5, 'Methodology').

For each case study, the progress of the story is charted chronologically from its initial appearance as a news story, with examples from the sampled newspapers of the kinds of reports which comprised the scare. By offering examples throughout this section, the outlines of the *content* of the news coverage will be sketched out, and this in turn will provide an introduction to the more qualitative elements of the analysis which follow; many of the points and issues mentioned in this chapter will be the subject of further discussion and analysis in later chapters. Following this descriptive account, the quantified monthly calendar of coverage (derived from primary content analysis data) is presented; in the case of salmonella in eggs, news coverage can be seen to have diminished fairly soon after its peak in the winter of 1988-89, while the BSE scare continues to re-emerge as a highly newsworthy story. The 'pesticides in carrots' scare, as we shall see, is handled slightly differently because it is not readily susceptible to a similar kind of quantification, but its shape is discussed as a further case study, and a *daily* calendar is presented. Finally, a brief comparison is made between the salmonella in eggs and BSE calendars in terms of relative shape, magnitude and duration. It should be made clear, however, that no direct comparison between the *amounts* of coverage are made, not just because such a comparison would be methodologically problematic, but also because it is unlikely to provide any useful information in that such comparisons tend to ignore other factors, unique to each scare, which might make the stories important or meaningful, either for journalists or for audiences.

Calendar: Salmonella in Eggs

Salmonella food poisoning has long been recognised by medical science as a common but potentially lethal health problem; it is also well understood by the media as a newsworthy health risk. The salmonella genus of bacteria was isolated over a century ago, and salmonella poisoning has long been a notifiable disease. Prior to the reporting

of the salmonella in eggs story in late 1988, reports involving salmonella poisoning often focused on particular outbreaks in institutional settings. For instance, ITN reported on salmonella poisonings at Leeds prison in October 1984 (ITN News, 29.10.84), and at Edinburgh Hospital in August 1987 (ibid: 24.8.87). Other stories highlighted salmonella infections at specific points in the food chain, particularly in food processing plants and in foods themselves: Baby food producers Farley's were forced to pull products from supermarket shelves in December 1985 after the discovery of Salmonella infection at their plant in Kendal (ibid: 20.12.85), while in February 1988 Peperami snacks were reported to be infected (ibid: 1.2.88). One of the most severe cases in recent times occurred at the Stanley Royd Hospital in Wakefield, where, in September 1984, 455 were affected and 19 patients died from acute salmonellosis. The subsequent Inquiry led to the removal of crown immunity (from prosecution) from hospital kitchens (North and Gorman 1990: 2). In the early 1980's reports of Salmonella infections in humans totalled between 10,000 and 15,000 per year (see figure 1); nevertheless, news reports concerning salmonella appeared only sporadically, and were relatively self-contained.

The first reports emphasising salmonella infection of eggs occurred in April 1988 when two newspapers referred briefly to research conducted at the United States' Center for Disease Control in Atlanta Georgia. The research suggested that eggs were a major source of Salmonella enteritidis infection; a spokesman for the British Egg Information Service said that there was "no evidence" and advised the public to keep eating eggs (*The Times, Daily Star*, 16.4.88). The *Times* headline ("US scare threatens soft boiled eggs") implied a foreign threat to a British diet staple, and could also be seen as evoking the anti-Americanism often associated with some of the debates around issues of popular culture and globalisation; indeed, one account of the egg scare criticises the US as being the "home of the food scare" (North and Gorman 1990: 3).

In July, large increases in the number of food poisoning cases were reported in a number of newspapers, and in a precursor to one of the main themes of the debate which was to follow the increases were blamed (by, amongst others, doctors at the Food and Drink Federation's conference) on poor domestic kitchen hygiene (*Daily Express, Daily Mail* 13.7.88; see Fowler 1991: 186). The *Independent* took a slightly different approach in emphasising the London Food Commission's launch of a campaign "against the adulteration of food", which was timed to coincide with the FDF conference. This event also brought the Commission into contact with Professor Richard Lacey, a relationship which, as we shall see, had significant consequences for

the news construction of the food scares which are the subject of this study (see below, chapter 8).

The first official warning concerning eggs in the UK was reported on 27 August 1988, the day after the Department of Health issued a press release headed "Salmonella and Raw Eggs". The release makes it clear that the "incidence of known infection is very small", before advising consumers, and especially the "more vulnerable", to avoid raw eggs. The 300-word statement goes on to reassure that cooked eggs are not involved and cooking times do not need to be adjusted, before listing a number of recommended practices in the hygienic handling of eggs (DoH Press Release 88/285, 26.8.88).

Most newspapers covered the issue briefly on their inside pages, with no references to sources other than the DoH. The *Telegraph* gave the story space at the bottom of page one, adding a note to the effect that unspecified "experts" believe that cooking times for items such as fried eggs should be increased in order to kill the salmonella bacteria. *Today* was the only newspaper to lead with the story, and the only one to refer directly to another source. A spokeswoman for the British Egg Information Service ("which represents 60 per cent of the British Industry") was quoted as saying that the warning was "unnecessary" and potentially disastrous for the industry; the chance of contracting salmonella from a raw egg was, she said, "one in two million". Some editions of the newspaper carried the headline "Killer In Your Egg", while in others the slightly less sensational "Raw Egg Bug Danger" appeared (*Today* 27.8.88). While the actual text remained unaltered, the former headline was the one which was remembered by, and which most exasperated, the leaders of the two main egg industry organisations (see below, chapter 8). Indeed, as we shall see, *Today* remained the most eager of the national newspapers to follow food scare stories until its demise in November 1995.

Throughout the autumn months of 1988 other related stories emerged. The *Times* reported further rises in official food poisoning statistics (19.10.88; 9.11.88), while others reported on specific outbreaks, particularly the poisoning of a number of judges and other 'VIPs' at a function at the House of Lords (*Mail, Express*, 27.10.88). Another approach to the issue consisted of reports detailing the reactions of other authoritative sources and organisations to the emerging scare. The *Times* and *Telegraph* both briefly covered the Women's Institute's decision to 'ban' raw eggs in favour of the supposedly safe pasteurised powdered egg (*Telegraph* 25.11.88; *Times* 28.11.88), while the *Mail* announced in a headline that "doctors" were calling for an

egg boycott in order to force the government to take action (*Mail* 25.11.88). These stories can also be seen to have been fuelled by a further DoH Press Release which was issued in order to provide 'reassurance'. The release acknowledges that the risk from cooked eggs is unclear, but goes on to assert that the general risk "is likely to be very small" (DoH Press Release 88/409, 21.11.88).

The above amounts to a 'build-up' of interest within the media concerning the salmonella issue, and refutes any suggestion that the salmonella scare began with Edwina Currie. Nevertheless it is clear that the story became an exceptionally important one only at the beginning of December with the public intervention of the junior health minister.

In her (partly biographical) book on health issues, Edwina Currie suggests that by the summer of 1988 the Department of Health was aware that *Salmonella enteritidis* Phage Type 4, generally associated with poultry, was now being found inside intact eggs, and that it also comprised the main reason for the recent large increases in salmonella poisoning reported in the statistics (Currie 1989: 255). As others have noted (North 1989:180), the interview which Currie gave to ITN on Saturday 3 December concerning salmonella in eggs was not spontaneous; it was prepared, at least in the sense that having decided to make a statement on the subject, she intended to do it "properly, nationally" (Currie 1989: 259). ITN wanted Currie's reaction to Plymouth Health Authority's recent announcement of a switch from shell eggs to pasteurised eggs in their food preparation guidelines. The first of four sentences which ITN used in their story was the quotation which became the focus of the following day's news:

"We do warn people now, that most of the egg production in this country, sadly, is now infected with Salmonella."

Currie herself admits that the word 'most' was incorrect to the extent that the scale of the problem was simply unknown, and that substituting 'much' would have been more accurate (*ibid*: 261); nevertheless, it seems questionable whether such a small semantic difference would have substantially altered the subsequent path of the media coverage which followed.

ITN began their story with the quotation, and also offered the UK Egg Producers Association's reaction to it ('A load of rubbish') along with an explanation of the recent ban on eggs in certain hospitals. They clearly felt that the minister's statement was the single most newsworthy part of the story; the following day ITN reported the egg

industry's concerns about losses due to Currie's statement. The chairman of the British Egg Industry Council John Coles was interviewed; he said that Currie had been misinformed and should retract her comments (ITN News: 4.12.88).

On the day following Currie's remarks to ITN, the *Sunday Telegraph* mentioned the nascent salmonella scare only as a footnote to its story on the impending ban on milk from BSE infected cows, while the *Independent on Sunday* had nothing at all to say on the subject. The *Sunday Times* reported a government plan to introduce a new code of practice, and included in this report a mention of Currie's comments and the reactions of two organisations: the British Egg Industry Council and the UK Egg Producers Association. Revealing the different styles of approach of the two organisations, they are quoted, respectively, as saying that Currie's remarks were "both factually incorrect and highly irresponsible" and a "load of rubbish".¹

At this point, generally considered to be the inception of the 'discursive panic' which gripped the news media (Fowler 1991: 148), the amount of coverage both increased and diversified, with stories attempting to approach the issue from a number of different perspectives. This broadening out of the issue is exemplified in a particular kind of presentational style that appears when any news story reaches a certain level of (relative) newsworthiness. *Today's* front page lead ("Egg farmers set to sue Edwina") continued on page two where it was accompanied by three other apparently self-contained stories all boxed together under the 'blanket' headline "The Great Egg Crisis: Firms who suffer and guide to safety":

- "Producers 'suicidal' as bankruptcy looms"; this offered the pessimistic views of the Chairman of the British Egg Producers Association;
- "Hens to face a testing time"; an unsourced guide to the salmonella testing regime imposed by MAFF regulations;
- "Tips for the cook"; repeating the Department of Health's advice on cooking eggs (*Today* 5.12.88).

¹Sundays can be important in the development of parliamentary news (see Sigal 1973: 101); they allow time for MP's to digest and discuss the current political issues among themselves and their local party activists. The timing of Currie's contribution to the salmonella scare meant that MP's may well have been ready with their views on their return to Westminster on Monday 5 December, having already consulted with constituents who, in rural areas, might well have included representatives of the agricultural industries.

These stories could presumably have been incorporated into a single item with a single headline, but instead their separation implies that there are a number of important and distinct issues to be addressed.

This proliferation of coverage produced stories from a number of different perspectives. The most obvious of these concerned the overtly political consequences of the salmonella scare and Currie's comments. Calls for her to either withdraw her statement or resign (e.g. *Daily Mirror*, 5.12.88) were met by a refusal by Currie to comment further, a strategy which was apparently sanctioned by her superior at the time, Health Secretary Kenneth Clarke (Currie 1989: 264-5). This reason for Currie's silence on the issue was referred to in the press (*Daily Telegraph* 8.12.88; *Sun* 12.12.88), but by then she was being criticised for failing to 'put the record straight' (e.g. *Daily Mirror*, *Daily Telegraph*, 6.12.88). Threats of law suits were followed by writs issued against Currie on behalf of the egg industry (e.g. *Daily Express* 16.12.88) and within two weeks Currie resigned; however, Currie remained central to journalistic accounts of the salmonella scare into 1989, not least because of her intention to write a book on the subject (*Mail* 4.2.89) and her dramatic appearance at the inquiry which she had previously refused to attend (e.g. *Sun* 4.1.89, 7.2.89, 9.2.89).

Another element in the coverage emphasising the parliamentary aspect of the story focused on the apparently inconsistent messages from government sources. The *Guardian* for instance referred to the Labour party's attacks on the 'contradictory' government position (6.12.88), while other stories noted the confusion surrounding the government's advice (*Mirror* 7.12.88). A *Sun* editorial called on the Prime Minister to intervene to clarify the contradiction between Currie's comments and those of the Agriculture Secretary John MacGregor (12.12.88) and the 'distancing' of MacGregor from Currie's position was noted (*Telegraph* 11.12.88), highlighting the different emphases of the two ministries directly involved: DoH and MAFF.

Fowler suggests that the report of the Commons Agriculture Committee inquiry into the salmonella scare, published on 1 March 1989, helped to "bring the crisis to an end", mainly by laying blame amongst those involved and emphasising the remoteness of the risk (Fowler 1991: 152;159). The limited, but significant, amount of 'closure' provided by the publication of the inquiry report suggests the primacy of the parliamentary-political aspect of the story.

Nevertheless other approaches were evident throughout the period of the scare, and a particular contrast to the political aspects was provided by those stories which emphasised the risk of salmonella by reporting particular instances of poisonings. One story consisted of a first-hand account of one family's experience of salmonella poisoning (*Telegraph* 20.12.88), while many newspapers reported the death of a 10-year-old boy from salmonellosis, and his father's insistence that an egg was to blame (e.g. *Telegraph* 19-20.1.89). These stories provided a focus for consumer concerns about salmonella, as opposed to the wider political aspects.

The statistics documenting the rise in cases of salmonella enteritidis PT4 and food poisoning generally (which were the initial spur to the Department of Health and Currie in particular) were often discussed within stories focused primarily on other aspects of the scare. They were often used to justify concern, and occasionally discussed with regard to their accuracy (*Telegraph* 7.12.88; *Guardian* 19.12.88). Stories focusing primarily on the statistics, usually reporting a further increase, generally appeared outside of the period which comprised the height of the scare (*Times*, *Express* 13.7.88; *Independent* 2.6.89; *Mirror* 30.1.91).

Much of the coverage immediately after Currie's intervention highlighted the likely effects of her comments on the market for eggs, and on the organisations and individuals who produced them; many of these stories also discussed the slaughter policy which was subsequently adopted (*Times* 10.12.88, 20.12.88; *Express* 14.12.88; *Star* 12.12.88). Later reports carried industry criticisms of the policy and the new testing regime imposed on egg producers (*Telegraph* 14.1.89).

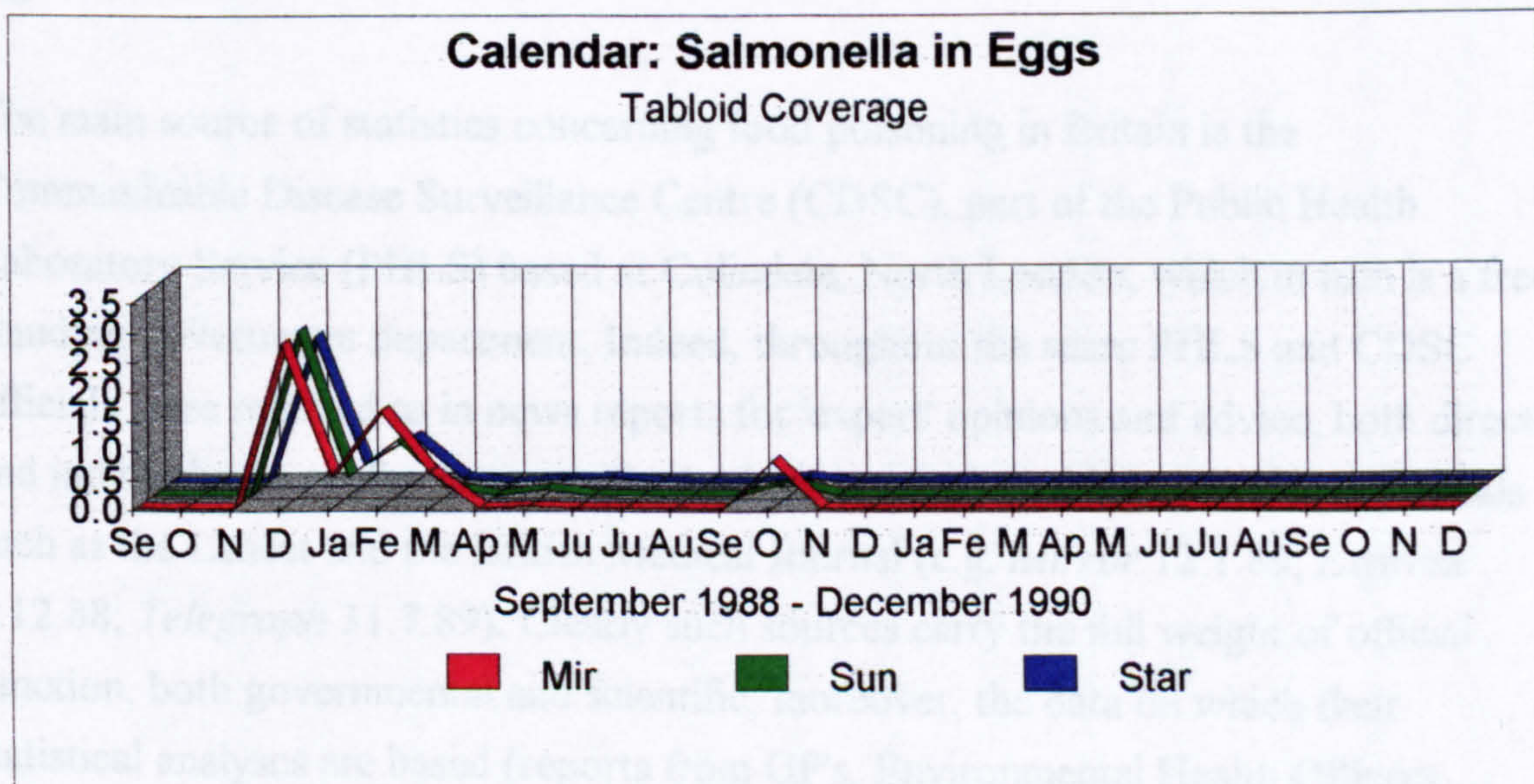
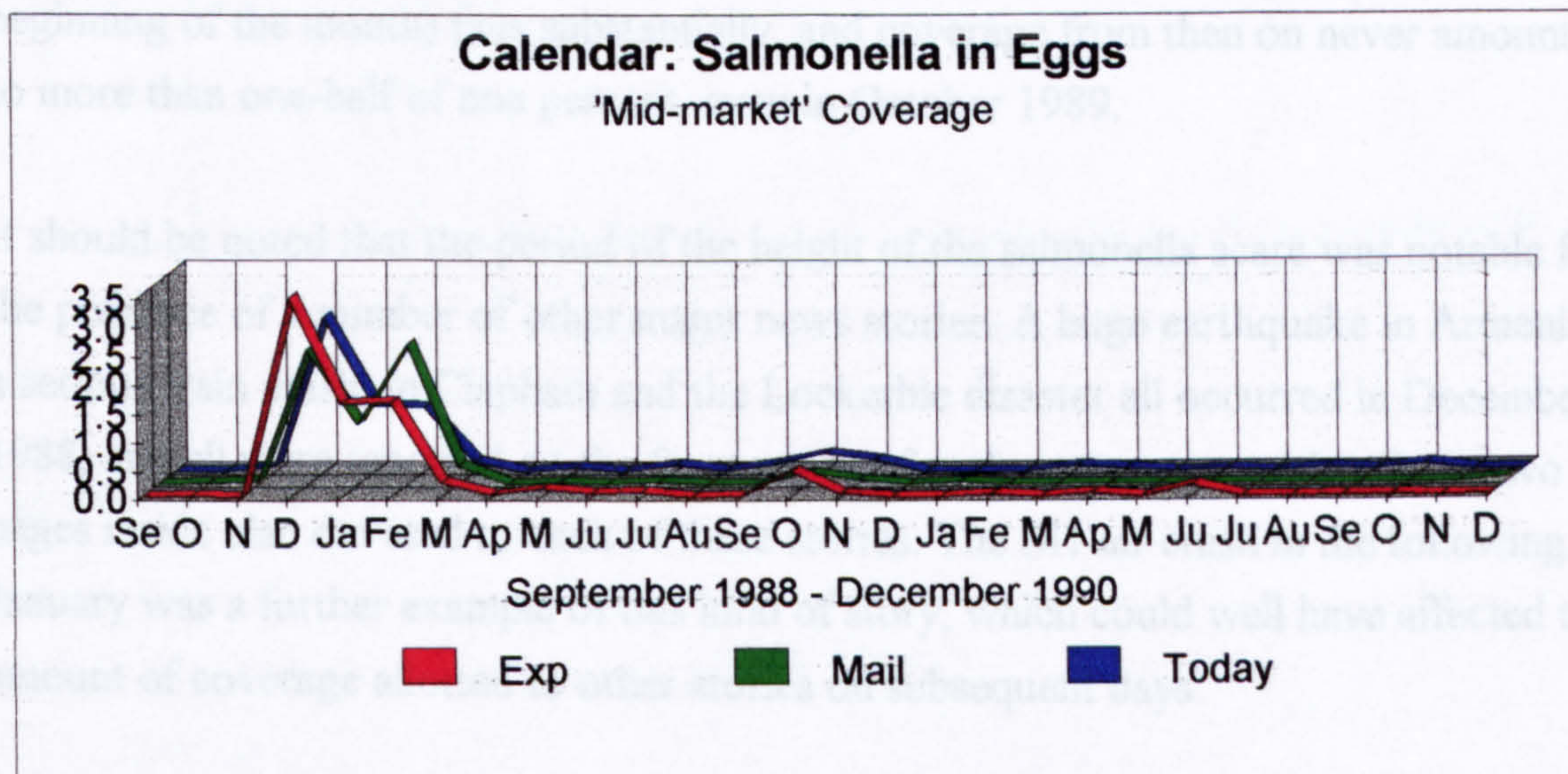
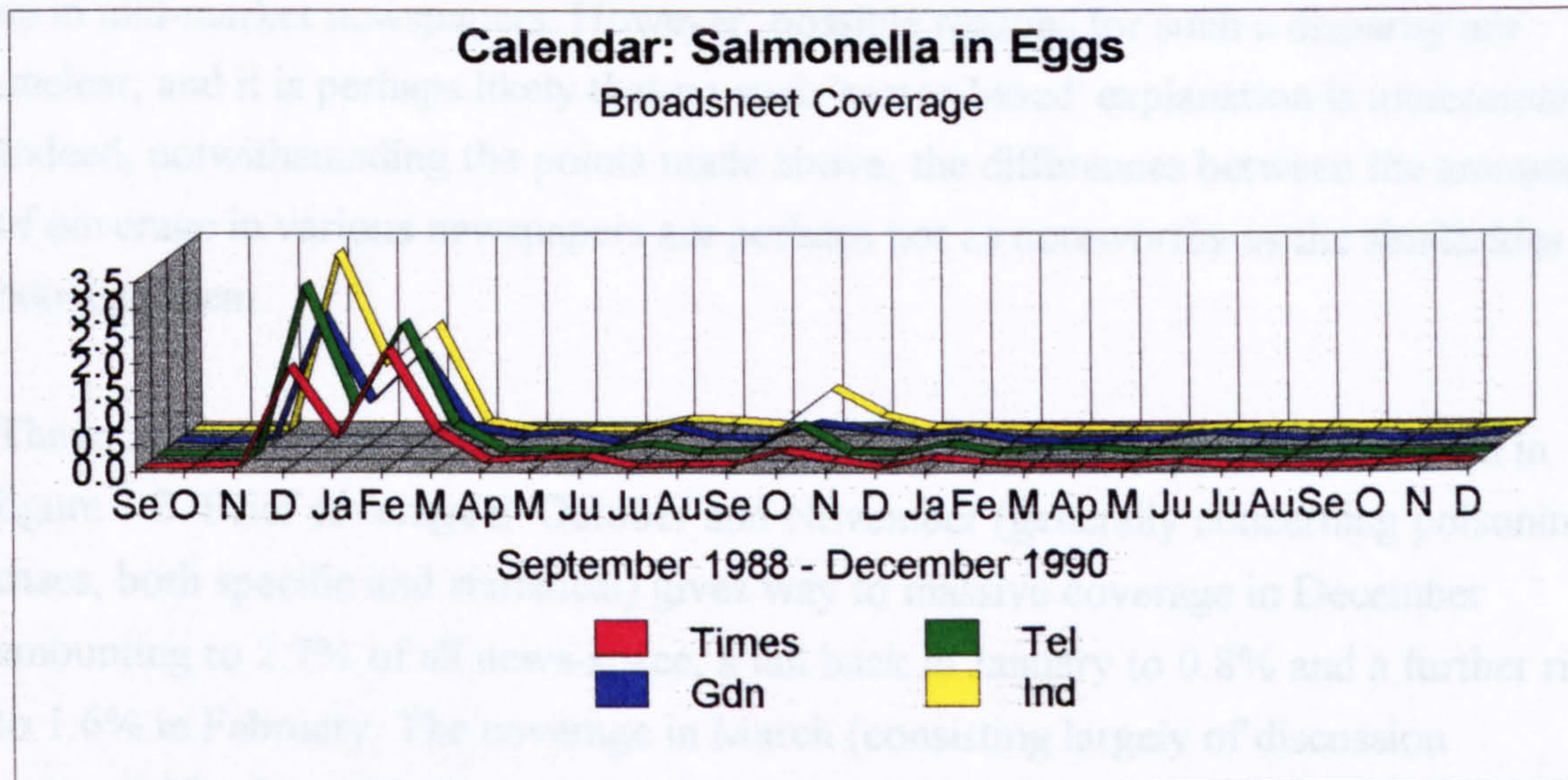
The main pillar in the egg industry's defence was that blame for the increase in poisonings generally lay at the door of the consumer, and the lack of food hygiene in both domestic and institutional and professional catering. The initial Department of Health warning in August 1988 stressed the role of "simple hygiene measures" in avoiding food poisoning, and the later press release reiterated the advice "for the housewife..." (DoH Press Releases 26.8.88, 21.11.88). While this theme was often subsumed within other stories at the scare's height, it became more evident later with the launch of a hygiene campaign which one consumer group called "a crafty diversion" (*Telegraph* 23.5.89). Fowler emphasises this 'blame the housewife' approach as a government strategy which fitted with the prevailing Thatcherite orthodoxy of individual responsibility and brought some further closure to the salmonella story (1991: 186).

Fowler also suggests that a 'food poisoning paradigm' (1991; 203) was generated by the salmonella scare. This was employed firstly in reports on other food poisoning issues, and then among a wider range of topics including more general health issues and ultimately with regard to pollution and environmental stories (ibid: 158). While there is little in the way of empirical evidence for such a causal link, it does seem that a number of food scares - listeria, campylobacter, BSE - either emerged or were journalistically resuscitated within the newspapers during and following the salmonella scare.

The Shape of the Coverage

The current study calculated the amount of news coverage devoted to the salmonella food scare in ten national daily newspapers, presented as a percentage of the space available (in column cms) for news, for a period of 28 months from September 1988 to December 1990 (see chapter 5, 'Methodology'). Each newspaper displayed a slightly different pattern, with some notable distinctions between broadsheets and tabloids (see comparison of calendars in figure 1.1). While similar amounts of coverage were recorded across all newspapers at the height of the scare (December 1988-February 1989), tabloid coverage dwindled quickly to virtually nothing by the summer of 1989. Broadsheet coverage however fell away more gradually (as can be seen in the 'ripples' in the graph depicting broadsheet coverage - see figure 1.1), with occasional stories published throughout the sample period. These 'aftermath' stories concerned issues such as the continued rise in salmonella poisoning cases and reports of individual outbreaks (*Independent* 1.8.89; *Telegraph* 31.10.89), the efforts of the egg industry to rebuild confidence (*Telegraph* 17.11.89; *Times* 10.1.90), and changes in the regulatory framework of the industry (*Telegraph* 27.9.90; *Independent* 24.11.89). There was a partial exception to this contrast between tabloids and broadsheets in that both mid-markets and tabloids (along with the broadsheet newspapers) reported in October 1989 on the legal battle between MAFF and a group of nuns who owned an egg-laying flock alleged to have been infected with salmonella. This story, in achieving widespread news coverage, allowed a re-assessment of some of the issues, focused particularly on the question of the policy of slaughtering infected flocks, and is discussed in detail elsewhere (see chapter 9, 'sub'cases'). Nevertheless, there were variations in coverage during October 1989, whereby the story was of most interest to the *Telegraph*, the *Independent* and the *Mirror* (all of which dedicated more than 0.5% of their news-space to the salmonella issue), and of less interest to other newspapers. On a final point of comparison across the sectors of British newspaper publication, while the December peaks were similar across the sectors, it might be

Figure 1.1



Note: Vertical axes measure percentage of available news-space.

argued that the January 'dip' is more pronounced in broadsheets and tabloids, and less so in mid-market newspapers. However, possible reasons for such a disparity are unclear, and it is perhaps likely that no such 'sector-based' explanation is unnecessary. Indeed, notwithstanding the points made above, the differences between the amounts of coverage in various newspapers are perhaps not as noteworthy as the similarities between them.

The monthly average of all the newspapers sampled produces the pattern shown in figure 1.2. Brief coverage in October and November (generally concerning poisoning cases, both specific and statistical) gives way to massive coverage in December amounting to 2.7% of all news-space, a fall back in January to 0.8% and a further rise to 1.6% in February. The coverage in March (consisting largely of discussion prompted by the publishing of the commons agriculture committee inquiry at the beginning of the month) falls substantially, and coverage from then on never amounts to more than one-half of one percent, even in October 1989.

It should be noted that the period of the height of the salmonella scare was notable for the presence of a number of other major news stories. A huge earthquake in Armenia, a serious train crash in Clapham and the Lockerbie disaster all occurred in December 1988, and all were reported on the front pages of each newspaper, with at least two pages inside also devoted to each of these stories. The M1 air crash in the following January was a further example of this kind of story, which could well have affected the amount of coverage allotted to other stories on subsequent days.

Official statistics

The main source of statistics concerning food poisoning in Britain is the Communicable Disease Surveillance Centre (CDSC), part of the Public Health Laboratory Service (PHLS) based at Colindale, North London, which in turn is a free-standing government department. Indeed, throughout the scare PHLS and CDSC officials were referred to in news reports for 'expert' opinions and advice, both directly and indirectly via conference speeches and papers published in authoritative journals such as the *Lancet* and the *British Medical Journal* (e.g. *Mirror* 12.1.89; *Express* 6.12.88; *Telegraph* 31.7.89). Clearly such sources carry the full weight of official sanction, both governmental and scientific; moreover, the data on which their statistical analyses are based (reports from GP's, Environmental Health Officers, hospital and other laboratories etc.) are largely unavailable to outside organisations.

Figure 1.2.

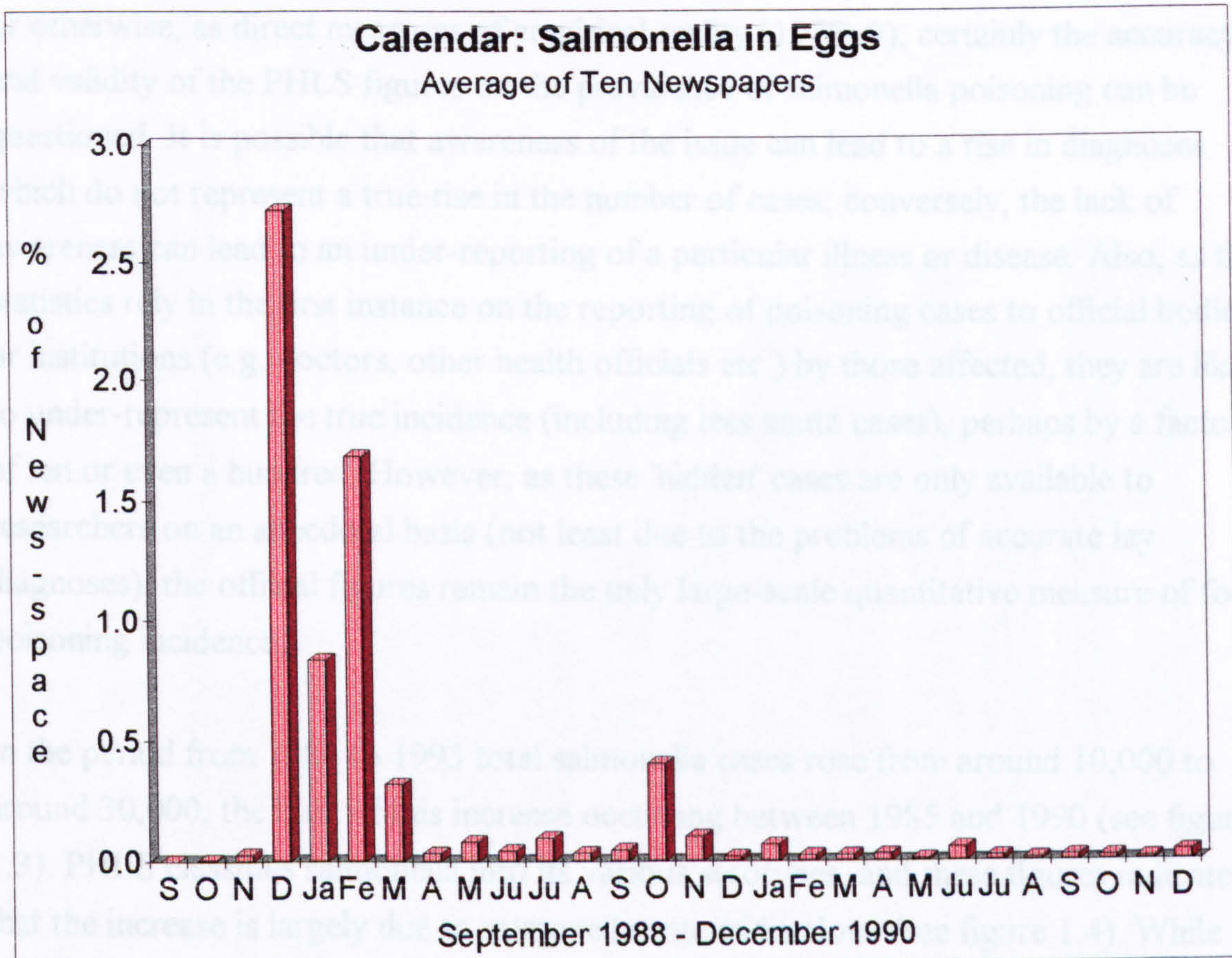
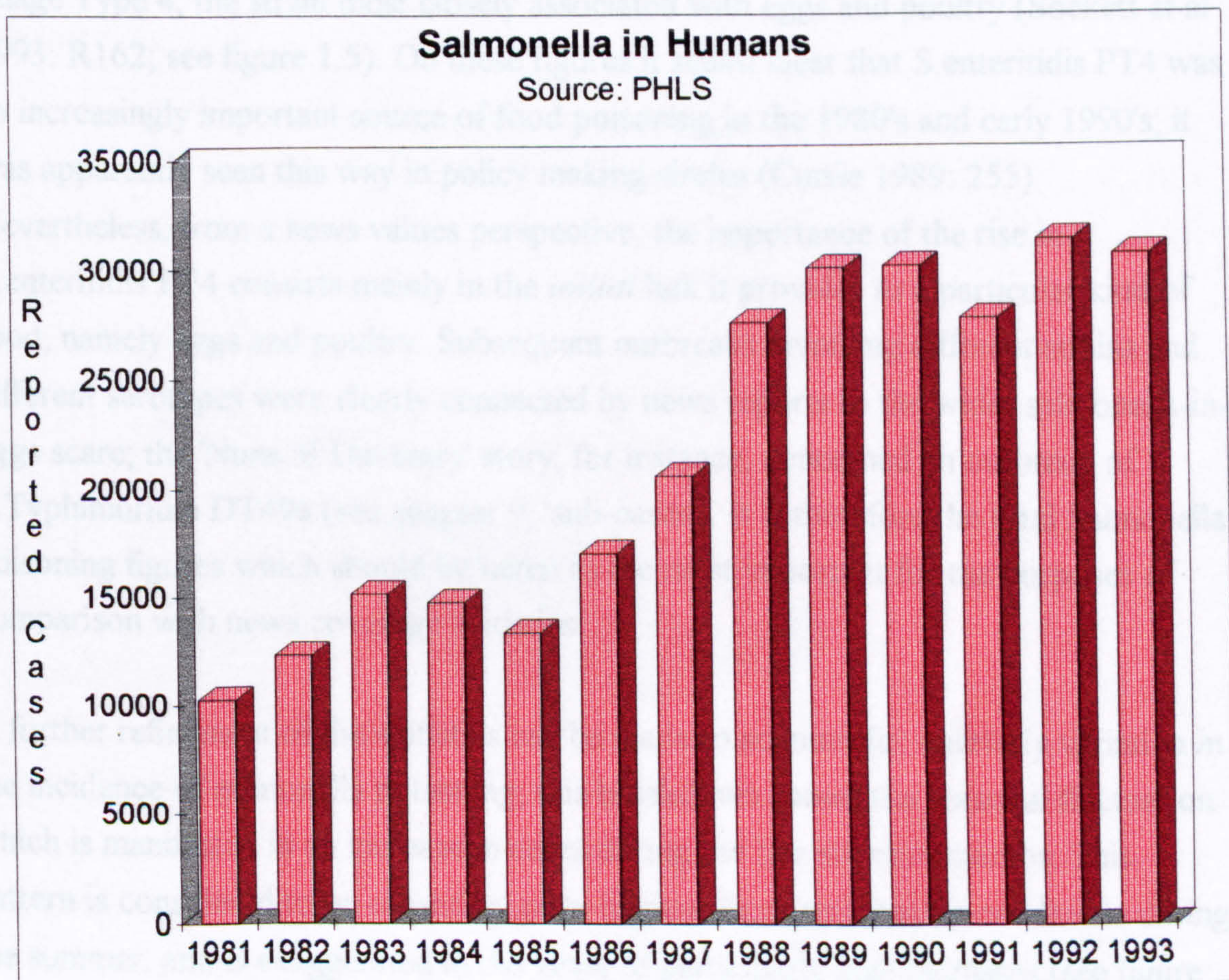


Figure 1.3.



Hall et al. note the factors which may confound any attempt to treat statistics, official or otherwise, as direct measures of empirical reality (1978: 9); certainly the accuracy and validity of the PHLS figures on the prevalence of salmonella poisoning can be questioned. It is possible that awareness of the issue can lead to a rise in diagnoses which do not represent a true rise in the number of cases; conversely, the lack of awareness can lead to an under-reporting of a particular illness or disease. Also, as the statistics rely in the first instance on the reporting of poisoning cases to official bodies or institutions (e.g. doctors, other health officials etc.) by those affected, they are likely to under-represent the true incidence (including less acute cases), perhaps by a factor of ten or even a hundred. However, as these 'hidden' cases are only available to researchers on an anecdotal basis (not least due to the problems of accurate lay diagnoses), the official figures remain the only large-scale quantitative measure of food poisoning incidence.

In the period from 1981 to 1993 total salmonella cases rose from around 10,000 to around 30,000, the bulk of this increase occurring between 1985 and 1990 (see figure 1.3). PHLS classifies salmonella into its various serotypes, and these figures indicate that the increase is largely due to salmonella enteritidis alone (see figure 1.4). While there were more than 150 different serotypes responsible for food poisoning between 1989 to 1991, 59% of reports were due to *S. enteritidis*, and 45% of them were due to Phage Type 4, the strain most closely associated with eggs and poultry (Sockett et al 1993: R162; see figure 1.5). On these figures it seems clear that *S. enteritidis* PT4 was an increasingly important source of food poisoning in the 1980's and early 1990's; it was apparently seen this way in policy making circles (Currie 1989: 255).

Nevertheless, from a news values perspective, the importance of the rise in *S. enteritidis* PT4 consists mainly in the *initial* link it provides to a particular kind of food, namely eggs and poultry. Subsequent outbreaks involving different strains and different serotypes were clearly connected by news reports to the wider salmonella-in-eggs scare; the 'Nuns of Daventry' story, for instance, concerned an outbreak of *S. Typhimurium* DT49a (see chapter 9, 'sub-cases'). It is therefore the total Salmonella poisoning figures which should be taken as the most important for the purposes of comparison with news coverage statistics.

A further refinement of the statistics can be made to account for quarterly variation in the incidence of salmonella poisoning; this breakdown shows the seasonal fluctuation which is manifested in an increase in cases during the late summer months. This pattern is considered to be caused by poor hygiene in warm weather conditions during the summer, and is exaggerated in the years of particularly high increases (see figure

Figure 1.4.

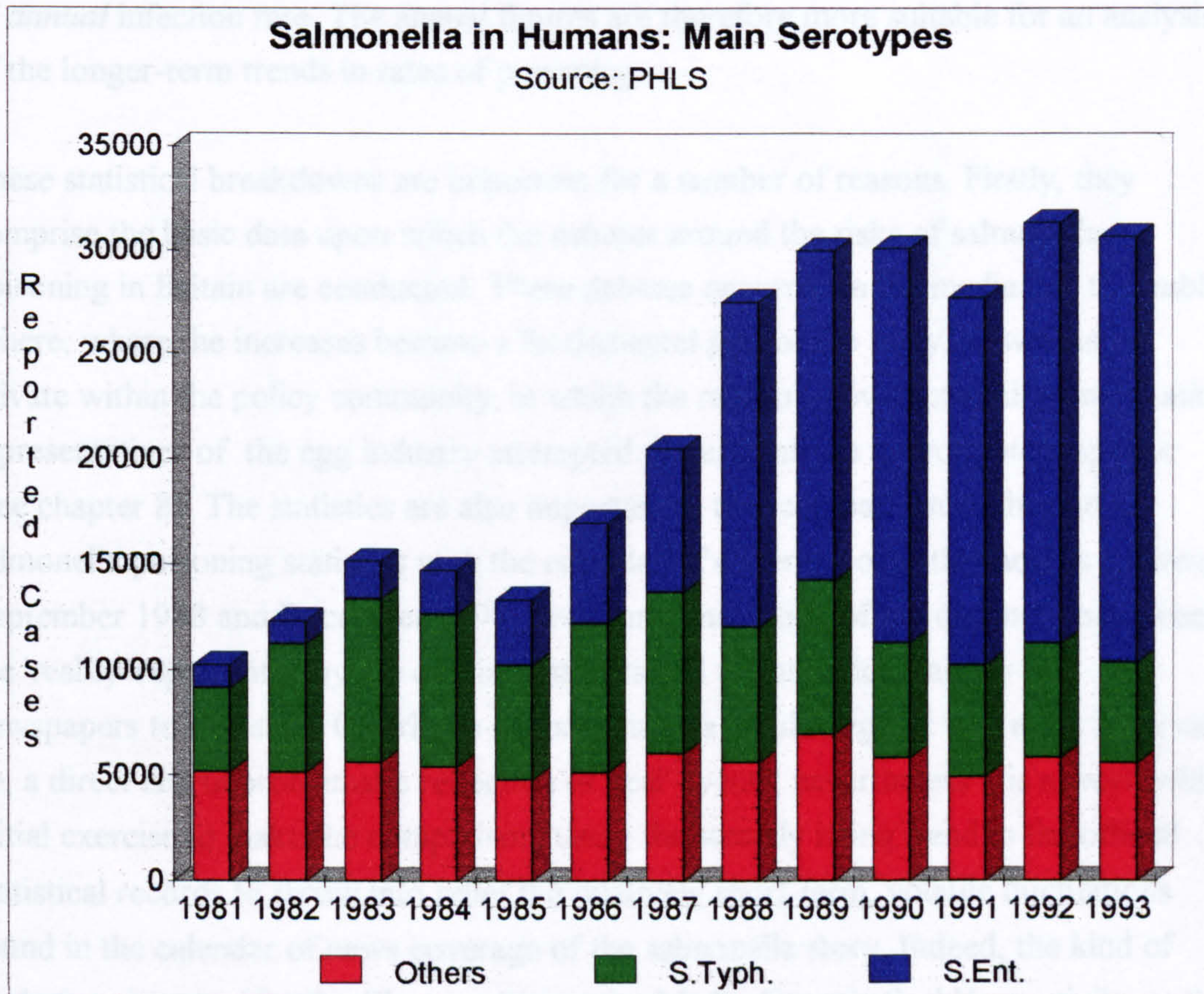
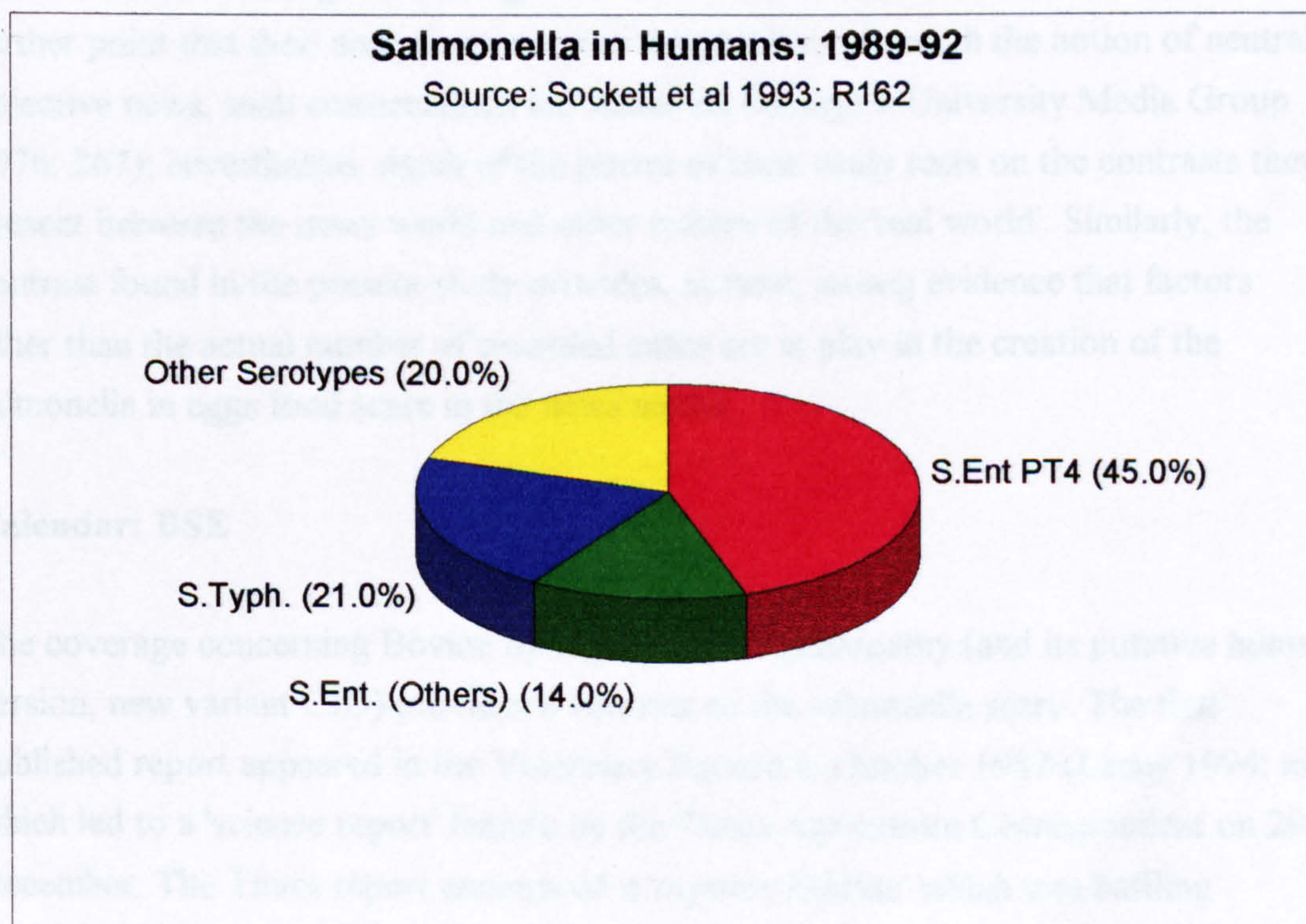


Figure 1.5.



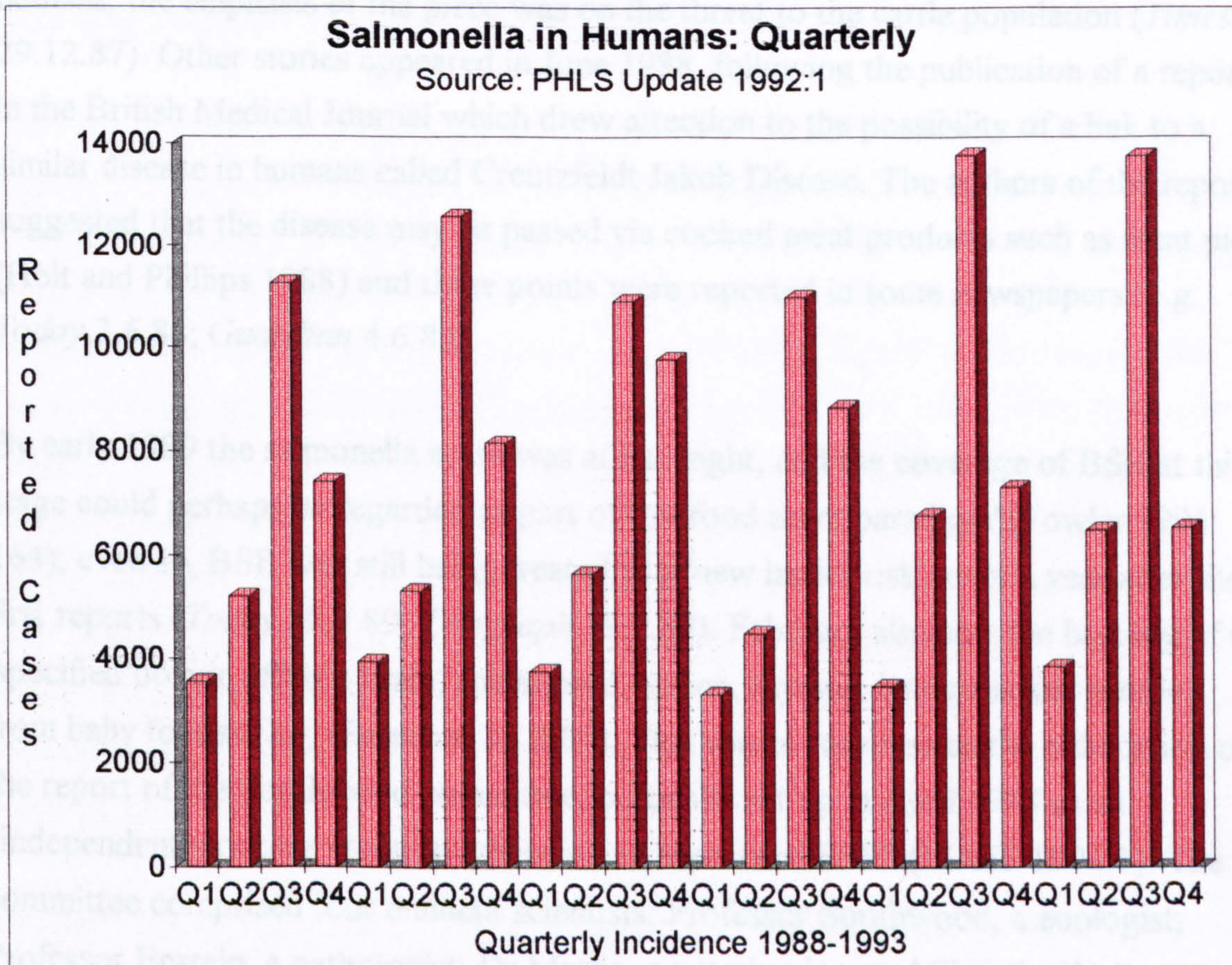
1.6); nevertheless, it is a *seasonal* pattern which is generally repeated at whatever level of *annual* infection rate. The annual figures are therefore more suitable for an analysis of the longer-term trends in rates of poisoning.

These statistical breakdowns are important for a number of reasons. Firstly, they comprise the basic data upon which the debates around the risks of salmonella poisoning in Britain are conducted. These debates occurred in the media and the public sphere, where the increases became a fundamental part of the story, as well as in private within the policy community, in which the relevant governmental agencies and representatives of the egg industry attempted to negotiate an appropriate response (see chapter 8). The statistics are also important in that comparison of the annual salmonella poisoning statistics with the calendar of coverage over the months between September 1988 and December 1990 gives some indication of the disjunction between the 'reality' represented by the official statistics and the attention paid by the newspapers to the issue. Clearly no serious analysis would suggest that news is, or can be, a direct and unproblematic reflection of 'real' events; nevertheless it is a worthwhile initial exercise to make the comparison, using the steadily rising trend in the official statistical records to throw into relief the relatively short-term, volatile fluctuations found in the calendar of news coverage of the salmonella story. Indeed, the kind of analysis epitomised by the Glasgow University Media Group's *Bad News* privileges the comparison of supposed 'real world' accounts with the news media version of events as a method of illustrating the ideological constructions within news texts. They make the further point that their analysis goes on to suggest how, through the notion of neutral, objective news, such constructions are sustained (Glasgow University Media Group 1976: 267); nevertheless, much of the power of their study rests on the contrasts they present between the news world and other indices of the 'real world'. Similarly, the contrast found in the present study provides, at least, strong evidence that factors other than the actual number of recorded cases are at play in the creation of the salmonella in eggs food scare in the news media.

Calendar: BSE

The coverage concerning Bovine Spongiform Encephalopathy (and its putative human version, new variant CJD) provides a contrast to the salmonella scare. The first published report appeared in the *Veterinary Record* in October 1987 (Lacey 1994: xii), which led to a 'science report' feature by the *Times* Agriculture Correspondent on 29 December. The *Times* report announced a 'mystery disease' which was baffling

Figure 1.6.



former professor of microbiology (Lacey 1994: 36), and their report concluded that the risk to humans is "remote", while noting the lack of evidence on the subject (*Guardian* 28.2.89).

Although there were a few reports over the summer, the BSE story did not lead to continued coverage until November when Germany announced a ban on British beef. It was also at this time that the 'specified bovine offals' of cattle over six months old were banned from all human foods, although this was generally reported only as a side issue in the main story of the German ban (*Telegraph, Guardian* 1.11.89).

The BSE issue re-emerged in January 1990 following the publication of another scientific report, this time by the Tyrell Committee. This committee was formed at the request of the Southwold Committee which, at its first meeting, admitted that it needed an "expert consultative committee" to make recommendations and give advice concerning the technical research being carried out (Lacey 1994: 60). The Tyrell report was published on 9 January 1990, together with a MAFF press release which committed more funding to BSE research, and the following day's newspapers pointed out that the extra funds could be interpreted as an admission of a possible link

veterinarians. While stating that it was unclear whether the disease could pass to humans, the emphasis of the piece was on the threat to the cattle population (*Times* 29.12.87). Other stories appeared in June 1988, following the publication of a report in the *British Medical Journal* which drew attention to the possibility of a link to a similar disease in humans called Creutzfeldt Jakob Disease. The authors of the report suggested that the disease may be passed via cooked meat products such as meat pies (Holt and Phillips 1988) and these points were reported in some newspapers (e.g. *Today* 3.6.88; *Guardian* 4.6.88).

By early 1989 the salmonella scare was at its height, and the coverage of BSE at this stage could perhaps be regarded as part of the 'food scare paradigm' (Fowler 1991: 164); even so, BSE was still being treated as a 'new health risk', over a year after the first reports (*Today* 30.1.89; *Telegraph* 19.2.89). February also saw the banning of the 'specified bovine offals' - brain, spinal cord, spleen, thymus, intestines and tonsils - from baby foods (*Sun*, *Guardian* 28.2.89). This was in response to the publication of the report of the Southwood committee, originally set up in April 1988 as an "independent working group to advise on all aspects of BSE" (MAFF 1994:1). The committee comprised four eminent scientists: Professor Southwood, a zoologist; Professor Epstein, a pathologist; Dr Martin, a veterinarian; and Sir John Walton, former professor of neurology (Lacey 1994: 58), and their report concluded that the risk to humans is "remote", while noting the lack of evidence on the subject (*Guardian* 28.2.89).

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(*Guardian, Today* 10.1.90; *Times* 11.1.90). Further reports in January documented the continuing attempts by the government to get the German ban lifted.

Coverage continued at a relatively low level during the early months of 1990; at the beginning of February research was published which seemed to suggest that BSE could be transmitted to other species (*Times, Guardian* 2.2.90). This was important because previous reassurances had relied on the assertion that BSE was not transmissible across the species barrier (Lacey 1994:92). MAFF announced in mid-February 1990 that the compensation paid to farmers for BSE infected cattle was to be increased from 50% (implemented in August 1988) to 100% of the market value. Again the newspapers noted the implications, this time that the previous arrangements had perhaps been an insufficient inducement for a farmer to admit that his/her cattle were infected. This could mean that farmers might send sick animals to be slaughtered before the sickness was obvious (*Guardian* 14.2.90). Reports in March of BSE being implicated in the deaths of five zoo animals also implied that the disease was not confined to cows alone.

The most sustained and extensive coverage of the BSE scare (until recently) was prompted by the announcement that BSE had killed a domestic cat. This further increase in the number of species susceptible to BSE prompted questions about the safety of pet foods; *Today* for instance noted that while the Pet Food Manufacturers Association had warned its members not to use specified offals, there were no government restrictions on pet food (*Today* 11.5.90). Other stories over the following days included reports of beef bans in schools (*Times* 13.5.90, 15.5.90; *Guardian* 16.5.90) and the refusal of Russian officials to allow British beef to be served at a banquet in Kiev attended by Mrs Thatcher and President Gorbachev (*Today, Mail, Mirror* 14.5.90).

On 17 May, pictures of Agriculture Minister John Gummer offering a beef burger to his daughter Cordelia appeared in a number of newspapers, alongside articles reporting that Parliament had decided to set up an inquiry into BSE (*Telegraph, Guardian, Sun* 17.5.90), a move which may have been designed to bring some kind of closure to the story. Meanwhile, however, further instances of 'mad cat disease' emerged (*Today, Times, Mail* 19.5.90; *Today, Mirror* 22.5.90; *Guardian, Mirror* 26.5.90), and along with the front page stories, many feature stories also appeared, such as James Erlichman's critical review of the issues involved (*Guardian* 16.5.90) and more detailed examinations of the scientific uncertainties surrounding the disease (*Telegraph*

15.5.90; *Times* 24.5.90). A ban imposed by France at the end of May produced further coverage.

A widely covered story in June concerned the conclusion of Agriculture Minister John Gummer's negotiations with his European counterparts, the main result of which was that Britain would not export 'on-the-bone' meat from beef herds affected by BSE in the past two years. This development, which followed reports of further bans imposed by other European countries (*Telegraph* 30.5.90; *Guardian* 7.6.90), was greeted in the newspapers almost unanimously as a failure (8.6.90). The *Mirror* headline - "Madness - Europe to get safer British beef than us" - summarised the main criticism of the agreement as presented by the newspapers, personalised in the *Mail* headline: "Gummer caves in". The *Sun's* more ambiguous approach balanced the lifting of the ban with the "tough new controls", while in the broadsheets, The *Times* headline suggesting that Gummer "yield(ed)" was perhaps the most critical. None of the papers sampled considered the outcome an unalloyed success; all gave space to the criticisms made by various organisations such as the Meat and Livestock Commission. While Gummer declared the NFU's support for the agreement, comments made to the press by the Union's President, Sir Simon Gourlay, emphasised his, and presumably his organisation's, ambivalence (*Guardian*, 8.6.90).

Another major story in June was a result of the setting up of the Commons Agriculture Select Committee inquiry into the BSE issue. Among the experts and specialists called to give evidence, Professor Richard Lacey was perhaps the most outspoken critic of the government and the precautions taken so far. His comments to the committee, and some quotes from committee members, are set out in Lacey's own account of the meeting (Lacey 1994: 108-117). The newspapers reported the confrontation from widely differing perspectives (14.6.90); while Lacey's comments were the main focus for some, others took the committee's response as the news 'peg'. *Today's* report was perhaps the least interested in the committee's point of view, devoting just one sentence to the committee's "Furious Tory MPs...". The remainder of the 200 word article recounted Lacey's criticisms and warnings, most particularly his fears that the worst case scenario could virtually wipe out "a generation". This approach was echoed in the *Mirror* with, again, only a single sentence (this time the final line) referring to the inquiry's reaction. The broadsheets generally headlined the warnings of Lacey and the other 'dissident' scientists giving evidence, while also giving space to those on the committee who "repeatedly took issue" with Lacey (*Times*, 14.6.90). The *Sun's* version of the story however took a different line:

Mad Cow Prof Barmy, Say Furious Tories

A top boffin who sparked the Mad Cow disease scare was branded a silly burger by MPs yesterday. (*Sun* 14.6.90)

The above introductory paragraph clearly locates the nub of the story in the scorn and derision of the committee members rather than in the evidence given. In its linguistic construction, this particular story also highlights the question of scientific authority in the news, an issue to which we shall return (see chapter 10).

A feature of the tabloid coverage of salmonella was also evident in the treatment of BSE; namely, the 'celebrity opinion survey'. The *Sun* asked various celebrities whether they still ate beef and other foods; these included some comments questioning the safety of beef, but generally adopted a light-hearted and 'pro-beef' position (*Sun* 24.5.90; 4.6.90). In fact, this playful attitude was present in much of the *Sun's* coverage of BSE. An editorial announced that the *Sun's* staff would continue to eat beef products ("..we're mad already")(17.5.90), while stories linked to the BSE issue included a butcher's shop displaying a sign with the phrase "The only mad cow in this shop is my wife" (22.5.90), and a pub whose menu announced that it served 'mad cow beef' (23.5.90). One front page included a photograph of a cat food poster advertisement carrying the legend "What bowls a cat over?". The 'Whiskas' logo had been replaced by the words "British Beef", and the *Sun* had captioned the photograph "Are You Taking The Puss?" (24.5.90). The *Sun* even offered its readers the chance to "Forget all that rubbish about Mad Cow Disease" and claim "two FREE succulent sausages on the *Sun*". Thus the full weight of the *Sun's* characteristic 'common-sense' populism was enlisted in their approach to BSE.

BSE stories continued to appear through June, but the next event to attract widespread coverage was the publication of the agriculture committee's report on 12 July 1990. The *Telegraph* had what appeared to be inside information as it reported that "Beef is given all-clear by MP's inquiry" on the day of publication. On the following day, other newspapers also emphasised the 'clean bill of health' awarded to British beef by the report, while also highlighting the criticism of Lacey which it contained (*Sun, Mail, Mirror, Times* 13.7.90). In contrast, The *Guardian* highlighted the criticisms of Gummer and the delays in the government's reaction to the crisis. *Today* was even more critical, with their day-of-publication report headlined, in anticipation of the report's criticisms, "Complacent to the Point of Madness" (12.7.90). The next day Gummer was also singled out; *Today* said that the report attacked him,

not least because he had "...relied too much on scientists." (13.7.90)². Clearly the committee's findings could be interpreted according to each newspapers' judgement on their importance.

The *Sun* and the *Mail* followed their stories with reports that Lacey's colleagues at Leeds University were unhappy about the effect his "alarmist" position was having on the reputation of the institution, with the *Mail* including a separate profile of Lacey headlined "The Professor of Scares Who Revels in the Extreme" (14.7.90).

This saw the end of coverage of BSE in most of the tabloids for some months, and in that sense the report did seem to provide some 'closure'. Further stories in the broadsheets included a report that the number of BSE cases in cattle had exceeded the officially predicted maximum (*Guardian* 6.8.90), and an article recounting the details of a survey which listed the economic consequences of various "food scares" including BSE (*Telegraph* 11.10.90).

The occasion of a demonstration by farmers at Westminster organised by the NFU prompted a relatively long feature article on the agriculture industry's concerns which included, but wasn't confined to, the problems of the beef producers (*Telegraph* 25.10.90). Published on the day of the demonstration, the article acted in effect as a preview of an event which was, at the time of publication, yet to occur (see chapter 8); the interviews with farmers, which comprised the main body of the article, were however clearly prepared in advance. The NFU sponsored event would therefore seem to have appeared in some form of news diary at the *Telegraph*, and could perhaps be understood as a 'pseudo-event' (Boorstin 1961; see previous discussion of news production routines, chapter 1). Such a categorisation is only possible in this case due to the 'advance' nature of the reporting; often it is difficult to trace the existence of such constructions from the news texts themselves, although marches and demonstrations are clearly constructed as media events.

One account of the BSE affair suggests that by 1991, "The media had lost interest. There were few new stories or angles" (Lacey 1994: 125). While this may be a slight exaggeration, it does seem that coverage of BSE stories continued at a generally lower level throughout 1991, 1992 and 1993 (see figure 1.7 below).

²The characterisation of scientists as, at best, less than completely reliable contradicts much of the comment elsewhere in which science is often seen as the guarantor of objective policy-making; this is a point to which we shall return in Chapter 9.

A MAFF press release in March 1991 gave brief details of a possible case of maternal transmission (from cow to calf); this was the first such suspected case, and would clearly have implications for the control of the disease. The press release played down the significance of this announcement (Lacey 1994:127), but a number of newspapers reported this as an important concession by the ministry (*Times, Guardian, Telegraph* 28.3.91).

In 1992, the peak of coverage occurred in January due to difficulties in the transportation of food aid, in the form of British beef, to Moscow and St Petersburg. For a few days there were claims that the delays were due to Russian bureaucracy (the *Telegraph* referred to "red tape" (4.1.92)), while other sources blamed Russian fears of BSE (*Today* 8.1.92; *Times* 9.1.92, 10.1.92). This story echoed previous stories concerning beef bans in other European countries, but had an additional element in the sense that the apparent refusal of food aid (as opposed to trade) was seen as a further illustration of the irrationality of other nations (*Today* 7.1.92).

In March 1993, reports in many newspapers referred to continuing research which was investigating the death of a farmer from CJD whose dairy herd had contained BSE-infected cattle. In a letter to the *Lancet*, the researchers admitted this "raise(d) the possibility of a causal link" (*Telegraph* 9.3.93). This story led to articles in the tabloids as well as the broadsheets (*Mirror* 13.3.93); the *Mail* and *Today* both followed their initial stories (10.3.93) with further reports in which the victim was named and his family interviewed (12.3.93). The death of a second dairy farmer from CJD in August produced further reports (*Today* 12.8.93; *Times* 13.8.93), although the official explanation for the deaths - "two cases might occur in dairy farmers by chance" (Department of Health official quoted in *Today* 12.8.93) - seemed to answer much of the speculation with the dry statistical 'fact' of probability.

Only in 1994 did newspaper coverage begin to approach the previous peaks of 1990, when certain papers revealed the plight of a sixteen year old girl who was comatose and apparently dying of CJD. This was a crucial story in the BSE affair, because CJD usually affects older people, except those cases due to 'medical mishap' such as treatment with infected materials such as growth hormones or grafts³. Vicky Rimmer

³The issue of CJD infection due to medical treatment with infected material has emerged as a significant news story in its own right alongside the BSE scare, and this additional incidence of CJD may well have had an effect on the overall newsworthiness of BSE/CJD. Nevertheless, the separateness of this particular issue has been reinforced by scientific evidence that the two strains - CJD and its new variant - are completely distinct, and such stories are therefore not included in this study.

had not received any such treatment, and nor was there any evidence of a family history which might suggest a genetic cause (Lacey 1994:164). The initial story in *Today* was headlined "Mad Cow Disease: The human link?" and explained that the girl's favourite food was 'beefburgers' (13.1.94). A Channel 4 documentary examining the case (*Dispatches*, broadcast date 26.1.94) prompted further coverage in other newspapers (*Mirror*, *Today* 25.1.94; *Times* 26.1.94; *Guardian* 27.1.94).

The continued threat of a German ban on British beef provided the basis for many stories throughout most of 1994 (e.g. *Guardian* 29.3.94; *Telegraph* 12.5.94; *Times* 1.6.94), and in July evidence of BSE in the intestines of calves under six months old led to a further ban on certain offals reaching the human food chain (*Telegraph*, *Times*, *Today*, *Guardian* 1.7.94).

A further resurgence of media interest occurred towards the end of 1995 following a period in which there was relatively little coverage. Reports over the summer of 1995 included articles on the death from CJD of 19-year-old Stephen Churchill who, as with Vicky Rimmer, apparently had not received any medical treatment which might explain the infection (*Guardian*, 14.8.95). *Today* emphasised the reaction of his family to his illness and death, and their story, which included an interview with his sister and parents, was illustrated with a large photographic family portrait (*Today* 14.8.95). Follow-up reports concerned the government's response to his death which was apparently seen as a "matter of concern" (*Today* 29.9.95).

In October, the re-emergence of BSE continued; two more farmers were reported to have died from CJD (*Mail* 23.10.95; *Guardian* 24.10.95; *Today* 25.10.95), events which clearly put some strain on the official explanation that such deaths were a matter of statistical chance. Other cases of CJD in teenagers were also reported (*Telegraph*, *Independent* 27.10.95), again presenting a challenge to the official understanding of CJD as a disease generally confined to older people. In fact, these two elements combined to provide the basis of the coverage for the next few months, again allowing other perspectives into the news. For instance, the *Telegraph* noted (rather prematurely, it now seems) towards the end of October that "Scare stories fail to hit beef sales"; the article also noted the cost to the taxpayer so far of the compensation provided to farmers, and that cases of BSE have "fallen sharply this year in response to Government controls" (28.10.95). All of these points seem supportive of the government's approach.

By November many different approaches to BSE could be found in the newspaper coverage. Dr. Harash Narang (one of the scientists consistently sceptical of official pronouncements) was reported to have produced a test which could identify BSE in a living human, having taken a urine sample from a woman who subsequently died (*Today* 4.11.95; *Mail on Sunday* 5.11.95). Beef consumption was reported to be falling as the amount of news coverage increased (*Independent*, *Guardian*, *Telegraph* 13.11.95) while in another echo of the earlier scare local education authorities instituted beef bans in schools (*Sunday Telegraph* 19.11.95). The *London Evening Standard* featured farmer Mark Purdey's theory that organophosphate pesticides are implicated in the emergence of BSE. The story began by describing former defence secretary Tom King's visit to Purdey's farm, presenting this as evidence that Purdey's arguments were being taken more seriously ("Lone crusade to find truth behind mad cow 'cover-up' ", *Evening Standard* 27.11.95).

The various different strands of coverage continued in December; school and hospital bans were implemented (*Telegraph* 6.12.95; *Express* 7.12.95), ministers attempted to provide reassurance (*Times* 4.12.95), further deaths from CJD occurred (*Mirror* 7.12.95). These and other stories were given further impetus by the admission by a Government expert of concern about the possible link between BSE and CJD. In an interview on Radio Four, Sir Bernard Tomlinson, a neuropathologist described by the *Sunday Mirror* as "Britain's leading expert on brain disease" (3.12.95), warned that he personally would not eat beef products such as burgers or pies. The industry position that the scare was a result of the media's promotion of a few cranks and "so-called experts" (Industry spokesman, quoted in *Telegraph* 8.12.95) was clearly damaged by Tomlinson's admission; others considered it the catalyst to a more widespread panic:

"Mad Cow Scare: How the candid professor set off a national panic - Health expert spoke of offal ban and told radio listeners he had warned his children not to eat burgers" (*Telegraph* headline 9.12.95)

While one section of the beef industry blamed the media, another source of sympathy for the farmers blamed MAFF. Environmental Health Officer Richard North wrote on the opinion page of the *Daily Mail* about the failure of the Ministry to 'come clean' about the origins of the disease (6.12.95). This can be seen as consistent with North's previous discussions of the Salmonella scare (North and Gorman 1990; North 1989) which focus on the alleged bureaucracy and incompetence of the ministries involved.

An *Observer* editorial stated that "It is now a full-scale panic", while a news feature suggested that the BSE issue had "returned to the menu" because of Professor Tomlinson's intervention:

"Within days a full-scale food crisis was under way as other leading scientists endorsed his comments, and consumers called for clear advice from the Government." (*Observer* 10.12.95)

The *Guardian* suggested that Professor Tomlinson's fears "fuelled the controversy" (*Guardian* 15.12.95), which seems to have been the case at least as far as news coverage was concerned. The same article announced an "all-out offensive" by the Government to ease public concern; on the same day the *Express* printed a small article headlined "Mad cow disease cases drop by 40%" (15.12.95).

The reappearance of the BSE scare at the end of 1995 represented the highest peak of coverage since mid-1990, and the early months of 1996 suggested that the issue was again losing its news value. In January, brief stories announced another death due to CJD. However, the 41 year old victim apparently had no connection to the meat industry, and her age was on the borderline of those who are understood to be susceptible to the disease (*Guardian, Times* 10.1.96). Other stories noted the efforts of the authorities to stop the "off-loading" of BSE infected cattle (*Times* 10.1.96, 12.1.96; *Telegraph* 11.1.96), while business news included reports of the financial difficulties of those companies affected by the reduction in sales of beef (*Mirror, Guardian, Times, Telegraph*, 17.1.96). In February, BSE-related news included the legal moves surrounding the banning of beef in three German regions, in which the European Commission ordered the regional governments to remove the ban which, it said, was illegal under EU law (e.g. *Telegraph* 7.2.96; *Times* 8.2.96; *Guardian* 14.2.96). A further CJD death again received relatively little coverage, particularly as the victim was a young man (*Guardian* 15.2.96)⁴.

In March 1996, one particular event triggered coverage on a massive scale exceeding any previous amount of news reporting. On 20 March, Health Secretary Stephen Dorrell announced in the House of Commons that ten young people (under the age of 42) had recently died of a newly discovered variant of CJD, and that the Spongiform Encephalopathy Advisory Committee - the group of scientists set up to advise the Government - had concluded that "the most likely explanation" for this was exposure

⁴Nevertheless, see Peter Martin in the *Mail on Sunday* magazine 18.2.96, as discussed in detail in the 'sub-cases' section of chapter 8.

to BSE prior to the ban on offal introduced in 1989. While this implied that beef consumption was now safe, it also meant that anyone who had eaten beef prior to 1989 could potentially be infected.

The announcement was made at around 3:30 pm, but had been heralded by stories in some of that morning's newspapers. All the broadsheet newspapers carried brief reports while the tabloids devoted more space to the story. The *Express* took around a half of its second page to explain the "Ministers' U-turn", while the *Mirror's* coverage comprised the whole of page two, signalled by a banner headline taking up almost half of page one, and also prompted its main editorial. By contrast, The *Sun* carried no mention of the impending announcement.

Following the official announcement, most newspapers provided blanket coverage of the issue; the *Guardian* for instance devoted the whole of pages one and six to the story, with two articles on its 'comment and analysis' page plus an editorial (21.3.96). The *Express* similarly devoted two and a half of its inside pages, plus page one and its 'opinion' slot on its editorial page, to the story. The *Mirror's* reports covered pages one, two, three, four and five, with an editorial on page six. Again by contrast, the *Sun's* inside coverage consisted of less than two pages, with a single column on page one; the *Star* reported the story on page two only, with no front page lead-in. As has been noted with regard to Salmonella (see above), at a certain level of newsworthiness the story is broken down into separate sections dealing with particular areas of concern. This is evident in tabloid coverage such as the *Mirror's* on 21 March, with sections headed "The Denials", "The Victim", "The Coma Girl", "The PM's Letter" and "The Risks", each heading reflecting a particular element of the paper's coverage. Less explicitly, coverage can be broken down without providing labels, but which nevertheless focuses on various approaches to the story. For instance, a few days after the Government announcement, the London *Evening Standard's* front page story "Beef: Crisis, What Crisis?" discussed the Government's apparent lack of action, while inside stories focused on items such as: the slaughter in France of cows infected with BSE; the possible economic effects of a mass cattle slaughter; beef bans imposed by various fast food chains; the opinions of "scientists, politicians and nutrition experts"; options for slaughter; the lack of business at a particular cattle market; and a suspected new case of CJD (*Evening Standard* 25.3.96). This sectioning of the BSE issue was also evident in the Broadsheets: The *Telegraph* for instance subtitled its articles "The Scientists", "The Safeguards", "The Commons", and "The Schools". Such an approach highlights the different foci of concern which the newspapers have identified, and clearly helps to orient the reader as to the various interests involved.

This exceptionally heavy coverage continued, in the broadsheets at least, for over a week; for a few days in the immediate aftermath of the announcement, one or more of the *Guardian's* news pages, usually headed 'home news', were renamed and dedicated to the 'beef crisis' (*Guardian* 23-27.3.96). This is of course an extension of the practice, common to both broadsheets and tabloids, of labelling with a strap-line continuing stories; nevertheless, it highlights the extent to which BSE was dominating the news agenda. This domination continued for some time, and it was 9 April before the *Times* and the *Guardian* carried no further BSE news. For the tabloids, coverage was generally less continuous, although the *Mirror*, in keeping with its political stance, persisted with BSE as an opportunity to criticise the Government.

While the initial coverage of the Health Secretary's announcement focused on the domestic consequences, the European element soon began to dominate. Within two days, headlines were focusing on the European reaction:

British beef banned in Europe (*Telegraph* 22.3.96);

French lead Euro-ban on British beef (*Times* 22.3.96)

From this point on, most of the coverage focused on this particular angle. Attempts by the Government to reassure the public were presented in terms of whether they would contribute to the lifting of the bans which were consolidated by the European Commission's decision to impose a worldwide ban (*Guardian* 26.3.96).

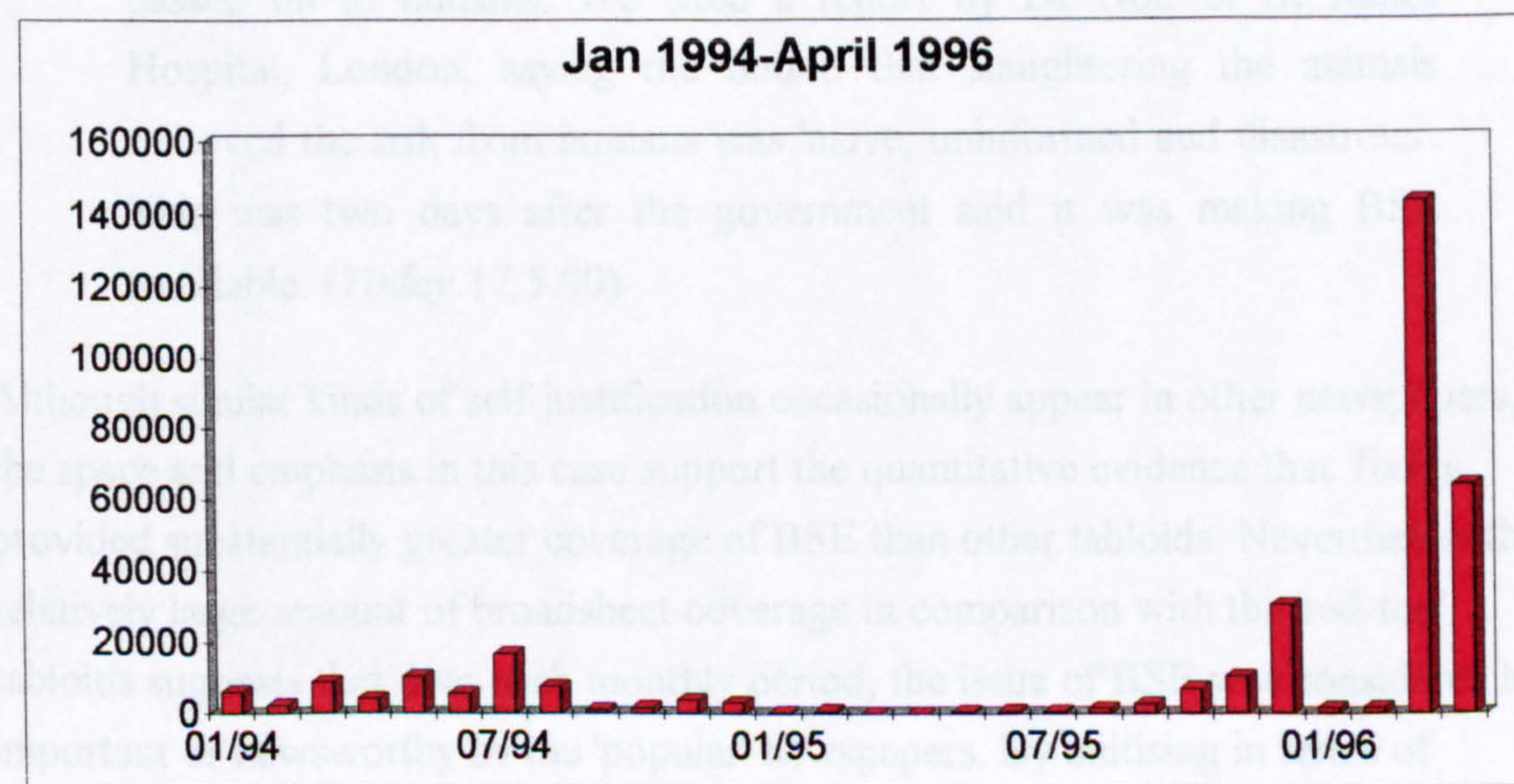
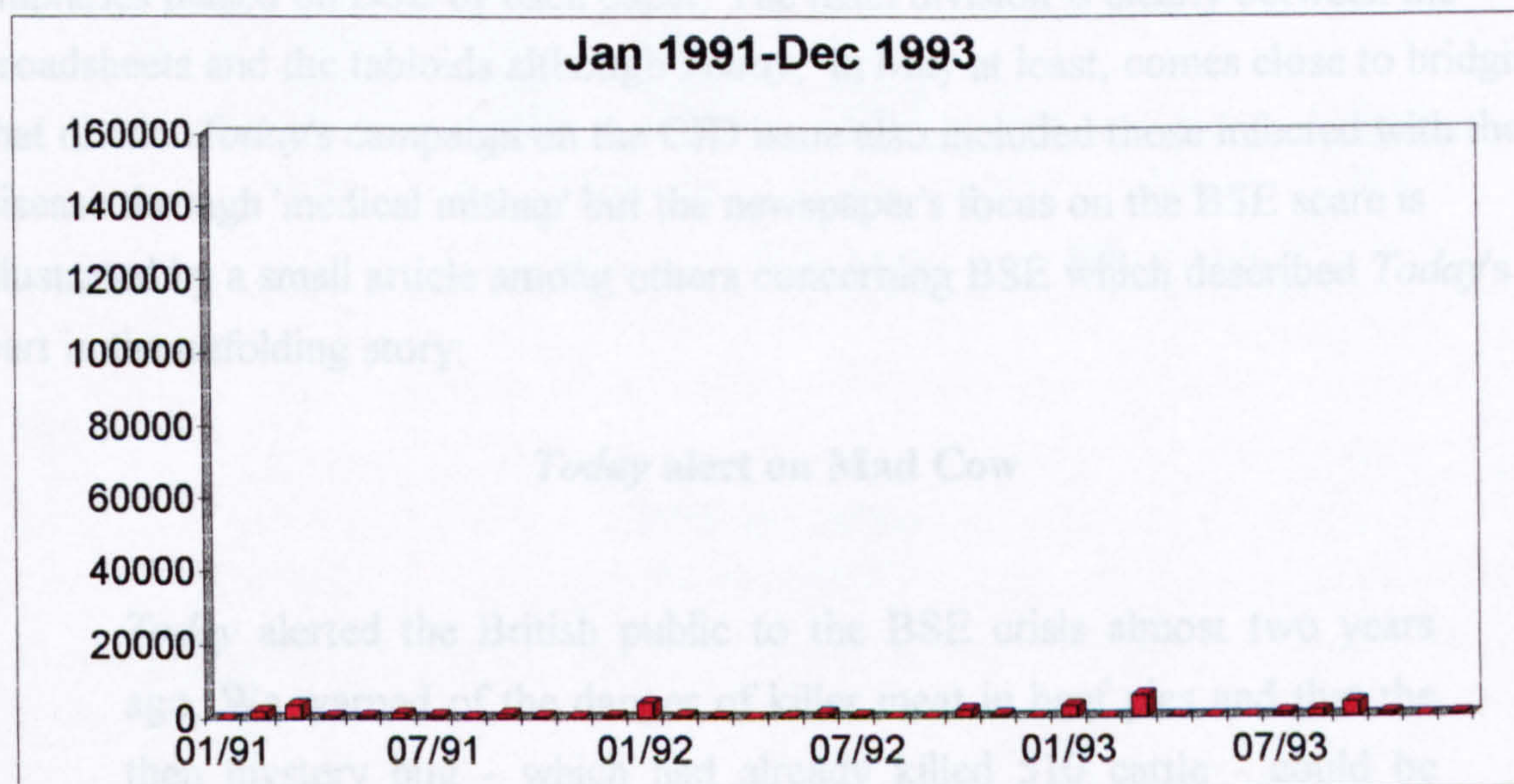
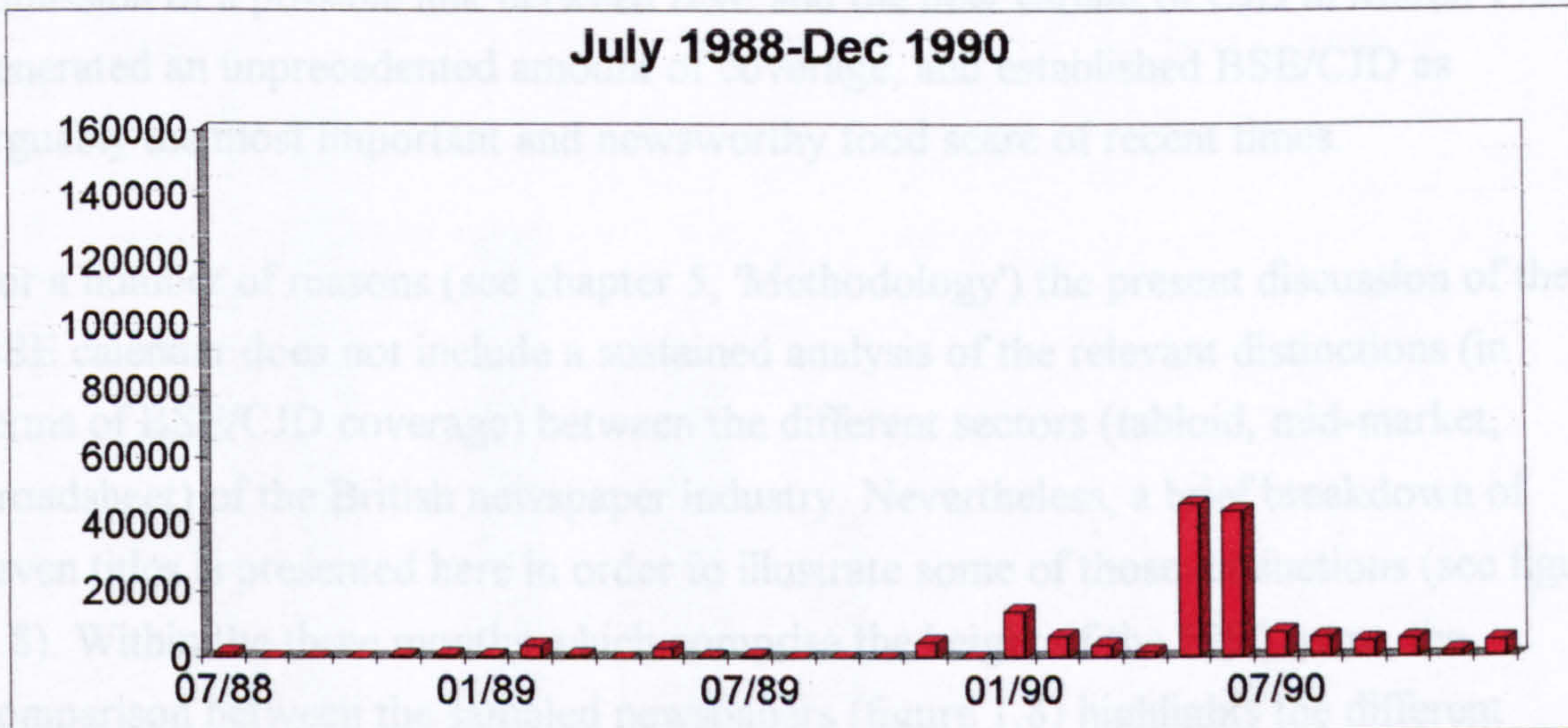
Throughout April and into May the negotiations between the British Government and the other members of the EU took up the major part of the coverage.

The Shape of the Coverage

The calendar of BSE coverage has therefore been traced over a period of almost eight years (figure 1.7), with peaks of coverage occurring in 1990 at the time of the isolation of the feline version of BSE and the subsequent parliamentary inquiry. Rising concern over BSE throughout the first half of 1994 focused on the possibility of its transmission to humans, and the evidence provided for this in the form of particular cases of CJD in young people. Following a relatively quiet period in terms of news interest, the end of 1995 again saw an increase in coverage focusing on various elements including the deaths from CJD of a number of young people, and the

Figure 1.7

BSE Coverage: July 1988-April 1996



Note: vertical axes represent monthly word-counts.

comments of a previously authoritative source (Sir Bernard Tomlinson) to the effect that he now felt himself to be at risk from BSE. Clearly however, the governmental admission of a possible link between BSE and the new variant of CJD in March 1996 generated an unprecedented amount of coverage, and established BSE/CJD as arguably the most important and newsworthy food scare of recent times.

For a number of reasons (see chapter 5, 'Methodology') the present discussion of the BSE calendar does not include a sustained analysis of the relevant distinctions (in terms of BSE/CJD coverage) between the different sectors (tabloid, mid-market, broadsheet) of the British newspaper industry. Nevertheless, a brief breakdown of seven titles is presented here in order to illustrate some of those distinctions (see figure 1.8). Within the three months which comprise the height of the 1990 scare, the comparison between the sampled newspapers (figure 1.8) highlights the different emphases placed on BSE by each paper. The main division is clearly between the broadsheets and the tabloids although *Today*, in May at least, comes close to bridging that divide. *Today's* campaign on the CJD issue also included those infected with the disease through 'medical mishap' but the newspaper's focus on the BSE scare is illustrated by a small article among others concerning BSE which described *Today's* part in the unfolding story:

***Today* alert on Mad Cow**

Today alerted the British public to the BSE crisis almost two years ago. We warned of the danger of killer meat in beef pies and that the then mystery bug - which had already killed 510 cattle - could be passed on to humans. We cited a report by Dr Holt of St James Hospital, London, saying the notion that slaughtering the animals removed the risk from humans was 'naive, uninformed and disastrous'. This was two days after the government said it was making BSE notifiable. (*Today* 17.5.90)

Although similar kinds of self-justification occasionally appear in other newspapers, the space and emphasis in this case support the quantitative evidence that *Today* provided substantially greater coverage of BSE than other tabloids. Nevertheless the relatively large amount of broadsheet coverage in comparison with the 'red-top' tabloids suggests that over each monthly period, the issue of BSE was considered less important or newsworthy by the 'popular' newspapers. By unitising in terms of wordcount, such figures take no account of the news-space available which is

Figure 1.8.

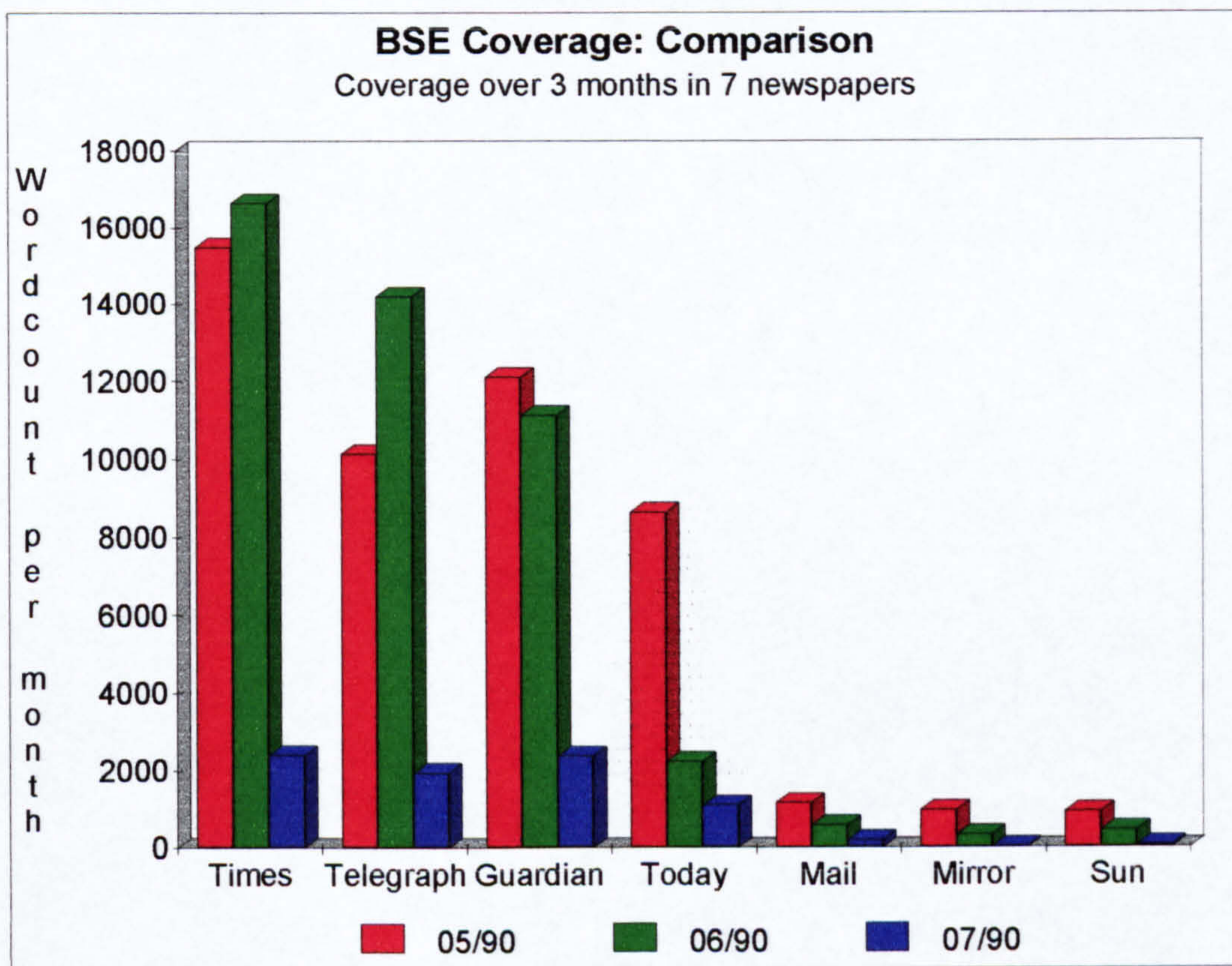
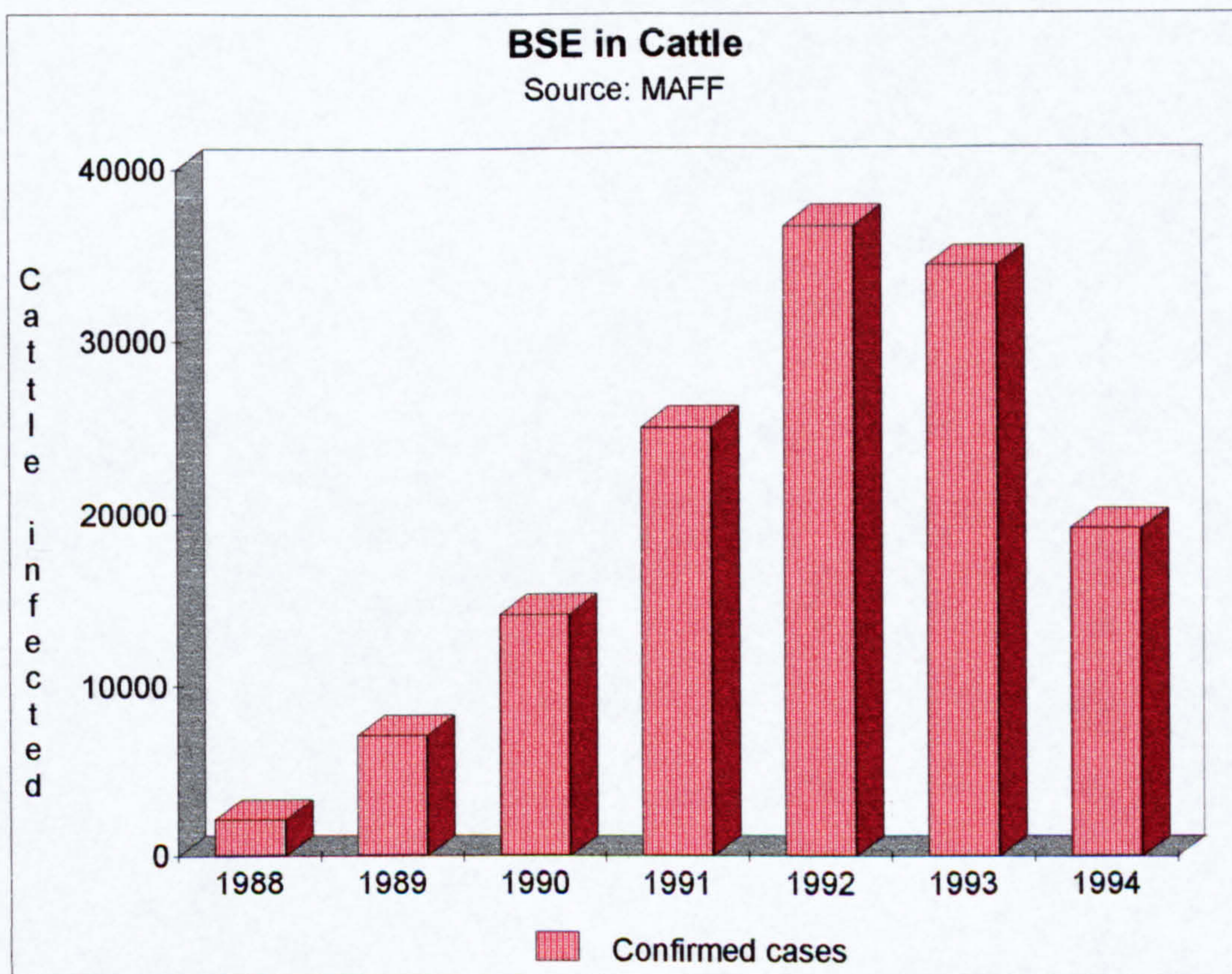


Figure 1.9.



generally smaller for the tabloids (see chapter 5, 'Methodology'), but this is unlikely to account for the discrepancy. It is possible that, at this stage of the BSE scare, the scientific complexity of the issue, and the lack of any clear, substantive evidence of a risk to humans meant that it was not acknowledged as a 'popular', tabloid story⁵; this however remains as speculation on such meagre evidence. It does however suggest a contrast between BSE in mid-1990, and Salmonella in eggs in the winter of 1988-89 where tabloid and broadsheet coverage reached similar volumes (see figure 1.1).

Official Statistics

As with the statistics on salmonella poisoning, the official record of BSE infection needs to be examined critically. Despite its identification in November 1986, the disease was only made notifiable in June 1988. In August 1988 the slaughter policy for cases of BSE was introduced, under which confirmed cases were compensated at 50% of the market value of the animal (MAFF Chronology DCB12). Critics have observed that this provided farmers with an incentive quickly to sell on cattle which they suspected might be developing the disease. Professor Lacey suggests that this was an intentional policy decision in order to 'massage down' the total number of cases, as well as simply to save money (Lacey 1994:60); he also believes that "Ministry vets" were eager to pronounce that younger cattle (those born after the ban on sheep protein in cattle feed was introduced) were not infected with BSE despite the doubts of farmers (Lacey 1994: 165). 100% compensation was introduced in February 1990, and the official chronology of events asserts that

"There was no sudden surge of cases indicating that farmers had not been reporting." (MAFF Chronology DCB12)

Nevertheless, the possibility remains that the original compensation scheme affected the statistics in the early stages of the reporting of the disease. The restrictions on exports to the EC agreed in June 1990 included a ban on exports of beef from any herd which has had a case of BSE within the past two years; again, this could be seen as a disincentive to farmers to acknowledge BSE infections. A further factor, which might operate in the opposite direction, is the possibility that public awareness of the disease might mean veterinarians were more likely to diagnose BSE as opposed to other ailments.

⁵This possibility is discussed later in terms of the possibility of a tabloid preference for news which can be understood as privileging a 'social rationality'; see chapters 7 and 9.

Various measurements of the BSE epidemic (a term used by MAFF) are produced by the Ministry of Agriculture. Counts are made of the number of cattle restricted - that is, held by farmers as suspected cases - as well as those slaughtered after being assessed by a vet. Some may be considered to be well and have restrictions lifted, only to be reported again later; in such cases the date of original restriction is taken as the recorded date of the case, and this can mean that the statistics for previous years can be adjusted at a later date. Other restricted cases may be diagnosed with other illnesses or simply be considered to be unaffected. For each animal slaughtered a sample of brain tissue is removed for testing; a further distinction can then be made between confirmed and unconfirmed cases of BSE (although presumably an unconfirmed case should not be taken as proof that the animal was *not* affected by BSE; this point depends very much on the reliability of the testing procedures, a factor which is more or less unknowable for the purposes of the present study). MAFF provide data in the form of line or bar charts for the number of suspects placed under restriction each week; the comparative number of restricted and confirmed cases; confirmed cases by month of clinical onset; and also break down the number of confirmed cases by county in order to allow regional comparisons (MAFF data). For the purposes of this study the 'headline' figures are the most important; that is, the annual number of confirmed cases. By contrast to the salmonella statistics published by the Department of Health, the BSE statistics include Scotland as well as England and Wales, and therefore refer to Great Britain.

The data in figure 1.9 show the number of confirmed cases originally recorded in each year from 1988 to 1994. BSE was made notifiable in June 1988, so the data for that year is in that sense incomplete. The graph shows a rapid rise over the years until 1992 when the figures peaked at 36,680 confirmed cases. Since then there has been a fall in the rate of confirmed cases.

The nature of the BSE scare means that the importance of any particular fluctuation in the number of cases was even lower, in news value terms, than in the salmonella scare. This is because BSE was an animal epidemic; while increases in salmonella poisoning imply further injury to individuals and a possibly increased risk to everyone else, the fears surrounding BSE concerned not so much the incremental rise in cases (although this was of course a serious concern for dairy and cattle farmers) but the possibility of transmission from animal to man. From this perspective the shifts in the cattle epidemic were of relatively minor importance (at least until and unless there was evidence of a link between the number of cattle infected and the number of people exposed to any possible risk of developing CJD). However, this is countered to some extent by the

difference in the stock of scientific knowledge concerning the two causal agents involved; salmonella is a well understood bacterium which is rarely fatal in healthy adults and is generally controllable using common pharmaceuticals, whereas BSE was a new disease of unknown genesis which was always fatal in cattle and might possibly cause a similar affliction in humans.

The *possibility* of a threat to human health is therefore the main reason for news interest in the BSE statistics. Comparison of the calendar of coverage (figure 1.7) with the official measure of confirmed cases over the period of the epidemic (figure 1.9) emphasises the discontinuity between the official 'reality' of the epidemic, with its peak in 1992 and 1993, and the news coverage of the affair which seemed to dip in those years, between the peaks of mid-1990 and mid-1994. Of course the news coverage reflects concerns about human rather than animal health, and the high points occur at times when the risks of animal to human transmission are foregrounded in the public sphere. While evidence of transmission to other species emerged sporadically, the development of 'mad cat disease' in May 1990 potentially brought transmissible spongiform encephalopathy literally into the homes of millions of pet owners. The emergence of a strain of CJD which affected young people in January 1994 can also be seen as a movement (of the BSE coverage) away from the arena of the agricultural industries and towards the lives of 'ordinary' people (see Thematic analysis in chapter 7).

The BSE calendar provides evidence that this food scare has taken a substantially different course than that of the salmonella scare. It can also, however, be compared to another, much briefer scare, in which carrots were found to contain residues of toxic pesticides.

Calendar: Pesticides in Carrots⁶

On 18 January 1995 MAFF issued a press release announcing that insecticide residues in carrots were to be reduced, following advice given to the government by the Advisory Committee on Pesticides (ACP). The press release explained how levels of pesticide residues are to be reduced, and how regular monitoring and international standards keep residues under the permitted levels. Only halfway through did the announcement explain that the new recommendations from the committee, including a

⁶The data presented in this section are aimed at providing a comparison in terms of the previous calendars of coverage. Further data examining the news management aspects of this issue is examined in the 'sub-cases' section of chapter 8.

limiting of the number of pesticide treatments for carrots to three per year, were based on new research which had found "high residue levels" in some individual carrots. It was not directly stated that the official limits had been exceeded, but was implicit. The 'Notes for Editors' stressed the Advisory Committee's independence from both government and the "agrochemical industry".

The press release was based on the ACP's report, "Consumer Risk Assessment of Insecticide Residues in Carrots", published by the Pesticides Safety Directorate, which set out the ACP's attitude to the recent research (Pesticides Safety Directorate 1995). The report was clearly a major source of the information in Blythman's *Guardian* article (see below); it gave a brief introduction to the uses of five organophosphorous (OP) pesticides in controlling carrot-fly, and went on to explain the research which found unexpectedly high residues in individual carrots.

The Salmonella in eggs scare as a series of news events continued for more than three months, with its repercussions extending far beyond; coverage of the BSE affair has continued at varying levels of intensity from 1988 to the present. By contrast, the 'pesticides in carrots' scare produced a shorter and much less intense period of news coverage.

As far as media coverage is concerned, the 'carrot scare' began with an article on the Food and Drink pages of the *Guardian's Weekend* supplement on Saturday 29 April, 1995. The story, by Joanna Blythman, contrasted the healthy image of the carrot⁷ with a recent (since March), but unspecified, Government decision that carrots need to be 'prepared' - washed, topped and peeled - due to the possible presence of pesticide residues. New testing methods, which examined individual carrots rather than just 'composite samples', had apparently shown levels of residues from organophosphate (OP) pesticides which were three times the 'Acceptable Daily Intake'. Despite this, according to Blythman, no public advice had been issued, an implicit comparison perhaps with the situation in 1988 when advice on how to avoid salmonella in eggs was first issued via NHS catering managers, and then to other catering organisations, environmental health officers and local authorities, as well as through government statements (Currie 1989: 257). The article goes on to note the commercial pressures on the industry, and takes a sceptical line on 'Integrated Crop Management', the NFU's attempt to limit the effects of pesticide use. The 'crop-by-crop protocols' which are intended to allow only the least toxic chemicals, are described as

⁷Blythman emphasises the safe image of carrots by noting how they are often passed by parents into the "chubby infant hands" of young children.

" a public relations exercise enabling the extensive use of chemicals on fruit and vegetables which can be passed off as 'all but organic'."
(*Guardian*, 29.4.95)

Blythman's suggestion that the decision that carrots should be 'topped and peeled' was made in March seems to be contradicted by the ACP report in its section on 'recommendations' in which it states:

"The ACP recognises that carrots form an important part of a healthy diet and consumers should continue to use them, *peeling and topping them as usual*" (ACP, 18.1.95, p.11; my emphasis.)

The ACP imply that such 'preparing' of carrots is common practice; indeed the report specifically "endorses current food hygiene advice". This is quite an important point, as one of the main issues in this, and other, 'food scare' stories is the extent to which the government was negligent in warning the public⁸. It has not been possible to identify the exact origin and timing of this advice; clearly, if the preparation advice was already in the public domain in January, then the government cannot be accused of concealing the problem. There was no mention in the MAFF press release of 'usual' topping and peeling on the 18th of January, but it *was* part of the report on the ACP's recommendations published in the January edition of the joint MAFF/Department of Health's Food Information Safety Bulletin⁹. It does seem that Blythman was unaware of this apparently generalised food advice; however, there seems a little confusion as to when such advice was formally presented. While official organisations such as the MAFF helpline and the press branch of the Pesticides Information Unit (part of the Pesticides Safety Directorate) confirmed that topping and peeling was long-term general advice (telephone conversation with author), others had different opinions. The Pesticides Trust, a voluntary pressure group campaigning against excessive pesticide use, initially asserted that the advice was in response to recent press

⁸For example, a *Guardian* story headlined 'Bottomley denies role in alleged listeria cover-up' (10.7.95) reported the signing of Public Interest Immunity (PII) Certificates by Virginia Bottomley in her role as Health Secretary. The PII certificates prevented the family of a child who died as a consequence of his mother's listeria poisoning from using certain documents in a legal action, and the subsequent release of the documents allegedly showed that the Ministry of Agriculture did not pass on their knowledge that listeria in certain foods was a danger to 'vulnerable' people such as pregnant women. This example in effect presents the possibility of a 'double cover-up' in which the initial failure to provide important health information was followed by the issue of the PII certificates.

⁹A small booklet issued by the Food and Drink Federation entitled "The A to Z of Food Safety" notes on its 'V for vegetables' page that vegetables should be washed, especially if they are to be eaten raw, but does not suggest peeling, despite a cartoon illustration of a carrot being 'topped'. This booklet has no publication date, but was being issued by local authorities during food safety week in June 1994.

coverage, but were unable to confirm this; likewise, the supermarket-sponsored Food Safety Advisory Centre were quick to suggest that Blythman's article was the catalyst for the advice, but again were unable to produce clear evidence for this (telephone conversation with author). Although inconclusive, the evidence seems to suggest that MAFF was unwilling to take the responsibility of issuing specific advice at a particular time; in effect, the 'topping and peeling' advice seems to have 'faded in'. Nevertheless, it is clear that more than one journalist perceived the 'warning' as a new one, and presented it as such; some of the following stories mention 'recent' warnings, as opposed to the supposed 'general' advice.

There was no coverage in any of the sampled papers on the Monday following Blythman's *Guardian* article, but on Tuesday May 2nd the *Times* carried a small (118 words) item headlined "Alert over 'healthy' carrots". The story again contrasted previous health advice to leave the skins on vegetables with "yesterday"'s advice from the Ministry of Agriculture.

The suggestion that official advice was issued on the Monday was echoed by the *Daily Mail's* front page coverage ("Peel your carrots warns Ministry"). However, they reported that MAFF insisted that this was "merely advice", and not a "high-level health warning". A leading article on page 8 of the *Mail* called for a sense of "perspective", but nevertheless asked whether the public should now be questioning its demand for "cheap - and unnaturally good-looking - food".

By Wednesday 3rd May five of the newspapers sampled contained references to the 'carrot scare'. The *Daily Mail* continued its coverage with an article on its comment page by environmental health officer Richard North, which suggested that the carrot problem was part of a wider issue around the over-use of pesticides, and linked this with a number of 'new' illnesses such as asthma, eczema, migraine and ME. His criticism was aimed more at the failure of regulators than at the farmers themselves; indeed he suggested that the farmers who were previously forced to use OP sheep dips were among the most obvious victims. North noted that many of the 'independent' experts on the various government watchdog committees have financial vested interests in the multi-national corporations that produce the pesticides¹⁰. He also

¹⁰ North's piece is comparable with a similar one by Jenny Hope just before the height of the BSE scare, "Should this be called mad people disease?" (*Daily Mail* 12.1.90) which also questions the basis of intensive farming; however, Hope is more disposed to blame the demands of consumers than the iniquities of government.

noted that while the research was published in January, it was only 'yesterday' (i.e. 2nd May) that the government issued a "somewhat delayed warning" (*Mail* 3.5.95).

The *Times* also widened the issue to include other apparently contaminated foods under the headline "Fruit and Vegetables Tainted with Chemicals"; after a lead paragraph noting that for some chemicals, government safety limits have been shown to have been breached, a second paragraph explicitly linked this to the earlier 'carrot' story:

"The findings come in the wake of advice from the Ministry of Agriculture that carrots should be topped and peeled before eating."
(*Times* 3.5.95)

This linkage allowed the bounds of the story to expand and take on broader issues. The link was, ostensibly, purely on a chronological basis - 'This comes *after* that' - but it implied a continuity which allowed expansion of the original issue. The *Times* also implied the possibility of a slight policy difference between MAFF and the Department of Health - only this time, it seems that while MAFF was issuing "advice" on safety, the Health Department was reassuring the public that fruit and vegetables are still healthy options.

The *Herald* focused initially on the parliamentary angle by reporting Labour shadow agriculture minister Gavin Strang's call for 'clear government advice' on the carrot issue, and noted his concern that while the Government knew of the problem in January, advice was not issued until now. The second half of the report recapped the main points of the story so far and highlighted the Scottish element in carrot production.

While the *Times*, *Mail* and *Herald* apparently took the issue fairly seriously, others were more relaxed. The *Record's* brief story on the 3rd of May - headlined "What's Up, Docs?" - began with a number of puns on the theme of rabbits ("Experts were at the centre of some bunny business last night - over whether it is safe to eat raw carrots. They rabbited on about...") but then seems to become a fairly straight re-telling of the main points of the story, ending with the same quote from the Department of Health as that reported by the *Times*. The *Mirror's* only contribution was in the form of a comment in TV personality Vanessa Feltz's column, recording her own dislike of carrots, and observing that there are unlikely to be any pesticide residues in Mars bars.

After the coverage on Wednesday 3rd of May, there was no further reporting until Sunday the 7th, when the *Independent on Sunday* also took a light-hearted approach to the issue in a leading article which linked a number of diet and health stories to imply that such problems are amusing but essentially irrelevant. The *Sunday Telegraph* however took a serious view, linking the carrot problem with a recent Health and Safety Executive announcement concerning the long-running issue of OP sheep dips and their effects on the farm-workers who have used them (This story noted that the workers often failed to use the recommended protective clothing because it was impractical; this is a point made by Raymond, who argued that there is often a mismatch between official regulations and their application in the real world, and that the officials often try to resolve such problems by arguing that the workers in the real world are simply 'wrong'; (Raymond 1985; see chapter 3, 'Risk'). A further *Telegraph* article, "Chemicals harvest a crop of concerns", seemed to be a more reflective background piece on the recent history of OPs, and how they replaced organochlorines, ironically because they were considered to be safer.

Further coverage of the 'carrots and pesticides' story was limited to peripheral mentions in stories with slightly different main themes, and was spread over the following few weeks. On Thursday the 11th of May the London *Evening Standard* columnist Allison Pearson suggested that for the Ministry to issue advice, the problem must be serious; she recounted the advice given to a pregnant friend by a doctor, to eat organic vegetables 'to be on the safe side', suggesting that this is unacceptable. The *Telegraph's* lengthy feature on the Co-op's abandonment of organic produce (Tuesday 16th May) painted a picture of waning 'Green consumerism', and dismissed the carrot 'scare':

"...but even this food scare proved to be overdone. The excessive pesticide had reduced the advisory safety margin - measured on a factor of 100 - by only seven." (*Telegraph* 16.5.95)¹¹

The *Telegraph* story was rather more supportive of the NFU's Integrated Crop Management scheme than Joanna Blythman's original *Guardian* article, emphasising its technological basis of satellite monitoring and computers, and contrasting this against the "...low technology, simple route..." favoured by the Soil Association. A

¹¹The numbers here are used to assert the unimportance of the problem, but in the form presented they seem almost completely meaningless. On such a 'scale', how safe is zero? How dangerous is 100? Does 100 mean always fatal? Does the scale apply to single doses or the possible cumulative effects? It all depends on how the scale is applied to the questionable notion of risk in relation to OPs, and such problems seem to be far from resolved.

quote by a Soil Association representative was offered as a counter-balance, but the article ended on a decidedly upbeat note, suggesting that the new farming techniques will provide cheaper, safer foods, and help the environment, as well as safeguarding the future of the farming industry:

"...new technology promises to succeed where the organic movement failed."

The following day (17.5.95) the *Independent* published a leading article, referring back to the Co-op's decision to stop producing and selling organic vegetables, and lamenting the failure of green consumerism to establish itself. While the article noted that the subsidy system, the demands of the supermarket chains, and post-war government policy of high production are all factors that make life difficult for small farms, the blame is ultimately laid at the feet of the consumer:

"But the real problem is probably all of us. We have been quietly seduced by packaged, apparently perfect food. Most of us have, in reality, yet to be persuaded that the benefits of pesticide-free food are worth the effort."(*Independent* 17.5.95)

The article did not contain any direct reference to the specific problem of pesticide residues in carrots, and on that basis could be excluded from my analysis here; however, it seems reasonable to assume that the news value of the issues mentioned was heightened to some extent by the preceding carrot 'scare', and that, indirectly at least, this leading article is a part of a wider 'pesticide-in-foods' news agenda.

Further reference to the carrot issue was made in two feature columns. Claudia Fitzherbert in the *Telegraph* (19.5.95) combined criticism of the current policy of subsidies to "spray-happy farmers" with a plan (presumably a 'joke') to enlist convicts as organic farm-workers. The *Sunday Times* 'Good Foodie Guide' also seemed to combine a fairly serious discussion of the pesticide issue with a light-hearted tone. The article soon became a semi-promotional piece for a product which apparently cleans off surface residues from fruit and vegetables; although it makes clear that the internally absorbed element of the pesticides remains.

It seems that the 'carrot scare' was a particularly short-lived example of a food scare. From its apparent inception at the end of April, it produced stories for barely a week before needing the additional support of wider pesticide issues, particularly the 'sheep dip' question. The element of party politics also, unsurprisingly, became entwined in the story with the Labour Party's attack on the lack of government advice on the issue.

A number of the articles mentioned here had a light-hearted tone, perhaps reflecting not so much dismissiveness but resignation that such problems are endemic and therefore unworthy of more than cursory attention. Apart from the newspaper reports there were also a few letters published on the subject. The President of the NFU Sir David Naish replied to the *Guardian's* original *Weekend* report, emphasising the strength of current regulations and standards and defending the Integrated Crop Management scheme (*Guardian Weekend Letters*, 13.5.95); clearly, the NFU believes that the current level of protection is adequate. The brief, published version of his letter (which may or may not have been edited) did not challenge the main thrust of the earlier article.

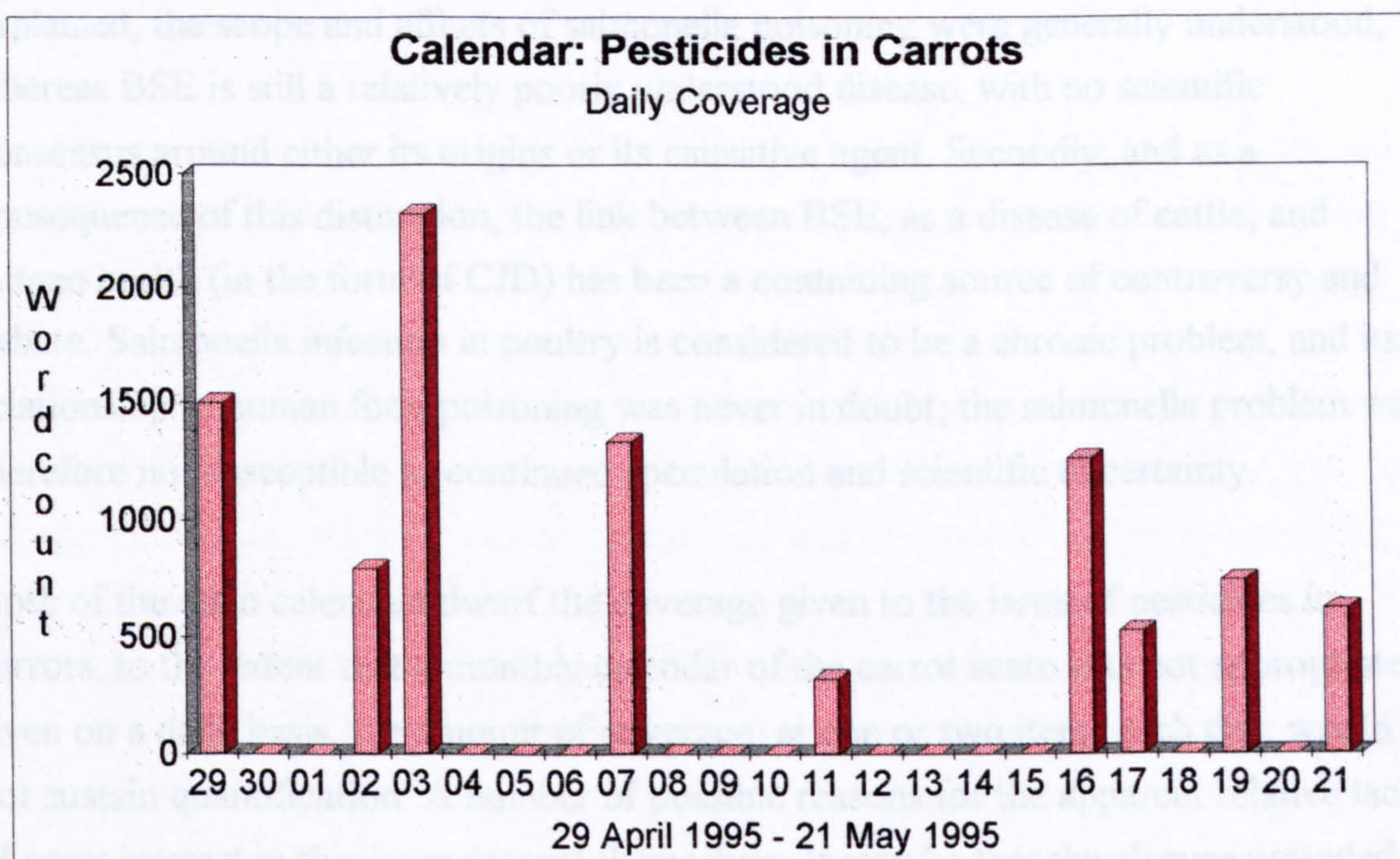
Figure 1.10 presents the coverage of the pesticides in carrots scare as a *daily* calendar of coverage; clearly, no trends can be discerned in such a small amount of data. While the graph shows the sporadic nature of the coverage, it is presented here primarily in order to illustrate the relative size of the scare compared with those surrounding salmonella and BSE.

Summary

The calendars for the salmonella scare and the BSE scare each show the peaks and troughs of coverage of their respective stories over an extended period. The graph showing the contours of the salmonella scare (see figure 1.2) suggests a relatively sharp rise in the newspapers' interest in the issue in December 1988, and a falling away of interest in March 1989. This corresponds to other characterisations of the news construction of the scare as essentially bordered by the intervention of Edwina Currie on 3 December and the publication of the report by the Agriculture Select Committee on 1 March (e.g. Fowler 1991:146; Miller and Reilly 1994: 320). The exceptional increase in coverage in October 1989 (reasons for which are discussed in chapter 9, 'sub-cases') goes to prove the general rule.

The coverage of BSE shows a more erratic pattern (Figure 1.7); a substantial peak of coverage at the beginning of 1990 was followed by a fall until the steep peaks in the middle of the year. From then on, the occasional minor peak was evident (January 1992; March 1993) until the steady rise over the first half of 1994. A further 'lull' was followed by an increase in interest towards the end of 1995; the relative lack of coverage at the beginning of 1996 ended when coverage reached its maximum in the aftermath of the announcement of the probable link between BSE and a new strain of CJD in March 1996.

Figure 1.10.



Note: Sample of eleven newspapers: *Telegraph, Guardian, Times, Independent, Sunday Telegraph, Sunday Independent, Daily Mail, Daily Mirror, London Evening Standard, Scottish Daily Record, Scottish Daily Herald.*

The contrast between the contours of the two calendars can be explained to some extent by the different characteristics of each health problem. Firstly, as previously explained, the scope and effects of salmonella poisoning were generally understood, whereas BSE is still a relatively poorly understood disease, with no scientific consensus around either its origins or its causative agent. Secondly, and as a consequence of this distinction, the link between BSE, as a disease of cattle, and human health (in the form of CJD) has been a continuing source of controversy and debate. Salmonella infection in poultry is considered to be a chronic problem, and its relationship to human food poisoning was never in doubt; the salmonella problem was therefore not susceptible to continued speculation and scientific uncertainty.

Both of the main calendars dwarf the coverage given to the issue of pesticides in carrots, to the extent that a monthly calendar of the carrot scare was not appropriate. Even on a daily basis, the amount of coverage, at one or two items each day, would not sustain quantification. A number of possible reasons for the apparent relative lack of news interest in this issue present themselves. It may be that the closure provided by government assurances (that topping, tailing and peeling were sufficient protection) were enough to satisfy journalists (if not the public) that the story had run its course; additionally, the apparent lack of clarity surrounding the date on which the advice (to prepare the carrots in this way) was issued might also have convinced journalists that there was little newsworthy in the story in terms of novelty or unexpectedness. The perception of pesticide contamination as a chronic problem may also have implied that nothing new had really happened. While it is unlikely that these possibilities can be empirically tested directly, it is clear that only a more detailed analysis of the origins of, and the news management surrounding, this small-scale food scare can provide any further evidence in this regard (see chapter 9, 'sub-cases').

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Chapter 7

Thematic Analysis

Food scares, like other types or genres of news, can be understood as a struggle within a public sphere between competing interests and interest groups for the 'definitional high ground'. As previously explained (see chapter 5, 'Methodology'), the following thematic analysis represents an attempt to map the interests and definitional perspectives at play within the coverage of the two main case studies presented here. This analytic framework - consisting of the two axes of *arena* and *discourse*, and the categories of *state*, *industry* and *consumer* into which they can be further classified - may well be applicable to other kinds of news; nevertheless, it has been devised following a review of the specific style of the coverage of the food scares discussed here. This analysis is therefore derived from the precise characteristics of the data, and it follows that some explanation of the relationship between the news items and the analytic framework employed is required. This chapter therefore begins with a section setting out examples of the way in which particular news articles from the food scare data are classified. For each of the three arenas, a brief explanation is followed by examples of each of the three *discourses*, in order that each of the nine possible positions within the thematic grid is illustrated. Following this section, the primary data derived respectively from the thematic analyses of salmonella in eggs and BSE news coverage are discussed. Within this section (and as part of the analysis of each *separate* case study), brief comparisons between tabloid coverage and that of the broadsheet newspapers are made; finally, a further short comparison (this time between the two case studies) is presented.

Coding Examples

State Arena

The *state arena* comprises all those stories which took as their main subject the actions, attitudes, competencies and intentions of the government and its agencies and representatives. It includes those stories which refer to the actions of particular politicians as individuals as well as the decisions they make in their official roles. The actions and arguments of opposition politicians are also part of the *state arena* in the sense that the subject of such stories are likely to offer alternatives in the political sphere. The main danger here is that, in a sense, the vast majority of stories can be portrayed as having their causes in, or having an effect upon, the political dimension;

certainly most major news stories are assessed as to their relevance to, and effect on, the government. It is possible that this effect is more evident in Britain than elsewhere, and this may be due to constitutional differences in the relative 'distance' between the various 'arms' of the state. For our purposes, it is only when the story's *primary* focus is within the political, and not merely as a peripheral subject, that it is included here. One indication that a story might be included here is the by-line of 'political correspondent' (and similarly the by-lines of 'agriculture' and 'consumer' correspondents might also suggest classification in the respective categories); however, this is no more than an indication, and it is the content of the article, particularly in the headline and lead paragraphs, that determines its classification.

State Arena, State Discourse

This category includes those stories which act essentially to announce changes in government regulations and policies. These clearly have an effect both on the industries concerned and the consumer; however, the main focus of the story is on the immediate political and/or governmental aspect.

"Minister Seeks Greater Control Over Unfit Food", *Times* 18.1.89

This story, attributed to 'government sources', explains the intentions of the government to introduce a new bill on food safety, and is explicitly related to the Salmonella in eggs affair. Other aspects of the salmonella story classified in this way include articles concerning the consequences for the careers of particular politicians, most notably Health minister Edwina Currie.

"Edwina to Miss Egg Scare Inquiry", *Daily Mail* 4.1.89

Describing Edwina Currie's refusal to attend a meeting of the House of Commons Agriculture Select Committee, and the Committee Chairman's reaction, this story has little direct relevance to the discursive positions of either industry or consumer. In the absence of any other clear discursive direction, this reinforces a *state discourse* in the sense that in being selected as newsworthy, it privileges the sphere of formal, Westminster politics.

"Italy Joins Ban on 'Safe' Beef", *Guardian* 7.6.90

In contrast to the Salmonella affair, BSE produced many stories with an international, often European, angle. Many of these concerned inter-governmental negotiations within the EC and therefore qualified as belonging in the *state arena*. There is a negative element in the story mentioned above, concerning the Italian decision to impose a temporary ban, but the support of the EC veterinary committee for the British Government position that beef is safe implies, at least, that the British government is 'fighting our corner'.

"£5 Billion Bill for Cattle Compensation", *Daily Mail* 17.5.90

The figure in the headline above is derived from MAFF calculations of the cost of following Professor Lacey's advice and destroying the entire British cattle population, and is presented in order to illustrate the impracticability of such a policy, and by implication the appropriateness of the government approach. The issue of compensation due to government regulation is situated in the *state arena*, and the argument presented in the story is directed towards a vindication of current government strategy.

State Arena, Industry Discourse

This *discourse* generally works to define the food scares 'problem' as one of industries unfairly maligned, either by a loudmouthed politician (salmonella) or by self-serving and self-appointed experts (BSE); within the *state arena*, it is an attempt to persuade the government to act in the best interests of the producers. The stories classified under this heading can generally be divided into two major groups, the first of which contains those items through which the producers urge the government to support the industry concerned through subsidies. The second group includes stories which relate the industry representatives 'dismay' at the plans and comments made by government spokespersons.

"Egg Firms Will Still Sue Edwina", *Daily Mail* 18.1.89

This is classified as *state arena* as it is directed not towards the 'business of farming' but at the 'business of government', and the attitude and intentions of the egg producers towards Currie indicates that they believe her argument is not only incorrect but libellous. The single acknowledged source of this story is the UK Egg Producers Association.

"Farmers dismayed by egg rescue deal", *Independent*, 20.12.88

The government compensation scheme, in which farmers destroyed chickens whose eggs could not be sold in return for compensation payments, allowed the industry to comment upon the government's handling of the affair. The dismay described was due to the low level of the compensation; in this particular example representatives of the UK Egg Producers Association, the National Farmers Union, and the British Egg Industry Council are all cited in their 'dismay', and suggest that more money should be provided in order to cushion the industry from a sales slump. It could be suggested that the arena of activity here is the industrial; however, the focus of the story is government action, rather than the actions of the egg producing companies, and therefore this story's use of *industry discourse* is within the *state arena*.

"Farmers Call For 'Mad Cow' Reassurance", *Guardian* 21.5.90

This call for Government action to reassure the public of the safety of British beef is in effect a call for a state subsidy towards the public relations costs of the beef industry, and was made by the president of the NFU.

State Arena, Consumer Discourse

The general direction of this discursive position is to protect consumers against what is seen as a significant health risk, and this has implications across the three *arenas* of action. In the *state arena*, the focus is on government action; this is generally manifested in criticism of government inaction, or complicity in the problem, and often implies an improperly close relationship between MAFF and the industry. The main thrust in many of the stories included here is to question the organisational structure of the Ministry of Agriculture. MPs from all parties as well as consumer representatives suggest that the structure of MAFF means that it fails to provide sufficient protection for the consumer.

"Safe food plea by MP's", *Daily Star*, 16.1.89

"Food row plea", *Daily Star*, 23.1.89.

"Scrap ministry call in egg row", *Daily Express*, 7.1.89,

Each of these stories report on calls from MPs for the Government (*state arena*) to reorganise MAFF. The first quotes Sir Richard Body MP as urging the creation of a Ministry of Food which would separate the consumer protection functions of MAFF from its duties towards the producers. The second story reports on an unnamed MP who proposes a Ministry of Consumer Affairs, again in order to safeguard the interests of the consumer; and the third quotes a "senior Tory source" calling for MAFF to be split. All of these stories imply that, at the very least, the bureaucratic structure of the government fails to adequately protect the consumer. The corollary of this is that MAFF, as organised in January 1989, is too close to the industry it regulates, and might be unduly influenced by the farming lobby.

One of the most interesting aspects of such a position is that it transcends the traditional duality of most of British politics in the sense of a left-right opposition. It is not difficult to see how, from the perspective of the left in general, as well as from the position of the opposition parties, MAFF could be criticised for failing to protect the consumer by down-playing the health risks involved and favouring the traditional conservative supporters within the farming industries. (Although one of the difficulties for the Labour Party in the initial stages of the Salmonella scare was that, in their eagerness to attack the Government through the perceived failures of Currie, they seemed to imply that the risk was less than some had feared, and could therefore be seen to be 'on the side of' the industry as opposed to the consumer. This also suggests that the issue could not be divided neatly between two opposing camps, at least in crude party-political terms). Many 'Salmonella in eggs' stories however quote Conservative MPs, and much of the criticism of MAFF comes from the political right; more particularly, the Thatcherite wing of the Conservative Party. This criticism reflects the free market ideology which is against any government involvement whatsoever in any sector of industry; and from this position the historical links between government and the food industry (see Smith 1991; 1993: 101-136) are considered to be no longer relevant. This results in right-wing Conservative MPs criticising MAFF for its patrician attitude towards the farming community, and while such a position tends to downplay the rights of consumers to Government protection (as opposed to the 'inbuilt' protections that the market supposedly provides), it does to a certain extent align the free-market right with the left in their criticism of government bias towards the food industry lobby. A further possible explanation perhaps lies in the latent anti-Semitism and misogyny of certain sections of the Conservative Party, as well as their further distrust of Currie who was considered to belong to the non-Thatcherite left of the party, a political position which was perhaps epitomised (for her critics) by her didactic approach to health information (see Currie 1989). In

comparison, coverage of BSE provided fewer examples of such an apparent alignment between the Tory right and the wider political left, perhaps not least because the catalyst for much of the coverage of BSE was not the comments of a distrusted junior minister, but the emergence of an apparently new disease in cattle. The novelty of BSE perhaps meant that there were fewer constraints on the traditional political allegiances of political news sources.

"Doubtful Future For Salmonella Research", *Times* 16.3.89

"Firm pays for BSE research after Ministry refuses grant" *Telegraph* 14.6.90

The above headlines illustrate a particular way in which *consumer discourse* occurs within the *state arena*. The need for research (both in terms of Salmonella and BSE) is a crucial element of the consumerist position, and criticism of the government is implicit inasmuch as it is accepted (within *consumer discourse*) that it is responsible for commissioning and supporting such scientific research. In noting the failure of government to fund research, such articles imply a lack of real concern on the part of government about the risks of salmonella poisoning and BSE.

"Ban Sought on Offal in Pet Food", *Times* 12.5.90

Although the 'ban' is sought in the pet food industry, it is the Government which is seen as the responsible agency and it is therefore the *state arena* in which this article is situated. As the ban is presumably intended to protect the pets of consumers, the story follows the *consumer discourse*.

Industry Arena

Stories classified in this way are those which focus on the activities within the industries concerned. Many of these refer to the consequences of various actual or proposed regulations and policies for farmers and their businesses; others assess the efficacy or otherwise of particular industrial practices.

Industry Arena, State Discourse

It might initially seem that this particular category would account for a significant part of the data set in that stories concerning the views and perspectives of the government on the egg production industry would be classified here. I felt however that much of

the discussion on the role of the state and its intervention in the industry was conducted in the abstract; it was much more about the government itself than about the industry in question. Stories which focused on what the government should be doing with regard to the production process were not intrinsically based in the industry but in the processes and responsibilities of the apparatus of government. Certainly they referred to the *industry arena* in that they (for instance) recommended certain changes in salmonella testing or hygiene regulations; but almost all government business reflects in some way on the activities of outside agencies. A story might report an announcement to the effect that the government is planning a new law or policy to reduce the risk of eggs becoming infected with salmonella; but this does not mean that it qualifies as part of the *industry arena*. In a sense the subject of such government actions is irrelevant; the emphasis is on the political aspects of the story, and the effect on the world outside of Westminster is secondary. Such emphasis can perhaps be explained in part by the apparent primacy of Westminster journalism in British news, and might also reflect the practices of governmental news management (e.g. Cockerell et. al. 1984; Negrine 1994: 134-8). Nevertheless, stories which did focus on the effects of government policies on the specific industries concerned, or on particular sections of industry, were classified as belonging to the *industry arena*.

"Ban on Sale of Eggs at More Than 20 Farms", *Telegraph* 28.1.89

While this story concerns government actions in that the ban is an official one, the subject of this story is the effect on specified farms, and is therefore in the *industry arena*. In illustrating the government's firm stance on Salmonella infected farms, the story presents the *state discourse*.

"Gummer orders review of abattoir handling of cows' brains", *Times* 22.5.90

The question of abattoir working practices is discussed here with particular emphasis on the infectivity of brain tissue and the need for this to be separated from the carcass. This places the article within the *industry arena*, while the attentions of Agriculture Minister Mr Gummer, who has ordered an "expert review" of the issue, signify the presence of *state discourse*.

Industry Arena, Industry Discourse

In this section the voice of the industry speaks about its own sphere of activity, and not surprisingly has much to say. Prior to the scares in their respective industries, egg

and beef industry sources were presumably reasonably content to support the status quo. Only when sales began to fall, and the government began to propose and implement new policies concerning the testing and slaughter animals did they begin to take a more active role in the media. In both scares, the main arguments were that businesses were foundering, that new slaughter-and-compensation schemes were inadequate, and that the foods they produce were completely safe.

"Egg row farmers 'will go under'", *Daily Mirror* 9.12.88

"Producers 'suicidal' as bankruptcy looms", *Today* 5.12.88.

The first story focuses on the problems which the egg farmers are experiencing; it defines "the egg disaster" as the disaster of "healthy hens" being slaughtered and businesses going under. This is quite a crucial point: the definition of the hub of the story in this way denies the importance of the public health aspect of the affair¹ (The single accredited source of this story is the chairman of the UK Egg Producers Association Dennis Warren). Of course there is an implied criticism of Currie, and perhaps the government in general, within this; however, this is not made explicit, and the story therefore remains firmly within the *industry arena*. The second story, from *Today*, covers similar territory, and was published as one of a group of stories covering different angles immediately following Currie's comment.

"Farmers begin the sad trek to market", *Daily Mail* 17.5.90

In a similar vein, this rather reflective page 5 article from the *Mail* gives farmers the opportunity to explain their concerns about their own positions and livelihoods. Here again, the emphasis is on BSE as a disaster for farmers, their families and those who are employed in the industry more generally.

"Producers kill chickens as egg sales fall", *Telegraph* 10.12.88.

"Lack of cyanide gas holding up cull of hens", *Telegraph* 16.12.88.

The first story above again lists the problems of producers, and its three accredited sources are the British Egg Industry Council; Neil Davies, General Manager of

¹Referring back to our earlier discussion of the primary definition thesis (see chapter 1, 'Primary Definition'), such a definition clearly cannot be characterised as *primary* in that it reflects a *tactical* interpretation on a relatively small scale rather than an over-arching, fundamental definition.

Freshfields Country Eggs; and David Watts, deputy Managing Director of Thames Valley Eggs. This third headline however uses an interesting device in that it seems to make emotive use of the 'killing' of chickens, a tactic more often assumed to be the province of those opposed to industrial battery farming. It could be seen as ironic that sympathy for the animals is being employed in the service of those who are most regularly involved in the 'killing' of chickens. Certainly the producers can be presumed to have no control over the headlines used, and they therefore cannot be accused of using this device on this evidence; however, even to use this kind of language in this kind of story suggests that the arguments of the industry are embedded within such coverage. The "cyanide" story refers to the provision of facilities in order to allow the infected flocks to be destroyed. Industry sources again seem to be emphasising how barbaric this system (of culling suspect hens) is, and while this is implicitly critical of government, the main thrust concerns the effects of the policies on the farmers themselves. Perhaps the lack of similar stories in the coverage of BSE reflects the fact that beef cattle are bred in order to be slaughtered, while battery hens are at least primarily seen as egg providers rather than food animals themselves. Nevertheless, there was some suggestion that in the slaughter of cattle there was some injustice in that 'perfectly healthy' cows were to be sacrificed in order to eliminate BSE.

"Chicken warning", *Daily Mirror* 14.12.88.

"Egg protest laid", *Telegraph* 7.9.89.

"Salmonella scare threatens doom for farm eggs", *Times* 23.10.89.

Although the first headline is ambiguous, this short item is quite direct. It quotes "a farmer" complaining that due to Currie he cannot sell his chickens, and may well go out of business. He does not make any suggestion as to how the government should go about improving this state of affairs, so the story cannot be shifted into the *state arena*. The focus on the industry, and the source of the story serve to include it squarely in *industry arena, industry discourse*. The "Egg protest" is made by a farmer's wife who is complaining that the new restrictions ban the direct sale of slightly cracked or damaged eggs, which is often a useful sideline. This short story notes her protest at the Ministry of Agriculture (dressed as a chicken), and follows a larger *Telegraph* article in which she explained her objections (31.7.89). In a similar article in the *Times* a "small egg producer" also complains that the rules will not only affect the large companies, but will also make things very difficult for the small farm egg producers.

"Egg sales jump after bug scare", *Today* 14.3.89.

This story is representative of a more 'positive' trend within *industry discourse*. In explaining the apparent recovery of egg sales (an event occurring in the *industry arena*), such stories imply that the scare was indeed unnecessary, and that a return to 'normal' sales represents the public coming to its senses. This is a soothing message: don't worry, it was an over-reaction, and now it's over. The continuing concern over BSE and the link with CJD means that there was no real sign of this kind of story occurring in relation to beef sales. Salmonella poisoning could be seen as a unfortunate but avoidable and well-understood hazard; BSE was a new disease which, if transmissible to humans, was likely to be untreatable and invariably fatal. Stories might have mentioned a recovery in beef sales at particular times, but such information was likely to be part of a wider discussion on the continuing mysteries of BSE and CJD.

"Hitting back over a growing issue", *Daily Express* 30.1.89.

Included in this study are those newspaper articles which are not produced as news by journalists, but are written as either opinion pieces, or in some cases propaganda, by those individuals involved in the salmonella affair itself. This article, written by NFU President Simon Gourlay, is an undisguised attempt to put across the industry's viewpoint. He tries to "set the record straight", by assuring his audience that their food is safe and that production is well regulated. This is perhaps one of the most obvious examples of *industry discourse* operating within the *industry arena* of activity. The NFU was also the main source for a number of stories concerning BSE

"Plea to farmers on offal feed", *Telegraph* 14.6.90

This story reports the NFU's call for a voluntary ban on feed suspected of harbouring the BSE agent. It suggests that the proposed ban goes "further than official Government advice", and this can therefore be understood as illustrating the responsible, far-sighted attitude of farmers in their own sphere of activity.

"'Lion' restores pride in eggs", *Telegraph* 17.11.89.

"UK sign of a good egg", *Today* 14.3.90.

Well after the main egg scare had ended, the industry was still trying to regain a little of the credibility which it seemed to lose during the affair. One of the main methods by which it attempted to achieve this was through a public relations exercise focusing on the 'lion symbol' of quality, which was resuscitated after being dropped from British eggs decades previously. Plans to bring back the symbol were floated at the end of 1989, and over a year after the salmonella affair began the British Egg Industry Council began printing the lion mark on egg boxes. Stories like these offered a good deal of publicity for this new 'guarantee' of safety. Of course the mark could not guarantee that the eggs were salmonella-free; however, the uncritical coverage which this particular campaign received stands in contrast to the (often less than sympathetic) earlier coverage during the scare itself. Again, the long-term nature of the BSE scare means that PR campaigns on behalf of the beef industry were unlikely to receive such uncritical coverage. Indeed, a proposed advertising campaign was postponed in March 1996 when the link between BSE and nvCJD was officially acknowledged.

Industry Arena, Consumer Discourse

The main role of *consumer discourse* within the *industry arena* is to criticise the practices of farmers and the state of the food industry in general.

"Doctors say shoppers should boycott eggs to 'force action' on the salmonella scare", *Daily Mail* 25.11.88.

This article is a rare 'pre-Curie' example, particularly in a non-broadsheet newspaper, of the "scare" being named as such. It reports the London Food Commission's assertion that the producers are at fault in failing to protect the public from salmonella poisoning. A further important point worth noting is the way the term "Doctors" is used to describe sources from the London Food Commission; the use of such terms is important in establishing the authority of particular groups and individuals, and is acknowledged as such by those organisations which constitute the main sources in the news reports of food scares (see chapter 8).

"Two flocks of hens caused epidemics of food poisoning", *Independent* 24.1.89.

"Eggs labelled safe riddled with poison", *Today*, 14.2.89.

These stories refer to particular examples of egg infections. The first reports how the CDSC traced a salmonella outbreak to specific flocks. The *Today* story refers to a

particular set of tests conducted by "scientists" which revealed that 1 in 12 eggs were contaminated with salmonella. In both, the focus is on the eggs themselves (*industry arena*), and the critical nature of the reports exhibits the traits of *consumer discourse*.

"Royal battering", *Daily Star* 8.12.88.

"Egg row prince blames farmers", *Daily Mail* 8.12.88.

A minor side-show during the salmonella scare concerned the royal connection; in particular, Prince Charles' views on the issue. The *Daily Star* story (covered also by the *Mail*) reports on Charles' criticism of intensive farming methods, which he (apparently) believes might have increased the chances of infection being passed on between animals.

Criticism of intensive production methods also featured in the BSE coverage:

"The unpalatable truth about the food we eat" *Daily Mail*, 18.5.90

This opinion article by Dr Mark Holmes (' of Cambridge University Veterinary school') blames farmers and intensive production methods for the emergence of BSE, thereby asserting *consumer discourse* within the *industry arena*.

"'Mad Cow' site fears" *Daily Mirror* 7.6.90

The 'setting' or subject for this article is a cow incinerator plant which is used to destroy BSE infected carcasses (*industry arena*); the 'fears' are those of the local inhabitants who are worried that the infection may leach into the water supply or otherwise pollute the surrounding area (*consumer discourse*).

"Mad cow alert hits burger men", *Sun* 17.5.90

Fast food outlets clearly bring the issue closer to the consumer; nevertheless, I have categorised them as part of the food production industry, and the focus of this story on the impact of BSE on chains such as Wimpy and McDonalds puts it in the *industry arena*. Such a story could be classified as *industry discourse* if it emphasised the negative and avoidable effects of the BSE scare on the businesses concerned. The implication in this case however is not that these companies are being unfairly maligned, but that there is a legitimate potential risk in eating burgers.

Consumer Arena

The *consumer arena* is the social space in which people act as consumers at the end of the (economic) food chain. While *consumer discourse* is, perhaps not surprisingly, generally most evident here, other discourse positions also have something to say within this arena.

Consumer Arena, State Discourse

As far as Salmonella in eggs is concerned, it seems that the main comment from the state perspective on the *consumer arena* concerns the importance of home hygiene, which creates a problem for classification because this concern is also shared by the *industry discourse*. I therefore decided to confine the *state discourse* category to those stories which explicitly named the government as the source of advice on hygiene.

"Campaign to cut food poisoning is launched", *Telegraph* 22.5.89.

"£3/4M battle on food peril in kitchens", *Sun* 23.5.89.

These stories report the launch of a leaflet: 'Food Safety: A Guide from HM Government', and list many of the home hygiene tips which the leaflet recommends. Various methods and strategies have been proposed as ways of reducing the risk of food poisoning. The emphasis here however is on the consumers' responsibility to ensure that food is handled correctly (*consumer arena*); and this point is being made not by the industry or consumer groups, but by the government directly (*state discourse*). The *Sun* story is noteworthy also because of its emphasis on the responsibility of 'housewives' in fighting food poisoning (the story is sub-titled "Wives' safety rules"). This 'gendering' of the problem is a point which Fowler considers important in the placing of blame in the salmonella affair (1991, p.186), and is echoed in other media representations of the scare.

"Food 'fascists' scorned", *Daily Express* 1.2.90.

"Gummer attack on food alarmists", *Times* 1.2.90.

Reporting the then Agriculture minister John Gummer's speech to the Food Research Association, these pieces note his condemnation of those consumer activists who he

sees as extremists. This is interesting as a very direct representation of the *state discourse* on the *consumer arena*: the government accepts the risks of salmonella to a certain extent, but by balancing this with an attack on 'extremists' Gummer is attempting to 'disarm' the more fundamental criticisms which the salmonella affair has generated.

"Battery eggs 'safer than free range'", *Telegraph* 2.3.89.

This story, although talking about the way eggs are produced, is nevertheless focused on the safety of the eggs for consumers, and therefore represents an item within the *consumer arena*. It could be construed from the headline alone as an industry perspective; an attempt to minimise the perceived risk of their main product - battery eggs. However, this article is one of a group all generated by the release of the agriculture select committee report, an event which can be seen as an attempt by the government to 'lay to rest' the salmonella affair by bringing a measure of 'closure' to the subject as a continuing news event². In this sense then the story is coming from a governmental (certainly parliamentary) perspective, and can therefore be classified as *state discourse*.

The potential risk from BSE was always more clearly associated with the industry rather than the actions of consumers; no amount of food hygiene could rid infected meat of BSE. Therefore neither *industry* or *state discourse* could focus attention on domestic hygiene issues as a way of deflecting criticism of failed regulatory controls or abattoir practices. Clearly however, the government did attempt to suggest that beef was safe.

"Agriculture ministry disputes BSE alert", *Times* 07.7.90

This is classified as concerning the *consumer arena* as it focuses on the numbers of people affected by CJD and other human spongiform encephalopathies. Although there seems to be no assertion of a direct connection with BSE, the link is mentioned. However, the report emphasises the Government's rejection of the argument contained in a Lancet article that up to 9000 people may be dying from such diseases. The discursive direction is therefore that of the State, which is suggesting that beef is safe to eat.

²The issue of closure is also explored in the following 'analysis' sections.

"Mad Cow bug kills cat No.4", *Sun* 28.6.90

The emergence of a feline version of BSE led to massive coverage in 1990, and much of it could be classified as both *consumer arena*, due to the domestic setting of the cats concerned, and *consumer discourse* in the sense that such stories seem to imply that the BSE threat is moving closer to humans. This story however does not follow *consumer discourse*; instead, it quotes Agriculture Minister John Gummer's announcement that this and other cat deaths are *not* linked, and that "scientists" believe that the illness could have been present and undiagnosed in cats for some time. The story offers no alternative views, and therefore provides an opportunity for Gummer to present the *state discourse*.

Consumer Arena, Industry Discourse

The egg industry's perspective on the *consumer arena* is similar to the government's in the sense that both seemed, especially in the later stages of the affair, to emphasise the home hygiene element. While stories which concentrate on the government's comments are classified as from the *state discourse*, those which use official warnings together with other sources are generally illustrative of *industry discourse*. Certainly with respect to such health warnings the government, as in many other areas, is the primary source of information and advice for the public, and this could lead to a lack of differentiation in which all stories reporting such warnings (or reassurances) are classified as representing *state discourse*. It is therefore useful to distinguish those stories which while employing the official comments also use wider sources, such as those from egg producers themselves, and therefore provide examples of *industry discourse*.

"Sloppy families make fridge food a killer", *Today* 12.1.89.

"Kitchen Horror", *Daily Mirror* 2.3.89.

"Food hygiene 'neglected' in home", *Telegraph* 2.3.89.

"Kitchen hygiene levels need to be improved", *Times* 2.3.89.

The major part of the *Today* article concerns the threat of listeria which is not of direct interest here; however, most of this is relevant to salmonella also, and this is made explicit in a section of the text (which is why it is included in this analysis). Sources

include a National Farmers Union "chicken expert" and a spokesman from the (improbably named) British Chicken Information Service. The general approach is that poor domestic kitchen hygiene is the main cause of food poisoning, and this emphasis, together with the sources acknowledged, qualifies this story as an example of *industry discourse*. The *Mirror* story is a very short piece in a group of stories about the Agriculture Committee report, but in describing the dirty fridges found by health inspectors it is a further illustration of the 'poor hygiene' strand in this classification group. The final two stories here, in the *Telegraph* and the *Times*, are each from groups of stories printed together, all concerned with the Agriculture Committee report. They are unusual in that the main source for both is a consumer organisation, *Which?* magazine, but the stories are clearly 'poor hygiene' items which directly support the industry claim that the kitchen is the place where blame should be laid rather than the *industry arena*.

"Egg farmers blame poor hygiene for poisoning", *Independent* 17.2.89.

In contrast to the previous three headlines, this story immediately makes clear its main source; it is perhaps the most transparent example of the industry strategy to blame food preparation as opposed to food production. While also criticising the Department of Health and the Ministry of Agriculture, the sources suggest that the catering industry is to blame. The chairman of the British Egg Industries Council is quoted as saying "The British people have the safest egg in the world.". Although the story ranges over different areas, calling for an inquiry into the government's handling of the affair, its main focus is the apportioning of blame, and the implication (not directly stated) that the consumer should also share the blame places the story in the *consumer arena*, reflecting *industry discourse*.

As far as BSE is concerned, *industry discourse* in the *consumer arena* could not, as we have seen, blame kitchen hygiene for the emergence of BSE. However, the lack of a clear link between BSE and any human illness (at least until March 1996) allowed the beef industry to argue that there was simply no risk involved in eating beef. Perhaps the most strident media outlet for this position was the *Sun*.

"Come fry with me!", *Sun* 24.5.90

This article by the *Sun*'s 'showbusiness reporter' invites various celebrities to assert the safety of eating sausages and other beef products, and makes a direct comparison with the earlier eggs scare which is also considered to be essentially groundless. Although

there are no industry sources quoted - the only 'sources' are the celebrities who all endorse beef in general and sausages in particular - this is clearly following *industry discourse*; indeed, it seems to echo the sentiments of the 'Sausage Appreciation Society', a promotional device funded by the Meat and Livestock Commission.

Consumer Arena, Consumer Discourse

The *consumer arena* is the 'natural' home of *consumer discourse*; it is in this category that much of the power of the consumer argument is generated. The basic theme is the inherent risk in eggs and beef, and that the scares are in general justified. Many of the stories in this category use as their main source 'official' warnings, notices of poisoning outbreaks or 'expert' concerns about certain kinds of meat products; however, these are not part of the state agenda in any meaningful sense, but are more correctly understood as the 'ammunition' with which *consumer discourse* is loaded. In the *consumer arena*, *consumer discourse* is not so concerned with the causes of the risks (more likely to be found in the *industry arena*), or with any possible remedies (*state arena*); instead, it performs a more prosaic function by simply highlighting the risks themselves, and does not necessarily present any other specific argument. I took an emphasis on the dangers of eating eggs or beef as evidence enough to classify a story in this category.

"Killer in your egg", *Today* 27.8.88.

"Raw eggs warning", *Daily Express* 27.8.88. (also *Telegraph*, *Independent*, *Mail*, *Times*)

Many of the earlier 'pre-Currie' stories fall into this category; the *Today* story quotes a representative of the Egg Information Service as blaming the catering industry and hygiene more generally. The major part of the story however is concerned with the Department of Health warning against the use of raw eggs, and gives the reason that inspectors have found the "deadly salmonella bacterium" in eggs. The *Express* notes that the warning is from "scientists", and aimed at "those not in robust health".

"Killer bug alert over turkey for christmas", *Today* 28.11.88.

"Egg peril in mum's cake at christmas", *Sun* 20.12.88

The timing of the salmonella affair allowed a particular dimension of the scare to be exploited by *consumer discourse*. In the run-up to christmas food scares assume a heightened importance due to the ritual nature of food consumption over that period; by making an issue of specific christmas foods, newspaper articles imply a threat to christmas itself, and the threat therefore becomes more grave. The *Today* story notes that "scientists" are trying to find a method to detect salmonella in turkeys before christmas, and links this to the problem with eggs. The *Sun* reports that raw eggs should not be used in christmas cakes, and in this threat aligns the story with *consumer discourse*; but it also works to imply that food safety should be the responsibility of women (an illustration of Fowler's contention with regard to the gendering of blame for salmonella poisoning; Fowler 1991:186).

"Egg kills boy, nine", *Today* 19.1.89.

This story refers to a particular instance of salmonella poisoning in which a young boy died. The boy is described as having died "after eating an egg for breakfast". The implication of causality is clear, and although tests on the remaining foods in the household failed to pinpoint the medium of infection, these stories manifestly represent the consumerist position - that eggs are a serious health risk.

"VIP's food alert", *Daily Mail* 27.10.88.

"Banquet bug identified", *Times* 27.10.88.

These early examples represent a type of story which highlights the effects of the salmonella affair on elite individuals or groups (see also the House of Lords story). Salmonella poisoning was suspected, the vehicle of infection assumed to be a "cheese and egg savoury".

"Salmonella warning over eggs", *Independent* 1.9.89.

"Ten-minute egg fails to kill off bugs", *Today* 2.9.89.

The initial warning against raw eggs was later extended to include a warning against lightly cooked eggs; these stories suggest that "tests" have shown salmonella bacteria still present in an egg boiled for ten minutes. The *Independent* names its source as a report by "researchers from public health laboratories" published in the medical journal "Epidemiology and Infection". In these articles the risk is shown to be greater than

previously acknowledged by government, and the story is therefore consonant with the main thrust of *consumer discourse*.

"New crisis as salmonella poisoning cases climb", *Telegraph* 19.7.90.

"Egg poison soars", *Daily Mirror* 30.1.91.

"Salmonella up", *Daily Mail* 30.1.91.

"Eggwina was right", *Daily Star* 10.2.93.

These short pieces are indicative of the continued coverage of the fluctuating statistics well after the main period of newspaper interest in the salmonella affair. The *Mirror* and *Mail* stories simply report a 25% increase in egg and poultry related salmonella, the *Mirror* naming the PHLS as its source. The story from the *Daily Star* is a little more recent and cites a new report in which evidence of a continuing salmonella problem seems to bear out Currie's infamous remark. The *Telegraph* story is the oldest of the three, and perhaps not coincidentally is also the longest (16cms). Even so it seems a cursory amount of coverage (on page 5) for a "new crisis". Nevertheless, these are registered as a further example of *consumer discourse* due to their emphasis on the risk of salmonella poisoning.

"It's no yolk!", *Daily Star* 16.4.88.

This surprisingly early tabloid story reports the American scientific study which was part of the US scare, a forerunner of the British salmonella affair. The Center for Disease Control in Atlanta, Georgia suggest that eggs can contain dangerous levels of salmonella; the British Egg Industry Council dismiss the claim and the punning headline denotes a failure to take the story seriously, but *consumer discourse* is nevertheless predominant.

"Health peril hits shoppers", *Daily Express* 26.10.89.

"9 out of 10 demand action on food bugs", *Sun* 14.2.89.

The *consumer arena* is presented more directly in stories such as these, which attempt to focus on consumer reactions to the egg scare. Of course it is not always the case that any particular consumer interviewed will employ the language of *consumer*

discourse; generally though, their expressions of concern, together with the tone of such stories, are evidence enough that the *discourse* is present. The *Express* story reports a Which? magazine survey which found that many "housewives" (again, gendering the *issue* if not the blame) mistrust government, industry and retailers with regard to the salmonella affair, and that three-quarters say the scare has affected their shopping habits. The *Sun* also suggests that consumers are genuinely concerned about the risks posed by salmonella.

"Food poisoning 'out of control'", *Telegraph* 13.4.89.

This story is noteworthy because of its reliance on the statements of a particular expert scientist: Professor Bevan Moseley of the Institute for Food Research. His opinion on the prevalence of food poisoning is enough to propel this story onto the front page even though the salmonella affair, in terms of news coverage, is already on the wane (although the emphasis here on food poisoning in general can be seen as part of the emerging 'diaspora' of related news output).

Despite the lack of official confirmation that BSE could be transmitted to humans via CJD (until the announcement in March 1996), there were examples within the coverage of individuals apparently affected by the disease.

"Death throes haunt victim's husband", *Guardian* 15.5.90

This is a typical 'personal' story, in which the husband of a CJD victim describes the circumstances of his wife's death. The link between CJD and BSE was not established at this time, but the article makes it clear that "...too little is known about the disease [BSE] to be certain that it cannot be transmitted along the food chain." Although the victim cannot be considered a 'consumer' in the direct sense because she is not identified as a beef eater, no other alternative route of infection is offered, and the implication is clear. It also serves as a warning against the apparent risks of contracting CJD through food, and therefore serves *consumer discourse*.

"Alert as 'Mad Cow Bug' kills pet cat", *Sun* 11.5.90

As we have seen, the emergence of a feline version of BSE was the subject of a large amount of news coverage in 1990, and many of these items can be classified under the *consumer arena, consumer discourse* category. This particular story in the *Sun* included a comment from a 'top vet' who argued that the disease could not pass from

cats to humans. Nevertheless, the main thrust of the story contained the assertion that a "...Siamese died from Mad Cow Disease", apparently providing confirmation that BSE has crossed the species barrier not just to wild animals but to domestic pets. It is the movement of BSE into the domestic sphere which most forcefully suggests that such stories are part of the *consumer arena*.

"Mad Cow 'killer' warning", *Daily Mirror* 14.6.90

"'Mad Cow' threat in beef sausage", *Daily Mail* 12.6.90

These articles both present warnings about beef. The first story reported Professor Richard Lacey's fears concerning the connection between BSE and CJD, and he was the only quoted source. The end of the story offered a token of journalistic 'balance' by noting that "Tory MP's accused him of being inaccurate and sensationalist", but the main argument within the article followed Lacey's consumerist agenda, and in effect warned against eating beef. The *Daily Mail* story above named a 'senior member of the British Veterinary Association' who calls for the banning of mechanically recovered meat, because the process of removing it from the carcass makes it difficult to ensure that all of the spinal cord (thought to be one of the most infectious parts of the animal) is removed. Mechanically recovered meat (which, after the main cuts of meat have been removed, is blasted from the carcass with the use of high-powered water jets) is often used in cheaper meat products such as sausages and burgers, and the 'threat' to consumers represented in such foods is clearly outlined in the article.

Analysis of the Thematic Grids

The thematic grid analysis is intended to shed light on two distinct elements of the news coverage devoted to the food scares which constitute the present case studies. Firstly, by categorising each news item according to its discursive position, it allows measurement of the 'privileging' of the three main perspectives present in the coverage. These are not necessarily exclusive to particular individuals or groups (for instance, *consumer discourse* can be found in Government warnings against eating eggs), but can nevertheless be understood to represent certain positions and interests³. Secondly, by further differentiating between the stories on the basis of the subject area to which

³Thus, this approach can be distinguished from those kinds of analysis which quantify or otherwise classify the sources of news items with regard to their institutional or organisational position, on the assumption that the utterances of sources *always* represent their wider structural position; by contrast, the thematic grid analysis categorises *what* is said (in the news report) rather than *who* says it.

they are directed (the 'arena of activity'), this analysis makes it possible to see how each *discourse* is aimed at the different *arenas* involved. To a certain extent each discursive position might be assumed primarily to focus on its own particular 'arena of activity'; there are two reasons why this might occur. Firstly, if an industry spokesperson is asked for an opinion or a quote, he or she might well feel most confident talking about his or her particular field rather than the other areas involved. This implies that in presenting *industry discourse*, the spokesperson is more likely to focus on the *industry arena*. The reverse might also occur in that a story concerning the *industry arena* is more than likely to lead to the journalist concerned seeking out the industry's position on the story. Of course, this is not always the case; however, perhaps the most important elements of the analysis are those in which this convention is not in evidence, and discursive positions feel able to approach other *arenas*.

Analysis: Salmonella in Eggs

Having categorised British daily newspaper coverage of the Salmonella in eggs affair and the BSE scare, each type of story can be counted to reveal the spread of coverage across the nine box spectrum. Rather than combining the whole of the data collected, it seemed more useful to take particular time periods within the coverage and look at them individually. This would allow an additional factor, of change over time, to be exposed, at least in a minor way.

For the Salmonella in eggs coverage, the time periods chosen were (1): June-November 1988; (2): January 1989; and (3): March-June 1989; these roughly correspond to the 'pre-scare' build up; the height of the scare; and the aftermath. Thus, the 'career' of the scare is represented in the three periods represented. For each period the column-centimetre count for each grid-box was aggregated to provide a measure of the amount of coverage, as opposed to a count of the reports/articles.

June-November 1988 (see figure 2.1):

This 'pre-scare' period is most notable for the absence of coverage of any *state discourse*. This confirms the impression that prior to December 1988 the affair had not become a political issue. *Industrial discourse* is likewise generally absent, the exception being the small amount of coverage it receives within the *consumer arena*; this corresponds to the occasional report in which home hygiene is blamed for the increase in salmonella incidence. Apart from this, the coverage falls entirely within the category of *consumer discourse*. While there is a small amount within the *state arena*,

Figure 2.1

Thematic Analysis: Salmonella						
Date: June-November 1988						
(n=664 col.cms.)						
Arena:						
	State	Industry	Consumer	Row Totals		
Discourse:						
State	0	0	0	0		
Industry	0	0	6.9	6.9		
Consumer	4.5	19	69.6	93.1		
Column Totals	4.5	19	76.5			

Figure 2.2

Thematic Analysis: Salmonella						
Date: January 1989						
(n=6248 col.cms.)						
Arena:						
	State	Industry	Consumer	Row Totals		
Discourse:						
State	33.5	4.4	0.6	38.5		
Industry	0.7	8.3	2.3	11.3		
Consumer	26.1	5.4	18.9	50.4		
Column Totals	60.3	18.1	21.8			

Figure 2.3

Thematic Analysis: Salmonella						
Date: March-June 1989						
(n=3146 col.cms.)						
Arena:						
	State	Industry	Consumer	Row Totals		
Discourse:						
State	45	1.3	3.2	49.5		
Industry	3.2	3.9	7.8	14.9		
Consumer	19.5	1.5	14.5	35.5		
Column Totals	67.7	6.7	25.5			

and more within the *industry arena* (which consists of, for instance, criticism of farming practices), the overwhelming majority of the coverage in this period occurs within the *consumer arena*, and is part of *consumer discourse*. The level of coverage can, in a sense, be seen to contain or restrict the development of further 'angles', and *consumer discourse* therefore fails to develop additional arguments within the *state* or *industry arenas*. It is clear then that the emphasis is on the fears and dangers of salmonella for the consumer; this coverage is not, it seems, enough to provoke a political scandal within this period. The 'pre-Currie' stories were diffuse and unable to generate a substantial amount of coverage; the related issues and further reactions which were to become central issues in the later coverage were not followed up at this stage.

January 1989 (figure 2.2):

Following the initial burst of coverage in December, the January 1989 grid-box shows a wider spread of coverage across the range of categories than the pre-Currie grid. The single most important change is in the *state arena, state discourse* category, which now accounts for the largest single amount of coverage. This represents the news coverage of various political and parliamentary issues arising from the scare, including Currie's refusal to attend the agriculture select committee hearings, and plans for new food hygiene legislation. In comparison with June-November 1988, a larger percentage of the coverage for January is located in the *state arena, consumer discourse* category. This is of course connected to the rise in the political side of the affair more generally, and consists of reports which present criticism of the government's failure to protect the consumer. This illustrates the point that the government has been drawn into the debate, and is not merely commenting on the issue (via *state discourse*), but is criticised as an actor within the affair. It could be argued that the amount of coverage in January categorised as *consumer discourse* within the *state arena* (almost a quarter of the total coverage) is a measure of the vulnerability of the government on this issue at this time. The relative reduction of the amount of coverage devoted to the *consumer arena, consumer discourse* category is due mainly to the widening of the debate around the salmonella affair; the earlier concentration on the health warnings, salmonella outbreaks and statistical rises in poisonings gives way to the wider issues of animal feed contamination, farming practices, state regulation and compensation.

March-June 1989 (figure 2.3):

In the aftermath of the scare, the shift towards coverage of the *state arena* seems to continue. *State discourse* concerning the *state arena* in this period accounts for 45% of the total; the government continues to exert its influence over the terms and direction of the debate, perhaps in a belated effort to recoup some control of the issue. As with January 1989, the two other categories comprising substantial amounts of coverage are both from the *consumer discourse* category. In the *state arena*, the *consumer discourse* is again around 20% of total coverage, while in the *consumer arena* the relative amount of coverage has fallen further. This can in part be explained not just by the shift towards the *state arena* and *state discourse*, but also by the increase in coverage of the *industry discourse*. The industry (or at least certain sections of it) felt the need, in the wake of the government's imposition of certain regulations and restrictions, to put across its own message more directly. This perhaps became more possible as the 'scare' waned and the industry could make its voice heard among other voices in the remaining coverage. This is shown most particularly in the *consumer arena*, where the message that consumers were failing to take proper hygiene precautions was a major part of the industry's case.

In general, the shifts which occurred in the coverage of Salmonella in eggs can be seen in the comparison of the aggregates of the *discourse* rows and *arena* columns across the three time periods. Expressed as a percentage of the total, the amounts of coverage for each of the three discursive positions has shifted, with *consumer discourse* representing a smaller proportion of the total over time, and the *state* and *industrial discourses* gaining more coverage. This is a reflection of the process by which the reporting of a news story is transformed into reporting of the responses to that story. This can occur within days in newspaper reporting (and within minutes in the broadcast media), but can also evolve more slowly in a longer-running story. The initial (pre-Currie) coverage focused on the poisoning of consumers; only as the affair became a front-page headline-making scare did the responses of the government and the industry themselves become news.

The three *arenas* also showed a similar shift; although here the change is from emphasis on the *consumer arena* (as the site at which the initial scare presented itself) to emphasis on the *state arena*, with the government becoming the focus of debate.

The initial quantitative study of the coverage devoted to the Salmonella-in-eggs affair suggested that prior to December 1988 the story was not of major importance; Fowler suggests that the "press hysteria" began to build in late November (1989: 146). The current analysis allows a refinement of that observation, as we can now see that pre-December 1988 coverage was overwhelmingly confined to one particular type of news

report - stories asserting the risk inherent in eating eggs (*consumer discourse*), and focused on the possible and actual effects of this on the general public (*consumer arena*). It seems plausible that any major extension of the importance of the story, and a consequent increase in the amount of coverage, would go hand-in-hand with an expansion into other *arenas* of activity and other discursive approaches.

The threshold at which such a shift might occur was breached completely when Edwina Currie, in an interview with ITN news, said that;

"We do warn people now that most of the egg production in this country, sadly, is now infected with salmonella."

This statement was the catalyst which ignited the "press hysteria", and allowed a wide range of associated issues to be addressed by the media. Fowler suggests that the tone of this coverage widened to a number of unrelated stories such as radon gas, ozone depletion and acid rain, (1989: 147). The current study was confined to the specific coverage of the salmonella affair, but it also suggests that the story widened, albeit within the narrow framework of the nine-box grid, to include the perspectives (and the subjects) of the egg industry and the Government. One consequence of this shift meant that both the location of the story and the voices discussing it moved into a more conventional, overtly political framework, and therefore the conventionally most privileged voices of all - MP's - became central actors in the debate.

The rise in the percentage of the coverage designated as representing *industry discourse* (from 6.9% to 11.3% to 14.9%) could be seen as some kind of victory for the egg producers; however, such figures suggest that they failed to command a major proportion of the coverage at any time; this could be due to the feeling (in journalistic circles) that such sources were inevitably partial. The arguable failure of the industry in this respect raises a number of questions concerning the theoretical debates around the issues of primary definition and privileged sources.

In what Schlesinger calls the 'Marxist-structuralist variant of the sociology of sources' (1992: 294), industry representatives might be assumed to hold a relatively privileged position as news sources due to their role in the capitalist economy; Chomsky and Herman's 'propaganda model', described by Schlesinger suggests that, in the US at least, the media generally work to serve the interests of the state and 'big business' (ibid: 305). Although this position can perhaps tend to overlook the complexities of the relationship between such elite groups and the media, it is nevertheless plausible

that industrial and commercial power is likely to correlate to political and ideological power, and that 'big business' therefore has some primary definitional advantage.

It could be argued that in the case of Salmonella in eggs a discursive position, which emphasised risk and ran against the prevailing tendency of industrial definitional advantage, began to establish a certain legitimacy in the build-up to the scare itself. By December 1988 the industry, and to a certain extent the state, were in the position of having to catch up; they had, temporarily, lost the in-built advantage that is the essential element of primary definition. The success, in the scare's initial stages, of *consumer discourse* (which also owes a debt to the commercial imperatives of the newspaper industry) was helped by the fact that as 'counter definers' those arguing that eggs were a significant health risk generally avoided developing their argument into an attack on the commercial basis of the factory farming industry. An overt criticism of the capitalist process within food production would have stepped well outside the pre-established 'terms of debate', and might have led to the argument being labelled as extremist; this might mean forfeiting the legitimacy which had been gained earlier (see Hall et al. 1978: 68).

The fact that a fundamental critique of the food production process in a capitalist environment did not develop might however lead an alternative analysis to conclude that the primary definition of the issue had not really been challenged, and that the legitimacy of consumer discourse was an expression of the 'co-opting' of such positions into the mainstream.

Salmonella: Broadsheets and Tabloids

While the primary focus of the thematic analysis is on the coverage of the case study food scares in newspapers as a whole, it is worthwhile taking some time to examine briefly the differences in coverage between the different sectors into which British newspapers are traditionally divided. More specifically, the distinction between tabloid and broadsheet (as the apparent 'extremes' along the continuum of British newspapers) is investigated in order to highlight any major discrepancies in the way they presented their salmonella and BSE coverage with regard to the thematic grid analysis set out here.

As a period at the centre of the three-month scare, January 1989 was selected as the sample period. Broadsheet newspapers were represented by the *Daily Telegraph* and

Figure 2.4

Thematic Analysis: Salmonella - Broadsheet Coverage						
Date: January 1989						
(n=1943.5 col.cms.)						
Arena:						
	State		Industry		Consumer	Row Totals
Discourse:						
State	33.5		0.5		1.3	35.3
Industry	1.7		19.8		0	21.5
Consumer	22.3		10		10.7	43
Column Totals	57.5		30.3		12	

Figure 2.5

Thematic Analysis: Salmonella - Tabloid Coverage						
Date: January 1989						
(n=586.5 col.cms)						
Arena:						
	State		Industry		Consumer	Row Totals
Discourse:						
State	37.3		1		1.5	39.8
Industry	0		6		0	6
Consumer	10.9		0		43.2	54.1
Column Totals	48.2		7		44.7	

the *Independent*, while the three 'red-top' tabloids - the *Sun*, the *Daily Mirror* and the *Star* - were taken to represent their 'end' of the spectrum.

In comparing the individual categories within the two grids (see figures 2.4 and 2.5), the main differences occur in the *consumer arena, consumer discourse* category and the *industry arena, industry discourse* category. In the former, a much greater relative emphasis (43.2% to 10.7%) can be found in the tabloids; in the latter, the broadsheets provide more coverage (19.8% to 6%). Initially then, this might provide some evidence for the argument that the supposedly more 'populist' newspapers did indeed display a tendency in their coverage of the salmonella scare to focus on the consumer as the 'site' of activity and to privilege the consumerist position. However, looking at *consumer discourse* in the other two *arenas*, it is clear that the broadsheets found the consumerist position at other sites; that is, they reported on issues within the *state* and *industry arenas* from a perspective emphasising the interests of consumers. Regarding the row and column totals for each sector, there is some difference in the span of the *discourses* in the tabloid emphasis on *consumer discourse* and relative lack of representation of *industry discourse*. However, perhaps the more significant disparity between the two grids is on the issue of the *arenas* covered in that while both sectors find much to report in the *state arena*, the tabloids pay much more attention to the *consumer arena* compared to the *industry arena*. By contrast, the broadsheet newspapers find more to report within the *arena* of industry. An explanation might be found in the possibility that this discrepancy reflects the different readerships of the two sectors, with broadsheets attracting a larger percentage of those involved in business and industry generally (and perhaps farming more particularly). Thus, it might be argued that while there is a populist 'slant' in the tabloids in terms of *discourse*, this is exacerbated by their related emphasis on the *consumer arena*. To put it another way, by reporting on the social spaces in which consumers act, the tabloids are clearly more likely to present a discursive position which emphasises the interests of consumers.

Analysis: BSE

The BSE scare developed and continued over a much longer period than the Salmonella in eggs scare, which despite the scale and duration of the coverage it received, was a relatively discrete news event. BSE has continually reappeared in the news since June 1988, although of course particular episodes produced a number of peaks in the coverage (see BSE Calendar). For this reason, the time periods selected for thematic analysis could not correspond to a 'before, during, and after' model in the

same way as the Salmonella analysis. Instead, two periods of high newspaper interest were selected. The first period, May to July 1990, includes the first accounts of 'mad cat disease' and the subsequent increase in coverage. As the BSE calendar makes clear (see chapter 6) this period included the most concentrated amount of coverage prior to 1996. The second period selected spans the week in March 1996 in which the government acknowledged the likelihood of a link between BSE and a new form of CJD, and which constituted the 'high-point', in terms of the volume of news space, of the BSE scare.

May-July 1990 (see figure 2.6):

Perhaps the single most important element in this period is the relative evenness of the spread between *arenas* and *discourses* in this period of coverage. Although the *state arena* predominates, coverage also occurs of the other *arenas* of activity. Likewise, the *consumer discourse* seems to be the strongest voice of the three, but neither of the other discursive positions are absent. This suggests that there was, at this time, some opportunity at least for each position to make itself heard, even if this opportunity is restricted to its own sphere of action. Certainly the results here tend to confirm the earlier suggestion that each discursive position has most to say about - or receives most newspaper coverage concerning - the *arena* of its own activity.⁴ The largest deviation from this 'norm' is the significant amount of coverage of the *state arena* derived from the *consumer discourse*. This may reflect the belief that, from the consumerist perspective, any solution to the BSE issue (and indeed to food scares more generally) must include a role for the state in terms of regulation and control, rather than a reliance on voluntary changes to industrial practice. Therefore the Government was always likely to be a target of *consumer discourse*.

19-25 March 1996 (see figure 2.7):

The spread of coverage across the three *arenas* seems to be relatively stable between the period of analysis in 1990 and the week of intense coverage in March 1996. In both periods the split between *state*, *industry* and *consumer arenas* follows a pattern of approximately 45%, 20% and 35% respectively. This might suggest that the spread of coverage of the different spheres of activity was one way in which a measure of

⁴This distinction highlights one of the limits of this kind of analysis, in that the question of whether source organisations or news organisations have effective control of news output is not amenable to analyses of texts; such a question implies the need for an understanding of the 'behind the scenes' activities of the individuals and organisations concerned.

Figure 2.6

Thematic Analysis: BSE					
Date: May-July 1990					
(n=141740 words)					
Arena:					
	State	Industry	Consumer	Row Totals	
Discourse:					
State	22.9	2.9	0.6	26.4	
Industry	5.6	10.3	9.8	25.7	
Consumer	16.3	8.3	23.3	47.9	
Column Totals	44.8	21.5	33.7		

Figure 2.7

Thematic Analysis: BSE					
Date: 19-25 March 1996					
(n=97201 words)					
Arena:					
	State	Industry	Consumer	Row Totals	
Discourse:					
State	7.7	0	3.8	11.5	
Industry	7.3	14.4	3.7	25.4	
Consumer	28.6	4.6	29.8	63	
Column Totals	43.6	19	37.3		

Note: Calculated as % of total wordcount, using approximate tabloid wordcounts. All figures are percentages of the total coverage for the period stated.

journalistic 'balance' could be achieved. However, this would be to ignore the shift which has occurred from *state discourse* to *consumer discourse*, which is the main element in the increase in the total amount of *consumer discourse* coverage. This increase can perhaps be explained by the perceived importance of the news concerning BSE and the new variant of CJD which is the subject of the March 1996 coverage. The announcement of the probable link essentially 'refreshed' the story, and was arguably the beginning of a 'new' scare; the emphasis on the consumerist aspect of the affair can be seen as a reflection of this renewal. The shift to *consumer discourse* might also be understood as a failure of the beef industry as well as the Government to 'close down' BSE as an issue of public concern; this contrasts with the situation evident in the Salmonella in eggs scare.

BSE: Tabloids and broadsheets

A comparison between tabloids and broadsheets in terms of the thematic grid analysis can also be made with regard to BSE coverage.

Taking the period from May to July 1990, the broadsheet newspapers (see figure 2.9) provide relatively more coverage classified in the *state arena, state discourse* section and less in the *consumer arena, industry discourse* section. More generally, the broadsheets emphasise the *state arena* while the tabloids (see figure 2.8) emphasise the *consumer arena*, a finding which corresponds with traditional conceptions of the differences between the two ends of the newspaper spectrum. By contrast, the apparent concentration on *industry discourse* in the tabloids to some extent appears to falsify the assumption of a consumerist 'bias' in tabloid newspapers. However, this can largely be explained by the discrepancy between the *Sun* and the *Mirror*, in that the *Sun* displayed a generally dismissive attitude towards the issue of BSE, minimising the risks to consumers; this is evident in the overwhelming emphasis on *industry discourse* (80.8%) in the *Sun* (and has been highlighted in the examples discussed earlier in this chapter). The *Mirror* pays rather more attention to *consumer discourse* (65.1%), but in the aggregation of the two which produces the general tabloid thematic grid, the particular emphases of the *Sun* help to produce a significant deviation from the conventional expectations of a tabloid press in which populism is inflected through a consumerist perspective⁵.

⁵While it would be possible to examine the thematic grid produced by each newspaper, any further quantitative analysis along these lines is likely to produce diminishing returns. The differences (and similarities) between particular titles, as well as between particular stories within the Salmonella and BSE coverage are better understood via a more qualitative analysis, which has been introduced in the previous discussion of category examples, and continues in the following chapters.

Figure 2.8

Thematic Analysis: BSE - Tabloid coverage						
Date: May - July 1990						
(n=3017 col.cms.)						
Arena:						
	State		Industry		Consumer	Row Totals
Discourse:						
<i>State</i>	12		0		0.5	12.5
<i>Industry</i>	7.5		7.9		29.9	45.3
<i>Consumer</i>	14.4		5		22.9	42.3
Column Totals	33.9		12.9		53.3	

Figure 2.9

Thematic Analysis: BSE - Broadsheet Coverage						
Date: May - July 1990						
(n=79955 words)						
Arena:						
	State		Industry		Consumer	Row Totals
Discourse:						
<i>State</i>	30.1		2.8		0.8	33.7
<i>Industry</i>	7.5		14		0.8	22.3
<i>Consumer</i>	21.2		6.8		15.9	43.9
Column Totals	58.8		23.6		17.9	

Salmonella and BSE: comparison

A number of the differences between the two case study food scares - BSE and Salmonella in eggs - are evident in the nine box grid thematic analyses. Salmonella was, despite its relative longevity as a news story (and according to Fowler (1991) as a story-defining 'paradigm') essentially a discrete news event which was essentially 'dead' within three months. This is illustrated in the development of the scare over the three time periods chosen for analysis; the initial 'pre-scare' emphasis on *consumer discourse* and the *consumer arena* shifted to a position after the major coverage had ceased in which *state discourse* and the *state arena* was predominant. BSE on the other hand has continued to resurface as a continuing news item, and the analyses from both 1990 and 1996 show a continuing representation in newspaper reports of *consumer discourse* which is not reflected in the later Salmonella coverage as represented in the March-June 1989 grid (figure 2.3).

The 'pre-scare' salmonella analysis suggests that the Government, and perhaps the egg industry also, were in effect caught by surprise, and had to work to regain some control over the news agenda. For the periods in which BSE coverage was analysed, it would be difficult to argue that the Government or the beef industry were in any sense unaware of the potential for public concern. It could be argued that there was a 'pre-scare' phase with regard to BSE also; however, the length of time between the disease becoming known to Government (November 1986) and its representation in the press as a serious potential risk to public health (perhaps June 1988, but arguably as late as the beginning of 1989) was enough to allow the development of some understanding within the ministries concerned that the disease at least had the potential to become an issue of public health. BSE was always likely to provoke calls for government action, particularly when its particular causative agent and epidemiological status were unknown. Salmonella by contrast was (and is) a well-understood bacterium which arguably did not need to be controlled by the state, but by the individuals who prepared food - essentially, the consumer. The 'pre-scare' phase of the Salmonella affair could then be characterised as the period in which government and industry were still convinced that home hygiene was the most effective defence against Salmonella poisoning, and that official regulatory intervention was therefore unnecessary; no such period existed with regards to BSE.

To illustrate this point in another way, Salmonella first emerged as a news story centred on the *consumer arena*; that is, it only became news because of the threat to humans from eating infected eggs. BSE emerged firstly as a cattle disease with little

risk to humans. The *industry arena* and *discourse* were therefore always a substantial part of the argument.

One of the main limitations of the nine box grid analysis concerns the grouping of the organisations and individuals involved into the three 'coalitions of interest' represented by the *state*, *industry* and *consumer discourses*. The potential for divisions within each of these coalitions has been discussed previously, and the analysis presented here cannot take any account of such tensions (a similar criticism is made by Schlesinger and Tumber, among others, concerning Hall et al's. characterisation of the Primary Definition thesis (1994: 17-21)). It is these kinds of complexities which need to be examined by going behind the texts themselves to the often hidden 'back regions' (Ericson et al. 1989) in which news organisations and source groups negotiate their relationships. Furthermore, such analyses as those presented above provide no information about what is *omitted* from the coverage, despite the possibility that omissions may well be crucially important in how news organisations and their sources construct and manage the news. Nevertheless, the nine box grid analysis does give some quantitative indication of the general themes and their relative strengths and weaknesses within the news coverage.

Chapter 8

News Production and News Management in Food Scares

The previous chapter highlights the limits of a purely 'text-centred' approach to the study of news, in that it gives rise to a discussion (of the processes via which news is produced) which can only be speculative. In this chapter I will 'get behind' media constructions of food scares by introducing material from interviews conducted with representatives of the main source groups and news organisations involved in the press coverage of salmonella and BSE. I will discuss particular examples from both Salmonella and BSE with regard to the wider theoretical (and empirical) issues. This is done in order to see how closely food scares, as a specific sub-genre of news story, comply with the more general theories of news production discussed in the literature.

Sources and journalists comprise the two main partners in the 'tango' of news production (Gans 1980: 116), and it initially seemed appropriate to divide the following discussion into those issues which primarily concern each of these groups; however, there are obvious overlaps in many of the issues, and both sources and journalists often make similar or connected comments on these issues. The following analysis therefore combines material from both 'sides', organised thematically, although it is clearly important to emphasise which perspective is prominent at the appropriate point.

While the specific circumstances of the organisations and groups involved in the particular food scares studied are of considerable interest, it should also be acknowledged that their activities are to some extent constrained by determinants which transcend particular circumstances. Their constitution as pressure groups, interest groups, or as activist organisations, and the extent to which they reflect a 'coalition of interests', provide structural positions with regard to other organisations including those representing the media. The case study food scares can therefore be understood not just in terms of the specific negotiations and interactions involved, but also on a more 'macro' level in terms of the relative structural positions of, and constraints on, the organisations concerned. For instance, those organisations with links to industrial and commercial concerns can be understood as being driven by private interests, in contrast to those groups and organisations without such links which champion *public* interests. This can perhaps be characterised as a distinction between organisations *of*, and organisations *for*. A further distinction can be made between those organisations which are and are not autonomous from government; the

latter are excluded from some definitions of the term 'interest group' (Richardson 1993: 1). Thus, the Meat and Livestock Commission can be understood as an organisation *of* the meat industry, promoting private interest and with direct links to government. By contrast, the Consumer Association has few government connections, and promotes the public interest surrounding consumer issues. Nevertheless, such distinctions are rarely clearly defined, and it is often the case that such factors can co-exist within any particular group. Thus, the Meat and Livestock Commission might arguably claim a commitment to a wider public interest in their attempts to ensure provision of cheap and safe meat products; certainly the Food and Drink Federation, an organisation *of* food manufacturers, implicitly claims some wider public interest as represented in its "food fitness healthy lifestyle campaign" (Food and Drink Federation 1996: 26). Of course the public relations aspect of such arguments should never be underestimated; however, such issues do help to illustrate the extent to which elements of the different types of pressure group can overlap in the same organisation¹. These elements help to delineate and constrain those organisations, and much of the material in this chapter provides evidence of the structural determinants on which the relative strengths, weaknesses and positions of the organisations involved is based.

Organisational Structure

One of the key elements in the analysis of the production and management of news therefore concerns the structure of those organisations which are vying for access to and control of the news agenda. It is unnecessary to set out the details of each of the source groups involved in food scares discussed here; this section highlights, by way of example, a number of points concerning a few of the relevant organisations.

While the Food Commission is a very small group (4 people) producing a quarterly magazine, the Consumers Association produces a number of magazines on various topics and employs around 500 people. Their food and health group consists of 15 people, augmented by three who work on their *Which Way to Health?* magazine who might also be interested in food issues. Both of these organisations are careful to be seen to be independent, relying entirely on subscriptions, and taking no advertising for their publications.

¹Indeed, there is a body of literature in which the nature and role of pressure groups has been analysed and discussed (e.g. Richardson 1993; Smith 1993; Wilson 1984), but which is essentially beyond the scope of the present study.

The National Farmer's Union is a trade association with around 100,000 full members as well as 26,000 associate ('countryside') members. The organisation is split into nine regional offices, each of which has a combined public relations and press officer; the London HQ has a three-person press office, which is in turn part of the public affairs department. Clearly, the NFU is a large and complex organisation; Chief Press Officer Trevor Hayes suggested that its structure could be likened to that of a government department - "...you have a political element and a secretariat element..". There are a number of published outlets for the NFU which go out either to their members or the media, as well as more ad hoc measures such as question-and-answer sheets on particular issues which are sent to representatives and members as and when required. The Federation of Fresh Meat Wholesalers is also a trade association, located a little further along the production chain from the farmers. It represents the vast majority of slaughterers and wholesalers of beef, pork and sheep meat in England and Wales and is organised into six "loosely autonomous" regions. It survives on the subscriptions of its (approximately) 100 members.

As government departments, MAFF and DoH can arguably be seen as different facets of the same monolithic organisation; however, as we shall see, the divisions and contradictions between these two arms of state suggest that they are better understood as separate, if related, organisations. Perhaps the most pertinent difference is the ambiguity of MAFF's position whereby it is responsible for the safety of food and food production while also working to actively promote the interests of food producers. By contrast, DoH is perhaps more straightforwardly responsible for public health.

Inter-organisational Contacts²

When asked about contacts with other organisations, Trevor Hayes mentioned the NFU's recent joint events with Friends of the Earth, the National Federation of Women's Institutes, and the British Medical Association. Perhaps more predictable are their contacts with the British Veterinary Association and the Meat and Livestock Commission, both of whom are recommended to journalists who need information which the NFU feels unable to provide.

²Such contacts represent a difficulty for studies such as this, as they are likely often to be conducted privately in 'back regions'; while some speculation and extrapolation might be possible, it is generally difficult to assess the effects of these private contacts. Nevertheless, their existence is in itself an indication of the relationships between various organisations.

Indeed, the M&LC is seen by the Federation of Fresh Meat Wholesalers as an important umbrella organisation, able to co-ordinate and plan the kind of industry-wide policies which organisations like the federation are unable to arrange; even though the federation might provide the initial idea and background information, promotional activity among opinion-formers and policy-makers such as MPs is generally left to the Commission:

"...so I think something like the MLC is the only organisation that actually encompasses the whole thing, sort of from farm gate to plate."

(Interview: Peter Scott, Federation of Fresh Meat Wholesalers)

The Federation has "weekly if not daily" contact with the MLC, and works to make sure that the Commission's substantial funds - derived from a levy on every animal slaughtered - are harnessed to the benefit of the whole industry. Regular contact is also maintained with MAFF; Scott stays in touch with the senior civil servants who brief the minister ("the, sort of, under-secretaries") as well as the heads of the Animal Health Division, the Meat Hygiene Division and the Veterinary Division. He also meets the minister "two or three times a year". Further contacts exist at the level of the European Union, an institution which clearly has an increasingly important role in the industry. Scott emphasised the need to get to the policy-makers in Brussels before decisions are taken; by the time the proposal is passed through national government to MAFF and the industry, it is too late to substantially affect the outcome.

Such contacts and connections to some extent reflect the interdependence of the various representative organisations of the food producers, and particularly the meat industry. While each organisation has (as we shall see) specific interests, they can clearly come together as a 'coalition' to support their wider needs and concerns.

'They come to us, we go to them'

A further distinction between the various organisations concerned relates to their readiness and ability to promote their own arguments and agendas to the media; the need to be 'pro-active' in presenting their arguments may therefore be an important issue, as well as the need to provide journalists with comments and quotes on pre-existing news stories. The Consumers Association for instance has 'rigorous procedures' to follow when a press release is issued, concerning how a story is identified as worthy of such treatment, how and by whom it is written, and who sees it within the organisation before it is released. Jackie Graveney feels that these can sometimes be "cumbersome", and it is often simpler to go directly to the Press

Association if a quick response is necessary. Another way of getting their arguments across is to go to a journalist who is known to be interested in particular issues.

Goldenberg's discussion of the images projected by news source organisations noted that some groups find it difficult to develop a 'positive' image, and that such groups often attempt to avoid media coverage (1975: 23). The Federation of Fresh Meat Wholesalers would prefer not to have to engage with the national media; Secretary Peter Scott seemed to feel that the public had a rather morbid interest in "...the business of turning an animal into meat...", an interest which should not be encouraged. As his members were in a sense in the middle of the chain of production, between the farms at one end and the retailers at the other, they were not - or need not be - in the public eye, and Scott therefore felt that for his particular sector of the industry, no news is good news ("...you raise the image of meat, you run a risk."). He recognised, however, the need to move towards a more 'pro-active' position, and regretted that press releases were issued quarterly at best; but he believed that it was impossible to act preemptively with the national daily press due to their news values and professional imperatives:

"...you can't go pro-active with them, they don't care about good news, they want a response to a scare, or a response to a story, but if then I write back two weeks later...they're not interested. It's either too late, or it's the sort of good news that is no news..." (Interview: Peter Scott, FFMW).

He noted how, during the media coverage of the live exports demonstrations (in which animal rights protesters blockaded ports involved in the export of live animals for food), he was anxious to get the media to acknowledge that there was an alternative: "...we'd rather they were slaughtered here, because it's jobs for us..."³. His pro-active strategy, sending out a press release to about 25 media outlets, produced a disappointing response.

Scott also laments the failure of MAFF to react quickly to 'scares', such as BSE; along with the Consumer Association's "rigorous procedures" with regard to press releases, this is perhaps an illustration of the problems that larger organisations can encounter in dealing with the media. The need to confirm, refer back, and upwards, can inhibit the production of a rapid response unless effectively streamlined procedures are in place.

³This also suggests a conflict between sections of the meat industry; see the following section on 'source group conflict'.

Scott talks to the broadcast media more than the national papers, particularly R4's *Farming Programme* and *Today*, but he is "leery" of half-hour TV discussion shows, whose invited audiences, he feels, are often unrepresentative, and where he might be "manoeuvred" into difficult positions. He is occasionally asked not only to provide spokespersons for the media, but also to provide access for documentary makers to abattoirs, a service he is reluctant to provide. He feels that the slaughtering process is so obviously unpleasant that individual abattoirs' reluctance to allow filming is understandable. He often offers film-makers the use of M&LC approved official training footage "...showing best practice..."; although it may not be particularly welcomed by the film-makers, this is effectively an informational subsidy which allows the Federation to retain some editorial control over at least a section of the documentary.

Helen Dickinson of the Food and Drink Federation acknowledged that her organisation, which represents the interests of many of the large food processing and manufacturing companies in the UK, acts both reactively and pro-actively. As an example of active promotional work, she discussed the issue of genetically modified food which, she said, was

"...perfectly safe, perfectly ethical... it's using man's [sic] brainpower and development to further the good of food production just as has always happened throughout the ages..." (Interview: Helen Dickinson, Food and Drink Federation)

In order to put across this assessment, the Federation organised a number of "forums" across the country to which both public and press were invited in order to provide opportunities for questions to be answered (presumably by food industry representatives). This is seen by Dickinson as a "gentle" approach to a sensitive issue:

"...we're just saying 'here's the information, here we are, come and ask us, here's the material' " (Interview: Helen Dickinson, Food and Drink Federation)

While this may indeed be a relatively careful and tentative approach, it nevertheless implies that more direct methods might be employed in other circumstances, and the organising of a *series* of 'forums' underlines the organisational resources of the Food and Drink Federation and the strategies available to it.⁴

⁴The Food and Drink Federation's approach to the role of science information, in its focus on the

Source group conflict

One of the main requirements for any attempt at news management is to avoid divisions within source organisations. The existence of alternative, conflicting official accounts is one of the reasons for journalists to doubt official versions (Fishman 1980: 100). When the organisation presents as many different public faces as a government, such unity is likely to be strained occasionally; Harris for instance describes the divisions on exchange rate policy between then Prime Minister Mrs Thatcher and her Chancellor Nigel Lawson which were expressed in conflicting press briefings. The following newspaper speculation led to a financial crisis costing, at a conservative estimate, around £100 million, because, as Lawson admitted, the financial markets had received the impression that the Government's divisions had affected its ability to govern effectively (Harris 1990:123-6). Similar divisions are potentially possible in the three main news source groupings - Government, Industry, and Consumer Groups - although it seems that in the case of the present food scares it is the first two of these where divisions are most evident.

- *Government*

Almost all those journalists spoken to asserted that throughout the build-up to the salmonella scare, and well into the scare itself, the Government failed to present a united approach (see Molotch and Lester 1973; Ericson et al. 1989). Gillie felt that MAFF and DoH were "at daggers drawn" over the issue. Of course, such divisions are to some extent perfectly understandable, in that each of these departments has different responsibilities and concerns. The conflict between the Department of Health's responsibility to public health and MAFF's support for the farming industries in this case however seems to have reached a heightened level.

John Coles of the British Egg Industry Council recalled the meetings held between his organisation and both MAFF and DoH which became "really heated" due, according to Coles, to the hostility of the public health officials present, particularly Bernard Rowe, Director of the Division of Enteric Pathogens at the PHLS. Further meetings were held in an attempt to agree a course of action, at which MAFF were perceived by Coles to be a calming influence while DoH pressed for a warning press

education of an ill-informed public, can also be seen as echoing traditional notions of the public understanding of science and risks; any criticisms of biotechnology and genetically-modified foods are, from this perspective, the result of a failure to grasp the logic of the historical, technological development of the food industry.

release/statement to be issued. Coles was apparently aware at the time that such a warning would be seized on by the press, and warned of 'Killer Eggs' headlines which the industry could not afford. When a public warning was eventually issued in August 1988, the front page headline in *Today* newspaper was "Killer in your Egg" (27.8.88).

There seemed to be a feeling among the industry sources spoken to that a large part of MAFF's remit is to protect the food industry from instability and such a perception is clearly rooted in the history of food production in Britain, particularly with regard to the experiences during and after the second world war (Smith 1991). Coles felt that MAFF took (initially at least) a "low-key" approach to the problem ; others, such as environmental health officer Richard North felt that MAFF were essentially incompetent in allowing the issue to be 'driven' by the DoH, implying that perhaps a more alert, more 'pro-active' MAFF would have produced a more robust defence. It certainly seems that the two ministries took significantly different approaches to the issue. Coles believes that the salmonella affair caused a "rift" between the respective Secretaries of State, Kenneth Clarke and John MacGregor.

Oliver Gillie of the *Independent* felt that that division was reflected in his own opinions as medical editor (in which he sympathised with the Chief Medical Officer, Donald Acheson), and those of the *Independent's* agricultural correspondent, whose main source during the affair was MAFF's Chief Vet, Keith Meldrum. Ericson et al. noted that specialist correspondents often see the relevant Government department as the "ultimate hub and repository of the story" (1989: 269), and their articles tend to reflect this. It is not surprising then that officials at or near the top of those departments are often among the most highly prized of sources⁵.

The division between the two reporters which Gillie recognises has to be seen as part of the process in which specialist journalists become increasingly dependent on particular sources (Negrine 1993:13) and become "part of the organisation they report on" (Ericson et al 1989: 268). While Gillie explicitly accepted that such might be the case, there were other indications that such a process could be discerned in the coverage of the salmonella scare. Dover's sympathy for Currie extended to the PHLS, which as a source was considered to have "very high credibility - the standards of their science are excellent". MAFF however is seen as protective of the food industry, and has "an attitude of secrecy". This view was qualified by one consumer specialist who

⁵Of course the role of non-specialist editors and sub-editors may well help to reduce the effects of such distinctions, in that they may well seek to 'balance' the strengths and limitations of such sources.

felt that DoH were generally more likely (than MAFF) to take the consumer's side on any issue unless it involved the pharmaceutical industry:

"..in which case they are there to protect the drug industry, and make MAFF look sweet!" (Interview: broadsheet consumer correspondent)

Notwithstanding the influence of the pharmaceutical industry, the largely critical attitude towards MAFF was not universal. One agriculture correspondent had a generally less critical view of MAFF, arguing that they are now trying to be less secretive. When asked whether he was aware of any conflict between MAFF and DoH, he responded that DoH were "appalling" (in the sense, I think, of being incompetent) and had promoted bureaucracy and ineffective regulations in trying to eradicate salmonella from hen flocks, which had been tried, and had failed, in Sweden. This, he felt, had been a "huge PR Exercise". In fact he came close to confirming Ericson et al.'s thesis (ibid: 269) when, asked about his relationship with representatives of the agricultural industries, he suggested that:

"Part of my job is to put the other side of the picture" (Interview: broadsheet agriculture correspondent)

This is an admission that, at least occasionally, he takes an advocacy position⁶; or perhaps it merely involves allowing the agricultural industries access to the media which would otherwise be denied. Such a denial would presumably be seen by the journalist involved as unfair, and access is presumably an attempt to provide balance across the newspaper as a whole rather than within each story. The implication is that other parts of the newspaper, perhaps such as those written by consumer or health correspondents, present only a partial view of the issues with which an agricultural reporter might be concerned. More widely, media access for the industry position might be justified as an act of balancing not across one particular paper but across the media as a whole; the 'other side of the picture' here would, perhaps, correct a perceived 'anti-industry' bias. Of course this implies a rather narrow perception of any such conflict, by suggesting that there are only two sides to any particular story. While providing balance between the two, it renders invisible the many other possible interpretations which could be put forward, privileging the interests only of those who can gain access to the journalist. With specific reference to the conflict between DoH and the 'health establishment' on one side and MAFF and the food industries on the other, it is clear that a quite narrow range of interests are represented.

⁶Indeed, one agriculture correspondent claimed that many of his colleagues on other newspapers "...see their job as being to represent the views of farmers...".

- *Industry*

Divisions were apparent within the industries involved in both the BSE and salmonella case studies. The egg industry in particular seemed to be riven with antagonisms stemming from the reorganisation of the industry in the mid-1980's, in which the Eggs Authority, an organisation funded via a compulsory levy on producers, was abolished by government, and effectively replaced by a voluntary organisation, the British Eggs Industry Council. These divisions were rooted in the divergent interests, noted in many sectors of commerce, between larger conglomerates and smaller independent organisations (Gandy 1982: 46). According to Keith Pulman of the UK Egg Producers Association, the larger egg producers did not want to pay the levy, and felt they could make better use of the money by promoting their own brand names rather than investing in generic product advertising. Clearly this was not in the interests of small 'independent' egg producers, and their protests led to the setting up of UKEPA. By the time of the salmonella scare, BEIC represented organisations with interests outside egg production (such as those conglomerates which also produce broiler chickens and other food products), and was the 'official' organisation with access to government and a say in policymaking, while UKEPA represented the smaller independent egg farmers who were essentially relegated to the status of a pressure group, and were not consulted on the joint government-industry response to the scare:

"...they [BEIC] had the ear of government, they had the clout..."
(Interview: Keith Pulman, UKEPA)

The divergent interests between the members of the two representative organisations provided the basis of one of the main disagreements between them, which focused on the 'broiler' interests of the large producers. These are chickens bred to be eaten rather than as egg layers, and it is accepted within the industry that salmonella infection in broiler chickens is widespread⁷. UKEPA felt that the timid response of BEIC to the looming threat of a salmonella in eggs scare was due to their fears that to talk about the issue might raise questions concerning broiler infection; in effect the broiler industry were using eggs to shield them from media attention:

"...certainly the [broiler] meat trade were quite happy to let the egg trade keep on taking the flak. It was quite important to them that [the

⁷Which? magazine reported in October 1994 on a Europe-wide survey which found that 36% of the raw chicken samples from the UK were infected with Salmonella, putting the UK third from bottom of 14 countries.

egg producers] went on taking the flak." (Interview: Keith Pulman, UKEPA)

Pulman pointed to the funding of BEIC, which benefits from the large organisations involved in both egg and broiler production, as evidence supporting his argument that the 'real story' - salmonella infection of broiler flocks - was effectively suppressed. The chairman of the BEIC, John Coles, felt that UKEPA were a "bunch of hotheads" whose inflammatory approach would do nothing to reassure the public; they were denying the problem, whereas Coles felt a more constructive approach would be to draw up a code of conduct, and find ways of reassuring the public by monitoring flocks and cleaning up the industry:

"I was trying to be responsible, but then you had the other side, which probably sums up the smaller producers, who just didn't want to think they had a problem, were not prepared to accept they had a problem.[...] You are talking about people who would do anything for a quick buck, so you can't really take any notice of them." (Interview: John Coles, BEIC)

While the large egg producing organisations felt that, at least in the early stages, they could afford to 'ride out' the storm, the smaller organisations were desperate to defend their interests.

The lack of co-ordination within the industry is demonstrated by the conflicting accounts which appeared in the newspapers. *Today* quoted UKEPA (6.12.88) as stating that 'all British hen flocks are now free of salmonella'; the following day the NFU admit that it is impossible to eliminate salmonella from poultry flocks (*Today*, 7.12.88). The *Sun's* headline on 6.12.88, 'Fury hits Edwina as egg sales nose-dive' (named sources are Thames Valley Eggs and Tesco) is flatly denied by the *Guardian* report on the same day, in which;

"The British Egg Industry Council says it is too early to gauge the effect on sales of the health alert and of Mrs Edwina Currie's weekend remark that most UK egg production was contaminated by salmonella." (*Guardian*, 6.12.88)

These contradictions are not of themselves particularly important in the wider arguments surrounding the scare. They do however help to illustrate the lack of a co-ordinated approach within the industry. Indeed, Jim Reed from UKASTA (which represents the producers of animal feed) noted that the divisions between the "two

distinct camps" in the egg industry continued through to the select committee hearings in February 1989 at which point they "started to get their act together":

"That sounds like harsh criticism coming from me, it wasn't my concern what they were doing. But it didn't help the total industry get a coherent story over, and I mean we were concerned about that. [...] I think the egg industry was hit so hard by this crisis breaking that it was very easy for them to be fragmented and for different stories to emerge." (Interview: Jim Reed, UKASTA)

Reed located such fragmentation not just between the two 'camps', but also within the smaller 'producer-retailers' (represented by UKEPA) who, as 'independent' entrepreneurs were more likely to offer "all sorts of different views".

Source organisations had a strong perception of the "wedge-driving" techniques of some journalists. If the tabloids were indeed asking for comments in order to "see if you could get a row going" (Patrick Hennessy, Consumer Reporter, the *Sun*), some organisations were in a better position to avoid this than others. The splits within the egg industry certainly allowed some divisions to surface; this contrasts to a certain extent with the association which represents the agricultural feed industry, UK Agricultural Supplies Trade Association (UKASTA). Although their interests were in a sense secondary, the commercial effect of the salmonella scare included both the direct effect of a reduction in sales of poultry feedstuffs due to the fall in egg consumption and the laying flocks slaughter policy, and also an indirect effect due to the suspicion that poultry feed was one of the main routes of salmonella infection in laying flocks. This second effect in particular - a problem of their own, rather than one 'down the line' - meant that a more active strategy became necessary.

UKASTA hired a PR consultancy in order to co-ordinate and plan a strategy, which had two main objectives. Firstly, the feed industry wanted to explain the roles of the different sectors within the food industry as a whole, in order to "differentiate ourselves...from others". The effects of this could be seen, according to Jim Reed (Director General of UKASTA), in clearer reporting of UKASTA's position in the later stages of the coverage. The second main objective was to focus on "MP's and other opinion formers", attempting to convince them that the feed industry was not to blame for the salmonella scare, and was not "bad news" in a more general sense. This second objective led to UKASTA preparing a number of briefings for MP's who had agricultural interests or were members of parliamentary agricultural committees (what Reed called a "key target audience"), and Reed felt that this resulted in the Select

Committee report of March 1989 giving the feed industry "a pretty clear bill of health". This then was a two-pronged assault; the first on media representation of the feed industry, the second on those particular individuals with direct power to affect the working practices within the industry.

UKASTA's attempts to control and channel media discussion of their role in the salmonella affair also included steering journalists away from individual members of the association and vice versa. This was due to the association's attempt to "give a very co-ordinated and coherent story" through news management. No joint action or strategy was developed between UKASTA and the egg industry (although they have "friendly relations" with the BEIC); however, UKASTA tried to keep "the egg industry" informed in order to prevent journalists from exploiting possible divisions between them; and in UKASTA's opinion (as with government), 'the industry' clearly meant BEIC and the major egg producers.

The UK Egg Producer's Association (UKEPA), who represent smaller independent producers, had a much less co-ordinated approach, which "evolved" without any specific strategic planning. Asked how quickly their 'message' emerged, and whether their approach was defensive, Warren suggested that planning meetings were deemed unnecessary because:

"We were all on the same wavelength...we were all so convinced in our own minds that we were right..."; "that was our line: 'There is no problem with eggs'" (Interview: Dennis Warren, UKEPA)

UKEPA felt that they successfully gained a substantial amount of coverage for their own position (at least in comparison with BEIC), despite their lack of a formal strategy, because of their policy of offering the media 24 hour access to spokespersons; in other words, a kind of 'blanket' approach. Nevertheless, both BEIC and UKEPA became aware that in their situation, getting quoted and gaining coverage, particularly in situations where the thrust of their argument could be reinterpreted, or even excluded, was of little positive value. Coles (BEIC) would generally only appear on TV if the interview was to be broadcast live, and UKEPA also eventually came to a similar conclusion:

"If they said 'we'll come and talk to you about it', in the end we were saying 'we won't do it'. But we would go in and do a live programme because you could put across what you wanted and they could do nothing about it." (Interview: Keith Pulman, UKEPA).

Ericson et al. note that such a strategy can also lead to source organisations avoiding print journalists (although this wasn't generally apparent in this instance) in attempting to prevent "decontextualization" of their position (1989: 292). This entails the reinterpretation and juxtaposing of the source material in order to minimise its value to the source organisation, although from a different perspective such a process could equally be called 'contextualisation', as such work is presumably done by journalists in order to produce a context for what could be seen as partial and misleading material.

The 'red meat' industry is in some ways similarly divided; Peter Scott, secretary of the Federation of Fresh Meat Wholesalers, listed eight other organisations representing the various sectors and regions, including the British Meat Manufacturers Association (specialising in pork and 'meat preparations'), the International Meat Traders Association (mainly importers of meat), the National Catering Butchers Association, the National Federation of Meat and Food Traders (largely representing small retailers, some of which may also be involved in slaughter), the British Retail Consortium (comprising the major supermarket chains), and the Quality Meat and Livestock Alliance (representing small rural slaughterhouses). Each of these sectors of industry have their own interests, and at times conflicts can arise. For instance, the Federation of Fresh Meat Wholesalers, representing the vast majority of slaughterers and wholesalers of red meat in England and Wales, were keen to make a point to the press during the media coverage of the protests against live exports of sheep and calves in 1995. Clearly the exports were taking place because this represented the best deal for the farmers, and also provided work for hauliers and other related organisations; however, this was a lost opportunity for British slaughterhouses which would of course have preferred the animals concerned to be killed in their abattoirs:

"I wanted to make the point that the media was actually missing a vital link in this, which is that if the animals were not exported alive, there is a perfectly viable alternative in this country, which they didn't seem to want to know about." (Interview: Peter Scott, FFMW)

Scott admits that the alternative he proposed did not gain much media coverage, perhaps because it was overshadowed by the more newsworthy conflict between protesters and exporters. Nevertheless, this illustrates the potential for divisions within the meat industry.

Perhaps one of the main differences between the egg industry and the meat industry is that the latter has, in the Meat and Livestock Commission, a large, well-funded

umbrella organisation which is, at least in extremis, accepted by the main organisations involved in the industry:

"I mustn't overstate [the MLC's role as an umbrella organisation] because policies which I might embrace on behalf of the commission aren't necessarily their policies, but as we're probably talking about what I would describe as perhaps food scare crisis management, on behalf of the industry, very often they're happy to devolve responsibility to us, and we're happy to play that role." (Interview: Ambrose Landon, Meat and Livestock Commission)⁸

The position of the MLC cannot guarantee a united position, as there are potential disagreements not just between those organisations within the remit of the Commission, but also between them and outside organisations such as the National Farmers Union which itself may well have conflicting interests. Peter Scott of the FFMW hinted at such tensions when he explained his attitude to possible new regulations concerning the testing of carcasses, which might necessitate inspectors on the abattoir production line:

"...if we're talking about the need to take samples, greater samples, then we would argue that that ought to be done on the farm, let's do more checking at that end of the business..." (Interview: Peter Scott, FFMW)

He argues that farm testing is more sensible in that it allows time, if problems are discovered, to protect the consumer, whereas by the time abattoir tests are processed, the meat may already have been distributed and sold. This may be a convincing argument, but it would no doubt provide a potential source of conflict with farmers who would perhaps be against any further regulation at their end of the food chain.

Nevertheless, the antagonisms which divided the egg industry were largely absent from the meat industry, and the commanding publicity role of the MLC provided fewer opportunities for the tensions which inevitably exist in such heterogeneous industries to emerge. In the case of BSE the most important ambiguities derived not from industry groups but from science (see chapter 10, 'Food Scares and the Risk Society').

⁸Some organisations have little in the way of a 'public face', even in non-critical times; the British Meat Manufacturers Association generally do not 'deal with the media' and would not speak to me, suggesting that I talk to the Meat and Livestock Commission.

- *Consumer Groups*

The need to present a united front is in a sense less of an issue for groups which are clearly understood by journalists as distinct pressure groups with their own specific agendas; divisions within or between source groups are newsworthy largely to the extent that the organisations concerned are authorised, accredited sources. There was certainly a difference of emphasis between the Consumers Association and the Food Commission, in that the latter was less willing to take up an adversarial position; nevertheless, such differences between groups outside the policy community generally seemed to be of little wider journalistic concern.

Source Group Credibility

It seems that there are two types of credibility involved which, while closely related in practice, can be understood separately. Firstly, there is the *organisational* credibility which is generated by a source group when it acts effectively and efficiently in dealing with the media⁹. This of course may well be, to some extent, a matter of resources, but is also a matter of a perceived professionalism. Lobstein noted how, at the Food Commission, they needed to think quickly in providing 'quotes' and that this was a skill which came with experience; the Consumers Association was also keen to work quickly in helping journalists:

"...if people know they are going to get a quick response and someone who knows what they are talking about, they're more likely to come back." (Interview: Jackie Graveney, Consumers Association)

The Consumers Association's credibility with journalists rested not only on the organisation's professionalism, but might also have been a function of the breadth of issues they were concerned with. As Jackie Graveney suggested, journalists who cover a similarly wide range of stories, such as consumer correspondents, have contact with the Association at a number of different points; this might well help to establish the organisation as a broad-based, and therefore authoritative source. This is perhaps best understood in relation to journalists' more sceptical approach to what they see as less reliable 'single-issue' groups.

⁹The notion of organisational credibility can perhaps be compared to Gans' 'productivity' as a criterion of the suitability of sources for journalists (Gans 1980: 129; see 'source selection, source authority', chapter 1); while covering similar territory, the latter arguably places more emphasis on the *quantity* of available information, rather than the professional way in which it is organised and disseminated.

The second kind of credibility is more to do with the content of the material provided, and might be called *informational* credibility. Here, the source organisation needs to ensure that its position is perceived as tenable, realistic, that what it says is accurate and justified. Clearly, organisational credibility can help to enhance the level of informational credibility. It is here, however, where the perceived authority of science becomes important. Lobstein noted that there were scientists on both sides, industry and consumer, and while he obviously felt that those on the consumer side were more likely to be objective, he seemed to imply that 'truth' was not a particularly relevant aspect, and that the discussion depended more on the weight of rhetoric; he also suggested that many 'experts' were compromised by the influence of various types of commercial funding in academic and research institutions.

Tim Lang of the Food Commission implied the need to ensure credibility by adopting a consciously moderate tone:

"... we weren't arguing a hysterical case, or calling for, bringing down the government, or bringing down the meat industry, or that everyone should stop eating meat tomorrow..." (Interview: Tim Lang, Food Commission)

The criticism that the food industry was deliberately subordinating safety and hygiene to the desire for profits could imply an attack on capitalism in general, but such a criticism was not made. Lang was clear that such a fundamental attack would have produced a less sympathetic response from journalists than the more moderate approach they adopted. Murphy's analysis of the Stalker affair suggests that the alternative radical-left perspective (in which Stalker's position was far more ambiguous) was not taken up by journalists and did not gain wide publicity (1991: 132). Similarly, the wholesale critique of the food production process failed to materialise in the coverage of the salmonella affair; the continued re-emergence of BSE in the news did lead to occasional opinion pieces in which more fundamental critiques of the food production process did arise (for instance, Colin Spencer's "Food chain's deadly flaw" article on the comment pages of the *Guardian*, 12.5.94), but these were never part of the 'hard' news coverage. Schlesinger and Tumber's study of criminal justice news found that the pressure groups concerned aimed to avoid the accusation that they were increasing public fear of crime by refusing to supply 'victims' to dramatise media representations of particular crimes (1994: 99-100). This 'responsible' attitude is evident in Lang's approach; the media treatment of Professor

Lacey (see chapter 6, 'Calendars') could be cited as an example of the fate which befalls those who can be characterised as promoting 'irrational' fears.

Jackie Graveney of the Consumers Association felt that while the scientific aspect of their work was important in that it helps confirm their own position, the public should not be "...baffled by science into complacency". This implies firstly that science needs to be simplified (or popularised) for public consumption, and perhaps also that scientific evidence, objective and disinterested, might take second place to persuasion and rhetoric. Nevertheless a recent report in *Which?* magazine (6.10.94), comparing the prevalence of salmonella and campylobacter in chickens across 14 European countries, "...got an awful lot of publicity..." according to Graveney, in part because the scientific credibility of such a wide-ranging study, conducted by the consumer associations of each country, was likely to be high. Their figures were disputed however; the British Chicken Information Service suggested that contamination was due to poor hygiene rather than prior adulteration during production.

Some of those sources spoken to referred to themselves as journalists; the chief press officer of the NFU for instance felt that being a journalist helped him to "understand how journalists operate", but it clearly also implies that such individuals retain the professional commitment to notions of objectivity and impartiality which are part of the journalistic ethos. This suggests a potential conflict between these ideals and the role of spokesperson for an organisation with particular commercial interests. Tunstall has noted the attitude of journalists to those who work within industry when discussing trade journals and 'house' journals, which are considered to be highly uncritical, and are "scarcely regarded as being journalism at all" (1971: 11). Therefore, while those in industry might attempt to retain the credibility of the 'impartial' journalist, those in the media are largely dismissive. Despite this, journalism can still in some ways be seen as a 'bridging occupation' to public relations, not least because of the 'socialisation' process which can lead to journalists considering those on whom they report to be 'colleagues' (ibid: 65).

The work which source organisations do in promoting their own credibility pays off when journalists rely on them in the stories they write. *Guardian* environment correspondent Paul Brown for example explained how a story had been passed to him by a source who had received leaked information from the Health and Safety Executive. The story concerned the dangers to wild stocks of fish from a genetically

engineered species of giant 'super-salmon'¹⁰, and while the HSE were apparently concerned about the plan to breed such fish and the effect on other fish stocks if they escaped from the Scottish farm on which they were bred, they were not prepared to publicly discuss what was supposedly a confidential matter. In order to obtain the kind of quotes which the HSE would not or could not officially provide, Brown called environmental pressure group Friends of the Earth whose spokesman was able to make suitably critical comments. While this illustrates the ways in which journalists 'stand up' the stories they write, it is also an example of the credibility which organisations such as Friends of the Earth have with journalists, in that the group's comments were accepted not just as relevant and worthwhile in their own right, but also in this case as implicitly standing in for those of an official source organisation.

Resources

The range of source groups contacted had vastly different access to financial resources. The Consumers Association is clearly a large organisation, and as far as the Press Office is concerned, the problem of resources is not seen as a major obstacle.

Tim Lobstein mentions how the Food Commission is used by journalists as a database to gain background information as well as access to various experts and specialists, and how he sees this as a drain on their resources, in time as well as in informational terms:

"...they [journalists] fill their column inches somewhat at our expense; so it's the old grievance about servicing journalists all the time and getting little reward for it. We get good publicity which is something, but we get no income off it, which exhausts us and leaves us wondering why we are doing it..." (Interview: Tim Lobstein, Food Commission)

This could be compared with the information subsidies which larger organisations regularly provide for the media, from access to expert information to video news releases, which are produced entirely for free media use. Hornsby confirms from the journalists' side that such sources are contacted both to provide comments from their own organisational perspective, and as a conduit to background information from

¹⁰"Plan to hatch genetically engineered super-salmon in Scotland brings fears for future of native species", *Guardian* 13.11.95.

other sources; Crosbie explicitly acknowledges the help of organisations like the Food Commission:

"...who can put you in touch with some excellent people who can talk about food very authoritatively, and explain things and put them in context..." (Interview: Paul Crosbie, *Daily Express*)

Lobstein also notes that many journalists simply transfer official press releases into news copy without any checks or references to other views. This is also backed up by Bell (1991: 59) when he comments on journalists' preferences for copy that is already rendered into journalistic style.

The Consumers Association acts as a database for journalists, but most often provides them with material previously published by CA in their magazines. This means that the copyright on such information allows the CA to insist that a full acknowledgement is carried in subsequent articles. Again this means that the information is pre-rendered into a journalistic form (although not necessarily the most appropriate form), making it useful to a deadline-chasing reporter.

Schlesinger and Tumber have noted the trend during and since the 1980's for news source organisations such as professional associations and trades unions to accept the need for a more 'media-friendly' approach (1994: 51); larger organisations such as the NFU and the Consumers Association now have formal schemes for training their official representatives in how to handle the media, particularly with regard to broadcast journalism. Other organisations either lack the resources (Food Commission) or the will (FFMW) to engage in such pro-active preparations. Lack of resources might also be one of the reasons for the lack of effective media monitoring found by Schlesinger and Tumber (*ibid*: 66); UKEPA's news sheet carried an 'In The Papers' page which reprinted samples of relevant news coverage, while one of their members compiled a video archive, but these were clearly ad hoc, crisis-led measures.

MAFF Regulation of Industry

Most of the journalists specialising in the health/consumer arena accept that MAFF is protective and sympathetic towards the food industries (and this is not necessarily seen as a criticism). Gillie notes that "the authorities" are reluctant to enforce regulations; they see their job as:

"helping people [farmers] to achieve [their] aims by advice rather than prosecuting them" (Interview: Oliver Gillie, *Independent*)

This corresponds to Ericson et al's assessment of the state's 'compliance officers' approach to regulatory 'abuses'. State regulation is about signalling a position, signifying the general values and approach of the state rather than publicising and policing a particular 'line in the sand'. Regulation of the private sphere has ritualistic elements, and the possibilities of real control are:

"...circumscribed within the drama and ritual of symbolic politics, to the relative exclusion of instrumental penetration into the private organisation to effect change." (Ericson et al. 1989: 265)

The 'advice' which Gillie identifies is therefore conducted beneath the cover of the symbolic work which is the public face of state policing of the private sphere.

Linked to this idea is the notion that in order to maintain public confidence in certain areas, state regulators might wish to minimise the importance of any breach of regulation by putting it into the "proper perspective". Ericson et al. suggest that both police work and the dealings of the financial sector can be seen to fall into this category (1989: 271), and clearly this can lead to the regulatory body becoming an ally of the sector/industry in question, failing to maintain an impartial, policing role. The food industry can be characterised in a similar way, in that food production and the provision of adequate food supplies is a crucial part of the responsibility of the state towards its citizens. As the appropriate state regulatory body, MAFF has been argued by journalists and commentators to have succumbed to the protective role which Ericson describes (e.g. "A Storm in an Egg-Cup", *Independent* 17.12.88). In a report concerning the progress of the Food Safety Bill (*Guardian* 24.11.89), James Erlichman adds a footnote quoting 'new food minister' David Maclean that no producers or shops would be prosecuted due to salmonella contamination because "salmonella is a natural and endemic problem". This is perhaps technically correct; nevertheless, it could be argued that this implies that regulation is indeed intended as largely symbolic rather than punitive.

Wright suggested that MAFF and the industry were "hand in glove" and therefore likely to offer the same, agreed perspective; however, others noted that it was often possible to 'get around' MAFF by going to individuals within the industry who are much less likely to quote an official line. This particular journalistic technique has developed in response to a trend which has been noted by Ericson et al. (1989) who

suggest that while large corporations often tend to restrict the number of spokespersons in order to control the flow of information,

"Even organisations of minimal sophistication and scale know enough to limit their corporate face to a few select people."(Ericson et al. 1989:277)¹¹

By going directly to the individuals concerned, journalists can sometimes by-pass the 'official' version of a story; a fact which was of some concern to industry organisations who were eager to present a united front. One of their main problems in this respect was that the industry was not represented by a single organisation, and this allowed journalists to 'play-off' one organisation against the other. Each of the organisations developed a different strategy in handling the salmonella affair as it emerged, and the atmosphere of hostility between them, due (as we have seen) to previous disagreements about the general organisation of the respective industries, allowed further divisions to be exploited.

Journalistic balance

The need to reach some kind of 'balance' between competing interests and opinions is an element in the professional ethos of journalism, and those involved in the case study food scares acknowledged this requirement. Most commonly, the practice of starting with an action or comment from one 'side' and contacting the other 'side' for a reaction was seen as a safeguard against producing a 'one-sided' piece. Indeed, as a broadsheet science specialist noted, a disagreement between experts can become a story in itself. One tabloid consumer reporter suggested that this kind of 'balancing' also provides an opportunity to confront, for instance, a consumer organisation with a quote from an industry source, in order to "...see if you could get a row going...". This kind of conflict is clearly a staple of news in general, and perhaps tabloid news in particular, although the it might be argued that the more work journalists put in to generating such conflict, the more they move away from the tenets of 'objective' journalism to which they implicitly subscribe.

While balance for journalists was an item of professional competence, for the industry sources it was often seen as an obstacle to reaching the 'truth'. Some saw the standard technique in which a reporter would relate a comment from a previous source to

¹¹It should be borne in mind that Ericson et al's analysis, derived from Canadian data, cannot be unproblematically mapped onto the British experience. Nevertheless, in the particular examples given, the evidence suggests that valid comparisons can be made.

another in order to elicit a further response, as 'wedge-driving'; an attempt to create the impression of division and conflict in order to 'spice up' a story. This conception does come close to Hennessy's remark about trying to "get a row going", although most journalists might arguably see this technique as an essential tool of the reporters trade.

During my interview with Richard North, he raised a particular objection to the journalistic notion of balance relating to a specific period at the height of the scare when, in his view, the DoH attempted to "put a lid on" by refusing to field any official spokespersons. In this information part-vacuum, journalists looking for independent supporters of the thrust of Currie's argument - that there was indeed a major salmonella problem in eggs - found only two such sources: Lacey and Lang. Therefore, by striving for 'balance', reporters had actually distorted the story, at least to the extent of giving a higher profile than was appropriate to what North considered a minority, non-consensual viewpoint.

Sources advocating a consumerist argument seemed less likely to consider the notion of 'balance' as inherently flawed, although differing approaches were apparent. Tim Lobstein of the Food Commission was clear that his organisation's role was to provide a much-needed "counter-balance" in the media to the power of the industry:

"...we have to give them, if you like, the consumer view, the concerned consumer view ... that's our role if you like, the alternative to industry [...]. On food policy issues we are more likely to be a counter-balance to government, the Department of Health or the Ministry of Agriculture, but ... on consumer issues we'll be more industry-contrasting..." (Interview: Tim Lobstein, Food Commission)

Others were less comfortable with this essentially adversarial position; Jackie Graveney of the Consumers Association felt that the notion of 'policing the industry' might imply giving industry 'a hard time':

"I don't think we do, unless we think there is obviously an issue at stake, and we are always quick to praise them if they do something right." (Interview: Jackie Graveney, Consumers Association)

Graveney accepted that if 'letting the consumer know what was going on' constituted a policing role, then that was what they did, but she made it clear that the Consumers Association is about providing information rather than directly challenging industry.

A number of journalists accepted their role in 'policing' their subject area, although others seemed unwilling to commit themselves to what perhaps could be interpreted as a partisan position. While acknowledging the 'policing' role of his newspaper, one tabloid consumer correspondent emphasised that, at least when breaking a new story, "...it comes down to whether it is a good story or not." Gillie felt that although the industry might state publicly that a scare is counterproductive and unhelpful, they will nevertheless amend their practices behind the scenes. In this way he accepts the policing role which is a fundamental part of the 'fourth estate' conception of the media.

Journalists' selection of sources

For medical and science reporters, the specialist journals (*BMJ*, *Lancet*, *JAMA*, *New England Journal of Medicine*, *Nature*, etc.) act as an important initial source of possible news stories. Part of their appeal (as Wright suggested) is that they have already been peer-reviewed by the editorial board of the journal, and therefore carry a certain intellectual and/or scientific credibility and authority. Gillie felt that medical reporters can gain a broader medical education than some doctors simply through the wide selection of papers and reports that they come into contact with. This also allows journalists to "make cross-connections between things", a point also made by Wright who said that medical journalists can spot things which go un-noticed by doctors.

This 'making connections' is further helped by journalists' contacts with scientists and other figures within the scientific/medical community, which allows the reporter to 'bounce' a story between different sources in order to clarify and verify its main points. These sources also tend to have an 'inbuilt' credibility due to their social positions as authority figures; Gillie said that scientists generally don't say something unless they are absolutely sure of it. The respect which journalists have for doctors and scientists is perhaps also due to the ethos of professionalism to which both occupational spheres subscribe (see chapter 1 comments on Schudson (1978)).

One science correspondent felt that in assessing the credibility of scientific sources, the key factor was not so much the individual's reputation, but the reputation of the institution within which the source worked. While this may be a valid point concerning those institutions which can be argued to be in some sense 'independent'¹², other

¹²'Independence' in such cases often depends on the definition employed: University science departments may be considered independent in comparison with those scientists directly employed by MAFF, for instance, but much of the work they do may be sponsored by different arms of government.

journalists were less convinced that such a criterion was appropriate. A consumer specialist noted that many of those who appear on government panels and advisory committees accept research funds from industry, and questioned their 'independence', both in terms of their advice to government and as news sources. On a similar point, more recent newspaper reports concerning the BSE inquiry have noted the evidence of members of governmental advisory committees who feel they were pressed to avoid recommendations which might lead to an increase in public expenditure (e.g. "Closed minds let mad cows survive", *Observer* 29.3.98).

As a branch of central government it is perhaps not surprising that MAFF limits its public face by restricting journalistic access to civil service officials. Gillie felt that the MAFF press office could not be considered a "serious source" anyway; his solution was to go directly to the scientists who are usually his targets as potential sources. Their conception of themselves as "independent professional scientists", even if they are effectively employed by MAFF, enhances both the likelihood that they will be helpful, or at least not deliberately obstructive, and the likelihood that what they say will be given added credibility. One consumer specialist occasionally bypassed the MAFF press office by contacting a MAFF insider directly; only after receiving the required information does he speak to the press office, at which point he can 'ask the right question' in order to get the information officially confirmed.

The possibility of by-passing the MAFF press office (assuming that the journalist has developed the necessary contacts etc.) has parallels with the situation in the industry, where again individuals can be contacted in order to avoid the organisational 'party line'. This of course is due to the level of organisational constraints that each grouping can impose on its members. As an industry with more than one trade association, each of which is voluntary and developed specifically to represent different interests, the egg producers were clearly in no position to control the flow of information in the way that a single organisation (Ericson et al. seem to take the large corporation as an archetype) is able to do. Indeed, the BEIC and the UKEPA were in many ways generally hostile to each other, and the salmonella affair did little if anything to change that. In the circumstances, it is unsurprising that the egg producers were not all 'singing from the same hymn-sheet'.

MAFF of course does in one sense have the organisational structure with which to control information flow; as a large government department such control is considered vitally important. However, it has to deal with agencies and individuals working away from Whitehall who are not necessarily subject to the restraints imposed on the MAFF

officials themselves, and the scientist-as-professional is more likely than most to believe that her loyalties lie outside the narrow interests of the government department which (often indirectly) employs her.

The popular tabloid approach to stories involving scientific issues is somewhat different. Without the specialist correspondents that the broadsheets employ, they often use general news reporters to cover such stories. This has a number of implications. Firstly, as Hennessy confirmed, it means that there is no-one on the newspaper staff to trawl through the specialist journals, so that most of their science-based stories will tend to arrive via either a press agency or a broadsheet report. Either way, this means that the story has already been through the initial stages of the journalistic process, and in Molotch and Lester's (1973) terms has been turned into an 'event'. Secondly, it at least implies that as a general news reporter, the journalist involved will not have access to the particular, specialist range of contacts that a specialist might be assumed to have. This means that the credibility of scientific sources in particular are unlikely to be tested in the sense that a broadsheet reporter might canvas other expert opinion. Hennessy saw Lacey as an anti-establishment expert, and this was enough to allow him access to the *Sun* despite a credibility problem due to his "careerist" attitude; this contrasts with most of the broadsheet journalists' rather more critical assessment of his scientific integrity, rather than his personal integrity. The general news reporter will also be less likely to follow up connected science stories (such as the state of food research, the lack of funds etc.) that broadsheet specialists might reasonably consider to be worthy of attention. This may be one of the factors which help to make tabloid coverage of such stories quite so short-lived compared to the longer-term broadsheet attention.

As a news source, Edwina Currie received some sympathy from journalists concerning her role in the salmonella scare. Pearce Wright, who was then science editor of the *Times*, noted that, in his view, she was sacked for telling the truth. Paul Crosbie (Consumer Editor of the *Express*) suggested that she "seemed to talk sense", while Clare Dover of the *Express*¹³ noted that she was very helpful and accessible to journalists. This helps to explain both her 'media-friendliness' in general as well as (at least in part) the intensity of the specific coverage of the salmonella affair, and suggests a need to understand the structural position of such a news source (as an

¹³Negrine notes that as a specialist, Dover has covered a number of related areas; Seymour-Ure interviewed her as the *Telegraph's* science correspondent, and she also reported on social and welfare issues for the *Express*, as well as her more recent role as medical correspondent. I spoke to her while she was freelancing, presumably across all of these areas.

authoritative and 'elite' source) together with an awareness of her history of newsworthiness *and* her relationship with journalists and news organisations. It could be argued that Currie's comments concerning salmonella in eggs took her outside of government policy (they certainly led to her eventual resignation), and in this sense she could perhaps be characterised as a *former* authorised source. To some extent, her position echoes that of John Stalker as it is set out by Murphy, in that both were previously accredited sources who carried the associated newsworthiness into their roles as critics of the established order (Murphy 1991: 214). Of course Stalker's attack was perhaps more direct and intentional, while Currie's criticisms were arguably an unintended 'slip of the tongue' directed at industry rather than at the murky world of the security forces; nevertheless, their structural positions, in terms of source-journalist relations, were roughly equivalent. A further comparison can be made with the Stalker affair in that the authority of the police hierarchy in Manchester, and of Chief Constable James Anderton in particular, was already open to debate (*ibid*: 264-5); likewise, the groundwork of criticism concerning food poisoning and industry standards had been done by people such as Tim Lang and Richard Lacey, and therefore in both cases the individuals concerned were in some ways the 'flashpoint' for pre-established critiques.

Journalistic credibility

While journalists work to assess the credibility of their sources, they are also working to protect their own; indeed this is one of the institutionalised elements which lead to the widely criticised focus on official 'accredited' sources at the expense of unauthorised source groups. James Erlichman of the *Guardian* was keen to emphasise his disdain for those groups which are considered 'extremist', for instance some of those involved in animal rights:

"Well, the real bunny-huggers often dislike humans, it's all out of kilter, so there are some people you just ignore in every field." (Interview: James Erlichman, *Guardian* Consumer Affairs)

Schlesinger and Tumber note Goldenberg's (1975) suggestion that non-official resource groups will aim their strategies at papers whose perceived audiences and political stances are most likely to be receptive (Schlesinger and Tumber 1994: 29-30); Erlichman clearly felt the need to confirm that he is aware of such targeting, and is perhaps genuinely wary of such approaches, not least because he knew that any mistakes he made in his handling of such sources would provoke much criticism and he would be "blasted out of the water":

"You have to remember that I'm the first port of call for all good causes, because it's the *Guardian*. So maybe I have less tolerance for those kinds of people than a right-of-centre paper, because I can't afford to be seen giving them a leg-up." (Interview: James Erlichman, *Guardian* Consumer Affairs)

By contrast, a number of journalists from Conservative newspapers were anxious to affirm their independence from MAFF. Such assertions are played out in the selection and treatment of news sources, and represent a pull towards the (notional) centre, and away from perceived extremes on either side.

Tabloids and Broadsheets

It seems fairly well understood that for a number of reasons (including the organisational structure of different newspapers, the resources available, and the perceived audience), the broadsheets are more likely to follow, in depth and detail, a story with a technical, scientific nature than the tabloids. Jim Reed of the UK Agricultural Trades Association made the point that their aiming at particular broadsheet journalists was potentially effective in that complex technical stories such as this will be dropped by tabloids unless they are pursued by a broadsheet newspaper "doing a real piece of investigative journalism". He suggested that going to tabloid reporters directly would be a waste of time without supporting broadsheet coverage. This contrasts with the occasions when the broadsheets follow the tabloids; other tabloid items of popular cultural significance are regularly followed up by broadsheet newspapers, often under the guise of comment on the media coverage involved. The *Times'* agriculture correspondent noted the pressures on broadsheet newspapers in this respect:

"It's quite difficult if you get a technical story like mad cow disease, there was a lot of sensational tabloid coverage, and it is difficult to resist [sensationalism], but you have to strike a balance between keeping your editor happy and treating the story in the way you think it should be." (Interview: Michael Hornsby, *Times*)

The implication is that while the specialist's instincts are to minimise a story's sensational aspects, editors may, partly because of tabloid coverage, press for an emphasis on such elements. This emphasises the distinction between the news *processors* within the news organisation who are oriented towards the audience and their needs and expectations, and the news *gatherers*, who are oriented towards news

performers (i.e. sources) (Tunstall 1971: 34). Of course newspapers are continually monitoring each other in order to 'lift' anything they may have missed. But perhaps there is a particular relationship between broadsheets and tabloids, a kind of uneasy, and perhaps largely unacknowledged symbiosis.

Target audiences

The source groups can be characterised as aiming their messages at two distinct groups. Their general media messages are presumably aimed at the public in an attempt to inform, and to generally promote a public appreciation of their position. The Consumers Association in particular emphasises the importance of pressuring industry to provide information; with regard to the specific 'scares' around salmonella in eggs and BSE, Graveney suggested that one of CA's concerns was the "limited amount of information" with which the public was provided. Clearly, such messages rely to some extent on a particularly pluralist conception of the public sphere in which public information concerning such issues can act to counter the ignorance in which flawed and unjust policy decisions can be made (see later discussion of the public sphere in chapter 11).

Such messages might also however be targeted at particular groups which may have a direct or indirect influence on policy matters. Such target audiences may consist of those wider sections of society considered to be opinion-formers - i.e. those in influential positions, higher social and/or income groups etc. - as well as more specific parts of the policy community itself.

Lobstein suggests that the FC does not target particular media outlets because their subject, food, is of interest to everyone. This may also be a question of resources; indeed, the FC does not engage in the kind of lobbying and PR 'schmoozing' that is organised by a number of industry groups (e.g. UKASTA), mainly because it is too expensive. This however means that their strategy for promoting policy changes is directed solely through the public, in the belief that a change in public attitudes would force policy changes. This might be compared with, for instance, the preference of the Federation of Fresh Meat Wholesalers for a low public profile. They would prefer not to have a public face at all, and merely work 'behind the scenes' through their connections with other industry groups and with MAFF .

The Consumers Association have a database of media contacts comprising of 50 or 60 individual lists of different types of media. For each press release (which refers to

something within the latest magazine, a copy of which is always included) various lists are combined, depending on the types of stories included, so in this way the 'mail-shot' is quite specifically targeted at particular sections of the media. They also target the policy-makers with a 'parliamentary team' which ensures that the Association's position on particular issues, notably those currently before parliament, are brought to the attention of the legislators.

NFU's Trevor Hayes explained that as part of a recent public relations programme, consultants contact primary schools in order to arrange visits to farms which have been vetted to ensure certain standard facilities for their guests. This is done "...not to propagandise...", but is "...very much a case of taking on board public concern...", and is part of a move to win back public acceptance after what Hayes feels is a generation who have grown up with no understanding of the importance of farming. He implies that previously the NFU has ignored the public relations aspect of its business by looking inward. This might be understood in relation to Smith's (1991) notion of the shift from the insular policy community to a wider issue network; perhaps the NFU would hope that a more outward-looking role might alleviate the potential for such an 'issue network' to become hostile to the interests of the industries concerned.

Food as news

Food is attractive as a news subject for journalists in that it exhibits a number of newsworthy themes. Eating is ambivalent; it sustains life but potentially causes illness. It also embodies a number of traditions concerning how and when we eat which are challenged by newer patterns of activity, perhaps most notably the move from the collective family meal to individual eating. The growing diversity of the foods available to most people in Britain, and the lack of guidelines for the selection of such foods is a further potentially newsworthy tension (Beardsworth 1990; Gofton 1990) A number of the sources and journalists I spoke to were particularly aware of the journalistic interest in food:

"The subject I deal with is a very privileged one, there is a genuine public interest; everyone eats. And that's always a good starting point."
(Interview: Tim Lang, Food Commission)

Lang saw the news coverage of food scares as part of a reaction against what he felt was the "extraordinary cosmetic-ness" of many processed foods, and saw the Food Commission's task as making the connections between these 'cosmetic' foods and the changing production methods involved. Michael Hornsby of the *Times* felt that the

press interest in food was generally tabloid-led, and that broadsheets often followed when the 'popular press' had 'stirred it up', although there is little evidence for this in either the salmonella in eggs or BSE food scares (see chapter 6, 'Calendars').

Another notable element in the case study scares is that both foods are sold as generic products rather than branded foods. This contrasts with a number of other food scares which were limited to particular products (such as, for instance, Perrier mineral water). Clearly contamination of a generic food such as eggs or beef implies an industry-wide problem, whereas confinement to a particular producer or brand is potentially less of a threat to other producers. The larger producers in both the egg industry and the beef industry felt that some method of distinguishing and differentiating their products might help to reduce the impact of food scares. John Coles of the BEIC was also chairman of Thames Valley Eggs, and was clearly concerned that while his company tested thousands of eggs each week for salmonella, and never found any infection, smaller producers were less fastidious. The generic marketing of eggs and beef can be linked to the notion of 'purity' in the sense that such products are likely to be considered free from the processing and 'tampering' which may be expected of packaged, branded foods. Indeed, the surprise felt by Oliver Gillie of the *Independent* concerning the salmonella infection of eggs was derived from his belief that eggs with clean, unbroken shells were essentially a 'pure' food. The notion of oviduct transmission of salmonella meant that such a view was unsustainable; likewise, the infection of cattle with BSE via cattle feed infected with scrapie, denies the concept of beef as 'natural' and untainted.

Food scares and science news

Both Wright (*Times*) and Gillie (*Independent*) felt that some of the interest in the salmonella in eggs story, certainly pre-Curie, was due to the apparently new method of transmission which had been reported in a paper published in the *Journal of the American Medical Association (JAMA)*. This suggested that salmonella bacteria could be passed from an infected hen to an egg through the oviduct. This meant that an undamaged, otherwise well-formed egg could nevertheless be potentially infective. Gillie felt that even immediately prior to Currie's intervention, industry representatives were not prepared for questions concerning this new transmission method, and insisted on emphasising the cleanliness of shells, a position that failed to address the issue.

Reporting science as news generates particular problems. One of the difficulties in reporting science, according to Highfield and Dover, is the lack of space in which to

adequately explain what are often complex issues. A further problem concerns the lack of understanding of 'how science works' within the news organisation generally.

Wright makes the point that news editors are always looking for a definitive answer, a solution. This can lead to a clash with science reporters who have to explain that such solutions are not available; that science 'doesn't work that way'.

Highfield felt that science reporters are sometimes forced into becoming "science-triumphalists" (referring, I think, to the pressure to produce 'Gee-whiz' stories (Kreighbaum 1968) in which science makes an astonishing breakthrough). Stories which note that science is often ambiguous, and that scientists often disagree simply produce a "So what?" from news editors. This in a sense contrasts with other types of news in that disagreement and conflict in other spheres is seen as a positive news-value. Perhaps the difference is that such conflict in science is of interest to the specialist journals primarily, and only reaches the threshold of newspaper coverage if other criteria of newsworthiness are satisfied. The role of science in newspapers is to confirm facts; to bring authority to an argument (Highfield explained how one of his articles clarified the relationship between asthma, asthmatic attacks, and pollution). It is not considered to be an arena in which meanings and facts are themselves contested (unlike, for existence, parliamentary politics, industrial relations, crime and moral issues). While conflict within science, and between 'experts', might well be potentially newsworthy standing alone¹⁴, Highfield suggested that science as an element within wider news stories is generally expected, by news editors, to be explanatory and unproblematic.

Also, Highfield makes the point that newspaper features sections often have an arts bias which can lead to a narrow, occasionally hostile view of science. This reflection of the 'two cultures' within a newspaper is highlighted by Highfield's description of the "Hampstead BBC dinner party set" within (presumably broadsheet!) newspapers. He sympathised with the science writers at the *Independent* who "have to put up with Bryan Appleyard", a columnist and writer who has criticised "the appalling spiritual damage that science has done" (Appleyard 1992: xiv).

Highfield exhibited some sympathy for the perspective of the scientific establishment, again suggesting some truth in Ericson et al's view (1989) that specialist reporters can

¹⁴An example of this, certainly as 'feature' news, is the disagreement between Richard Dawkins and Stephen Jay Gould concerning the theoretical implications of Darwinian natural selection. A Guardian article headlined 'Feud for thought' noted the lack of substantive, fundamental disagreement between these two 'distinguished' scientists, and pointed to the irony of such committed Darwinists engaging in a dispute of "religious bitterness and fervour" (Guardian G2 11.6.97, p.2-3).

come to identify with the 'beats' they cover; although in this case he comes from a science background and the loyalty may pre-date his journalistic career. As a science journalist he sees the salmonella affair as important due to two of its aspects: the health issue, and the ever-present concern about the level of scientific research.

The food industries acknowledges the power of science as an authority in the battle for credibility in media coverage. Pulman (UKEPA) felt that many possible supporters with scientific backgrounds had failed to make their support public, not least because they were cowed by the institutional power of MAFF (who in his view supported a far too cautious approach, linked to the interest of the larger egg producers), and he was therefore relieved to receive the backing of Environmental Health Officer Richard North.

The sources spoken to accepted the importance of the scientific elements of the salmonella affair, and felt that scientific backing for their particular position was crucial. Coles recounted his attempt to counter adverse criticism by confirming, on national TV, that the doctorate of the Food Commission's Tim Lang was in sociology rather than medical science. By revealing this fact, which may well be irrelevant to the substance of Dr Lang's arguments, Coles was attempting to strip away from Lang the authority of science.

A further, and more systematic attempt to reduce the scientific authority of their opponents is evident in the more aggressive stance of Richard North and UKEPA. Richard Lacey was one of a number of scientists who were considered to have 'their own agenda' as self-publicists who:

"...make a bit of money out of it as well...[Lacey is] an instant expert at anything, provided there's a fee." (Interview: Keith Pulman, UKEPA)

Other scientists, particularly those who worked in or for the Ministry of Health, were considered to be either intimidated into avoiding the issue, or jumping on the bandwagon of criticism of eggs in order to 'make a name for himself', or to gain further research funds.

UKEPA enlisted Richard North because "he wasn't involved in any way", and his scientific background (as a qualified environmental health officer) gave his views the added 'cognitive authority' (Ericson et al. 1989: 279) which the disinterested scientist-expert is afforded. In his study of the ways in which lay-persons challenged the official view of the health risks produced by toxic waste, Brown (1992) lists the stages which

were followed by the community group involved. One such stage noted how the activists managed to enlist the help of two scientists who produced a health study which was both scientifically valid and supportive of their position:

"[the study] transformed the activists' search for credibility. They no longer had to seek scientific expertise from outside; now they were largely in control of scientific inquiry." (Brown 1992: 271)

By enlisting North's help, UKEPA were, in a sense, acting in a way similar to that of a non-official pressure group. They felt that as anti-establishment outsiders, they needed to counter the 'official' science of the PHLS and the DoH which implicated eggs in a number of salmonella outbreaks.

Most of the journalists spoken to acknowledged the difference between BSE and salmonella in terms of the wider scientific implications. Roger Highfield, *Telegraph* science editor, felt that the argument against BSE being any kind of risk to humans was based on an inappropriate set of assumptions¹⁵, because the agent of the disease had not been identified with any clarity. With a background in physics, Highfield felt that to make any predictive comment on such a disease "when you don't know what it is" is essentially unscientific. Thus, there was little in the way of 'hard' scientific information over which news sources could struggle.

Personalities

As we have seen, news sources are often subject to analysis on the basis of their structural position as representatives for particular organisations, with particular credibilities (e.g. Schlesinger and Tumber 1994). Certain individuals are also of interest to news organisations (partly because of their credibility as news sources, but perhaps more often due to their newsworthiness), and need to be understood on this basis - as *personalities* in the news. Indeed, the journalists interviewed often seemed to make points about news sources which were not confined to issues of structural position or organisational credibility, but seemed to emphasise the specific individual characteristics both of news sources and of news subjects.

In the salmonella in eggs scare, journalists acknowledge that Edwina Currie was one of the central driving forces, at least at the height of the story; Oliver Gillie, medical

¹⁵These inappropriate assumptions are perhaps comparable to those made by those following the traditional approach to risk analysis (see chapter 3); this issue is also related to the discussion of risk presented in chapter 9.

editor for the *Independent*, says that even immediately after her comments, it wasn't a high level political story but an "Edwina-watcher's story". Only after the reactions emerged did it become a full-blown political story. The *Sun's* light-hearted approach in the initial stages was credited by Patrick Hennessy, then the *Sun's* Consumer reporter, to Currie's being such a "colourful figure"; both he and Gillie mentioned events in Currie's earlier career as examples of her news-worthiness. Specifically, they mentioned the coverage of a speech she made in September 1988 announcing the Department of Health's forthcoming 'Keep Warm, Keep Well' campaign, in which she advised elderly people to prepare for the winter by investing in longjohns, knitting gloves and scarves, and "...get(ting) your grandchildren to give you a woolly night-cap" (Currie 1989: 209). This was presented in the newspaper coverage as a rather crass and arrogant comment, with cartoonists in particular making the most of what became her 'woolly hats for pensioners' gaffe.

Immediately after Currie's intervention, much of the coverage was hostile towards her; she was portrayed as having spoken rashly, perhaps due to her own over-ambition. However, this changed over the following days, and by the time of her resignation some sympathy had surfaced. For instance, on the 5th of December 1988 (the Monday following the ITN interview on Saturday) a *Sun* editorial told her to think again, because her warning had been "...alarmist nonsense...". On the day of her resignation (17.12.88) the *Sun* told its readers that she was right, and had been sacked "...for just doing her job"; a few days later (20.12.88) another editorial said that "everyday Edwina Currie looks more and more correct". *Today* newspaper also attacked Currie initially (Editorial, 6.12.88) but lamented her passing two weeks later; "We'll miss you Edwina" (Editorial, 17.12.88). A *Daily Express* editorial (6.12.88), while not calling for resignation, did criticise Currie because she had failed to "measure [her] public words"; a later editorial (21.12.88) calls for her quick return to government. The sympathy of the *Express* reached its apogee with its 'Edwina is innocent' T-shirt offer (22.12.88). Bearing in mind the comments made by journalists about Currie (see above), it could be argued that such coverage had its origins in part in her public profile as an interesting and entertaining politician. In this sense, her appearances in the newspapers following her initial 'gaffe' was as an object of news attention, measured by the criteria of news values, rather than as a news source measured by the criteria of credibility. Clearly, however, such distinctions are often blurred, and either emphasis might predominate at any particular time.

Daily Express consumer editor Paul Crosbie described Currie as a "junior minister with ambition", and suggested that some of her colleagues therefore "had the knives

out for her"; certainly the coverage she received reflected a range of views. A number of analyses of news have suggested that news media offer dissenting views in order to legitimate themselves as politically independent (Tumber 1993: 359). As a junior minister, without the full support of her party, Currie was a 'safe' target for Tory newspapers who could be critical of her without being seen to be directly critical of the government generally, or Mrs Thatcher in particular. In attacking Currie, newspapers could retain the support of a substantial section of conservative opinion while also being seen to criticise 'one of their own'. Of course, this is difficult to prove, and it could be argued that the plurality of views on Currie reflects the spread of opinions held both by journalists and the wider public. Certainly journalists were aware that Currie had "set herself up as an easy target":

"...she was quite pushy and very self-confident and ... the chance to shoot her down was probably quite welcome to the newspapers..."

(Interview: Michael Hornsby, *Times*, agriculture correspondent)

One consumer correspondent felt that Currie's involvement in the Salmonella scare in a sense acted as a 'Trojan Horse', in that she provided an opportunity for journalists to explore a wider range of issues concerning food and hygiene. For instance, BSE emerged as a news item some months before the egg scare, and was considered by some to be a more serious issue, but it did not become a major story until after Salmonella:

"...so it [salmonella] was the wrong target at the right time [...] So BSE, Salmonella and all that, food poisoning figures rising generally because we have crappy abattoirs, because of lousy food chain hygiene... but you couldn't get it in the papers until people went crazy with Edwina." (Interview: James Erlichman, Consumer Affairs, *Guardian*)

This could perhaps be seen as a journalist's description of what Fowler calls a 'food poisoning paradigm' (1991:158); it also represents the tendency for the political elements of any particular news story to gain dominance over other aspects of the story (Negrine 1993: 17)

Even some of the industry sources interviewed professed a certain sympathy for Currie. While John Coles, chairman of the British Egg Industry Council (BEIC), suggested that she had misread a briefing paper, Keith Pulman of the UK Egg Producers Association (UKEPA) assumed that at the time she must have been under "an awful lot of political pressure". Part of this sympathy is linked to the suspicion

voiced by certain sections of the industry, that the scare was a result not simply of a mistake or misunderstanding, but part of a wider conspiracy (some of this feeling can also be explained by UKEPA's understanding of the events surrounding the 'Nuns of Daventry' story - see chapter 9, 'sub-case studies'). An article in UKEPA News, the association's news-sheet for members, commented obliquely at the height of the affair that the scare had conveniently reduced the newspaper coverage of the DoH's ongoing dispute with the nurses. More strongly held is the opinion that eggs were simply a convenient scapegoat for the rising food poisoning figures, which were otherwise difficult for the DoH to explain (see 'MAFF Vs. DoH' section). Either way, Currie was seen as a pawn in a larger game, and in a sense this perspective is similar to the 'Trojan Horse' argument suggested earlier. While some journalists (and indeed some consumerist sources) felt that Currie's 'gaffe' was useful to 'smuggle' other food safety issues (not least BSE) in to their newspapers, some industry sources felt that it was an opportunity for the DoH to unfairly pass blame on to the industry.

Some of the industry sympathy for Currie can be explained by the sense of betrayal engendered by the egg producers' treatment by the Government. Dennis Warren and Keith Pulman of UKEPA implied that if Currie's statement on 3 December 1988 had simply been the 'slip-of-the-tongue' of a mistaken or poorly briefed junior minister, then such an error could have been swiftly put right by a correction, followed perhaps by a reprimand and an apology; their feeling however was that she was "under ... an awful lot of political pressure" to keep quiet. The Government's failure to 'keep the lid on' the affair, allowing confusion to grow, meant that a kind of 'information vacuum' developed, sucking in the sort of coverage that the industry felt was highly damaging. Many within the industry believe that the Government allowed the scare to take hold in order to provide them with an opportunity to be seen to clamp down on the rising human salmonella infection rate, a problem for which they otherwise had very few answers. In such a scenario, Currie is unworthy of any substantial blame.

Professor Richard Lacey was another source (involved in both Salmonella and BSE) whose personality became something of an issue for the journalists involved. For some, his campaigning style was socially useful:

"I think we need the Richard Laceys of this world" (Interview: Clare Dover, *Daily Express* medical correspondent)

Other journalists also felt that Lacey had something to offer; he said "sensible things", certainly with regard to salmonella in eggs, and his position (of authority and respect) meant that reporters were able to quote him with credibility. He had however, in the

view of Paul Crosbie, consumer editor of the *Daily Express*, become side-tracked with BSE, and newspapers had spoiled him by using him as a "rent-a-quote" on every food story. This attitude seemed quite widespread; Lacey was seen by most to be a useful source, but inclined to over-stating his case. It is worth noting however that Crosbie seems to believe the blame for this lies primarily with the newspapers themselves. In contrast one Agriculture Correspondent distrusted Lacey in particular, who was seen as having "an axe to grind with MAFF", and whose statements on BSE in particular were "causing untold damage" (presumably to the business interests of beef farmers). He repeated Crosbie's point that, as a microbiologist, Lacey had no expertise in BSE.

While the agriculture correspondent perceived Lacey's departure from the committee advising MAFF on veterinary products as evidence of a grudge, Pearce Wright of the *Times* felt that it enhanced his credibility as an independent voice, and that Lacey had simply "fallen out with the industry". This difference in the assessment of Lacey as a news source may be the result of nothing more than idiosyncratic personal opinion; nevertheless, it could also be interpreted as a consequence of the relative positions of the two journalists concerned. For an agriculture specialist, the effects of Lacey's comments might well seem out of proportion to the risks involved, and the possibility that he is speaking maliciously is something to take seriously. For Wright however, scientists who work for 'interested parties', even the government, might be in some sense assumed to be 'tainted'. Therefore any show of defiance or independence would be seen by a science correspondent as an enhancement of a source's credibility. This difference can also be seen as an illustration of the struggle between the consumerist lobby which attempted to enlist the scientific authority of people such as Lacey, and the industry position which was working to characterise their opponents as 'irrational' (Miller and Reilly 1994: 6).

Chapter 9

'Sub-case studies'

The previous analyses of the case study food scares have attempted to use the recollections of those involved in order to shed light on the processes through which the newspaper coverage was produced. In the previous chapter I have tended to focus on the themes which apply to both Salmonella in eggs and BSE as well as, potentially, to other types of news; to some extent the comments of the journalists and news sources interviewed were generalisations that were not always directly related to the specific food scares concerned. In this chapter, I have concentrated on four different examples of the interactions between sources and journalists in order to provide more *specific* instances of the issues discussed. The analyses of these four 'sub-case studies' are focused either on a specific news item or series of items by a particular journalist, or on a group of articles by different journalists on a particular topic, and each of them has at its centre an interview with one of the key agents in the production of the news items concerned. The first three examples are derived from interviews with journalists, while the fourth is focused on an interview with the prime news source involved.

- Joanna Blythman's 'carrots' scare.

This story was discussed in chapter 6 as a food scare which failed to develop, in the way that salmonella and BSE had, into a major news story. In this section, the origins of the story in a Government-sponsored scientific report are highlighted in an analysis of how an 'old' story written by a freelance journalist in a newspaper magazine supplement can become a front page news story.

- Peter Martin's four 'Mad Cow Deceit' stories for the *Mail on Sunday* magazine.

This 'sub-case study' also centres on a freelance journalist writing in the magazine supplement of a weekend newspaper. It explores the development of a series of four articles written by Peter Martin for the *Mail on Sunday's* magazine, *'Night and Day'*, concerning the BSE-CJD link. The first article was published in March 1994 at a time when the government were strenuously denying the possibility that BSE posed a threat to humans, while the fourth appeared in May 1996 following the official acceptance that the new strain of CJD was linked to mad cow disease. Martin's articles, which came to be presented in the *Mail on Sunday* as a 'campaign', provide comparisons both

with the carrots scare (as examples of freelance 'feature' journalism) and with the 'hard news' coverage of the BSE issue.

- Paul Brown's '2001' story

This is a tracing of the process of one particular story concerning a particular aspect of the BSE debate from its origins, again in a scientific report, to the final piece in the *Guardian*. A further specific example of the processes through which news stories reach the audience, this particular story is perhaps most useful in illustrating the ways in which journalistic attempts to verify source credibility (and maintain their own) leads to a reliance on institutional, authorised accounts.

- The Nuns of Daventry

In this 'sub-case study' a news story covered by all the national daily newspapers is examined via interviews, and is explained as a particular example of news management within the general 'salmonella in eggs' affair. This news management is led by an industry organisation in order to allow them to re-state their arguments, but also allows the divisions within the wider egg industry to be explicitly set out within the coverage.

Pesticides in Carrots

One of the more interesting points to note about the carrot 'scare' (see chapter 6, 'Calendars') is its origin in the Food and Drink page of a weekend supplement. Although the story is written in order to emphasise the element of potential risk (Headline: Roots of Evil), the original *Guardian* article is nevertheless not written as 'hard news' (see Bell 1991, who notes the importance of the lead paragraph in hard news: Blythman's article has a much more quirky, conversational introductory paragraph, almost a spoof recipe.). This seemingly modest (in terms of journalistic *cachet*) beginning is in contrast to the coverage which the *Daily Mail* gives to the story on the following Tuesday; as a front page lead the story takes on a more urgent aspect - instead of being of interest purely within the boundaries of the 'food and drink' arena, among the 'human interest'-style articles of the *Guardian Weekend*, it becomes important enough to successfully compete (in news value terms) against all other possible front page stories including the political and 'spot' news stories (Bell 1991:

147) of the day¹. This 'promotion' to the premier league of news is reinforced by the leading article on the same day, which expresses a tone of restrained concern.

A further element in the carrot 'scare' which might help explain a small part of the media interest is related to the origins of the pesticides. Blythman's article describes these chemicals as

"...Rambo-type kit, originally developed as nerve gases." (*Guardian Weekend*, 29.4.95)

This suggests that the insecticides were known to be highly toxic to humans before being used as pesticides, indeed that they were developed specifically with humans in mind. This is important journalistically presumably because it negates a possible defence along the lines that their toxicity is a relatively new and under-researched phenomenon. The promoters of these products cannot protest that they were unaware of any possible consequences.

The nerve gas connection is also mentioned in the *Mail's* coverage on 2 May, while others go a little further; both the *Sunday Telegraph* (7.5.95) and Allison Pearson in the *Standard* (11.5.95) note that it was the Nazis who originally developed the nerve gases, while Richard North in his *Daily Mail* comment piece not only blames "Hitler's scientists in the late Thirties..." (*Daily Mail*, 3.5.95) but also makes a direct comparison with the recent Sarin gas attack in the Tokyo subway system.

These connections help to enhance the news value of the story by emphasising the 'dread' nature of these chemicals which, as we have seen, is considered an important issue in the public perception of risk (see chapter 3); indeed, Allison Pearson makes a direct point which, although clearly a massive exaggeration presumably for comic effect, nevertheless implies that such a threat must not be appeased, but must be fought:

"What Hitler failed to do to the British, may yet be achieved by the domestic carrot." (*Evening Standard*, 11.5.95).

¹On the day of the *Mail* front page coverage, *The Times* for instance led its front page with a report on a 'government ruling' which might result in tax bills for 'sick or jobless homeowners', while other page one stories included a report on the expiration of a ceasefire in Bosnia, and an item on Tony Blair's plans to 'curb the power of the unions', as well as a brief item about the carrot scare (*The Times*, 2.5.95).

It could be argued that the elements of dread and 'riskiness' which are emphasised in these reports are also a measure of the news values which propelled the story into the news pages of the newspapers; it may well be that pesticides which had none of these connections and therefore offered no 'handles' for journalists would be rather less likely to make the leap from the pages of the *Guardian Weekend* magazine to the front page of the *Daily Mail*.

The major sources in the hard news coverage comprised the appropriate ministries - MAFF and the Department of Health - together with accredited quotes from then food minister Angela Browning. The NFU is also quoted as reasserting the safety of carrots, while an oppositional stance is provided in some of the stories by Soil Association spokespersons, and in others by representatives of a group called the Pesticides Trust which "...monitors agricultural chemicals in Britain..." (*Times* 3.5.95) and "...campaigns over pesticides..." (*Sunday Telegraph* 7.5.95). A number of national newspapers failed to give any coverage at all to the issue of pesticide residues in carrots; most obviously, *Today*, which previously seemed to be actively campaigning over the possible dangers of BSE, was silent. A week before the *Guardian* apparently 'broke' the story, the gardening correspondent in *Weekend Today* was answering questions concerning carrots' susceptibility to carrot-fly. The questioner wanted solutions which avoided the use of pesticides (or "chemical preventatives"), and received them, but no mention was made of the possible health risks which the chemicals might represent, or the government's attitude to them (*Today*, 22.4.95). Two weeks later, following the publicising of the carrot 'problem', Jane Asher's *Weekend Today* food column noted the 'recent news' about pesticides and advised washing all vegetables:

"Not that it will get rid of the systemic chemicals, of course - the poor old carrots and cucumbers are just saturated with those - but what can you do? Life's too short to worry." (*Today*, 13.5.95)

The column moves quickly on to the best way to dry your salad vegetables, with no mention of the ministry of agriculture's advice on carrot preparation. Later food and health articles also include carrots as a 'healthy' ingredient without referring to the official advice or the more general issue of pesticides (*Today* 24.5.95; 21.6.95).

The initial idea for Blythman's "Roots of evil" story came from a "small mention" (interview with author) in the Pesticides Trust's quarterly magazine, *Pesticides News*. Blythman routinely read the magazine as part of her research, and the March edition carried a one-page report on the findings of the Advisory Committee on Pesticides (ACP) (see chapter 6, 'Calendars'). Although this was Blythman's first encounter with

the issue, the Pesticides Trust had issued a press release on 19 January giving their response to the ACP's findings. This followed directly from a press conference (arranged at "very short notice", according to Peter Beaumont of the Pesticides Trust) which announced the results of the study. Beaumont was pleased that the Trust had been invited, and felt that the apparent openness of MAFF was "commendable". The Trust has a "fairly small targeted list" of contacts including the broadsheet national newspapers, the trade press, and other interested weekly and monthly publications, but none of these made any use of the press release according to Beaumont: "...nobody was terribly interested." He wasn't surprised however that it eventually made the news, as he felt it was newsworthy:

"In the sense that it was a story that attracts journalists; journalists are more interested in food residues than any other aspect of pesticides. It's the first time that part of a staple diet has been at risk because of levels of pesticide residues; nobody's suggesting you'd get very ill, but there is a risk of, perhaps, stomach ache, well that's, in pesticide terms, quite novel..." (Interview: Peter Beaumont, The Pesticides Trust)

This was in some ways a source of concern for Beaumont, in that for the Pesticides Trust, the issue of residues and poisoning is a minor one compared to those of health and safety for agricultural workers, 'sustainable agriculture', and third world issues concerning the use and misuse of pesticides. His attitude was a little dismissive of newspapers in general, whom he considered to be "scientifically and agriculturally illiterate".

Joanna Blythman was pleased to find that the initial press releases from MAFF (18.1.95) and the Pesticides Trust (19.1.95) had not been reported; this meant that she could take some time to investigate the story. She felt that one of the possible reasons for it not gaining immediate news coverage was that it was "too technical", and that a newsdesk might reject it on that basis; a feature-length article was a more appropriate forum in which to "do it justice"². She also felt that the news interest in the demonstrations against live animal exports at Brightlingsea and elsewhere, which were occurring at the same time, meant that environment and agriculture correspondents might have been pre-occupied, and possibly away from their desks, at the time. The

²This might be seen as contradictory, given the news coverage which followed Blythman's article (particularly the Daily Mail's front page article). However, while the original ACP report may have been 'too technical', Blythman's recasting of its main points in effect made a complex issue 'journalist-friendly', by allowing the hub of the story - the possible ill effects of eating contaminated carrots - to emerge.

two points are linked in that, given the technical aspect of the story, perhaps only specialist journalists are likely to have the background understanding, and patience, to construct a story around the ACP report; if they were unavailable, a newsdesk might well conclude that a general reporter would need to spend too long researching the background to justify picking up the story.

Blythman was not particularly concerned to provide a 'balanced' picture. Her main sources apart from the original ACP report were the Pesticides Trust, the Soil Association, and the MAFF press office:

"I didn't speak to carrot farmers, I could've; I didn't speak to the NFU, I could've. Ultimately I felt that I had enough just putting what I thought relevant...I don't really have a problem about balance..."
(Interview: Joanna Blythman, freelance food writer)

Blythman sees writing in the 'soft' section of a newspaper as an opportunity to present what she feels are "subtly political" issues to an audience which may not be very interested in the 'hard news' section of the main paper:

"I mean my niche as a food writer has always been taking food and politics and sort of digesting them and spitting them out in a form that people can understand and is relevant to them" (Interview: Joanna Blythman, freelance food writer)

This attempt to bring politics to a new audience contains an implicit criticism of the traditional forms of political news reporting which is perhaps a particular version of the wider critique of news as technocratic and naively objectivist (see chapter 1).

The coverage of Salmonella in eggs was in part driven by the perceived divisions within the ranks of the interested groups who were 'actors' in the process (see chapter 8). In particular, the differences within Government between the Ministry of Agriculture and the Department of Health were seen as an indication of the newsworthiness of the story. Hints of a similar division with regard to carrots and pesticides are evident in the *Daily Mail* front page story, although seemingly in the opposite direction. While noting that the Ministry of Agriculture has issued the 'advice' to peel carrots, the story reminds its readers that;

"Another arm of the Government, the Health Department, has long advocated the consumption of carrot skins..." (*Daily Mail*, 2.5.95)

Other reports also make this point more or less forcefully:

"The warning contradicts previous advice on healthy eating which recommended leaving the skin on because of the concentration of vitamins and nutrients it contains." (*Times*, 2.5.95)

"The Agriculture Ministry said carrots are a potential danger because pesticides used on them could make you sick. But the Health Department disagreed and gave the all-clear." (*Daily Record*, 3.5.95)

Other reports such as the *Times* on 3 May merely imply the possibility of a split by quoting the Agriculture Ministry's 'advice' together with the Department of Health's apparently much more reassuring comments. The DoH is quoted as saying that raw carrots should be 'washed thoroughly', but fails to repeat the preparation advice from MAFF. The split, such as it is, is inverted in that in this case it is MAFF, normally considered to be most protective of industry concerns, that has issued the 'advice' (which the Health Department incautiously called a 'warning' in its later reassurances), and the Department of Health which seems to be down-playing the possible risks. This is an interesting quirk but is perhaps not as important to the continuation (or not) of the story as the fact that the perceived split did not become an issue worthy of serious comment; the divisions over salmonella in eggs were perceived to be causing confusion and contradiction as to the exact level of risk to the public, and much of the newspaper comment on the issue called for clarification of the government's position. In the present case however, the division was not presented as particularly serious or important, and the later stories which cover wider issues do not mention it.

It could be argued that the inversion of the roles in this 'division' worked to make it seem less important; it was clearly not the result of a structural difference in the two positions, and is therefore more likely to be 'cock-up' than conspiracy. With a lack of avenues via which to pursue this story - the lack of an identifiable split either in government or industry, no major party political element, and no 'personality issue' - the newspapers seem to have felt that there was no more interest in carrots and pesticides. Despite describing ways to avoid the impurities of various foods, The *Sunday Times* 'Good Foodie Guide' (21.5.95) is fairly dismissive of the risks in this particular case;

"The latest victim in the annual 'find a food-scare' game is the carrot." (*Sunday Times* 'Good Foodie Guide', 21.5.95)

Such a dismissive attitude was not common throughout the coverage however, and the notion of a 'cover-up' was present in the first *Guardian* story on 29 April, which claimed that 'industry representatives';

"...were opposed to issuing carrot 'preparing' instructions, thinking, quite correctly, that it will put people off eating them." (*Guardian*, 29.4.95)

This is clearly an important news-value, but was not, it seems, repeated in later coverage, which tended to focus mainly on the difference of opinion between the two ministries as mentioned above. Coverage of the pesticides in carrots scare also tended to focus on the government 'advice' concerning the preparation of carrots, and effectively confined the issue to the largely technical aspects of the acceptability of current safety limits (e.g. "Fruit and vegetables tainted with chemicals", *The Times* 3.5.95). It seems that Blythman's assertions in the *Guardian* are the result of some inside information of some kind which may not be available to other journalists, but it is interesting to speculate on the different course the media coverage of the issue might have taken if the 'conspiracy angle' had been followed. In this respect it may again be useful to make comparisons with the earlier 'scares' represented by salmonella in eggs and BSE.

Peter Martin: The Mad Cow Deceit

Between March 1994 and May 1996, Freelance journalist Peter Martin wrote four articles for the *Mail on Sunday's* magazine supplement, *Night and Day*. These articles offer a different angle to the relatively 'hard' news coverage which has been the main subject of this thesis. They help to illustrate the possibility of different approaches to the subject of BSE, and also, as a series, highlight the continuing (or perhaps *recurring*) news value of mad cow disease.

- "*Mad, Bad, and Dangerous to Eat*"

The *Mail on Sunday's* magazine, *Night and Day*, published Peter Martin's first article on BSE on 6 March 1994. It consisted of a review of the main developments in the story from its discovery in April 1985 to the issue of the CJD connection and the case of Vicky Rimmer, discussed by C4's *Dispatches* in early 1994. The article discusses the science of BSE, emphasising the lack of knowledge about the disease and the possible links with CJD, and critically attacks the apparently shifting arguments used by the Government.

- *"Take One Last Look"*

The headline on Martin's second BSE story for the *Mail on Sunday* magazine referred to the accompanying photograph of a traditional Sunday roast beef dinner. The article (trailed as an 'exclusive' on the magazine's front page, which consisted of a photograph of the latest CJD victim, Stephen Churchill, and the headline 'Mad Cow Disease and Human Deaths: A New Link') filled six pages, and attempted to explain why people should be concerned about the possibility of a link between BSE and CJD. Martin's article explains how a number of the most recent cases of CJD have shown an unusual pathology, and that the concomitant new symptoms are more similar to those displayed by animals with BSE than with those shown by previous sufferers of 'Alzheimer's-style' CJD. He focuses on the work of Harash Narang, the scientist who claims to have been victimised in his study of BSE. The article says that the current orthodoxy on BSE - the 'prion theory' - has been "..blown...clean out of the water...", and also debunks what Martin calls the 'myth of "remote risk" '. As a further concern, Martin also notes the evidence suggesting that BSE infected carcasses are being buried by farmers anxious to avoid the financial penalties associated with being labelled as owning an infected herd. This is argued to be another potential hazard in that the infective agent may be seeping into underground water supplies. The article ends with a contact address for Dr Narang.

- *"Fourth Teenager is Killed by CJD"*

The third article was published on 18 February 1996, just over a month before the official announcement of a link, and was a shorter piece concentrating on the case of Peter Hall who had recently died after a thirteen-month illness. He was 19 when he first became ill, and Martin compares his case with others. The article makes it clear that Peter Hall's family contacted Narang after reading the previous *Night and Day* article, in order that he could confirm their suspicions that CJD was the cause of his illness. The story fills two whole pages, with the headline and photograph taking two half pages, and the text filling the bottom half of each page. The text itself rehearses many of the previous themes: the apparent newness of the recent strain of CJD which has attacked young people; the work of Harash Narang; and the failure of government to take account of, and responsibility for, the risk. The rest of the article gives details of the most recent specific case. One particularly gruesome paragraph noted the lack of formal guidelines for the burial of CJD victims, and described how one victim was buried in a limed grave to a depth of nine feet rather than the usual six, the

gravediggers wearing protective clothing. This clearly adds a further horrific element to the overall picture of the dangers of CJD and the less emotive discussions of scientific pathology and political complacency. The article finally hints at a developing organisational opposition when it mentions the Northern CJD Support Group which was formed to help victims and their families understand and cope with the disease. Part of this would presumably include a determination to obtain more information from government.

- *"The Mad Cow Deceit"*

The fourth article by Peter Martin, published on 12 May 1996, is joined by material from other writers. An article by Jay Rayner (also under the 'Mad Cow Deceit' banner) expands on the issue of BSE burials and the risk to water supplies, while five separate inserts (written by Peter Silverton) throughout each main article give details, with photographs, of 'The Victims'. This collaborative effort runs to 10 pages in total. Peter Martin's piece again reiterates the main charges against the Government: lack of caution, poor decision-making, dismissal of unofficial scientific evidence. Rayner's section contained more apparently new material, focusing on a particular waste site where 350 BSE infected carcasses were buried. The durability of the infective agent, and the proximity of the River Wensum are cited as reasons for particular concern. Rayner also highlights the extent to which regulations governing disclosure and disposal of carcasses are being flouted. The 'victims' section consists of five inserts each of which highlights the case of a particular nvCJD victim.

Peter Martin's first article on BSE for the *Mail on Sunday* magazine uses the word "I", as in "the official I interviewed", in order to designate authorship of the article. However, in the second article *Night and Day* (the *Mail on Sunday* magazine) seems to have taken on the role of author; it is, for instance, "our" discovery of young people with a new type of CJD. This perhaps suggests that the magazine felt that it could take on responsibility for the story rather than assigning authorship to the individual (freelance) journalist; it takes on a little more of the authority of an editorial as opposed to an opinion piece. This is reinforced in the third article with the strap-line across the top of the first page: "The Mad Cow Deceit: *Night and Day's* Campaigning Investigation by Peter Martin". This puts the official organisational seal on the 'investigation' as a 'campaign'. In the fourth article in May 1996, corporate authorship was reasserted in a paragraph which noted that when *Night and Day* had published "its" article in December 1995,

"...the mood was sombre here in the office. 'Let's just hope we're wrong', someone said, and no-one was of a mind to argue." (*Night and Day* magazine, 12.5.96)

The article in question might well have been produced as a collaborative effort, but it clearly contrasts with Peter Martin's description of the original freelance piece which was apparently a typically individual piece of journalism.

The written style of the four *Night and Day* articles is clearly different to the hard news style which characterises the majority of coverage discussed so far. Martin employs colloquialisms in order to produce a conversational tone, for instance, when he asks why the ban on offals was not introduced immediately for humans:

"Why not? The Government offered the scrapie analogy: nothing to worry about boys and girls, because BSE is much like scrapie." (*Night and Day*, 6 March 1994)

When quoting a farmer's opinion of Professor Lacey, Martin attempts to capture the dialect phonetically; and uses italics when describing a critical point in Harash Narang's career - "Then, *wham*: Narang was suspended..." (*Night and Day*, 17 December 1995). Martin is not a specialist in the sense of the subjects he covers; instead he sees himself as a specialist in magazine writing, an activity which he acknowledges is seen by some newspaper journalists as "a soft option". Such an attitude was apparent when one broadsheet environment correspondent I spoke to criticised the way in which an article on BSE in the weekend magazine of his newspaper (concerning Mark Purdey's theories on organophosphates) was "slipped in" without reference to him or the science correspondent. He felt the article, written by a freelance journalist, gave the OP thesis too much credence. The implied criticism of the journalist involved also implies a professional hierarchy, with a distinction between the 'hard news' produced by staff writers and the 'soft news' of freelance and feature writers.

The first article took three months for Martin to research and write, not least due to the complex science of BSE. Freelances are usually paid when the article is submitted, but in this case Martin received an advance while he researched the subject:

"Therefore I was lucky in the sense that probably no-one has been subsidised to the extent that I have to get to grips with this story."
(Peter Martin, freelance journalist)

Martin considers these arrangements as unusual, and credits the editor as the individual who makes the decision to provide such subsidies; certainly the freelance himself is unlikely to be able to devote three months of his own time to such research unless support is available. Martin acknowledges the link between the depth of journalistic investigation and the resources available:

"I mean, there's a difference between simply reporting what any bunch of scientists have said this month, and doing your own investigation. The first one is a cheap exercise, the second, to go digging and see where the conflicts are, you know, become your own expert, that's expensive; or relatively expensive." (Peter Martin, freelance journalist)

It could be argued that freelance journalists are in a position to undertake more of the kind of investigative journalism which, perhaps due to the economic pressures on broadsheet newspapers, is now less likely to be done by regular staff journalists. Freelances can be employed on a temporary, short-term basis for a specific investigative task. This however, would mean that the responsibility for, and the opportunity to instigate, such investigations shifts from the (specialist) staff journalist to the editor; that is, from those who are source-oriented to those who are audience-oriented (Tunstall 1971: 34; see chapter 1). One negative consequence of this might be that the more 'populist' touch of the 'audience-oriented' sub-editor might lead to an emphasis on stories which avoid technically difficult material, and which 'pander' to audiences rather than challenging them. Conversely, it may have more positive repercussions in that freelance work may escape from the pressures of acculturation into the news 'beat' to which full-time specialist reporters might be subject.

The language used in these articles were not only informal, but also explicitly partisan.³ Martin argues that in their joint press release concerning the Southwood committee report the Department of Health and MAFF "twisted" the report's conclusions, and that the Government's position "had at least a couple of wheels missing" (*Night and Day*, 6.3.94). The fourth article, which followed the March 1996 announcement, accused the Government of a "failure to exercise proper, preventative caution" (*Night and Day*, 12.5.96). Indeed, the strap-line accompanying all but the first of the articles - 'The Mad Cow Deceit' - refers to Government deception. A further device is the use of rhetorical questions as a way of underlining the arguments

³The 'inserts' in the fourth of Martin's articles (12.5.96) followed this approach. In particular, the final panel included seven pictures of government ministers above the headline "They didn't want us to know"; the text accuses ministers and officials of "foolhardiness", and of misleading with "wily and irresponsible double-talk".

put forward. Concerning the lack of a clear cause of death on the death certificate of one victim, Martin asks:

"Could it be that the medical profession is running scared of CJD?"
(*Night and Day*, 18.2.96)

Likewise, with regard to the parsimony of the Government compensation scheme:

"Is it any wonder that the Government's every rearguard action is now greeted with 'pull the other one' public cynicism?" (*Night and Day*, 7.12.95)

When I spoke to him, Martin was initially less than keen to accept the proposition that his articles were not as concerned as 'hard' news might be to provide a 'balanced' account, arguing that he simply presented things as he found them. Nevertheless, he did accept that such articles could be seen as balancing the coverage more widely, in that he believed that the government position concerning the notion of 'remote risk' had accounted for "90% or 80%" of the coverage. Martin felt that one of the reasons for this advantage lay in the ultimate control of the actual scientific material in question by the government - that is, the BSE infected material such as the cow's heads which are necessary to undertake specific research into BSE. This *material* advantage therefore reinforces the *informational* advantage bestowed upon official source organisations.

In the first of his pieces Martin compares BSE with earlier scares:

"The listeria and salmonella scares of a few years before were handled very differently. The facts were openly presented, making it possible for people to arrive at informed choices." (*Night and Day*, 6.3.94)

This is perhaps a slight exaggeration, in that at the time there was some confusion as to the actual incidence of, and risk from salmonella infection of eggs; the difference is perhaps in the potential for further development, mainly in the scientific understanding of BSE, and the way in which these understandings could be presented. Nevertheless, the link is made, as is the case for BSE being the more serious health risk.

After increasing compensation from 50% to 100%, MAFF said that there had been "no statistical surge" in the number of cases reported, suggesting that there had been no illicit disposing of cattle due to the previous low compensation. Martin dismisses this with a verbal shrug: "Well, that's statistics for you" (*Night and Day*, 6.3.94). He then counters with *anecdotal* evidence of farmers shooting and burying diseased animals.

This could be argued to represent an implicit rejection of scientific rationality in favour of 'situated knowledge'; certainly if 'social rationality' is employed, it is rarely explicitly championed, whereas science is often exalted ('leave it to the experts'), and Martin criticises the 'official' scientific explanations elsewhere. Martin presents the clash between different scientific assessments of the BSE risk, championing the dissenting experts while suggesting that they are being demonised as villains in a "rogues gallery" by MAFF. He also criticises the prion theory and those who subscribe to it, in particular American scientist Dr Stanley Prusiner who is dismissed as a "considerable self-publicist" (*Night and Day*, 17.12.95), and as "Dr American Orthodoxy himself" (*Night and Day*, 18.2.96). In his critique of prion theory, Martin sarcastically suggests;

"What happens now to all those glittering prionic careers and prospects, heaven only knows." (*Night and Day*, 17.12.95)

Martin's position is clear; but setting aside the partisan presentation, the contrasting of the various scientific arguments helps to undermine any notion of scientific consensus, at least in the context of BSE. On this same point in the later December 1995 story he takes the Slaughterers Association's figures (that there was a drop in cases passed to them when they began to charge £15-20 to handle them) to attack MAFF's position that no illicit burial is occurring.

One of the difficulties for the general freelance journalist, as Martin implies, is the need to absorb large amounts of new background information in a short space of time. This is the kind of information which the newspaper specialist might be assumed to have retained over a period of time, and which might also confer upon the specialist some credibility in the eyes of 'expert' news sources which would be absent for the freelance writing a 'one-off' magazine article. It seems that by writing what became a series of articles, Martin began to enjoy some of this kind of credibility. In preparing the second article, he found that most of those he talked to were already aware of his first piece, and were therefore more open to him than they otherwise might have been.

The second article, published on 17 December 1995, contained a lot of scientific information which Martin felt was an unfortunate necessity:

"That was the mistake of that article. But, the thing about it is, the government relies on people not to address the science because they know it's complicated, and so on this one I had no [choice] but to go through the front door with the science..." (Interview: Peter Martin, freelance journalist).

Martin felt that the hub of the story was the discrepancy between the official position and the emerging evidence of the new variant of CJD, and that he therefore had little alternative but to explain these contradictions. Much of the article consisted of direct exposition rather than quotations from (or even attributions to) sources. Martin felt that quotes can in some circumstances hold up the explanation; the best kinds of magazine articles are those which are a 'fast read', which people are surprised to find they have read without stopping. Nevertheless, he "never felt sorrier" for the reader because of the scientific explanation which is the basis of the article. Martin's third *Night and Day* article begins with a description of the funeral of Peter Hall, and gives the Government explanation that the increase in such cases is due to the increased awareness of, and surveillance for CJD rather than any actual rise. He then quotes Dr John Collinge of St Mary's Hospital, Paddington:

"Given the rarity of CJD in teenagers,' he says , 'it is unlikely that such cases would have been previously missed.' In other words, we're faced with something new." (*Night and Day*, 18.2.96)

This is perhaps the most explicit example of the translating or recasting of source material which is one of the prime tasks for science journalists. The quotation in this case is marshalled to the argument which Martin is putting forward.

The *Night and Day* articles written by Peter Martin began in March 1994 at a time of renewed media interest in BSE (see chapter 6). The possibility of a connection between BSE and CJD was receiving attention due to the illness of Vicky Rimmer, whose case was the main focus of a number of articles beginning with *Today* newspaper's front page story headlined "Mad Cow Disease: The human link?" (13.1.94). The case received further publicity through a Channel 4 documentary (*Dispatches*, 26.1.94) and the newspaper reports that followed. It was presumably in this kind of climate that the editorial decision was made to go ahead with Martin's first article, and it was clearly part of the wider questioning of the official "remote risk" position. That further articles appeared, and were presented as a 'campaign', confirms the continuing newsworthiness of BSE as it developed and evolved.

Paul Brown: BSE in '2001'

Majority of Britons 'will eat BSE meat by 2001'

Paul Brown on fears over food supplies

Most adult British carnivores will have ingested a potentially fatal dose of meat infected with bovine spongiform encephalopathy, or mad cow disease, by the year 2001, according to research published in the British Food Journal.

Although the Government dismisses fears that BSE could lead to an epidemic of Creutzfeldt-Jakob Disease, the journal says increasing evidence that there is a risk must not be ignored.

(*Guardian*, 16.11.95)

This story was perhaps slightly unusual in that most of the news coverage around this time was concerned with particular examples of individuals who have contracted CJD, and with trying to establish a link between CJD and BSE via the occupations of the victims. This article takes a longer perspective, and reports the main findings of a study by Dr Stephen Dealler, a medical microbiologist. The story notes Dealler's belief that due to the continuing incidence of BSE and the under-reporting of infected cattle, most people will have eaten meat from infected animals by the end of the century. The research questioned the strategy of "waiting passively" for a rise in the incidence of CJD, and called for more funding for research. The *Guardian* story was written by its environment correspondent, Paul Brown, and focuses entirely on Dealler's report; no other sources are mentioned. The source report was in fact credited to two authors, Dealler and J.T. Kent, a Professor of statistics, and it contains a good deal of statistical evidence and analysis based on previous research. Brown did not come across Dealler's report through any journalistic routine of his own, but via a less obvious route:

"...it was a typical, chaotic, chance remark by somebody to someone else on a train which led us to getting it in the paper." (Interview: Paul Brown, *Guardian* Environment Correspondent)

The Dealler report was apparently brought to the attention of a *Guardian* sub-editor by a friend, and the diligent sub. called it in to the newsdesk. The story idea was then passed to Brown, who would otherwise have been unaware of the article as he had not previously come across the British Food Journal. Brown telephoned the publishers of the BFJ and spoke to their Director of Publishing Logistics in order both to garner a little background information and to test the credibility of the publication.

"I had quite a long chat to her, about whether this was a legitimate story, and whether it was a legitimate magazine." (Interview: Paul Brown, *Guardian* Environment Correspondent)

Clearly Brown was concerned about the scientific credibility of the story he was about to write. He was in a sense new to food issues, in that such topics had only recently been passed to him following the departure of the *Guardian's* consumer affairs correspondent. While this helps to explain Brown's caution, it also illustrates the flexible boundaries which exist between newspaper specialisms; the consumer affairs 'beat' was shared out between Brown and other journalists. Concerning the overlaps between environment and science correspondents for instance, Brown accepts that tensions can arise, especially when journalists are feeling defensive or "under threat", but that in his case border disputes are usually settled amicably in "gentlemanly fashion".

Provisionally reassured by the publishers of the BFJ, he received a fax copy of the article less than two hours before his deadline, and he therefore checked with the newsdesk that they would accept the story based as it was on only one information source. He would have preferred, "much preferred", to speak to the author of the report, and get a reaction from the Ministry of Agriculture (presumably as a gesture of 'balance'), but the constraint of time made any further research impossible.

It seems that in this case one of the crucial journalistic tests of source credibility was passed when Brown spoke to the publishers of the British Food Journal, MCB University Press Limited. Their Director of Publishing Logistics, Marjorie Brown (no relation), was aware that he was "...establishing our bona fides..." and was questioned on the kind of articles they publish in general, as well as the standing of the authors of this article in particular. The publishers were aware that this particular report was potentially newsworthy not least because of Dealler's previous involvement in the media debates concerning BSE and his eagerness to "have his work in the public domain", and were therefore ready to give support to any media enquiries. Ms. Brown was able to convince Mr. Brown that the report was a serious and legitimate piece of scientific research, although other factors contributed to that judgement. Paul Brown was also reassured by the cost of a subscription to the journal (apparently around £1000 per annum) - "...if people are investing a thousand a year in something, they must think it's got something to say to them." - and by the list of sixty two references cited in the bibliography. These things allowed him to compare the BFJ with other journals more familiar to him such as *Nature*. His presumably fairly hurried reading of

the report confirmed to his satisfaction that the arguments it contained were logical; and he finally relied on his own "gut feeling", and general experience as a journalist to make the judgement after "...thirty years in the business" (This is of course a reference to the idea of 'journalistic nous' that is often cited, but rarely adequately defined, by journalists attempting to explain their news judgements).

This particular story raises a number of questions concerning the nature of specialist journalism in the mainstream news media. Brown would have liked to ask for MAFF's reaction, not so much to the science contained in the report, but to Dealler's name as the *author* of the report. This implies a kind of personalization by the journalists which attaches credibility to the scientist rather than the science, not surprisingly given that the journalist is unlikely to have any detailed scientific knowledge of his or her topic even if he or she does have a scientific background. Brown in this case has great experience in environmental science as a specialist journalist, but has no formal scientific qualifications. The locus of credibility therefore shifts from the scientific research to the scientist.

Brown would generally take it into account if MAFF seriously questioned the credibility of his sources:

"If they say to you 'Dealler's bonkers anyway', then clearly you have to go back and think about it and decide; if they say 'He's entitled to his opinion, but our opinion is different', you can quote their opinion."
(Interview: Paul Brown, *Guardian* Environment Correspondent)

This raises the possibility of a story on the threshold of newsworthiness being 'spiked' due to a negative appraisal of the source by the appropriate Government department. A source such as Richard Lacey, who has been described by a number of journalists as a 'rent-a-quote' figure, and who might be seen by journalists to fit Brown's description of older academics with security of tenure who "go off the wall completely", could well become a victim of this kind of 'credibility test' if a story is on the borders of newsworthiness.

In this case however, Brown was unable to get any reaction due to pressure of time, and the credibility of Stephen Dealler and the *British Food Journal* was therefore sufficient to convince Brown that the story was legitimate. Hansen (1992: 9: *Newspaper Science: The Press Presentation of Science and Scientists*) notes how scientific sources are often referred to in press reports with accompanying adjectives such as 'leading scientist', 'distinguished neurologist' in order to signify the

authoritativeness of the sources concerned. There is no reason why this principle cannot be applied to the scientific journals, but in the Brown story, the British Food Journal is not supported in this way (see previous excerpt). This may lead the reader to *assume* the credibility of the journal, or at least it mitigates against a *questioning* of the journal's authority, even when the journalist responsible needed to confirm its 'bona fides' for himself. Brown was presumably demonstrating some caution in not offering support to a publication with which he was not familiar; but in the phrasing he has used, he implies familiarity which can be taken to imply a certain credibility. By way of contrast, use of an indefinite article and a little descriptive explanation - 'published in the British Food Journal, a scientific publication...' - might have allowed a question concerning credibility to arise. Such a strategy *is* employed in his description of the author of the paper:

"Dr Stephen Dealler, a medical microbiologist working at York district hospital,..." (*Guardian*, 16.11.95)

The credibility of the British Food Journal was tested by Brown, not least in order to preserve his own authority and that of the *Guardian*; having passed the test, the Journal is presented unproblematically to the reader.

Brown was unaware of any other coverage of this particular angle on the Topic of BSE; nevertheless, the Press Association's Health Correspondent reported on the "soon to be published" article on the 15th of November, also focusing on the year 2001 as a critical point, and noting the "terrifying scenario" it implies if only a small dose of the infective agent is capable of producing CJD in humans ('Health: New Fears Over BSE Link With Humans', *Press Association*, 15.11.95). It does not quote any other sources on the Dealler article, but the report briefly mentions two other developments in the BSE issue: firstly, it notes calls made the previous week by Agriculture Minister Douglas Hogg for tighter self-regulation of slaughterhouse controls; secondly, it quotes an official German Government researcher who has reassured German consumers that his, and the Government's view is that British beef is safe.

The only other direct coverage of Dealler's report occurred in a short article in the Scottish *Daily Record* ('Meat Warning'; 16.11.95), which again emphasised the threat that may become apparent at the end of the century. Indeed, it is quite possible that the millennial element in the source report acts as a news 'hook' in a story which might otherwise have been perceived as statistically speculative and vague. By linking the possible risks to a time which already carries much connotative value, the report

perhaps positions BSE as a 20th century disease, implying the need for change in the future. The use of '2001' in the stories certainly adds a science fiction aura to an issue which has already provoked questions that remain unanswered by science.

Although this particular scientific paper seems to have produced a limited amount of newspaper coverage, other examples of Dealler's work were also gaining some attention at this time. Just prior to the publication of Paul Brown's story in the *Guardian*, a Granada TV World in Action programme discussed the possibility that many more BSE infected cattle were getting into the food chain than had been previously admitted. Quotes from those interviewed in the programme, including Dr Dealler, formed the basis of a PA report on 12 November 1995, and the *Daily Mail* published a similar piece on the 13th, the day of the broadcast. On the 14th, David Fletcher, the *Daily Telegraph's* health services correspondent linked the findings of the programme to a paper co-written by Dealler and Dr William Patterson and published in the *Journal of Public Health Medicine*, which again raised similar concerns about the entrance of BSE infected meat into the human food chain. In this context it seems that Brown's article, although in one sense self-contained, was in fact part of a wider news interest in Dealler's thesis, perhaps reinforced by the World in Action broadcast immediately preceding the '2001' story. It is also this wider context which mitigates against Brown's explanation of the apparently coincidental "chance" way in which his '2001' article found its way into the newspaper.

The Nuns of Daventry

- "Protesting Nuns Save Their Hens" (*Daily Telegraph*, p.1)
- "Nuns To Defy 'Gestapo' Raid On Hens" (*Guardian*, p.2)
- "Nuns In Battle To Save Their Flock" (*The Times*, p.16)
- "Nuns Thin Black Line Repels Chicken Killers" (*Independent*, p.1-2)
- "The Nuns Chorus of Defiance" (*Daily Mail*, p.3)
- "Praise Be! Nuns Beat Off a Coop D'Etat" (*Daily Express*, p.3)
- "Chicken Coop Sit-in Saves The Passion Sisters Flock" (*Today*, p.7)
- "Holy Henhouse!" (*Sun*, p.7)
- "Chicken Shack Nuns Rule The Roost!" (*Daily Star*, p.3)
- "Chicken!" (*Daily Mirror*, p.1)

The above newspaper headlines, all published on 7 October 1989, go some way to substantiating the claim by Richard North, an environmental health officer involved in the story, that the 'Nuns of Daventry' became an issue which "captured the imagination

of the nation" (North and Gorman, 1990: 82; see also chapter 6). Certainly, it seemed to capture the imagination of the national press; any story which is covered by every national daily newspaper, including the front pages of two broadsheet papers, must exhibit a high degree of newsworthiness for the journalists concerned. The stories above reported how the Ministry of Agriculture had been forced to abandon an attempt to slaughter a large flock of allegedly salmonella-infected egg-laying chickens at a monastery in Daventry, Northamptonshire, because a number of the nuns who tended the flock had "barricaded themselves in a hen coop" (*Today*). The slaughter was ordered when tests apparently confirmed a link between the eggs produced by the chickens at Our Lady of the Passion monastery and a case of salmonella food poisoning reported by a local family. The presentation of these initial stories themselves helped to give the impression of a 'developing story'; the *Times* noted that "last night" MAFF had warned that they would return the following morning, and the *Telegraph* described the night security guards who were patrolling the monastery to make sure that the "Ministry men" did not "return unannounced".

Over a period of more than two weeks the story developed as the nuns applied for, and were granted leave to seek a judicial review of the order to destroy the flock in the High Court. The adjournment won by the nuns to give them time to construct their case gained more newspaper coverage, and the legal arguments between the two camps provided a steady stream of new material, justifying continuing coverage over the following days. For instance, the *Independent* reported on the 14 October that the QC acting for the nuns had explained to the judges that MAFF tests on the chickens had found no evidence of a danger to public health. The nuns' legal case collapsed because as their lawyers accepted, they could not prove that the Agriculture Minister John Gummer had acted unreasonably. The end of the judicial review was reported on 18 October by many newspapers, along with news that the nuns intended to move into the production of chocolates, and that further legal action might be considered in order to force MAFF into paying more compensation for the chickens which were about to be slaughtered. On the 21st the newspapers reported that the slaughter had taken place. The *Times* for instance confirmed that a team from MAFF had spent three hours wringing the necks of 5000 chickens, which were then packed in boxes and taken to a local refuse site. This was effectively the end of the story in terms of newspaper coverage, except perhaps for two further articles. On 25 October, the *Independent* reported that the nuns had written to MAFF to ask them to remove "20 tonnes of chicken manure" from the monastery. The manure would usually be used by local farmers as fertiliser, but they were now wary of the potential for salmonella infection, and the nuns were refusing to pay for its removal. Finally, on October 28, David Icke

(at that time a representative of the Green Party) wrote in the *Times* questioning the suitability of battery farming as a way of supporting a religious order; he regarded battery farming as "appalling" and inhumane.

The coverage made clear from the beginning that the nuns had "sought help from the UK Egg Producer's Association" (*Times*, 7.10.89), and were receiving support in the form of Richard North, an environmental health officer who had been retained as an "adviser" (*ibid.*) to the association. Quotes from North and from Keith Pulman of UKEPA appeared throughout the coverage, emphasising the supporting role of the organisation during the weeks of media interest in the nuns. However, the extent of UKEPA's involvement in the affair, and the extent to which this constituted an exercise in news management, became more apparent following interviews with North, Pulman, and Dennis Warren, also of UKEPA.

North originally became involved with UKEPA as a result of an article of his published in the *Sunday Telegraph* (11.12.88) in which he argued that eggs were not to blame for salmonella. Pulman saw this and invited North to appear with him in a television programme in which North repeated his views. The relationship continued when North appeared for UKEPA during the House of Commons committee inquiry hearings in early 1989, and Pulman felt that North's scientific credibility helped their case, especially as representatives of UKEPA could be characterised as "interested parties" (Interview: Keith Pulman, UKEPA)⁴.

North's position on salmonella binds scientific evidence concerning the source of poisonings to arguments concerning the organisational failings of MAFF and other agencies involved such as the Public Health Laboratory Service (PHLS). In his book *Chickengate*, North explains how the epidemiological investigation of poisoning outbreaks was inadequate, and how this combined with the PHLS's "pre-disposition to blame eggs":

"This was partly because the thesis was fashionable in the United States, partly because eggs are almost universal in food preparation - but mainly because they provided a quick and easy answer and politicians dealing with public food scares demand quick and easy answers." (North and Gorman 1990: 111)

⁴While North was clearly employed, in some sense, by UKEPA, the exact nature of the relationship was difficult to ascertain; North made the interesting distinction that while he was being paid by UKEPA, he was never "in the pay" of the association, perhaps indicating that his views pre-dated his involvement with UKEPA.

North's proposed remedy includes compulsory insurance for food businesses and more use of independent laboratories for investigation of food contamination, but he warns against "yet more regulation and intervention" (ibid: 116) which would translate into "less choice and more cost" (ibid: 117) for consumers. In the particular case of the Daventry nuns, North argued that the type of salmonella which linked the flock to the poisoning outbreak - *S. Typhimurium* DT49a - is primarily found in cattle, and that the investigations into the outbreak had not taken sufficient care to rule out other sources of this kind of salmonella such as dairy products.

The newspaper coverage surrounding the nuns of Daventry was considered useful by UKEPA as a vehicle for their arguments against the slaughter policy in particular, and government policy more generally; to this end, North and UKEPA applied a news management approach to their dealings with the media. This is not to argue that the story was in any way 'invented' or false: the nuns' flock was apparently threatened with slaughter before the involvement of UKEPA. According to Keith Pulman, the nuns, as independent egg producers and members of the association, asked for help in fighting the order, and he recognised the news value of such a story:

"Once Mother Catherine said she'd fight it we knew we were on to a winner [...] if you've got an 80 year-old nun who is prepared to stand up and go to court then [they are] all queuing up for a story"
(Interview: Keith Pulman, UKEPA)

UKEPA attempted to use the issue as a bargaining tool in their fight against the slaughter policy. In a meeting with junior agriculture minister David Curry ("Gummer's sidekick"), Pulman warned him of the story which was about to break, but this alone was unsurprisingly not enough to persuade him to change the policy. With these 'behind the scenes', back region (Ericson et. al. 1989) activities exhausted, UKEPA began their attempt to promote public pressure on the government. North's research into the legal position of the nuns led him to believe that while MAFF had a legal right to slaughter the birds, they had no right of entry onto the property; so North planned "an ambush" (Richard North). He invited five journalists from broadsheet newspapers who were present when he refused the MAFF slaughter team permission to enter the monastery. By this time, a reporter from Radio Northampton had arrived. A number of nuns were in the henhouse collecting eggs, which the radio reporter misunderstood, reporting that the nuns had locked themselves in⁵. This misunderstanding was,

⁵The confusion surrounding the nuns' 'barricade' extended to the numbers involved: while the Times and Telegraph noted that six nuns had locked themselves in the chicken shed, the Guardian counted five, and Richard North recalled four making the collection. Whether or not the impression of a 'lock-

according to North, entirely accidental; nevertheless, it provided an additional element to an already newsworthy story:

"...from then on there were hundreds of journalists...the whole thing escalated..." (Interview: Richard North)

That evening (6 October 1989) North was informed that a MAFF official at the monastery had implied that the team would return the following day; he ensured that the media were also aware of this, and while the journalists did return, the slaughter was called off, and MAFF stayed away. Within days the nuns were beginning their legal challenge:

"By then of course, the story had its own impetus" (Interview: Richard North)

While the 'sensational' aspects of the story clearly captured the journalistic imagination, the coverage did allow UKEPA the opportunity to put their case. The *Independent* for instance highlighted the nuns' insistence that they had originally been informed that the original poisoning outbreak had been attributed to salmonella enteritidis. While MAFF said this had been a mistake, the nuns implied that they had conspired to make a link when the tests on their chickens found they were infected with *S. Typhimurium* ("Nuns Claim Ministry Changed Eggs Story", *Independent*, 10 October 1989). This story also provided a platform for the independent producers' wider concerns:

"Andy Oatley, chairman of the association, said that a court hearing would be a 'watershed' for small egg producers. The British egg industry had been made a scapegoat for food poisoning by the Government. Between 60 and 70 per cent of EGGS came from the 'independents' such as the NUNS who kept up to 10,000 birds. They had been hardest hit by new legislation which required regular testing of the flocks and their compulsory slaughter if salmonella was found. It cost about pounds 14,000 to restock; compensation was inadequate and hundreds had gone out of business, Mr Oatley said." ("Nuns Claim Ministry Changed Eggs Story"; *Independent*, 10.10.89).

North was clear that the relationship between sources and journalists was in this instance mutually beneficial. UKEPA provided the "hook" of a newsworthy story involving a group of humble women driven to fight for their rights against an

in' was entirely accidental or not, it seems North did little to correct this perception, and this element of the story was repeated throughout the coverage as the issue developed.

overbearing, possibly conspiratorial state; the journalists provided access to the public via the newspapers and broadcast media:

"So, understanding how the media work, we set up an operation to give them what they wanted, which enabled us to get what we wanted"
(Interview: Richard North)

The need to "put the issue on the agenda" was all the more pressing for UKEPA because of the lack of support from elsewhere in the egg industry. The British Egg Industry Council were not interested in any further press coverage because it "might be misrepresented" (John Coles, BEIC); North felt that BEIC's position was essentially that "any publicity was bad publicity", whereas UKEPA believed that stories such as those written about the nuns of Daventry were essential to re-balance what they felt was an unfair settlement.

Media access extended, for instance, to an article written by North and published in the *Independent* on the 12 October. While clearly labelled as a 'viewpoint', the piece is a 700-word critique of the Government's slaughter policy which is described as a "political expedient" to show that something is being done. The article ends with a note - "Tomorrow: the egg industry council replies" - which underlines the extent to which the press were aware of the divisions within the egg production industry. The following day's article by John Coles confirmed that the BEIC fully supported the slaughter policy as a way of reassuring the public, and condemned the nuns' protest as "potentially damaging" for consumers and producers:

"By entering 'the race . . . to show that the Government is wrong' Ukepa is clutching at straws and defying the accepted principle that marketing any product is all about listening to the demands of the consumer and satisfying those demands." ("Viewpoint: Capitalising on High Standards in the Egg Industry": *Independent*, 13.10.89)

In this way, the conflicts between the large conglomerates and the small independent producers are not just implicit in the journalistic treatment of the issue, but clearly laid out before the reader.

As was previously noted, the option of ignoring an event which has been constructed purely to appeal to journalists (Gans 1980: 122; see also chapter 1) is counterbalanced by the need not to be left behind with regard to a newsworthy story. Richard North felt that ITN were anxious to take his phone calls on the evening of the 7 October 1989 (in which he alerted them to the possibility that the MAFF slaughter team would

return to the monastery on the following day) at least in part because they had "missed the story" that day. Certainly the amount of coverage over more than two weeks suggests that few journalists were willing to dismiss the story as a 'pseudo-event' (Boorstin 1961) unworthy of serious attention.

Summary and Comparison

These four 'sub-case studies' illustrate the variety of ways in which food scares have been approached and discussed within newspapers. The two based on 'feature' articles in magazine supplements (by Blythman and Martin) contrast with the 'hard news' items which comprise the main focus of my research. Joanna Blythman was less concerned with the need for 'balance' than Peter Martin, who expressed some caution against the idea that feature journalists have more freedom to take positions; nevertheless, they both produced work in which an argument is put forward, and in which they (rather than carefully balanced sources) become the ultimate authors of criticisms of the prevailing official position on their respective food scare issues.

Blythman's conception of the role of the freelance magazine writer apparently also differed from that of Peter Martin in that she felt that she would prefer not to cover a story which was already the subject of 'hard news' interest. She had previously written for instance about BSE, but when I spoke to her (November 1995) she felt that it was "too much of a news story for me" and that in such a situation news journalists were in a better position to cover such stories. Martin's articles on BSE, particularly the later ones, appeared at times of considerable news interest in the issue, and clearly he was not prepared to leave it to the newspapers' staff journalists. This difference may be due to Martin's position as a generalist feature writer; he may be more inclined to see his role as providing background to issues (in whatever field they may arise) currently in the news. Blythman however seems to see her specialist writing on food issues as essentially additional to the news of the day, covering the topics that would generally not appear in the 'hard news' sections of a newspaper. The fact that Blythman's 'carrots' story was taken up in the news was in a sense a 'bonus' which she had not consciously anticipated.

Both the 'nuns' story and the '2001' article were intended for and featured in the hard news pages of the newspapers. Arguably, in both these cases the actions of the sources concerned were more responsible for the appearance of the subsequent news items than in the magazine feature cases. Certainly with regard to the nuns of Daventry, the news management techniques of UKEPA produced a large amount of coverage which

would perhaps have otherwise been unlikely. Paul Brown's '2001' story was not promoted as a news event in the same way; however, the tie-in with the World in Action programme, and the extent to which the British Food Journal, as publisher of the original paper, was aware of its news potential, suggest that news coverage was expected.

Indeed, the origins of each of these 'sub-case studies' illustrate different aspects of the news production process. Tracing a news item back to its 'ultimate' single point of origin is often difficult and inconclusive; a more useful approach is to examine the point at which an 'event' gains attention from news journalists.⁶ While the news stories concerning the nuns of Daventry derived from official activities (the attempt to slaughter the flock), the story apparently gained news attention primarily due to the promotional activities of Richard North and UKEPA. The roots of Paul Brown's '2001' story in a scientific paper, published in an (apparently) credible journal, illustrate the combined news value of authorised (peer reviewed) science and the promotional sense of such journals. Joanna Blythman's initial report on the potential hazards of pesticide residues in carrots can also be said to derive from a scientific report, this time from the official source of MAFF; however, it attracted her attention via its promotion by the Pesticides Trust, a relatively resource-poor pressure group. In all these cases then, some form of 'pre-structuring' or pre-organising occurred prior to the attentions of the journalist concerned. In the case of Peter Martin's BSE articles, it is perhaps fairer to argue that journalistic interest pre-existed, in that Martin was invited by an editor to write on the subject. The editor was aware of the issue well before Martin became involved, and that awareness includes the knowledge that BSE, and the possibility of a link with CJD, had been newsworthy for some time.

The specificity of these particular small-scale examples means that they are, perhaps more so than the two main food scares in general, susceptible to analysis in terms of the notion of primary definition (see chapter 1). The analyses in the first two examples provide some evidence that news sources do not necessarily have an *a priori* definitional advantage. Joanna Blythman's article concerning pesticides in carrots seems to have generated a genuine news story which was covered (in 'hard news' terms) by a number of newspapers, including the *Daily Mail* and the *Times*, on their front pages. Blythman defined the issue as one which illustrated the dangers of large-scale, industrialised, and chemically-dependent farming methods, and while such

⁶Indeed, from a constructivist position, this is the point at which it can be said to become news, in that it becomes defined as such by those with the authority to make such pronouncements - representatives of news organisations.

themes were to some extent present in the coverage which followed, there was also a reliance on official pronouncements (in that both *Mail* and *Times* stories focus on the MAFF 'advice' which was apparently generated by Blythman's initial inquiries). It might therefore be argued that while an independently-minded journalist can initiate news on her own terms, it is unlikely that official accredited sources will allow a story to continue without attempting to re-cast it in a more sympathetic light. Thus, a story from the food pages of the *Weekend Guardian* concerning unsafe farming practices became an issue of governmental regulation of residue limits, facilitating a shift of focus from a diverse and multifarious industry to the perhaps more tightly news-managed arena of governmental activity.

Peter Martin's series of articles seemed to challenge official constructions of the BSE scare not least in their dismissal of the orthodox explanations of the scientific causes of the cattle epidemic. Specifically, his criticisms of prion theory suggest that he was not following a primary *scientific* definition by authoritative scientific sources. Similarly, Paul Brown's 'BSE in 2001' article challenged official versions of the issue with other scientific evidence which, while not officially accredited, was nevertheless perceived (by Brown) to be both credible and authoritative. By contrast, the story of the 'Nuns of Daventry' can be understood as an exercise in news management in which a source organisation controlled the (initial) agenda while pursuing their own interests. It certainly seems that UKEPA and Richard North felt that the exercise was worthwhile in the opportunities it provided for them to put across their arguments and perspectives; however, it must also be acknowledged that the journalists were aware of the connections between the Daventry nuns, UKEPA and Richard North, and quite possibly accepted this as the price to pay for what was presumably considered to be a highly novel and newsworthy 'take' on an otherwise 'dead' story. A one-dimensional application of the primary definition thesis is therefore unpersuasive even in this case.

Of course, it might be argued that in all of these small-scale case studies the inflections of the journalists and news organisations concerned were within the previously imposed primary definitions (so that, for instance, Paul Brown's presentation of statistical evidence was nevertheless within the parameters of the issue as a technical problem of numbers and statistical risk defined by experts - rather than individual, human, personal risk suffered by members of the lay public⁷); but as was suggested previously (see chapter 1) such an argument illustrates one of the limitations of the

⁷This issue, in terms of the distinction between *scientific* and *social* rationality, is discussed in the following chapter.

primary definition thesis in that it is susceptible to assertions of ever more abstract and inescapable definitional frameworks.

Chapter 10

Food Scares and the Risk Society

Earlier discussion of the development of the field of risk analysis focused on the way in which the failure of traditional models of risk had led to attempts to incorporate social factors into the risk equation. Beck's Risk Society thesis reflects a growing interest in such issues, and develops a wider 'social theory' conception of the role and importance of risk decisions in modern society. Indeed, Beck sees risk as a fundamental element within developing modern societies which are moving from 'simple modernity', characterised by industrial society, to the 'reflexive modernity' of the risk society. This chapter begins with a brief introduction to the main themes of the Risk Society thesis before examining its particular relevance to food scares; illustrations from the news coverage are then discussed prior to consideration of two of the main criticisms which Beck's arguments have attracted.

Risk and reflexivity

Beck argues that the traditional understanding of modernity, in its "classical industrial design" (Beck 1992: 10) encompassing Enlightenment notions of progress, fails to acknowledge the extent to which industrial society has reached the point where it has begun to undermine its own existence. In its traditional conception, modern industrial society is characterised by the production and distribution of wealth, with the production of "techno-scientifically produced risks" (ibid: 19) seen as an inevitable but containable side effect. Beck suggests that such hazards are now being produced at such a rate, and such a magnitude, that they can no longer be considered as side effects, but are in fact the most important element within the 'new modernity' of the risk society. Greater efforts are therefore being made in attempting to negate or minimise the effects of these technologically produced risks:

"We are therefore concerned no longer exclusively with making nature useful, or with releasing mankind from traditional constraints, but also and essentially with problems resulting from techno-economic development itself. Modernization is becoming *reflexive*; it is becoming its own theme." (ibid: 19)

To the extent that the process of modernization - of rational progress - is able to reflect critically upon its own development, it is reflexive; the emergence of this third

stage of development follows the periods of pre-modernity and 'simple' modernity (Lash and Wynne 1992: 3).

The risks produced in the period of 'late modernity' are demanding more attention as they threaten greater numbers of people, and begin to overshadow the 'gains' made via traditional "techno-economic 'progress'" (Beck 1992: 13). Perhaps the clearest examples of such risks are those derived from sources of pollution such as nuclear power, chemical production, and the industrial use of toxins. Beck notes that such risks are often, in their latent stage at least, imperceptible to those affected by them; the invisibility of radiation, and the tastelessness of the pollutants in food, contrast with the all too visible hazards connected with the poverty and lack of hygiene which 'simple' modernity and industrial society promised to overcome. They are also invisible in the sense that they are "piggy-back products", taken in ("inhaled or ingested") with the necessary sustenance of everyday life - air, water, food (ibid: 40). Modernization risks (also called 'civilization risks') also cross national boundaries to become global risks; the wooded areas of Scandinavia for instance suffer the consequences of industrial pollution elsewhere (ibid: 21), while Cumbrian sheep farmers felt the long-term effects of the Chernobyl nuclear disaster (Wynne 1996: 62). The magnitude of the consequences of modernization risks means that the systems of insurance, regulation and precautionary measures - what Beck characterises as the "normative bases of [risk] calculation" (ibid: 22) - are simply inadequate. Nuclear accidents (or even the dangers from nuclear waste) affect not just local people but those across vast distances; not just those involved at the time, but even the as-yet-unborn¹; their reach, across space and time, therefore makes the calculation necessary for private insurance impossible. Indeed, Beck implies that such regulatory systems only serve to falsely legitimate the acceptability of modernization risks, and the extent to which new risks are effectively uninsurable can be seen as a measure of the development of the risk society (Beck 1996: 31).

The invisibility of these large-scale, industrially produced risks, at least in their latent phase, means that they can generally only be experienced via the knowledge about them which is produced through expert understandings:

"They can thus be changed, magnified, dramatized or minimized within knowledge, and to that extent they are particularly *open to social definition and construction*." (Beck 1992: 23)

¹Perrow refers to 'third and fourth party victims' - the innocent bystanders and future generations who are also threatened by systemic pollution and nuclear accidents (Perrow 1984: 306).

Thus the public perception of risks becomes increasingly dependent on the scientific authorities and the "privileged site" (Cottle 1998: 7) of the mass media (that is, from a news management perspective, the *sources* and *journalists*) which hold that definitional power. This increase in the social and economic importance of knowledge leads Beck to suggest that in this sense the Risk Society is also the "*science, media and information society*" (Beck 1992: 46). The reliance upon expert definitions of scientific issues is arguably true across the various fields of scientific enquiry (Jones et al 1977; Gardner and Young 1981); however, because the understanding of modernization risks is of direct relevance to public health, their social construction by scientific authorities is of particular importance. Beck asserts that, for instance, information concerning the level of pollutants in food, and the extent to which those pollutants pose a significant risk, is completely inaccessible to the public except via 'external knowledge' provided by expert scientists; this is, in effect, a loss of "cognitive sovereignty" (Beck 1992: 53) in that individuals are deprived of the opportunity to make decisions based on their own understandings of the risks they face.

Beck's critique of scientism in modernity follows a similar line to those made by the Frankfurt School and others, particularly Habermas (Rustin 1994: 3; see also the following chapter's discussion of Habermas). He suggests that the equating of science with knowledge, which is a product of modern industrial society, leads to a position in which the definition of modernization risks is monopolised by expert scientific authority. In this view:

"Science 'determines risks' and the population 'perceives risks'. Deviations from this pattern indicate the extent of 'irrationality' and 'hostility to technology'" (Beck 1992: 57)

This attitude views the public as an ignorant mass which needs to be educated to understand and accept the primacy of 'techno-scientific rationality'², employing a deficit model towards public attitudes and understandings which we have found is evident in traditional conceptions of risk (see chapter 3). Beck asserts the need for scientists to accept that while they may attempt to understand risks objectively, the core assumptions upon which they operate - the definitions of 'acceptable levels' for instance - are socially produced, and therefore value-laden (ibid:29). The probability calculations produced by risk assessments cannot be separated from the social, industrial and political forces which shape them.

²Beck's analysis here clearly chimes with those of others such as Douglas (1986) and Wynne (1996).

While some researchers and academics have described examples of 'lay epidemiology' and 'social rationalities', and others have suggested the need for science to acknowledge the limits of scientific rationality³, Beck has theorised the emergence of such a "demonopolization of science" (ibid:163) from within his notion of reflexive modernization.

Corresponding to the period of 'simple' modernity in which traditional society was 'modernized' to become industrialised, primary scientization refers to the application of science to a separate, objectified "world of nature, people and society" (ibid: 155). In this phase, science was concerned with the elimination of hazards produced *externally*, outside the spheres of scientific development. As the minor side-effects of industrialised science and technology grow in importance, science increasingly comes to be dealing with the results of its own shortcomings; as we move towards the risk society, science is confronted by the products of technological over-production, and is therefore being forced to act reflexively in questioning its own foundations.

"Science is no longer concerned with 'liberation' from *pre-existing* dependencies, but with the definition and distribution of errors and risks which are *produced by itself*." (ibid: 158)

Beck believes that this kind of self-examination of scientific rationality will lead to a demystification of science in which its claims to unparalleled access to knowledge are qualified and relativised; indeed, he sees this as a return to the path of the enlightenment search for rationality from the irrational cul-de-sac of industrialised scientism which has been outlined by (among others) such figures as Habermas (1971) and Marcuse (1972). This 'demonopolisation' of scientific rationality means that other forms of knowledge would not be dismissed simply due to their failure to correspond with the discredited tenets of traditional (non-reflexive) science. Beck locates the emergence of nascent social rationalities in, for instance, the arguments of environmentalist groups. He suggests that these organisations began as conservation movements which could be characterised (or perhaps *caricatured*) as hostile to technological progress. Only when the risks produced by industrialisation grew could their specific and individual criticisms become generalised in an attack on the bases of industrial society (Beck 1992: 162).

A number of writers have remarked on the similarities between Beck's work and that of Anthony Giddens (Lash and Wynne 1992: 7; Irwin 1994: 174; Adam 1996: 90). In

³See 'recent approaches', chapter 3.

particular, the notion of reflexive modernity is linked directly to Giddens conception of the double hermeneutic which he sees as a crucial part of the methodology of the social sciences. Giddens argues that natural science, while 'hermeneutic' in the sense that it attempts to provide a complete understanding of that which it studies, does not have "knowledgeable agents" in the same way that the social sciences must acknowledge:

"The conceptual schemes of the social sciences therefore express a double hermeneutic, relating both to entering and grasping the frames of meaning involved in the production of social life by lay actors, and to reconstituting these within new frames of meaning involved in technical conceptual schemes." (Giddens 1993: 85-6)

Sociological analyses are subject to a double hermeneutic because they need to interpret the meanings of social activities which themselves are produced through construction and interpretation of social meaning. This construction can be, and is, affected and inflected by the 'technical conceptual schemes' produced through social science, and the resulting lay appropriation of sociology actually changes the object of sociology's study - society itself (ibid: 86).

The link between Giddens's concept and the analysis of risk has been drawn by Hayes, whose description of the 'linguistic imperialism' evident in traditional scientific definitions of risk (emphasising its unidimensional, technical aspects) highlights the lack of a double hermeneutic which might allow more complex lay understandings of risk to feed in to the scientific process (Hayes 1992: 403). The double hermeneutic which Giddens describes is found primarily in the social sciences, and therefore in his conception of reflexivity in modernity it is sociology in particular which becomes a "key expert system in structural reflexivity" (Lash 1994: 116). Beck's particular conception of reflexive modernity however clearly argues that the process of self-reflection is also being forced upon the natural sciences, and it is (natural) scientific reflexivity which is most important in the emergence of the 'new modernity'.

Beck's relevance to food scares

Throughout the winter of 1988-89 representatives of the egg industry continued to argue that kitchen hygiene was the key to containing the rise in salmonella food poisoning (e.g. "Eggs not to blame for salmonella says expert", *Sunday Telegraph* 11.12.88). Behind this defence of the industry lies an unstated assumption about the inevitability of some salmonella infection in foods such as eggs, which is in turn

derived from a belief that the salmonella bacterium is a 'natural' organism, and therefore presents a *natural* risk which is the responsibility of the individual to guard against. In this way, the risks from eating salmonella-infected eggs are legitimised as an essentially unavoidable side-effect of the perfectly rational and necessary process of large-scale industrial egg production. Clearly salmonella can be understood as one of the many ubiquitous 'bugs' in the environment which must be accepted as a natural hazard, and in this sense might be considered to be the kind of risk that in Beck's terms would be subject to the attentions of 'simple' modernisation in its attempts to control the dangers of the "given world" (Beck 1992: 155) of nature. Such a characterisation would therefore define salmonella poisoning as one of those hazards resulting from an "undersupply of hygienic technology" (ibid: 21) which were targeted by objective science in the primary phase of scientisation, and not as one of the modernisation risks prevalent in the emergent risk society. However, Beck warns against this objectification of the 'natural' world, suggesting that the natural has been industrially transformed:

"At the end of the twentieth century nature *is* society and society is also '*nature*'. Anyone who continues to speak of nature as non-society is speaking in terms from a different century, which no longer capture our reality" (ibid: 81)

The 'naturalness' of the salmonella bacteria and its existence within certain foods cannot be separated from the industrial production methods through which those foods are processed; or, at least, Beck argues that such distinctions are false. They help to justify the continued predominance of non-reflexive modernity by denying the responsibility of industrial production for those elements of production which are undesirable and hazardous - that is, the modernisation risks of the risk society. Notwithstanding the arguments concerning the actual statistics of infection, the process of industrial egg production - intensive farming in cramped conditions, accelerated rates of growth - can be argued to provide the conditions in which transmission of infections like salmonella is more likely. One element of the salmonella crisis concerned the extent to which the use of poultry by-products (blood, offal and feathers) contributed to the spread of salmonella bacteria. Jim Reed, Director General of the UK Agricultural Supplies Trade Association (UKASTA) was quoted in the *Farmer's Guardian* on 2 December 1988 suggesting that the poor policing of hygiene regulations meant that contaminated feed may have been a "major factor" in the salmonella crisis (Druce 1989: 61). When I interviewed him Reed told me that in the first few weeks of the crisis, contracts for chicken feed agreed with members of his association were cancelled due to suspicions that the feed was contaminated; on 24

December the newspapers reported UKASTA's announcement that such by-products would no longer be used in poultry feed ('Poultry By-products in Hen Food Dropped', *Daily Telegraph* 24 December 1988). Whether or not contaminated feed was a significant factor, it was clearly considered a serious possibility by those concerned; the scientifically validated practice within industrialised food production of recycling 'waste' products as protein-rich food for poultry, which cannot realistically be characterised as 'natural', seemingly became problematic for producers. From this perspective, salmonella, as a product of the industrial food production system (at least in its recent, more prevalent incarnation), can more clearly be seen as one of the modernisation risks which emerge in the risk society and become subject to the secondary, *reflexive* phase of scientisation⁴.

The carrot 'scare' can perhaps be seen as fitting more directly with Beck's conception of risk derived from technological developments. Salmonella bacteria are relatively well known but can be understood as, in some sense at least, a 'natural' part of the environment; but OP pesticides are a synthetic chemical compound whose dangers are generally understood and whose use is driven by commercial imperatives. Beck specifically uses the example of pesticide use as one in which the officially approved levels and conditions of use may be (relatively) safe, but their conditions of use in the real world inevitably exceed the limits. Blythman notes how when levels had been exceeded in the past,

"...farming custom and practice has been to ask for the limits to be increased." (*Guardian*, 29.4.95)

This illustrates Beck's point that the official position is often working in an "...idealized model of the risk system" (Beck 1992: 5); but it also indicates that while Beck conceives of a position in which the rationalistic, official regulators denounce the 'incorrect' use patterns, in the case of pesticide residues in carrots MAFF's relationship with those subject to the risk is less straightforward. Perhaps in terms of occupational hazards for farmers MAFF might have criticised the 'incorrect use' of the pesticides; however, regarding the risks to consumers, the ministry attempted to pre-empt any criticisms by announcing a reduction in the number of times crops should be sprayed (MAFF Press Release, 18 January 1995). On a similar point, Beck notes how the 'average levels' which are often the basis of scientific recommendations are not always

⁴In describing the beginnings of the "ecological conversion" via which expert knowledges come to be questioned, Beck refers to Britons "shocked by their toxic breakfast eggs" (Beck 1992: 9)

relevant; giving a hypothetical example in which the health of children is affected by airborne pollutants, he suggests the possibility that:

"Parents prove that measurement results only fall within the 'acceptable' scope because the peak values from heavily impacted neighbourhoods are averaged in with values from wooded residential neighbourhoods and so 'calculated away'." (Beck 1992: 61)

These kinds of "'cheating tactics'" (ibid: 62) were arguably apparent in the measurement of pesticides in carrots prior to the tests which led to the advice from MAFF to 'peel and top' carrots, and which were the subject of Joanna Blythman's *Weekend Guardian* in April 1995. Previous testing had been carried out using composite samples of carrots "taken in accordance with international standards" (MAFF Press Release 22/95, 18.1.95), but a change of technique led to individual carrots being tested, and it is these which showed significantly higher residues of organophosphates - up to 25 times higher than the expected composite results (Pesticides Safety Directorate 1995: 4). MAFF promised a reduction in residues, and attempted to portray this as a triumph of their "extensive food surveillance" measures (MAFF Press Release 22/95). Nevertheless, the problem was clearly 'masked' by the previous practice in which composite samples were used. The scientifically approved method of testing, and of therefore producing knowledge concerning residue levels, was in effect ignorant of the 'real world' in which carrots are consumed. People do not consume an averaged sample of the produce from a particular area; they eat, and could potentially be poisoned by, individual carrots.

Pesticides also fit more closely with Beck's conception of modernisation risks because they are both industrially produced *and* undetectable to the lay person as a consumer:

"Previously risks were *perceptible*, and due to an *undersupply* of technology; now they are *imperceptible*, and due to industrial *overproduction*." (Beck 1992: 21)

In the case of pesticide residues in carrots, it seems that the official regulatory system 'stumbled upon' these 'hot spot' results without any specific input from external, non-expert sources. It can therefore be argued that in this particular case the scientific rationality which drives food production was not fundamentally challenged; its monopoly on the definition of the risks involved was not broken (Beck 1992: 29). Beck discusses deforestation in order to illustrate the processes through which modernisation risks must go to be recognised as such. He suggests that while beetles, squirrels, or poor administration are considered to be the causes of forest destruction,

a 'misdiagnosis' will occur. Only when industrialisation is acknowledged as the primary factor will the systematic nature of the problem be understood, at which point truly *political* solutions will need to be found (ibid: 31). The original announcement of the increased residues in carrots did not discuss the causes of the unexpected results, but the official response was of course designed to minimise fears. The implication was that these results were a statistical 'freak', unrepresentative either of the residues in carrots in general, or more widely of other root crops subject to OP pesticides. In other words, the unexpected increases were a side effect, of negligible importance, of the application of modern industrial technology to the 'problem' of food production. Therefore, despite some press criticism of the wider use of pesticides, industrialisation of the food production system was not explicitly defined as a causal factor.

Beck's description of the way in which "latent side effects" come to be defined (by their apologists) also applies to the BSE/CJD issue:

"What was not seen could not be prevented, was produced with the best intentions, and is an unwanted problem child of the objective in mind." (ibid: 34)

The immediate cause of BSE has been argued to be either a particular kind of virus (Narang), a unique type of 'rogue protein' molecule (prion theory) or the overuse of organophosphates (Purdey). Whichever of these theories proves correct, Beck's characterisation remains valid. Beck differentiates the risk society from the class society in a number of ways (some of which are questionable: see later 'Critiques' section); one of these argues that the notion of *equality* which is a dynamic developmental force in class societies is replaced in the risk society by the notion of *safety*. Thus the aims of the society become defensive:

"The dream of class society is that everyone wants and ought to have a *share* of the pie. The utopia of the risk society is that everyone should be *spared* from poisoning." (ibid: 49)

Implicit in this distinction is the notion that social organisation will follow along different lines for the risk society; instead of groups coming together on the basis of class, Beck suggests that communities will also, and perhaps more importantly, form under the influence of the "commonality of anxiety" (ibid: 49). Beck is understandably circumspect in assessing the strength of the bonds holding such "anxiety communities" together. Nevertheless, it could be argued that such commonalities might tentatively be 'read off' from the news coverage of BSE; at least, the notion of the 'implied audience' might be used to suggest that the coverage provided a 'subject position' for readers

similar to Beck's 'anxiety community' through the social rationality implicit in some of the coverage (see below). Support groups have been formed by the families of victims of nv-CJD, such as the Human BSE Foundation whose spokesperson, Dot Churchill, is the mother of one of the first victims of nvCJD ("Tories considered destroying the entire beef industry", *Guardian* 1.8.98); like anxiety communities, these groups have been brought together by a common concern deriving from a modernisation risk, and are not necessarily geographically localised. However, it seems that this kind of group should *not* be characterised as an anxiety community in Beck's sense because they have been constituted through the immediate and direct effects on them and their families of the particular risk concerned (in this case the human form of BSE)⁵. By contrast, 'true' anxiety communities are constituted through media representations of modernisation risks; due to the latency of these hazards, media representation is the only form of knowledge available to the majority of the population. Anxiety communities might then emerge depending on the extent to which news reports following implicitly orthodox assumptions of technological progress, and privileging technical-scientific knowledge, are joined or replaced by coverage offering non-scientific rationalities - localised, contextual, subjectivised knowledges. By providing public space for such understandings, this kind of news coverage arguably provides a 'subject position' for its readers which allows the questioning of officially-sanctioned scientific knowledge and therefore offers the potential for the construction of anxiety communities based on such a position. From this perspective the balance between scientific rationality and social rationality within the news coverage of BSE becomes a crucial concern.

Beck attacks the processes which lead to the setting of 'acceptable levels' of toxins as expressions of scientific rationality based on two "false conclusions" (Beck 1992: 68) which produce unacceptable risks. Firstly, he notes how animal testing (which even in its own terms asks only limited questions in particularly artificial conditions) produces wide variations even between small animals such as mice, guinea pigs and hamsters, and argues that extrapolations of results to humans are essentially meaningless. The resulting 'acceptable levels' are purely symbolic. Secondly, the introduction of these toxic substances into the environment becomes a de facto experiment on the population; however, no scientific observation or measurement takes place. Responsibility for monitoring the progress of this experiment falls to whoever, from within the effected community, can raise sufficient resources. This second 'mistake' is therefore the notion that an adequate safety regime can be constructed on the basis of

⁵Nevertheless, victims families are likely to have used media reports concerning other victims in the initial stages of the formation of such groups as the Human BSE Foundation; thus, the media representations of BSE/nvCJD did affect the emergence of victims families' groups.

a mass human experiment in which the unwilling subjects are themselves forced to collect and present the results of the experiment. Furthermore, in this second element the burden of proof is effectively reversed, in that those affected by the toxic substances are obliged to provide proof of a causal link. Such demands for 'proof' find expression in the comments of the representatives of the meat industry prior to the acceptance of the probable link between BSE and CJD in March 1996. Ambrose Landon of the Meat and Livestock Commission for instance lists the "wealth of information about CJD" (such as its existence in vegetarians and in countries with no cases of BSE) and contrasts it with the grandmother of one of the victims of nv-CJD who blames meat products, but

"could hardly be described as an expert [...] well, I don't have to get too serious about that" (Ambrose Landon, Meat and Livestock Commission).

The fact that there is no *absolute* evidence that meat is safe is acknowledged by Landon, but he is reassured that "there is no evidence on their side either". There are no certainties, and therefore until the opposition have substantial (if not conclusive) proof of their own, the consumption of beef products should be assumed to be safe. In this way, the burden of proof shifts from those producing (or at least *purveying*) the toxin (BSE) to those consuming it.

On a similar theme, a spokesman for industry noted how, in asking whether the *absence* of a link could be proved, its critics were asking the meat industry to 'prove a negative' (Scott, FFMW). Scott felt that it would be impossible to prove beyond contradiction that there was no link between BSE and CJD; it was only possible to say that there was no evidence so far. Beck would, I believe, also recognise this as part of the 'sleight of hand' of scientific rationality. It takes one of the main tenets of science - Popper's theory of falsification - and employs it not to defend a scientific theory, but to defend what could be described as an ongoing human experiment.

The unspoken assumption behind this position (in which beef is presumed to be safe until scientifically proved otherwise) is that credible attempts at refutation continue to be made; however, public criticism of the 'official' position on BSE/CJD has often concentrated on the failure, mainly of government, to engage in urgent scientific research (see, for instance, "Closed minds let mad cows survive", *Observer* 29.3.98). It might therefore be argued that the research necessary to challenge the assumption of safety is not being adequately pursued. For such research that is carried out, Beck argues that the standards of scientific evidence can work to *increase* rather than limit

the risks produced. By insisting on establishing 'strong' and 'clear' correlations and connections before taking action, scientists allow the "*multiplication of risks*":

"To put it bluntly: insisting on the *purity* of scientific analysis leads to the *pollution and contamination* of air, foodstuffs, water, soil, plants, animals and people." (Beck 1992: 62)

The government position on BSE did include action apparently intended to minimise risks, including the bans on various types of offal; nevertheless, the reassurance offered - that there was 'no evidence' of any risk - seems, in light of the more recent admission of a probable link with CJD, to be a clear illustrative example of Beck's argument. Modernisation risks are in any case less susceptible to a linear cause-effect link due to the interactions between environmental toxins, which also makes Beck dismissive of the efficacy of the 'polluter pays' principle (ibid: 63).

The Risk Society thesis is also clearly relevant to the issue of food scares when Beck notes that the newly-emergent "self-critical society" (1994: 11) produces conflicts not just between politicians and citizens groups, or between industry and consumers, but also between, for instance, polluters and those affected by pollution *within* industry. Similar divisions within the wider groups were, as we have seen, evident in the case study food scares (specifically, the conflicts within source groups such as the egg industry), and have the potential to emerge in food issues in the future as the risk society develops.

The Risk Society in news coverage

The imperceptibility of the risks produced in the period of 'late modernity' means that they are "*particularly open to social definition and construction*" (Beck 1992: 23). This emphasises the importance of those institutions and organisations which have the opportunity to shape those definitions, such as the mass media. We might therefore expect to find illustrations of scientific rationality, and perhaps of social rationality, within the news coverage of the food scares which seem to fit Beck's description of the 'civilization risks' of the emerging risk society.

Scientific rationality

The 'pesticides in carrots' scare produced a relatively small number of newspaper articles. Nevertheless, there were items which could be argued to fit with Beck's characterisation of risk definitions. The *Telegraph's* article on 16 May 1995 (see

'Pesticides in Carrots' section of chapter 9, 'Sub-cases') was written by its agriculture correspondent David Brown, and is dismissive of the need or demand for organic produce. It mentions the residues in carrots only in order to minimise the risks involved, pointing out that the 'margin of error' had been exceeded only slightly and that "troubled scientists" will be spending "£1 million of taxpayers money" to find out the reasons for the increased residues. The main thrust of the article derives from the Co-op's decision to stop growing organic fruit and vegetables, and argues that technological changes are beginning to help satisfy consumer demand for 'wholesome' food without the need for organic farming methods:

"...the technology revolution is already leaving the organic movement behind. Coupled with new management skills which leading producers are having to learn in an increasingly competitive industry, new technology promises to succeed where the organic movement has failed." (*Daily Telegraph*, 16.5.95)

Brown argues that the use of modern seed-planting drills and pesticide spreading machines linked to satellite navigation systems result in "pin-point precision", giving better crops and a reduction in the use of chemicals. This seems to be an example of scientific rationality in which the risks produced by industrial farming can apparently be remedied by further technological progress. This 'technological fix' (Trainer 1991) implicitly privileges scientific knowledge and renders the arguments of others less legitimate, less valid, and more partial.

The salmonella scare provides similar examples defending industrial farming practices. An opinion article by a "former editorial writer for *The Field*" in the *Daily Telegraph* for instance argues that only modern intensive farming produces the cheap food which is demanded by the public, and that food poisoning is merely "the fashionable scare" (*Daily Telegraph*, 28.1.89). Another *Telegraph* story focused on the claims of Richard North that salmonella poisoning could largely be blamed on poor hygiene in homes and catering establishments. The headline - "Eggs Not to Blame For Salmonella Says Expert" (*Sunday Telegraph* 11.12.88) - trades on the presumption that only 'experts' are able to provide valid information. Both these stories take little account of the concerns of the public surrounding food poisoning; the assertion that more careful food hygiene is the only solution is reminiscent of the assertions that scientists make concerning pesticides, in which a naive 'idealised risk system' is the basis for calculations of risk. Such models ignore the actual conditions in which the pesticides (or in this case, the foods) are used, and any deviation from the prescribed methods, even if these are unrealistic, is dismissed as irrational (Lash and Wynne 1992: 5).

"Save Us From Too Many Eggheads" (*Daily Express*, 9.12.88)

This headline from an opinion column written by Charles Moore (currently editor of the *Daily Telegraph*) seems to imply a criticism of scientific definitional power; however, Moore's article is critical only of those publicity-seeking experts who "push their own pet theories upon us"; that is, scientists such as Richard Lacey whose opinions contradict the official, scientifically authorised position. The 'eggheads' to which the article refers are in effect represented as 'pseudo-scientists' in contrast with those whose 'consensus' views allow them to become part of, or gain access to, the 'policy community' (Smith 1991). This represents a kind of 'status degradation ceremony' (Gieryn and Figert 1986; also, see chapter 2) in which obsessive 'eggheads' are expelled from the institution of 'real' science in order to protect its authoritative position.

One of the main ways in which the coverage of the salmonella scare exhibits a reliance on scientific rationality concerns the demands made for answers to the questions which the scare generated. A few days into the scare The *Daily Mirror* blamed the government and called for an end to the "confusion", listing a number of questions for which it demanded answers ("Answer Us Now", *Daily Mirror* 7.12.88). A *Daily Express* editorial in mid-December also criticised the confusion surrounding the issue and called for the government to say if Edwina Currie was right or wrong ("Let's Crack On And Sort Out The Eggs Scare", *Daily Express* 15.12.88). Such criticisms might be understandable in the early days of a scare; however, they occur even in the later stages of the salmonella in eggs affair. In mid-February the *Sun* again criticised the "confusion" which was due to the "two voices" of the government, in an editorial headed "Have a Heart For Housewives" (*Sun*, 13.2.89), while an article in the *Daily Mirror* following the publication of the Commons agriculture committee report offered questions and answers and attacked the politicians for their failure to "provide vital answers on egg safety" (*Daily Mirror*, 2.3.89).

A need for answers is also evident in newspaper coverage of BSE:

"MAD cow disease has been diagnosed in 13,000 cattle in Britain. The vital question scientists must answer is whether it can be passed on to pets and people." (Deadly secrets of brain plague; *Today*, 11.5.90)

The demand for scientific certainty also appeared in broadsheet articles; a *Telegraph* item for instance, headlined "The Real Danger Is The Doubt", deplored the "ignorance

and confusion surrounding BSE", and suggested that, for the beef industry, this was more of a problem than the disease itself (*Daily Telegraph*, 15.5.90). In effect such comments resemble those made concerning the confusion over salmonella poisoning.

Nevertheless, the coverage of BSE seemed to rely, implicitly or explicitly, on scientific expertise above any other forms of knowledge. Following the first case of feline spongiform disease, *Today* reported the demand from the owner of the cat for an "urgent top-level inquiry" beneath the headline "They Must Find Out What Killed My Cat" (*Today* 15.5.90). "They" presumably refers to the scientists and experts who are assumed to be capable of producing such information. If "They" was replaced with "we", the headline might begin to include the pet owner concerned, and by implication the wider public, in the search for answers. It seems improbable that the headline is a direct quotation; it is more likely to have been written by a sub-editor, and the reliance on expert technocracy therefore could be argued to illustrate the position of the press rather than the cat's owner. More explicitly, a *Daily Telegraph* editorial entitled "Bent on Mischief" (which also suggested malign motives in German attempts to impose a ban) invokes the authority of science in suggesting that the measures taken by the British Government in attempting to control BSE were "fully adequate" in light of the "scientific evidence" (*Telegraph* 29.6.94).

This dependence on science as the ultimate arbiter of the safety of beef was evident in much of the newspaper coverage, and was also of course a major element in the arguments of the industry and the Government. Indeed the newspapers occasionally allowed authorised news sources such as government ministers direct access to their readers through their 'opinion' and 'comment' pages. An article written by the then Health minister Stephen Dorrell in the *Sun* immediately after the announcement in March 1996 said that although the BSE-CJD link is possible, "no scientific link is yet proven", and he always listens to the "experts" in making policy. This technocratic response is perhaps a clear indication that the Government wished to be seen to be devolving its political responsibility to the ultimate authority of scientific expertise. The headline for this article was "We must trust the experts".

A few days later a front page editorial in the *Sun* (26.3.96), headlined "Has the world gone mad?", appeared critical of its public by suggesting that "we have put our brains out to grass" by panicking about mad cow disease. It cites what it calls "Independent scientific evidence" that the risk is "extremely small". This perhaps amounts to a refinement of the original argument that beef was 'completely safe', but it still aligns the official position with a traditional notion of the authority of statistical, quantitative

science. This article is also interesting in the sense that it seems to imply that the *Sun's* opinion differs from those of its readers, a surprising admission for a newspaper which prides itself on the closeness of its relationship with its audience. When it says that "we" are panicking unnecessarily, the *Sun* presumably refers to its own readership as part of the wider public.

The *Sun's* dismissal of any action other than that of 'trusting the experts' was voiced more directly earlier in the BSE scare in a *Sunday Telegraph* 'comment' piece (by Andrew Dickson) which criticised the various individuals and groups which might have influence on the Labour Party's plans for regulation of the food industry. The article attacked the 'food faddists' who emerge in the wake of food scares such as BSE:

"When experts fall out, the public loses faith. Nowhere has this been more apparent than in the case of mad cow disease. But then a more sinister thing happens. A gap opens which is filled by the pseudo-experts - the propagandists who peddle opinions rather than scientific research." (*Sunday Telegraph*, 3.6.90)

There is a strand of party political criticism in Dickson's attack on "scolding Fabianism" and "Food Leninists" within this; but there is also a clear appeal to scientists to present a unanimous public face, and to the public to 'stick with' the 'official' experts and against those "pseudo-experts" who offer alternative opinions.

Social Rationality

Joanna Blythman's article concerning pesticides in carrots makes it clear that she would be opposed to any marginal changes to the regulation of organophosphates as these would amount to "unsatisfactory compromises"; she sees a need for farmers to "go back to basics and redesign their entire production system" (*Guardian Weekend* 29.4.95). Such arguments may not be considered particularly revolutionary; nevertheless, in Beck's terms I would argue that they represent a small echo of those "new social movements" which he believes are an "expression of reflexive modernization beyond the outlines of industrial society" (Beck 1992: 11). They certainly contrast starkly with the celebratory attitude towards technological progress displayed in the *Daily Telegraph* article on the 16 May 1995 (see beginning of 'Illustrations' section in this chapter).

While Blythman's article is perhaps the clearest example of a social rationality approach to the carrots scare, others also make the wider, *systemic* criticisms which

are essential to Beck's conception. Richard North⁶ in the *Daily Mail* noted for instance how the official reassurances about the low levels found in carrots rely on calculations which measure acute poisoning rather than longer-term effects, and in any case ignore the potential additional pesticides found in other food sources (*Daily Mail*, 3.5.95). North warns of the cumulative effects of organophosphates and also remarks on the links between such chemicals and those which were part of the Nazi's investigation of nerve gases in the 1930's, and which were later to be used as sarin gas by followers of the Aum cult in the subways of Tokyo earlier in 1995. He also makes a further connection with the organophosphates contained in the sheep dip which is alleged to have caused poisoning in sheep farmers.

These links to other issues were made by other newspaper items (*Daily Mail*, 2.5.95; *Sunday Telegraph* 7.5.95; *London Evening Standard*, 11.5.95), and they could be argued to be part of a valid social rationality. Scientific justification of the use of OP pesticides might well rest on complex explanations of the differences between these substances both in their chemistry and in the way they are supposed to be used in practice. However, the apparent origins of OP's in the development of nerve gases intended for use on humans provides some *a priori* evidence of their risk potential, and the appearance of such issues in the news coverage represent an implicit rejection of the scientific assurances of safety. While scientists might argue that it would be naive to reject pesticides simply because of a historical link with Nazism, Beck (among others) would applaud a more 'holistic' approach, whereby such connections, though not scientifically valid, are understood to indicate potential risks which must be addressed.

Newspaper coverage during the salmonella-in-eggs scare included a more direct sampling of public opinion in the form of reports of opinion polls which provided mixed messages. In an article headlined "Crisis, What Crisis? Eggs And Cheese Are Fine By Us" (*Daily Mail*, 8.3.89) the *Mail* reported on a survey by MORI (for National Mutual Life) which suggested that most people did not believe food represented a serious health risk. This however is contradicted by a further MORI poll, this time on behalf of the National Consumer Council, reported by the *Independent* (15.3.89) in which a majority of those questioned did express concern about the safety of food. The headline - "Consumers Believe Food 'Unfit to Eat'" - suggests widespread

⁶This is the same Richard North who was previously involved with the UK Egg Producers Association (UKEPA) in defending the egg industry (see 'Nuns of Daventry', chapter 9), and in part this article continues his attack on MAFF; nevertheless, in this case his arguments are critical of industrial farming processes, and exhibit an element of social rationality.

concern, indicating the failure of scientific reassurances; this then might be seen as a stage in the development of reflexive modernity which could lead to a more developed social rationality from which a critique of industrialised food production emerges. A similar argument applies to the *Sun's* editorial of the 21 December 1988, headlined "Lay Off", which advised readers to avoid eggs despite the reassurances of Agriculture minister John MacGregor. Again, this represents a rejection of the official, supposedly expert-backed position, and while this should not be seen as a coherent exposition of a 'lay' opposition or alternative, it nevertheless can be characterised as a suspension of the scientific rationality which might otherwise obtain. This editorial should also be compared with that of two weeks previously, when the *Sun* felt the egg scare was "...alarmist nonsense..." ("Think Edwina"; the *Sun*, 5.12.88).

One of the elements present in the salmonella coverage which did not arise in the 'pesticides in carrots' issue was the 'first person' account of a poisoning episode. While pesticides were only presented as a potential, generalised threat, salmonella poisoning was given a further dimension through accounts such as that in the *Telegraph* headlined "When Salmonella Struck My Family" (*Daily Telegraph* 20.12.88). The article was written by a journalist who describes the effects of salmonella poisoning on her young children, and criticises those who deny that salmonella infection in eggs represents a serious problem. Other reports of apparent poisonings of individuals, such as the death of Zamir Hussein (see for instance "Salmonella death", *Independent* 20.1.89; "Infected egg was 'probable' cause of poisoned boy's death", *Daily Mail* 20.1.89) are less direct than 'first person' accounts, but nevertheless focus on specific, named individuals. As such, they imply a denial of the quantitative or probabilistic reassurances that might be put forward with regards to more generalised risks, and tacitly challenge the scientific rationality behind them.

Stories concerning individuals also played a part throughout the BSE scare. Six years before the link between BSE and CJD was officially conceded, deaths were being blamed on BSE:

Mad Cow killed my mother: Nurse claims mother killed by BSE

A NURSE claims her mother died from mad cow disease after making infected meat pies. Freda Neild, 65, made pies to raise money for her chapel for 12 years before she fell victim to a rare form of dementia. Her daughter Sandra Galloway is convinced the death was linked to the disease that has led to thousands of cattle being slaughtered on farms.

(Today, 19.2.90)

The link made between pie-making and the emergence of CJD represents a form of lay understanding which falls far short of scientific criteria for evidence. The social rationality which drives the story is also (and in some ways contradictorily - see 'critiques' below) supported by the emphasis on the professional identity of the victim's daughter; the accusations of a nurse clearly carry a hint of medical-scientific authority which would be absent from those of other professionals.

Other stories describe the experiences of those caring for relatives dying of CJD who suspect a link with BSE ("Death Throes Haunt Victim's Husband", *Guardian* 15.5.90; "Why is my girl dying?; CJD victim Victoria Rimmer", *Today*, 25.1.94), or document the relatives demands for information ("Grieving Family in Mad Cow Crossfire", *Sunday Times* 10.12.95). While such stories can be characterised as anecdotal, overly emotional or in some other way *irrational*, the latter article makes some attempt to establish the rationality of the response of the victim's family. The story describes a television debate in which the parents of Stephen Churchill, an acknowledged victim of nvCJD participated:

"They have maintained a measured, restrained response and become informed, articulate campaigners shunning zealotry but insisting that, while the government might tell us there is no conclusive proof that beef has contributed to the record 55 CJD deaths in the past year, there is no evidence to the contrary." (*Sunday Times*, 10.12.95)

By emphasising the Churchill's "measured", "informed", non-zealous response to the tragedy of their son's death, an individual, personal story is reinforced by an appeal to rationality; nevertheless, the scientific assertions of 'lack of evidence' are dismissed. The article explains how Stephen's father patiently listened to a discussion of the conflicting statistical evidence concerning BSE and CJD before interrupting to re-focus the debate away from abstract quantification and towards the death of his son who had not been a statistic but a "living breathing person" (*ibid.*). This amounts to a definitional struggle, arguably between a more social rationality, taking into account the human, emotional aspects of the issue, and a scientific rationality in which the quantitative measures of statistics dominate⁷.

⁷This kind of definitional struggle was also evident during a conference concerning BSE/CJD organised by Charter 88, at which Gerard Callaghan, the brother of a victim of nvCJD began a session by describing the method of his brother's burial (10 feet down in a lime-covered grave) as "medieval". At the end of the session Callaghan spoke again, to complain angrily that BSE was being

The notion that 'non-experts' involved in the BSE debate might have something of value to contribute is also echoed in an earlier story from the *Daily Telegraph*. Headlined "Farmers' Wives Urge Killing Of Mad Cow Calves", the article reports the Women's Farming Union's call for a cull of all calves born to infected cows. Clearly a representative organisation is the main source of the article, and their criticisms of Professor Lacey are included; nevertheless the article, in quoting the Union's spokesperson, implies a particular authority based on something other than scientific expertise:

"As women, we say we must cut off the line of breeding to be on the safe side." (*Daily Telegraph* 15.5.90)

This seems to suggest that 'as women', the union's members have a particular insight into the problem denied either to male farmers or to the other 'experts' involved, which rests, perhaps, on the supposed feminine traits of empathy and compassion, and that their views should therefore be considered not just because of their 'interested' position, but also because they have a unique and *valid* understanding.

Divisions between government and scientists also provided a potential space for social rationality in the newspaper coverage:

Scientists Voice New Beef Doubts

GOVERNMENT assurances that British beef is safe are failing to convince experts in the field. Last week The Sunday Times spoke to 50 leading scientists about 'MAD COW disease'. All but three said the possibility of it being transmitted to humans could no longer be ruled out. One in three believes 'on balance' that some people will develop Creutzfeldt-Jakob disease (CJD)...

(*Sunday Times*, 3.12.95)

This suggests that the rigidly technocratic response of the government was not even shared by many scientists. A similar point is made by a *Sunday Mirror* 'comment'

defined by speakers as an agricultural issue, or one of risk assessment, or of governmental regulation, rather than being about the traumatic deaths of young people from a preventable disease. Callaghan's anger was aimed at what he saw as the re-definition of the issue away from its human, social aspect and towards the political, technocratic and narrowly scientific (BSE: A Sickness of Government?, 18 November 1996).

which notes that it is not "militant vegetarians or health freaks" questioning the safety of beef but "some of the country's most eminent scientists" (*Sunday Mirror*, 3.12.95). These articles imply that some scientists recognise the need to include public concerns in the wider BSE debate, even if such concerns are scientifically unproven. It should be noted however, that these stories still rely in the last instance upon the authority of science and scientists (a point to which we shall return - see 'critiques' section below). Following the announcement in March 1996 the newspapers became more forthright in their criticisms of the government's technocratic approach:

"Government can never shrug off its responsibilities on to experts. For by definition, experts are expert only in their particular field. By the same token, they can be careless of other considerations, however valid or legitimate." (*Daily Telegraph*, 22.3.96)

This *Telegraph* leader is careful not to criticise scientists as such, but it does argue that in constructing policy, governments should not rely on science as the sole source of wisdom. In urging the 'weighing of other considerations', the *Telegraph* implies that other forms of knowledge should receive attention, even if a direct endorsement of 'lay knowledges', for instance, was always unlikely to appear.

Risk and quantitative analysis

While the above discussion has selected a number of examples from the coverage in order to illustrate, qualitatively, the possible presence of social and scientific rationality in food scares, my aim here is to suggest some links between the quantitative, content analysis approach of the early parts of my research, and the risk society thesis. I would argue that the previous content analyses (most particularly the elements of 'consumer discourse'/'consumer arena' in the BSE coverage) refer, implicitly and indirectly, to the social rationality which I would suggest is present in the newspaper coverage and therefore also, potentially, in the public sphere. In this way, the earlier 'thematic grid' content analysis addresses, if only obliquely, the issue of social rationality.

The 'thematic grid' and social rationality

Each of the categories employed in the thematic grid analysis can therefore be assessed in terms of the extent to which the competing perspectives of scientific rationality and social rationality are likely to predominate.

State Arena, State Discourse: This category is unlikely to feature examples of social rationality because it is focused on the political elements which are generally characterised as instrumentalist, practical, and based on a traditional notion of rationality. Indeed, government ministers have expressly relied on 'scientific evidence' throughout, while even opposition politicians feel the need to align themselves with scientific arguments as opposed to social understandings (which might, for instance, acknowledge the importance and validity of risk perceptions).

State Arena, Industry Discourse: Again, these articles largely follow the 'scientific' framework of the state. Also, because the industry sources present in the coverage are often large organisations attempting to retain authority and credibility - and because, arguably, government policy and industry discourse often run along similar lines - they are likely to rely on scientific arguments. Nevertheless, there is a potential for an element of social rationality in the way that farmers as a group might be able to contradict, via their own experiences, the assertions of ministers. It is possible that, for instance, in offering a more nuanced, complex understanding of the breeding and slaughter process as it actually occurs in farms and abattoirs, the industry speakers could be seen to be offering a situated understanding which could be described as a form of social rationality, at least in comparison with a narrowly instrumental view of the process derived from a 'laboratory science' perspective. Also, to a limited extent, social rationality might be found in the industry's calls for financial support to be given to attempts to reassure the public (see for instance Chapter 7: "Farmers call for mad cow reassurance", *Guardian* 21.5.90.) In the sense that this represents an admission of the importance of ('irrational') public opinion and perceived risks - compared to concern about the facts of infectivity and scientifically determined 'actual' risk - such calls may be understood as a form of social rationality. Of course, the element of interested, instrumental reasoning involved - in the form of the profit motive - may mitigate such a characterisation.

State Arena, Consumer Discourse: Again, because of its location within the State Arena, this category is focused mainly on organisational questions such as the restructuring of MAFF, and therefore presents a more 'instrumental' approach which is arguably incompatible with the notion of 'social rationality'. Clearly it is the consumerist discourse which, I would argue, is most likely to offer non-scientific arguments, but in this arena it largely follows the state agenda. In a similar vein, consumerist calls for more (Government funded) research into BSE (see chapter 7) clearly invest some faith in scientific understandings which perhaps they might have rejected as having failed in the case of BSE.

Industry Arena, State Discourse: This category consists of stories which relate government positions on activities within the relevant sectors of the food industry. In order to justify actions such as the various changes to abattoir regulations, the government is clearly obliged to offer traditionally rational, scientifically based arguments. This generally precludes the possibility of social rationalities in this category.

Industry Arena, Industry Discourse : Again, the Industry Discourse allows the possibility of expressions of social rationality, in that farmers' explanations of the effects of a fall in the value of their stock might well take into account the emotional, psychological, and wider social consequences which official, statistical measures may minimise or ignore. This could be argued in the case of the story mentioned earlier (chapter 7) concerning the "suicidal" feelings of those who face bankruptcy due to the salmonella scare. Nevertheless, this kind of approach was not always favoured by those in the food industry who preferred to present a more sober, rational position, such as the British Egg Industry Council's John Coles. He called for a 'calm' and 'responsible' approach and criticised UKEPA (who advocated a more pro-active campaign) as a "bunch of hotheads" (see chapter 8). The economic self-interest, which is present in arguments highlighting the effects of food scares on producers, also limits the extent to which they can be fairly characterised as embodying the notion of social rationality.

Industry Arena, Consumer Discourse : Examples of articles classified in this category which escape the bounds of scientific rationality are generally confined to the opinion pieces which criticise factory farming and other intensive production methods. While these may not necessarily entail a clear social rationality framework, they at least potentially offer the opportunity to attack the scientifically generated understanding of food production which seemingly assumes that land and food animals can be continually encouraged, through technical means, to produce more food, more quickly, and more cheaply. Other articles provide opportunities for consumers to voice their concerns about industry practices, such as those who objected to the destruction of BSE carcasses at a local incinerator plant due to the possibility of the infection finding its way into local water supplies ("Mad Cow' site fears", *Mirror* 7.6.90; see chapter 7). This could be understood as having the potential to develop into the kind of 'popular epidemiology' described by Brown (1992) in which official scientific reassurances fail to placate a (justly) concerned local population.

Consumer Arena, State Discourse: This category perhaps contains some of the clearest expressions of a scientific rationality within the BSE coverage. With regard to salmonella in eggs, the emphasis which the government gave to home hygiene as a way of reducing poisoning can be seen as an attempt to tackle the symptoms rather than the underlying causes of the poisonings, a strategy which is expressly dismissed by Beck (1992: 175).⁸ Ministerial attacks on those considered to be extremists in the consumerist camp are also reliant on characterising such individuals as wilfully ignorant of the scientific evidence. With regard to BSE, the example given earlier concerning Agriculture Minister John Gummer's comments on 'mad cat disease' (see chapter 7) represents an explicit assertion of the 'scientific' argument that recent cases of feline spongiform disease are not connected with BSE - presumably because there was 'no evidence' of such a link (an argument which, again, Beck dismisses (1992: 62)).

Consumer Arena, Industry Discourse: Industry discourse in this Arena is, as we have seen (chapter 7), similar to that of the state certainly with regard to Salmonella in eggs, in that home hygiene is argued to be the root cause of salmonella poisoning. The lack of a clear link between BSE and nvCJD (prior to March 1996) allowed the beef industry to claim that there was 'no evidence' of a risk to humans from what was presented as a disease exclusive to animals. This assertion of the importance of scientific evidence - and the implied rejection of other kinds of evidence - is, I would argue, a clear illustration of scientific rationality in Beck's sense of the term.

Consumer Arena, Consumer Discourse: Consumer discourse is of course primarily focused not on the actions of government or the failings of food producers, but on the risks to consumers themselves. Occasionally, this category includes stories which seem to enlist scientific arguments by, for instance, noting that a scientific paper had been published presenting research which found that boiling an egg for 10 minutes did not always destroy any salmonella bacteria present (see chapter 7), and that official advice was therefore insufficient. Official statistical evidence also provided some 'ammunition' for the consumer discourse concerning salmonella in eggs. With regard to BSE, a similar effect is evident in that, for instance, scientific confirmation of spongiform encephalopathies in other species such as domestic cats, and zoo animals of various

⁸The 'hygiene' argument can also be seen as analogous to the 'human error' device used in technocratic risk analysis which avoids any interrogation of the systemic problems within technological risks (Perrow 1984: 306; see also chapter 3). A similar example from the post-war US motor industry blamed motoring injuries and deaths on 'driver error', in an attempt to avoid implementing risk reduction measures in the form of safety features such as collapsible steering columns and shoulder-mounted safety belts ('Crash', *Horizon*, BBC TV 8.1.98).

kinds, was taken as evidence for a potential risk to humans. Thus scientific information was used as a basis for consumerist discourse in both case studies. Nevertheless, much of the coverage classified in this category relied not so much on scientific evidence but on the attitudes, opinions and feelings of those who were directly affected by the illnesses and deaths of people from CJD. Although the link between CJD and BSE was not officially confirmed until March 1996, many of these kinds of stories (prior to this date) were clear in their assumption that beef consumption was a likely cause. Deaths from salmonella in eggs (such as that of Zamir Hussein - see elsewhere in this chapter) covered in the newspapers could be countered by suggesting that the infection was derived from other foods, or that it could be blamed on poor hygiene. In the case of CJD, no blame (implicit or otherwise) could be attached to the victim or his/her family; nor could any alternative 'channels' of infection be suggested for many of the victims, particularly the young ones who were traditionally considered extremely unlikely to develop what had previously been understood as a disease of older people. It is therefore in this category, and in the BSE/CJD coverage in particular, that news items offering a more 'social rationality' perspective might be found.

I would argue that while scientific rationality underlies much of the coverage of food scares, and is particularly prevalent within the State Discourse, a kind of social rationality can be found in certain kinds of story within the Industry Discourse (addressing the State and Industry Arenas), the Industry Arena, Consumer Discourse category, and in particular within the Consumer Arena, Consumer Discourse category. I am not suggesting that the 20-30% of coverage which, in my earlier analysis of two particular sections of the BSE coverage, are classified in this latter category (see chapter 7) can all be assumed to express a form of social rationality; nevertheless, it is evident that some of this coverage does allow an understanding of the meanings and effects of BSE and CJD which go beyond an officially produced and scientifically grounded version of the issues involved.

The notion of official discourses as a 'vehicle' for scientific rationality also implies a link between this kind of analysis of risk in the news, and the wider concern surrounding the relationships between journalists and their sources. Generally it could be argued that official sources are likely to offer scientific, detached, statistical, expert explanations and understandings, whereas lay sources are perhaps more likely to offer personalised, engaged, situated arguments and perspectives. On the assumption that the category of Consumer Discourse, particular within the Consumer Arena, is more likely to include items containing comments from lay sources (as consumers), it might

be expected that social rationality might be more prevalent in this category than those which are more amenable to, or consonant with, expert sources.

A small-scale content analysis

In order to provide some more specific measure of the social rationality within the BSE coverage an additional, small-scale content analysis was undertaken. The period immediately following the March 1996 announcement was selected as the interval from which BSE news coverage (as previously defined - see chapter 6) was analysed for evidence of social rationality. This period was selected because it contained a large amount of coverage over a relatively short period, and also because initial data collection from previous analysis was already available. Also for practical reasons of data availability, *The Guardian*, *The Times*, *The Telegraph*, *The Daily Mail* and *The Daily Mirror* were selected to represent British national newspaper coverage over five days: 20, 21, 22, 23 and 25 March 1996⁹. Articles were classified into one of two categories:

1. Those that mentioned, by name, an (alleged) victim of nvCJD or a member of the victim's family. Within this category a subsection was established which counted the number of these stories which were 'human interest' accounts, predominantly aimed at explaining the details of the effects of the disease on the victim and his/her family; these were seen as 'victim's story' articles.

2. Those which referred to specific, but unnamed victims (and did not name any victims). In this particular sample, such articles mainly referred to the 10 individuals announced at the time as likely to have contracted nvCJD via BSE. This did not include assessments of potential, future victims, which may well be speculative, and potentially based on statistical quantitative data; rather, this category is intended to capture those articles which to some extent 'personalise' the issue through individual accounts even if victims are not actually named. These two categories are mutually exclusive.

All other articles in the sample which were not classified into one of these two categories were included in a residual category for statistical purposes.

⁹ While the announcement was made on 20th, some papers - particularly the *Mirror* - had prior knowledge, and the dates were chosen to reflect this by including the 20th of March.

A further, separate count was made of articles which specifically mention a disagreement between scientists. This distinct category (which may potentially overlap with the previous categories) includes those items in which individuals or groups expressly labelled as scientists or experts are shown to disagree over some element within the BSE/nvCJD issue; it does not include disagreements between, for instance, oppositional experts and the government. This category is intended as a measure of the extent to which science as an institution is shown to be divided, and which is therefore open for interpretation and negotiation. This classification was again compared to the residual category of those articles not included in this category.

The chosen methodology relies on the assumption that a mention of specific victims (named or otherwise) of nvCJD offers the reader a chance to develop a 'social' understanding of nvCJD as a disease with human consequences, as opposed to a statistical 'objectivised' perspective which might lead to a 'scientific' understanding. The 'victim's story' approach can be seen as a particularly important form of this kind of news item, in that such stories often give extended coverage to the effects, on a personal level, of nvCJD on both victims and their friends and families. It should be noted that finding some element of social rationality in such news items does not preclude or minimise the extent to which such reporting should be understood as embodying a 'traditional' journalistic approach, with 'hard' news values. Clearly, such articles are not a new development emerging from the nascent risk society; nevertheless, this doesn't necessarily contradict the assertion implicit in the methodology of this small-scale content analysis, that such reports chime with Beck's arguments concerning the importance of social rationality in the public understanding of risk.

In this particular period, a tenth of the BSE coverage included the names of particular victims of nvCJD, while a further 13% referred to specific (unnamed) victims (see figure 3.1). In total, nearly a quarter of the sample included articles which mentioned specific victims of nvCJD. The breakdown between the broadsheets and tabloids suggest, perhaps unsurprisingly, that the tabloids are more likely, relative to the coverage presented, to mention named victims in their coverage, with one fifth of their coverage consisting of such articles. Over five percent of these represent 'victims' stories' in which the personal effects of nvCJD are presented in detail. The broadsheets are more likely to refer to unnamed victims (17%); articles mentioning named victims account for less than five percent of broadsheet coverage over the sample period. taking both categories into account, the tabloids seem to be more inclined to refer to the victims of nvCJD in their coverage. With regard to the separate count which listed

Figure 3.1.

Content Analysis: Social Rationality					
			Articles containing:		
			named victim/family member (victim's story)	specific but unnamed...	Total categorised articles
Broadsheets					
<i>(Times, Telegraph, Guardian)</i>					
		Raw data	5(4)	19	24
		Percent	4.5(3.6)	17.1	21.6
Tabloids					
<i>(Daily Mirror, Daily Mail)</i>					
		Raw data	13(4)	4	17
		Percent	21.0(6.5)	6.5	27.4
Tabloids and Broadsheets					
<i>(combined)</i>					
		Raw data	18(8)	23	41
		Percent	10.4(4.6)	13.3	23.7
			mention of scientific disagreement		Total number of sample articles
Broadsheets					
<i>(Times, Telegraph, Guardian)</i>					
		Raw data	4		111
		Percent	3.6		100
Tabloids					
<i>(Daily Mirror, Daily Mail)</i>					
		Raw data	6		62
		Percent	9.7		100
Tabloids and Broadsheets					
<i>(combined)</i>					
		Raw data	10		173
		Percent	5.8		100

Note:

Sample: All BSE coverage following the March 1996 announcement, over five days - 20, 21, 22, 23 and 25 March 1996 - consisting of 111 articles in three broadsheets, and 62 articles in two tabloids.

those articles referring to scientific disagreements, less than six percent of the sample fell into this category, again with relatively more examples being found in the tabloid coverage.

The figures for these examples of social rationality within newspaper reports are intended to provide a quantitative indication of the extent to which such accounts are present in the BSE coverage. The 20-25% of articles which did mention (named or unnamed) victims of nvCJD represents a significant proportion of the coverage, certainly with regard to this particular sample. The division between tabloids and broadsheets - in that tabloids are apparently more likely to offer an element of social rationality - can in one sense be understood as part of the traditionally acknowledged differences between 'qualities' and 'populars'. Social rationality (as it is understood here) fits in with the more individualising, personalising, and perhaps emotive style of tabloid reporting, whereas broadsheets are more likely to adopt an analytic, systematic and 'issue-led' approach (Curran and Seaton 1988:105). The relative preponderance of elements of social rationality in the tabloids also echoes the asymmetry between the different sectors of the newspaper industry evident within the main 'thematic' analysis (see chapter 7).

There are clearly a number of areas in which this small-scale content analysis is potentially problematic. In terms of coding, the counting of articles which contain references to particular elements does not preclude those articles from also including other, perhaps contradictory or oppositional arguments. An article which, for instance, refers to the 10 victims announced as being infected with nvCJD, might conceivably also include much more material in which industry representatives present statistical evidence concerning the incidence of BSE in cattle, the incidence of CJD in humans and the quantitative evidence of the likely risks, in order to suggest that eating beef is completely safe. A more sophisticated analysis might attempt to quantify the extent of such ambiguities; nevertheless, the purpose of this analysis was simply to provide some small, indicative evidence of the existence within the coverage of the kind of approach which might be characterised as a form of social rationality, in order to support the more qualitative arguments presented here concerning the relevance of the 'Risk Society' thesis to the issue of food scares. A classification system which recorded items (or indeed paragraphs or sentences) which represented either social rationality or scientific rationality would, in my view, be more problematic not least because criticism of, for instance, government policy, might be difficult to disentangle from criticism of the scientific arguments upon which such policies were based. Indeed, it is conceivable that ministers would attempt to present such criticism in just such a light

in order, perhaps, to recast political criticism as 'irrational' criticism of objective scientific evidence.¹⁰ Scientific rationality is also not counted because it is, effectively, the 'norm' in news coverage as it is in public discourse generally (see the following discussion of Habermas); even if it is not 'visible' in the text, scientific rationality is the assumed background against which the risks of salmonella and BSE/CJD is to be judged. This is linked to the subsumption of scientific discourses within others (those of industry or government for instance) which militated against their measurement within the thematic analysis.

The size of the sample, while modest, is sufficient to provide the kind of indicative, supportive data required. The particular time period selected - the immediate aftermath of the 1996 announcement - is perhaps more likely than most to concentrate on the victims of nvCJD, given that the link between the human disease and BSE had just been officially accepted. There were however periods prior to 1996 when coverage of the BSE issue consisted largely of stories concerning the victims of CJD, as well as periods dominated by the political aspects; it would therefore be difficult to find a brief period which could fairly be considered as representative of the coverage as a whole. The selected period is therefore not intended to be representative in that sense, but is rather a short period in which a large amount of newspaper coverage was generated, and which cannot be characterised as entirely and uniquely *un*representative.

Perhaps the main difficulty concerns the extent to which the references to victims counted in this analysis represent a form of social rationality. It was earlier suggested that the operationalisation of 'social rationality' depended on the extent to which such a term is appropriate to describe the kinds of understanding which news items concerning the victims of nvCJD might provide. As we have seen (chapters 1 and 4), various studies have attempted to trace the ideological effects of news. This brief analysis is not intended to suggest that the news items categorised above provide social rationality as a 'preferred' or 'dominant' reading (Morley 1992: 65), or that heterogeneous audiences could not interpret such news items in idiosyncratic or contradictory ways. Nevertheless, the results do suggest that a social rationality perspective is possible, and perhaps more likely, as a result of the presentation of the non-scientific, personally situated aspects within such stories.

Critiques of Beck

¹⁰ It might even be the case that further, more sophisticated quantitative analyses would represent an inappropriate approach to such concepts as scientific and social rationality, which might be more amenable to qualitative techniques.

While Beck's thesis has gained both popular and academic success, particularly in Germany, there have also been criticisms. Nowotny for instance notes how Beck's rhetorical style has been disparaged along with his lack of empiricism (Nowotny 1992). More specifically, two particular elements of the risk society thesis have attracted criticism.

Risks and Class: The Political Potential of the Risk Society

The expansion of modernisation risks, according to Beck, results in a globalisation which relativises class distinctions as well as national boundaries. A 'boomerang effect' operates whereby even the rich and powerful, who by their actions in the industrial sphere help to produce risks, become subject to those risks. Polluted air is inhaled by the capitalist as much as by the proletarian, and the confrontations inherent in the class society are therefore diminished in the risk society. The fish from contaminated waters are a threat not just to those who eat them but also to those who work in the fishing industry. Beck provides an aphorism: "poverty is hierarchic, smog is democratic" (Beck 1992: 36).

This is linked to the notion that at the end of the phase of 'primary scientization' science works to alleviate the problems produced by technological progress, and is no longer primarily concerned with the control of nature and the risks of poverty. At times, Beck's description of the risk society seems to minimise the struggles for survival of those within wealthy, 'Western' societies:

"The dream of the class society is that everyone wants and ought to have a *share* of the pie. The utopia of the risk society is that everyone should be *spared* from poisoning" (ibid: 49)

The implication might be taken from this that a 'slice of pie' is somehow becoming less important, less imperative. The corollary of this is that the divisions between social groups in terms of risk positions are narrowing. Nowotny has noted the 'sceptics' who feel that Beck ignores the "...still remaining social inequalities of risk exposure..." (Nowotny 1992). It certainly seems in some sections of *Risk Society* (1992) that Beck has largely discounted the risks, modernisation or otherwise, which can be avoided by those wealthy enough to purchase the appropriate protection. Bauman suggests that one explanation for the apparent 'equalising effect' of modern risks is that:

"... only such risks that *also* threaten the resourceful and vociferous sections of society have the chance to be forced into public awareness so that "something may be done about them" - often at the expense of *increasing* the risks that are not as equally shared (ruling classes always tend to represent their concerns as universal interests)." (Bauman 1992)¹¹

Thus Bauman implies that the class society is being obscured by, rather than replaced with, the risk society. He argues that for many people "both inside and outside the affluent West" the struggle for the necessities of life is paramount, and that this is an inevitable by-product of the preoccupation of the powerful with the avoidance of modernisation risks (ibid.).

A similar argument is proposed by Rustin who, from a Marxian perspective, criticises Risk Society for its "silences and glosses" (1994: 11) concerning the power of property and capital and their role in the emergence of reflexive modernisation. He characterises Beck's argument as a theory of "incomplete modernity" (ibid: 3), and praises it as a "valid defence of the idea of a 'rational' society" (ibid: 7), but questions whether the internal logic of modernisation can be considered the driving force of reflexivity. He suggests the possibility that the institutional power of capital, in commodifying all that it touches, transforms the world, "instrumentalising even knowledge itself" (ibid: 11). From this perspective, consumer capitalism has more explicitly tied knowledge to the interests which it serves. While this might open up such knowledges to rational critiques, such an argument also suggests that it is the power of capital, rather than the instrumental scientific rationality of 'simple', incomplete modernity which is the main hindrance to the development of a truly rational, reflexive modernity. As Rustin observes, this amounts to a materialist critique of Beck's essentially idealist thesis (ibid: 12).

To some extent Beck accepts that risk positions can follow the pattern of class stratification, and acknowledges the continued importance of the class positions engendered by "the logic of capitalist development" (Beck 1992: 23), when he suggests that the 'winners' in the risk society can exploit modernisation risks as "big business", opening up potentially unlimited opportunities for the provision of escape routes and avoidance strategies. Nevertheless, Beck is convinced that the political

¹¹Bauman also implicitly makes a point here concerning news management, in that he suggests that only those groups with sufficient resources to engage media interest in their concerns are likely to have those concerns addressed.

potential inherent in the risk society can produce a "reorganisation of power and authority" (ibid: 24)¹²

Re-inventing science

The political potential within the risk society derives from the new reflexivity of science and modernity which is generated, and it is therefore linked directly to the second major criticism which Beck's thesis has attracted. Beck characterises reflexivity as the process through which science begins to question its own assumptions and foundations and develops into an acceptance of the need for, and validity of, alternative 'rationalities'.

Again, Bauman is critical; he argues that such optimism concerning the effect of reflexivity is misplaced. Specifically, he sees this as "another *apologia* for science" (Bauman 1992) in which 'reflexivity' is no more than a replacement for the discredited 'rationality' which previously justified the pursuit of technological progress. The "gruesome and dispiriting" message contained in *Risk Society's* descriptions of the failings of scientific rationality suggest, for Bauman, that Beck's "stubborn faith" in reflexive modernization is illusory (ibid.).

A similar criticism is made by Wynne when he argues that, despite his assertion of the need for a more reflexive science, Beck (along with Giddens) tends to under-value the "vernacular, informal knowledge" generated by lay publics without reference to expert systems of knowledge production (Wynne 1996: 59). Wynne argues that public alienation from science is due not just to the "rational-calculative" process of discovering that massive risks have been generated and that technological progress has failed to protect people from the negative effects of its own development. He suggests a more "hermeneutic/cultural" process in which the inadequate models of human nature, relations and activity, implicit within scientific discourses are perceived as a threat to the identities of lay publics (ibid: 59-60). Indeed, Wynne suggests that these threats, as challenges to basic social identities, should be understood as a dimension of the risk society which Beck has ignored. This is important because these alienating models of the human are often the basis of strategies proposed as solutions to the problems of modernisation risks. The implication is that Beck's preference for the

¹²A discussion of some of the wider political implications of Beck's thesis can be found in Beck (1994), including a list of steps which could be seen as a prescriptive account of the actions necessary to usher in the reflexive modernity of the risk society (ibid: 29-30).

'rational-calculative' also leads him to reproduce an essentially scientific position. This is perhaps illustrated in Beck's adaptation of a well known maxim:

"To modify a famous phrase: scientific rationality without social rationality remains *empty*, but social rationality without scientific rationality remains *blind*." (Beck 1992: 31)

The blindness of social rationality alone would, I think, be contested by Wynne; such arguments lead him to describe Beck's version of social rationality as essentially "expert-dependent" (Wynne 1996: 73). Bauman and Wynne both criticise Beck for this apparent ultimate reliance on scientific authority. From such a perspective, Beck's conception of social rationality is similar to the more specific process of 'popular epidemiology' outlined by Brown, in which concerned community groups need to enlist scientists in order to challenge official denials of risks (Brown 1992: 270; see also chapter 3). Brown sees popular epidemiology as a result of the mutual reinforcement between social movements and a "new scientific paradigm" which, in its acceptance of the validity of 'lay knowledges', comes close to Beck's conception of reflexive science. Indeed, Beck refers to the processes of reflexive modernisation as the "scientization of the protest against science" (Beck 1992: 161). Nevertheless, both Brown and Beck suggest what could be characterised as a 'rehabilitation' of scientific authority under the guise of reinventing science.

Beck has made some attempt to reply to his critics by reasserting the importance of the concept of *reflexive* modernity. He argues that his critics see modernisation as a *linear* process in which technological progress continues to thrive, adapting to the particular circumstances of the time. Beck emphasises, by contrast, the transformative possibilities of reflexivity; he suggests two separate 'components' to the concept of reflexive modernisation. The first part is the automatic transition which industrial society undergoes as a result of the inherent forces within technological industry.

"What previously appeared 'functional' and 'rational' now becomes and appears to be a threat to life, and therefore produces and legitimates dysfunctionality and irrationality." (Beck 1996: 34)

This amounts to an unpredicted self-destabilisation in which the forces of modernisation are confronted by their own consequences. Evidence for this transition is found by Beck in the development of "uninsurable hazards" (see above), those risk ventures which, through the success of modernisation, have outgrown the capacity of 'rational', functional' modernity to regulate. This self-confrontation is therefore "autonomous, undesired and unseen" (Beck 1994: 5-6)

The second 'component' of reflexivity relates to the public acknowledgment of these features of transition and the political debates which surround them. The emergence of modernisation risks into the public sphere (see discussion of Habermas in the following chapter) open up the "centres of activity and decision-making" to political action:

"Within the horizon of the opposition between old routine and the new awareness of consequences and dangers, society becomes self-critical."
(Beck 1996: 34)

Notwithstanding the previous invisibility of modernisation risks, Beck argues that this "latency phase" (1992: 55) is coming to an end, and public perception of risks is growing. This is evident in comparative survey data as well as the corresponding news attention focused on risk issues.¹³

The combination of these two components - the "reflex-like" challenge to the industrial progress through its own development, and the self-reflective, public awareness and consideration of alternatives - constitute Beck's conception of a reflexive modernisation which can provide a potential for political re-alignment. In a rejoinder to the accusation of illusory optimism, Beck suggests that Bauman's review of *Risk Society*

"...once again summarised with breathtaking brilliance the arguments which encourage everyone to sit back and do nothing." (Beck 1996: 38)

He suggests that the "theorists of doom" become "spellbound" by the pessimism of their own analyses, and have failed to notice the transformative power that the effects of modernisation *upon itself* could unleash.

With regard to Wynne's critique, Beck might argue that the reflexive process would open up the decision-making processes to the non-expert knowledges of lay publics, and that these could be incorporated into more relevant solutions. Nevertheless, the implications inherent in some of the language employed by Beck are that the risk society would be driven largely by the (admittedly newly reflexive) institutions of science. In this scenario, the extent to which reflexivity can fundamentally alter the

¹³This of course provides further justification for an examination of the *media* in order to find evidence for the emergence of the risk society.

processes of industrial progress therefore becomes one of the crucial issues of the risk society.

Risk society and news coverage revisited

Returning to the issue of 'knowledge' (awareness of modernisation risks) which Beck recognises as one of the differentiating factors between industrial and risk society (Beck 1996: 34), the news coverage of risks offers a potential opportunity in which empirical evidence concerning the emergence of this "growth of awareness" might be gathered. As we have seen, examples from the food scare coverage can be interpreted according to Beck's thesis; however, in light of the critiques presented by Bauman and Wynne, a further analysis might prove worthwhile.

The article from the *Guardian* written by Paul Brown ("Majority of Britons 'Will Eat BSE Meat By 2001'" - see chapter 9) could arguably be understood as an example of a growing social rationality; the journal paper written by Dr Stephen Dealler which forms the basis of the story points out the failures of official scientific predictions, and certainly emphasises the potential risks which the technocratic Ministry of Agriculture seems to have dismissed. This then is illustrative of a self-aware science which, in facing up *reflexively* to the reality of the problems which it has produced, promotes an awareness of risk and potentially helps to open up the political process to those suggesting radical solutions. However, Dealler's call for a pro-active research strategy relies on his own joint research with a statistician, and his argument could alternatively be interpreted as a relatively minor debate *within* the scientific community concerning tactics. Indeed, his call for funding for "aggressive medical research" might be interpreted by critics such as Bauman as special pleading for a chunk of the cash which is part of the 'risk-fighting business'. This kind of activity only works to sustain the wider industrial-scientific enterprise; it is a part of the problem masquerading as a solution (Bauman 1992).

It is important here to distinguish between the subject of the news report and the article itself. While the former might fail the test of reflexivity, the latter might still, in its discussion of the issues involved, offer a more stringent critique. In this case however, the sole direct source is the journal paper itself, and the presentation amounts to a summary of Dealler's main points.

Other examples offer further opportunities for these competing definitional perspectives. The *Sunday Times* article "Scientists Voice New Beef Doubts" (3.12.95;

see 'Illustrations' section above) in which scientists are reported to be sceptical of the official line on BSE can be understood not as a reflection of a nascent social rationality, but as a reassertion of the rights of science to define the scope of the risks involved. If the travails of the beef industry are taken as evidence, the public were also sceptical; however, such lay perspectives are secondary to the concerns of those with scientific expertise.

Similarly, the article in *Today* outlining the suspicions of the daughter of a victim of CJD who had been involved in making meat pies ("Mad Cow killed my mother: Nurse claims mother killed by BSE"; *Today*, 19.2.90; see 'Illustrations' section above) can, as we have seen, be presented as a challenge to the rules of scientific evidence. In this sense the story exhibits a kind of social rationality. Nevertheless, the emphasis given to the woman's nursing background implies that such experience gives added credibility to her argument; the authority of science is therefore asserted at the same time that it is questioned.

Summary

Beck should not be considered as primarily a theorist of the media; indeed, his views on the media have been characterised as offering, at best, a largely supporting role in his arguments surrounding the rise of the risk society (Cottle 1998: 6). Implicit in Beck's discussions is a view of the media in which information flows relatively unproblematically; the above discussion therefore represents in part an attempt to problematise the circulation of risk information via the media through an empirical examination of the news coverage of BSE and salmonella in eggs. While the empirical evidence from the realm of food scares is far from conclusive, it does at least suggest that Beck's thesis offers useful explanations for some of the news coverage of such issues. The struggle within the news coverage over the definitions of the risks involved can perhaps be seen as a conflict between 'simple modernity' and the emerging reflexive modernity of the risk society. This struggle therefore also reflects the potential for emergent anxiety communities, in which a reflexive questioning of scientific cognitive authority becomes possible. Such collectivities are, as Beck implies, likely to be unstable, inchoate, and temporary (Beck 1992: 49-50), and the tentative empirical evidence presented here does little to dispel such a view. Arguably (in the case of BSE at least), the result of the social rationalities found in the kinds of news coverage described was to provide an opportunity to challenge the technocratic understandings which are prevalent in modern Western societies, and therefore in the mass media; nevertheless, Beck also warns that in the transition to the risk society,

"the political consequences are ambiguous" (ibid: 49). It would therefore be a dangerous assumption that the production of anxiety communities will always be progressive; they might easily lead to scapegoating, fanaticism or other irrationalities. Nevertheless, the risk society thesis (and its subsidiary notions such as that of the anxiety community) can be seen as a powerful way of analysing food scares and other news issues more widely, as well as a challenge to traditional conceptions of social theory.

Chapter 11

Conclusion

In this study I have attempted to explore the representation in British newspapers of the phenomenon of food scares, focusing specifically on the two major examples from the past decade: salmonella infection in eggs, and BSE. These stories can be understood as general news items which can be analysed through the theoretical perspectives of the sociology of journalism and news production, and more specifically as examples of scientific information which arguably has a particular resonance in modern industrialised societies. Food scares can also be understood as issues of public risk, opening up a further avenue of analysis via Ulrich Beck's Risk Society thesis, influenced as it was by Habermasian notions of rationalisation and the public sphere (see below). Indeed, as I intend to make clear in this chapter, the work of Jurgen Habermas provides links between these potentially disparate analytical and theoretical frameworks.

In chapter 6 ('Calendars') I delineated the shape of the newspaper coverage of the two main case studies; firstly in order to quantify it in terms of its magnitude at any particular moment and diachronically over the 'news-lifetime' of the scare, and secondly to compare the coverage with other, supposedly 'real-life' measures of the risks themselves. This second element is used simply in order to make the obvious but necessary point from a constructionist perspective that the news is not driven simply by 'events', and does not 'reflect' an essentially unmediated 'reality'.

The Salmonella scare arose as a major news story for the three months from December 1988 to February 1989. Its relative confinement to this period contrasts with the continued rise in incidence of salmonella poisoning from the mid-1980's which has largely continued to the present (see "New salmonella fears over eggs", *Guardian* 9 April 1998). While the rise in poisonings in the mid-1980's was largely due to the specific type of salmonella bacteria associated with eggs and poultry, which might provide some justification for the scare (as a reflection of 'real' poisoning levels), the continued rise in cases¹ has failed to be matched by a continuing high level of media attention.

¹This situation was alluded to in an even more recent newspaper article which, in reporting an industry plan to vaccinate the majority of egg-laying hens against salmonella, noted that approximately one in 700 eggs is thought to carry the bacterium, "a figure that has changed little during the 1990s" ("Salmonella Vaccinations", *Guardian* 3.11.98)

The continuing coverage of the BSE scare produced peaks in mid-1990 and in March 1996 in particular, reflecting heightened concerns about its possible transmission to animals and humans respectively. The relative 'troughs' of minimal coverage between these times can be compared with the incidence of confirmed cases of BSE in cattle, which peaked over a similar period in the early 1990's. Clearly the statistical evidence for the incidence of human BSE is unavailable due to the low numbers currently acknowledged, and also, more importantly perhaps, because of the presumed length of its 'incubation period' in which no symptoms are exhibited. On the assumption that human BSE would be of substantially more interest to the newspapers than its bovine form, a comparison between coverage and incidence of the human form might perhaps be of more analytical value; nevertheless, the use of cattle statistics still provides some evidence concerning the 'lack of fit' between amounts of coverage and the statistical incidence of the risk factors involved.

The short-lived 'pesticides in carrots' scare may not have produced enough coverage to justify a direct quantitative comparison, but its life-span - little more than a week at the beginning of May 1995 - is unlikely to measure accurately the period in which the risk from organophosphates in carrots emerges and recedes.

Thus, the largely quantitative analysis in this initial research produces largely negative results in that it dismisses a naive 'reflecting mirror' understanding of the news media, and implies the need for an investigation of the forces which *did* work to shape and define the coverage of food scares. The 'thematic grid analysis' (chapter 7) takes this forward in that it identifies the main 'coalitions of interest' present in the news coverage, and quantifies their contribution to the food scares in terms of the socially situated position ('Arena') of each news item *and* its discursive argument ('Discourse').

The three separate periods selected for analysis from the salmonella issue span the scare from its 'build-up' in late 1988 to its aftermath in mid-1989, and the thematic grid analysis shows how its beginnings as an issue within the consumer arena developed into a political story dominated by discourses concerning the state, focused on governmental activities and solutions. The news coverage changed over time to concentrate on the official *responses* to the initial problem.

Thematic analysis of the BSE scare took two periods of high media interest: the peaks of mid-1990 and March 1996. The similarity in the figures concerning the split between the 'Arenas of interest' (which, in both 1990 and 1996, were close to 45%,

20% and 35% for the State, Industry and Consumer arenas respectively) over the two periods might suggest that a kind of 'equilibrium' had been achieved in that such a division of the coverage was perhaps felt by news organisations to represent a fair reflection of the importance or relevance of each element. The main change over time between the two periods can be found in the shift of emphasis from the discourses of the state to an (even) greater amount of coverage from the discursive position of the consumer (see chapter 7). This change in the quantitative analysis corresponds to the beginning of a more direct emphasis in the coverage on the (now officially acknowledged) risk to human health from BSE.

In comparing the thematic analyses of salmonella-in-eggs and BSE it needs to be remembered that due to the differences between the emergence and progression of the respective scares, the periods chosen for analysis should not be seen as equivalents; the salmonella analysis spanned the emergence and decline of the scare, whereas the BSE analysis took two periods of high coverage in a continuing news story. In terms of their positions within the development of the story, the two periods of analysis from the BSE scare are perhaps most comparable with the central period of salmonella analysis, which also focused on a time of high media interest. Nevertheless, a few points are worth making, not least that the 'back region' information accruing to the government prior to the emergence of the BSE scare in the media may well have meant that official institutions were prepared for some kind of news interest, and that there was no BSE equivalent of the 'pre-scare' phase evident in the first period of salmonella analysis. Thus, while the initial news of salmonella was predominantly centred on consumerist issues, the relative emphasis, at the beginning of the BSE coverage, on industry and state arenas and discourses reflect its origins as an animal disease of major concern only to the industry and, secondarily, to government. There is a further contrast in that the salmonella scare came to be dominated by state and industry discourses while BSE seems to have maintained a greater emphasis on consumer discourse. The corresponding difference in longevity between the two stories suggests at least the *possibility* of a link, in that the salmonella scare effectively closed down as a news story when the state came to dominate the coverage, while the continued consumerist interest in BSE perhaps ensures continued coverage. It might be argued that news-making activity by news source organisations - in the form of official state institutions, industry associations or consumer groups - affected news judgements concerning the continued coverage; however, an alternative position, from a perspective emphasising the definitional power of journalists and news organisations, might suggest that news values were the main causal factor in the contrasting development of the two food scares.

Chapter 8 attempted to investigate some of the issues which are effectively rendered invisible by a purely textual analysis. It presents a critical discussion of data generated through interviews with journalists and representatives of news source organisations involved in the food scare coverage, taking a 'news management' perspective on their strategies, and the negotiations between them. A number of points are worth summarising which were found in the data concerning the food scare coverage, and which are also relevant to the wider understanding of news production (indeed, many of these find support in the literature).

Credibility is a key issue in a number of respects. Journalists were anxious to protect their own credibility, leading in one case at least to the avoidance of those sources regarded as 'extreme'. Source groups were seen to exhibit two kinds of credibility: *organisational*, which refers to the structure of the organisation in terms of efficiency and 'professionalism' when dealing with the media, and *informational*, in which the messages it provides are judged in terms of their accuracy, realism, and possibly their scientificity. Thus the need to emphasise the moderate and mainstream nature of their positions became a key task for some organisations. For some journalists, the structural position of a particular individual news source was a key factor in assessing his or her credibility, particularly with regard to scientific sources; the established scientific journals were also seen as strong sources of news and background information due to their credibility in the eyes of journalists.

The relationships between various organisations and groups was also an important theme. Contact between Government, largely in the form of the Ministry for Agriculture Food and Fisheries and to a lesser extent the Department of Health, and various industry organisations was seen to be crucial in the strategies and attitudes of those organisations, not least in their view that the state should intervene to protect the food producers who were suffering the effects of the case study scares. Such contacts took the form of regular meetings with advisers, civil servants, and even ministers. The relative lack of such governmental contact with consumerist groups was perceived by many such organisations (and by some journalists) as evidence of the strength of the 'food production lobby', and of the unacceptably close relationship between MAFF and the food industry. Links between organisations *within* the food industry were also explored, most particularly the 'umbrella' role of the Meat and Livestock Commission in co-ordinating the responses of smaller 'niche' organisations. Conflicts within industry groupings (or 'coalitions') was also evident, particularly within the egg industry, whose divisions were acknowledged by journalists and the

organisations themselves as a factor in the extent of the news coverage. Moreover, the failure of a governmental 'united front' was also seen by journalists as an 'opening' through which both the salmonella and BSE issues could be extended in terms of news coverage.

The resources available to the various news source organisations was a further key element for those involved in the food scare coverage. Clearly, those with substantial financial resources had the opportunity to manage news in ways not available to resource-poor groups; the formal media training schemes pursued by the larger industry groups is a clear example of this. The extent to which groups felt the need to be 'pro-active' is also related to this issue, in that one industry organisation at least felt less inclined to project a positive image; 'resource-poor' groups might however feel that such an approach is not a realistic option. This might also be linked to the extent to which the private 'back-channels' between industry and government obviate the need for a public face and the accompanying public debate which might follow. Access to the machinery of the state meant perhaps that, at least between crises, industry organisations were content to deal directly with government rather than through a 'public sphere' debate in the media.

While the interview data (including the specific examples analysed as 'mini-case studies') provided evidence of the complex and occasionally contradictory forces at work in the processes of news selection, construction and management, there was also the possibility of a wider understanding of the sociological implications of food scares which might provide a broader context in which to situate such public issues. The preceding chapter took Ulrich Beck's Risk Society thesis as a framework within which the food scares, in particular BSE, could be analysed. Beck links the notion of risk to wider socio-historical changes in 'late-modernity', and as part of his analysis questions the role of science as a unique source of knowledge. A number of the key elements in the development of food scares, and BSE in particular, were argued to coincide with Beck's understanding of 'modernisation' or 'industrialisation' risks. There was evidence of scientific and social rationalities in the news coverage, which I would argue not only justifies the application of the Risk Society thesis to food scares as a powerful explanatory tool, but also provides some small empirical corroboration towards Beck's assertion of an emergent reflexive modernity which has the potential to unleash a fundamental change to societal conceptions of science and knowledge.

Beck's analysis owes a clear debt to the work of Jurgen Habermas, both in terms of the question of the role of science and techno-scientific rationality in modern societies, and

the more concrete issue of the importance of the media and the notion of the public sphere as a guarantor of democratic governance. Both of these issues relate directly to the issue of food scares, and the links between them are most fully laid out in Habermas' work. It would therefore be instructive to briefly survey those aspects of his work which relate to, and connect, the issues of food scares as media products within a public sphere, science as 'instrumental-purposive rationality', and risk in 'late modern' societies.

Habermas: The Public Sphere, scientific rationality and risk

Implicit in Beck's understanding of the role of the media in the risk society, and in the wider analyses of food scares presented above, is a conception of the public sphere as a realm in which issues relevant to the public can be discussed and social, group opinions formed. Indeed, in the form set out by Habermas (1979; 1989) it has become a contentious and highly influential concept, not so much in its historical descriptive sense, but rather in its potential as a valuable normative 'yardstick' for the analysis of the media in democratic societies (e.g. Curran 1991). It is therefore important in the context of this study to examine briefly the origins and underlying concepts of the notion of the public sphere, and highlight more explicitly the ways in which it can be applied to the issues raised by the case study food scares.

The Public Sphere

Habermas's conception of the public sphere derives from an historical analysis of a period during the eighteenth century in which a bourgeois form of public sphere developed in England which entitled its participants to gather and discuss "matters of general interest" (Habermas 1979: 198) as equals and without constraint. Prior to this time, a "representative publicness" obtained in which publicness was essentially a possession of the feudal authorities who presented themselves (in a quite literal sense) to the people as an embodiment of a 'higher' power:

"...they represent their power 'before' the people, instead of for the people." (Habermas 1979: 199)

Habermas attributes the emergence of a new kind of public sphere firstly to the development of a division between the public authority of the constitutional state (invested in the institutions which resisted the 'private' interests of the feudal 'ruler') and the private autonomy of the bourgeois individuals who had no access to public power.

"Between the realm of public authority or the state, on one hand, and the private realm of civil society and the family, on the other, there emerged a new sphere of 'the public': a bourgeois public sphere which consisted of private individuals who came together to debate among themselves concerning the regulation of civil society and the conduct of the state." (Thompson 1993: 176)

Such debates occurred within a *physical* public space - the salons and coffee houses which were becoming more popular as a venue for discussion and debate between members of the educated elites on the issues of the day - and an *intellectual* public space - the periodical press, which was less tightly controlled in England than in other European states. Thus, these elements combined to provide an unprecedented opportunity for the critical discussion of issues surrounding the relationship between state and society amongst individuals acting as rational and free citizens. Habermas argues that, at this point at least, newspapers were both bearers and leaders of public opinion:

"The press remained an institution of the public itself, effective in the manner of a mediator and intensifier of public discussion, no longer a mere organ for the spreading of news but not yet the medium of a consumer culture." (Habermas 1979: 200)

The importance of such public discussion lay primarily in its potential to be swayed and influenced only by the authority of the better argument, rather than by the social or political position of its proposer (Stevenson 1995: 49).

Habermas characterises the decline of the bourgeois public sphere as a 'refeudalization', suggesting that in some sense the 'representative publicness' of medieval Europe re-emerged in the development of the industrially advanced mass democracies. The development of the welfare state, in which the state increasingly intervened in the economy and the wellbeing of its citizens, and the growth of large capitalist organisations, helped, in effect, to 'squeeze' the social space in which the bourgeois public sphere had developed. Additionally, the growing commercialization of the press meant a retreat from political debate to become "just another domain of cultural consumption" (Thompson 1993: 178). Habermas sees modern public political activity as a kind of stage-managed spectacle in which ceremony and the display of political authority (including periodic efforts to secure the assent, through elections, of the depoliticized public) in the form of 'publicity' "wins public prestige" for the special

interests of particular pressure groups. This is contrasted with the period in which the bourgeois public sphere was the space in which publicity

"...was intended to subject persons or affairs to public reason, and to make political decisions subject to appeal before the court of public opinion." (Habermas 1979: 200)

The use of the term 'public relations work' is evidence, for Habermas, of the weakening of the public sphere in that it implies the need for the construction, for each individual issue or question, of a public sphere which previously was an ever-present part of the social structure. The notion of 'publicity', in the sense of making proceedings public, or opening up the decision making processes to public scrutiny and debate, is a key element in the theory of the public sphere and Habermas argues that it can be understood as a normative ideal which tests the democratic credentials of modern societies. A truly democratic society would include institutions and organisations committed to the promotion of an open public sphere in which all citizens could engage in unconstrained rational debate concerning issues of public interest, producing a truly public opinion² as an exercise in "discursive will-formation" (Held 1980: 260). Habermas's understanding of the public sphere can therefore be seen to include both historical and normative elements, a mixture which was considered by some critics to be problematic (Thompson 1993: 179). Indeed, Habermas moved away from the kind of historical analysis present in *The Structural Transformation of the Public Sphere* in order to explore ways in which critical social theory could be reformulated to provide a grounding in a more fundamental sense for his arguments surrounding the importance of rational, intersubjective communicative activity from which the notion of the public sphere derives.

The theoretical underpinnings of the public sphere

Habermas's conception of critical theory holds that rational-critical debate, open to all and free from domination, is not simply a naive utopian ideal, but emerges from a fundamental aspect of the structure of speech, which in itself is a constitutive characteristic of human social activity:

²Public opinion is defined as "...the tasks of criticism and control which a public body of citizens informally - and in periodic elections, formally as well - practises vis-a-vis the ruling structure organised in the form of a state." (Habermas 1979: 198)

"Through its [language's] structure, autonomy and responsibility are posited for us. Our first sentence expresses unequivocally the intention of universal and unconstrained consensus." (Habermas 1972: 314)

Three cardinal human imperatives emerge from the natural history of humanity (which Habermas takes to include the 'cultural break from nature'): the technical, the practical, and the emancipatory. Each of these are 'knowledge-constitutive interests' which produce particular orientations towards the production of knowledge. The first of these, the technical interest, derives from the human imperative towards prediction and control over nature, in that humans produce their material needs through the manipulation and control of objects. This interest is evident as the implicit aim of scientific research, and in the scientific understanding of the natural world which emphasises knowledge based on instrumental action. The practical interest, based on an understanding of humans as "language-using animals" (Held 1980: 255) involves the universal imperative towards mutual understanding and construes knowledge production on the basis of the intersubjective understanding of meaning (Bernstein 1985: 9). The practical interest can therefore be found in what Habermas calls the 'historical-hermeneutic sciences' (Habermas 1972: 309) - effectively, the humanities - in which

"Access to the facts is provided by the understanding of meaning, not observation." (Habermas 1972: 309)

The third knowledge constitutive interest, the emancipatory interest, is a universal interest in *reason* itself. Bernstein suggests that this is both derivative of the other two cognitive interests, and the most fundamental of the three. It is derivative in the sense that both the technical and practical interests implicitly carry within them the assumption of open and unconstrained dialogue (in that each produce 'sciences' which are ostensibly open to be challenged and reassessed by others); it is therefore also fundamental in that its existence is necessary to provide the conditions under which non-distorted reciprocal communication can take place (Bernstein 1985: 10-11). The emancipatory interest is one of rational self-reflection, without which the connection between knowledge (produced via the 'sciences') and interests could not be understood (Held 1980: 255); it is that which provides the impetus within us to uncover the workings of power in the production of knowledge, and is therefore evident in the 'critical sciences' (which for Habermas include those which produce a *critique of ideology* as well as psychoanalysis (1972: 310)).

"This 'emancipatory' interest is the vehicle through which 'emancipatory knowledge' (that means reason and fully rational knowledge) is reinstated in the other two domains." (Pusey 1987: 26)

Thus true rationality in the natural and social sciences can be promoted by the critique of ideology emerging from the emancipatory knowledge-constitutive interest. Indeed, by rooting his analysis in fundamental human imperatives, Habermas is attempting to provide the justification for the normative aspects of his reconstruction of critical theory which is one of the main themes that "appear and reappear throughout his work" (Roderick 1986: x).

The scientization of politics

As Bernstein suggests (1985: 20), Habermas not only provides a generalised theory of communicative rationality, but also explains how such processes can be traced through specific historical institutions and practices. For our purposes, the main point here is that he argues against the essentially pessimistic accounts of modern societies provided by an earlier generation of critical theorists. These took the form of various attacks on the ubiquity and oppressive nature of positivist and scientific thought which, for Adorno, Horkheimer and Marcuse were evidence of the domination of technical and instrumental reason over any other forms of knowledge production. Such domination is unacknowledged because the increasing production derived from technological 'progress' comes to legitimate the system in which it occurs (Roderick 1986: 41). Weber saw modern societies as providing an 'iron cage' of "purely instrumental social relationships" (Bottomore 1984: 37); the positions of Marcuse and Horkheimer have been characterised as similarly pessimistic:

"It is technological rationalization (i.e. instrumental reason) which dominates social life, and there are few if any forces to oppose it..."
(Bottomore 1984: 37)

The legitimating effect of 'technical reason' (Marcuse, quoted in Habermas 1971: 82) renders it ideological in its consequences.

Habermas attempts to reformulate Weber's notion of 'rationalization' by firstly distinguishing between the spheres of *work* and *interaction* (1971: 91-2). The category of work is conceived by Habermas as encompassing instrumental action, governed by technical rules and is also referred to as 'purposive-rational action'; the category of 'interaction' in contrast concerns symbolic, communicative action governed not by

technical rules but by "consensual norms". Most importantly, the appropriateness of these norms are guaranteed in the mutual understanding of interacting subjects, rather than being subjected to the tests of analytic or empirical 'truth' upon which the validity of purposive-rational action is based³.

With this distinction, Habermas re-works Weber's 'rationalization' thesis, particularly with regard to the legitimation of domination. While pre-modern societies derived legitimation through 'cosmological' (mythic, religious) worldviews and norms, the emergence of liberal capitalism necessitated the force of instrumental-purposive action via the (apparently naturalized) market of free-exchange, in order to justify the unequal distribution of wealth and power. This was acceptable, in Habermas' conception, until the instability inherent in the system led to increasing intervention by nation-states in order to ameliorate the failures of unregulated capitalism. In this way, it is argued, the institutional frameworks of modern states became "repoliticized" (Habermas 1971: 101); the technical solution - free market capitalism - was shown to need political intervention, and thus its power in legitimating dominance was destroyed. The economic system could no longer be seen as an exemplar for the social:

"...since the power indirectly exercised over the exchange process is itself operating under political control and state regulation, legitimation can no longer be derived from the unpolitical order constituted by the relations of production." (Habermas 1971: 102)

Thus a further legitimation is required, which Habermas finds in Marcuse's assertion that science and technology in the period of the welfare state has taken on the role of an *ideology*. While liberal capitalism found legitimation in the application of purposive-rational action in the economic sphere, the problems of the organization of the institutional frameworks of society were still essentially distinct from the 'systems of purposive-rational action'. They were *practical* problems in the sense of the 'practical knowledge constitutive interest'; that is, they were linked to communication and intersubjective understandings. By contrast, in the modern welfare state democracies these problems have effectively been enveloped by the continuing institutionalisation of science and technology. Habermas argues that this has occurred via the fusion of large scale scientific research and technology with industrial progress and government research:

³These two categories clearly can be understood as representing the kinds of activity generated from the first two knowledge-constitutive interests - the technical and the practical.

"...with the institutionalization of scientific-technical progress, the potential of the productive forces has assumed a form owing to which men lose consciousness of the dualism of work and interaction."
(Habermas 1971: 105)

The split between the realms of work (via purposive-rational action) and interaction (via intersubjective communication) is therefore obscured and the domination of instrumental activity over communicative activity exerts ideological force by effectively 'naturalizing' the fusion of the two realms⁴. The evolution of the social system thus becomes determined, apparently, by the logic of scientific-technical progress, which "brackets out" questions which might otherwise be addressed through the norms of communicative interaction (1971: 107).

'Interaction', the Media and the Public Sphere

Despite Habermas' 'reformulation' of Weber's analysis, his argument, as presented so far, in which this 'technocratic consciousness' legitimates social domination, seems little removed from the pessimism of earlier theorists. Indeed, Habermas argues that the corollary of this process is a de-politicization of the public, which becomes necessary not least because public discussions could be seen as a challenge to the legitimacy of the technocratic consciousness through which political issues are resolved. However, this provides a clue to the extent to which Habermas can see a way out of the 'iron cage' of rationalization.

Along with the dualism of work and interaction, Habermas posits the separation of two kinds of rationalization. Following Weber, Habermas suggests that on the level of 'sub-systems of purposive-rational action' (that is, at the level of the forces of production) rationalization is already well established, and that this can, potentially, be an emancipatory force, *as long as* it is accompanied by rationalization at the level of institutional framework, through the medium of symbolic interaction. Weber's account is incomplete as it focuses on the effects of the rationalization process on the political and economic structures and ignores the (potential) effects upon the realm of ethics and culture in which communicative action is paramount (Pusey 1987: 55). In terms of communicative action, rationalization means clearing away the restrictions on

⁴A conflation which, Habermas argues, is also present in Weber's analysis of the process of rationalization (1971: 90).

unfettered communication so that truly 'rational' decisions can be arrived at; Habermas acknowledges that this is by no means inevitable:

"For the solution demands precisely that unrestricted communication about the goals of life activity and conduct against which advanced capitalism, structurally dependent on a depoliticized public realm, puts up a strong resistance." (Habermas 1971: 120)

Nevertheless, such a conception of the process of rationalization allows Habermas to argue that the inevitability of the "'colonization of the lifeworld' by systemic rationalization processes" (Bernstein 1985: 23) has been over-exaggerated, and that the kind of rationalization evident in modern societies - domination by purposive-rational action - is a particular historical, *selective* process, rather than a logical necessity. Thus communicative rationality takes on a key role in attempts to resist the over-reaching of instrumental-purposive rationality, and in this respect an unconstrained public sphere free from 'systematically distorted communication' could be seen as an ideal towards which truly democratic societies might strive. Thus Habermas' analysis of rationalization leads directly to an understanding of the public sphere as a realm of potentially emancipatory forces; he sees the possibility of a "new conflict zone" emerging "in the public sphere administered through the mass media" (Habermas 1971: 120).

Criticisms of Habermas and the Public Sphere

While it would be inappropriate to engage here in the particular debates engendered by Habermas' various writings, it is important to note some of the main criticisms which they have attracted. Habermas' conception of the public sphere has been subject to a number of criticisms, both in terms of its historical analysis and its theoretical efficacy. One of the main weaknesses concerns Habermas' assertion that the bourgeois public sphere of the 18th century was essentially open to the power of the better argument; many critics have pointed out that the debates in the salons and coffee houses of London excluded the working classes, ethnic minorities and women (Golding and Murdock 1991: 22). Feminist critiques have argued that the exclusion of women in particular from the public debates of the time was not merely a historical coincidence without consequence, but was a crucial part of the structure of this supposedly 'open' institution. The public sphere was characterised as the realm of (male) rationality, objectivity and universalised debate, and implicitly (if not explicitly) contrasted with the private, feminine realm of inconsequential, particularistic, emotional discourse. Thus women were considered to be inherently unsuited to enter and take an active role

in the public sphere (Thompson 1993: 181). Habermas' acknowledgement of the force of this criticism in his later writing has been noted (ibid: 182); however, other writers have questioned the wisdom of characterising the male-defined public sphere as 'rational' or "affect-free", because such an approach could be seen as effectively colluding with such masculinist understandings and denying women the opportunity to challenge wider gender stereotypes (Stevenson 1995: 72-3).

Even on its own terms, Habermas' public sphere has been attacked for its emphasis on bourgeois society at the expense of other forms of public discourse. Thompson (1993) for instance notes various accounts of "popular social and political movements" which were separate from, and occasionally hostile to, the concerns of the bourgeois participants within Habermas' realm (1993: 180). Curran makes a similar point when he discusses the radical critique of the "Whig history" (1991:40) which he argues is the basis of Habermas' understanding of the British press. Radical critics argue that:

"The newspapers celebrated by Habermas were engines of propaganda for the bourgeoisie rather than the embodiment of disinterested rationality." (1991: 40)

Curran further argues that the supposedly 'independent' press of the period were in fact ridden with cliques, corrupt, and subject to overt political control (ibid: 41). The depiction of this period as a high point of rational enlightened public debate, unencumbered by the forces of ideology and private interest is therefore called into question.

Habermas' understanding of the role and effects of the modern mass media has also been challenged; his argument, derived from the mass culture analyses of the Frankfurt School, is thought to overexaggerate the passivity of the media audience. Thompson argues that a more nuanced account would take note of much recent research into audience reception of media output (1993: 183); similarly, Stevenson finds that

"...Habermas is guilty of ignoring the interpretative horizons of the audience..." (Stevenson 1995: 56-8)⁵

The dominant ideology thesis which underlies Habermas' account is, in Stevenson's view, unable to explain the "cultural fragmentation" of late modern societies (ibid: 59-

⁵Despite this, Stevenson is keen to praise Habermas for providing a political critique of the potential for manipulation through the institutions of the media, a critique which, in his view, may be absent from those which are solely concerned with the 'pleasure of the text' (Stevenson 1995: 58).

60). Furthermore, there is some evidence of autonomy in the activities of British media organisations, for instance on the issue of Northern Ireland (ibid: 61); while they may be relatively rare, such examples nevertheless suggest that the notion of refeudalisation may be misconceived. This leads Curran to suggest that the analysis found in *The Structural Transformation of the Public Sphere* rests on the contrast between an overly pessimistic account of the present and a largely uncritical understanding of an apparent 'Golden Age' which never really existed (Curran 1991: 46).

The eighteenth century bourgeois public sphere was conceptualised as comprising a dialogue between citizens who were physically present in a shared locale; Thompson argues that this traditional model is no longer applicable to the kinds of 'publicness' which derive from modern media technologies. The new public sphere is essentially "*de-spatialized and non-dialogical*" (Thompson 1993: 186), and Habermas' failure to recognise this explains, in Thompson's view, his apparently negative conception of the newer communication media⁶. Certainly it seems that Habermas makes little attempt to reorganise the notion of the public sphere to account for the changes in media technologies and institutions which Thompson highlights (ibid: 187).

While the specifics of Habermas' public sphere have been subject to a good deal of critical attention, the underlying bases of his account has also been questioned. Eldridge for instance quotes Giddens who suggests that if power and domination are inherent in human action (which they both wish to assert), then to imply through terms such as 'systematically distorted communication' that domination and oppression can be understood in terms of an 'assymetry of distribution' is inadequate (Giddens, as quoted in Eldridge 1993: 341). This argument suggests that power is ever-present and its iniquities will not be ameliorated simply through a rebalancing of the communicative scales. Habermas' fundamental concepts and categories have also been challenged by Held, who questions the validity of the distinction between 'work' (purposive-rational action) and 'interaction' (communicative action) (see above: *'the scientization of politics'*). He suggests that although technical rules are part of the concept of work, it is nevertheless also an instance of 'interaction'; work always entails socially interpreted relations, relies on intersubjectively produced rules, and occurs "within the framework of communication" (Held 1980: 390). Thus, he concludes that

⁶Thompson follows through this analysis using the notion of 'mediated publicness' (contrasted with Habermas' feudal 'representative publicity') in discussing the limitations imposed by the mass media and the possibilities of constructing new democratic procedures through the 'Reinvention of Publicness' (Thompson 1995: 235-265)

within the category of 'work' is an *a priori* of communication, and that the distinction between purposive-rational action and communicative action is untenable:

"The category of work can only be adequately articulated as a subcategory of interaction" (ibid: 390)

Further questions are raised concerning the apparently straightforward distinction made by Habermas between 'empirical-analytic sciences' and 'the hermeneutic sciences'; it is argued that, certainly since Kuhn's critique of normal science and the construction of scientific paradigms, such a clear division is untenable. Held suggests that hermeneutic problems arise in natural and social phenomena, while issues concerning regularity and prediction can also be present in forms of interpretive knowledge (ibid: 392); thus the categorical separation of the two classes of science is again problematic.

Habermas has, as some critics have noted (for instance Held 1980: 391; Thompson 1993: 186) attempted to address some of the issues presented above; Indeed, in keeping with the principles of rational and unconstrained debate, volumes of occasionally critical discussion of his work have been published with replies and comments from Habermas himself (e.g. Bernstein 1985). It is not appropriate in the present context to examine or assess these detailed and ongoing debates; it is however important, for our purposes, to emphasise the influential nature of Habermas' work on the public sphere. Notwithstanding the critical points made above, Habermas' analysis has been immensely powerful in debates surrounding the power of mass media and its role in democratic societies; most specifically it has been used as a theoretical means of defending and restructuring notions of public service broadcasting (e.g. Dahlgren and Sparks 1991; Curran 1991; Stevenson 1995: 62-68).

Risk Society and the Public Sphere

As Rustin has noted, Beck's account of the risk society owes a debt to Habermasian theories of modernity (1994: 3; see also the previous chapter), and these links demand some brief elaboration. Habermas argues that the focus of modern states on the control of the economic system exhibits a 'peculiarly negative character' in that

"...it is oriented toward the elimination of dysfunctions and the avoidance of risks that threaten the system: not, in other words, toward the *realization of practical goals* but toward the *solution of technical problems*." (Habermas 1971: 102-3)

Beck's *Risk Society* extends this argument not least by asserting the growing dominance of risk relationships over other kinds in late modernity; moreover, the latency inherent in modernisation risks emphasises the role of experts (in attempts to 'solve' technical problems) in precisely the way that Habermas suggests (see previous chapter). The negative aspect of governmental activity finds its corollary in the public mind, as Beck suggests, in the shift from the desire for a share of prosperity to the desire to avoid poisoning (Beck 1992: 49). More generally, Beck's emphasis on the dominance of scientific rationality (at least in 'simple' modernity prior to the emergence of reflexivity) seems to be derived from Habermas' concerns surrounding the 'colonization of the lifeworld' (Bernstein 1985: 24). In his account of Habermas' main theoretical aims, Pusey suggests that one such aim is to establish the 'validity of reflection' (Pusey 1987: 23). Habermas argues that science in particular has been unable to understand itself reflexively, and has therefore argued that such a position is unnecessary (Habermas, as quoted by Pusey 1987: 23). The notion of reflexivity as explained by Beck clearly suggests that in late modernity even science might be opened up to the prospect of a more nuanced, more truly *rational* self-understanding. Furthermore, Habermas' distinction between communicative action (emerging from the practical interest) and instrumental-purposive action (deriving from the technical interest) is implicit in Beck's assertion that ecological journalism (and the attention which the news media pay to environmental issues) is a function of the "highly legitimated values" of public health in secular society which are inherent in such issues (Beck 1995: 99-100, as quoted in Cottle 1998:16). Thus it is the influence of *normative values* - derived presumably from the practical interest - that produce ecological journalism as communicative action rather than as instrumental-purposive action. Indeed, Beck's description of environmental problems as *social* problems leads him to assert the need for social solutions rather than technical solutions (Beck 1992: 81). A final, more direct connection concerns the key role which both Beck's *Risk Society* and Habermas' *Structural Transformation of the Public Sphere* set out for the mass media, emphasising the importance of a vibrant public sphere; indeed, in acknowledging the role (within the risk-producing industries) of PR workers and other "argumentation craftsmen" (1992: 32), Beck draws attention to one of the constraints on the development of an open and unrestricted public sphere⁷.

While Beck's thesis draws on a number of elements within Habermas' conception of modernity, in one respect it seemingly moves away from Habermas. It has been

⁷Despite this, it is clear that (as has been noted previously- see chapter 10, 'conclusion') Beck, like Habermas, is not primarily a theorist of the media (Cottle 1998: 6); rather, they both find an important role for the media in their wider, more abstract theories of societal development.

argued, as we have seen (see 'critiques' section of the previous chapter), that in some respects - most particularly in its understanding of 'social rationality' - it tends to be "overly rationalistic and cognitive" (Cottle 1998: 14; also, see Bauman 1992, Wynne 1996, as discussed in the previous chapter). This position essentially argues that Beck is allowing a diluted scientism into his conception of social rationality by his reliance on a 'rational-calculative' approach emphasising 'lay-experts' and 'counter-science' rather than a more hermeneutically based approach. Such criticisms might perhaps be countered by a return to the notion of communicative action as derived from the practical cognitive interest. In this way, an emphasis on the understanding of the hermeneutic side of public knowledges might overcome the apparent reliance, in the last instance, on the scientific mediation of those understandings which Beck occasionally seems to foreground⁸.

The Public Sphere, Food Scares and News

The analyses of the case study food scares presented above, both in terms of the thematic grid and the subsequent interview material (see chapters 7 and 8), can be understood as elements in an exploration of the extent to which an open and unconstrained public sphere is functioning. An issue such as Salmonella in eggs or BSE is arguably more susceptible (than other issues of potential public interest) to analysis in terms of Habermas' conception of the public sphere because it has a clear and direct relevance to a wide public, and therefore can become a "matter of general interest" about which a public opinion can be formed (Habermas 1979: 198).

Moreover, these public concerns find their expression not only in the media but in the actions of the public as consumers - and, therefore, in the sales figures of the relevant industries - and are therefore perhaps more likely to be effectively communicated to powerful elites than those which can find no other channels. Nevertheless, as we have seen (chapters 7 and 8) the news coverage of the case study food scares was at times dominated by officially organised and constituted groups; indeed, the extent to which official groups, reliant on scientific rationality, dominate as news sources can be seen as a measure of the constraints on a truly open public sphere. In this sense, the increased dominance over time of State Discourse (and Arena) during the Salmonella scare (see chapter 7) might also be seen as a relative increase in scientific rationality.

⁸Thus Beck argues that in the risk society "Experts are relativised or dethroned by counterexperts" (1996: 32-3), implying the need for an 'expert' perspective which non-technical discourses may not be able to achieve, and which could therefore be perceived as 'overly-rationalistic'.

A further constraint on the development of an open public sphere concerns the 'back region' contacts, most notably in the case of food scares between the Ministry of Agriculture and the various industrial groups and associations. Such contacts and channels tend to subvert the openness of the public sphere, although some mitigation might be found in the amount of public discussion they attract in media representations.

Risk and definitional power

The preceding discussion of Habermas is intended to provide a theoretical framework for the research presented in the body of this study. One particular link can be drawn between Habermas, the *Risk Society* and the interests of those scholars concerned with the construction of news and the issue of definitional power (see chapter 1). As we have seen, one of the main issues within the primary definition debate rests on the extent to which news representations can escape the hegemonic power of official 'ruling bloc' versions of reality. Food scares provide some evidence that news stories can to some extent escape the definitional constraints which the 'official' sources of government and industry attempt to impose. Thus the exhortations that beef was no threat to human health, failed in many respects to suppress what might be regarded as 'scare stories' in the most negative, irrational sense. However, it might also be argued that while such stories are antagonistic towards specific government policies or announcements, or towards particular industrial practices, they do not represent a challenge to the wider hegemony-reinforcing definitional perspectives surrounding state authority and the relative importance of the food industry. The apparent commitment to the establishment of a new Food Agency by the incoming Labour Government, which is intended to take on a regulatory role (which MAFF had previously exercised alongside its promotional function) with regard to food production, may be seen as a more concrete example of the effects of (among other things) counter-definitional perspectives in the news media, and thus may illustrate the counter-hegemonic potential of such oppositional strategies. This bureaucratic reorganisation may nevertheless still be seen as *containing* rather than acceding to the oppositional view⁹; the difficulty here is the level at which 'primary definitions' can be agreed to have been transcended. From a Habermasian perspective, the ubiquitous distorting effects of instrumental-purposive rationality represent a broad, cultural problem affecting modern industrial societies; in terms of the news media however, it

⁹ Certainly there is evidence that oppositional news sources were careful to restrict their own demands to that which could be characterised as 'moderate' and 'sensible' (see 'source group credibility', chapter 8).

can also be seen as, effectively, a high-level primary definition, in which a 'scientised' perspective is the framework within which most if not all news is constructed. The distortion of modernity outlined by Habermas finds expression in news accounts which accept as valid only that knowledge produced through the application of scientific principles (generally presented by accredited, official sources) and dismiss those understandings which are based on lay, contextualised or social knowledges, and which are considered to be 'irrational'. If we accept that scientific rationality can be understood as a kind of 'primary definition', then the presence in the food scare coverage of a kind of social rationality (which from a Habermasian perspective might derive from the communicative imperatives of the practical knowledge-constitutive interest, and from Beck's perspective emerges in the development of reflexive modernisation in the risk society) could equally represent a break in the scientific hegemony - a truly counter-hegemonic discourse¹⁰. This is not to suggest that the themes explored by Habermas and Beck can be unproblematically 'mapped on to' the issue of definitional power; primary definitions are presumably manifold, historically contingent and locally adaptable, whereas the critique of scientific rationality posits a much wider, longer-term, globalising tendency in the process of modernisation. Questions of definition clearly refer to *media representations*, whereas, again, scientism is conceptualised as a far broader cultural phenomenon of the 'lifeworld'. Nevertheless, I would argue that there is a useful approximate 'fit' between the two spheres of debate, and the news coverage of food scares provides an empirical location for such a comparison.

It is perhaps worth making a further point concerning the extent to which counter-hegemonic tendencies can be ascribed to certain elements within news coverage of food scares, which relates to the notion of consumerism. Much criticism of modern political discourse concerns the way in which members of the public are addressed as consumers rather than as citizens, and the effects this might have with regards to the 'quality' of political debate and its further effects on the democratic process more generally. I do not intend to address the issues surrounding the "politics of consumerism" (Garnham 1995: 247) directly here; nevertheless it is clear that the notion of consumerist discourse has been employed in this study in relation to the counter-hegemonic force of social rationality. It is quite possible that the coverage of food scares can in some sense be understood as illustrating the negative aspects of this

¹⁰Such an argument might well contrast with a more Marxist position in which a largely scientific form of rationality is seen as an emancipatory, counter-hegemonic force working against the ideological power of primary definition; Habermas would however presumably consider such a position to lead back to Weber's 'iron cage' of rationalisation.

consumerism, in that it arguably emphasises a single issue to which the response is assumed to be a simple 'yes' or 'no' with little discussion of the complexities of balancing various priorities. Thus the citizen is addressed not as a member of a public within a social context, but as a private individual. However, the ways in which such arguments can be framed hint at a particular position which Habermas and Beck in particular might reject. In discussing the politics of consumerism for instance, Garnham argues that

"Politicians relate to potential voters not as rational beings concerned for the public good, but [...] as creatures of passing and largely irrational appetite..." (Garnham 1995: 247)

By appealing to rationality, such positions arguably imply that consumerism is necessarily a 'dead-end' of irrationality and narrow individualism. In contrast to this, the risk society thesis suggests that the consumerist arguments surrounding food scares provided a space in which, *potentially* at least, a wider context which included a form of social rationality could develop. In this way media audiences were offered a more complex and socially situated understanding of an issue which was otherwise portrayed in a narrow, scientifically 'rational' way. I would therefore argue that although, as we have seen, Beck acknowledges the ambivalences that may arise through reflexive modernity, news concerning issues such as food scares can offer perspectives which can be characterised as 'consumerist' without necessarily engendering the negative aspects of the 'politics of consumerism'.

This study began with quantitative analyses exploring the major forces involved in the construction of news concerning food scares, and continued with a qualitative study of interview data concerned with tracing the various forces which acted upon the news production process but which may not be evident in the news texts themselves. The specific element of scientific rationality was then analysed in detail as a particular pressure on the food scare news, through the work of Beck and Habermas. Through these analyses, the study has also attempted to highlight the value and limitations of the methodological approaches employed. I would argue that the risk society thesis is a useful tool in understanding such media outputs and their role in modern societies, and that among media accounts of food scares, we can discern the 'shoots' of a growing disillusionment with scientific rationality and a nascent form of social rationality, carrying with it the potential for a truly emancipatory role in reflexive modernity.

Further Research

The research presented here could be refined and improved in a number of ways. While the thematic grid analysis gave some indication of the changes between the periods selected, further periods of analysis would help to refine the position with regard to the shifting emphases within the coverage of the food scares. Analysis at more regular intervals, particularly with regard to BSE, would provide a more nuanced calendar of the ways in which the various 'coalitions of interest' managed to assert their arguments over competing discursive accounts in the press. The focus on newspapers might also be widened to include broadcast news; a similar textual analysis of TV news would clearly demand further operationalisation in terms of the visual representations concerned, and would therefore entail significant further methodological work. Such an analysis would however provide a stronger basis for an understanding of the social role of 'risk news', and might also, through comparison with the newspaper coverage, highlight some of the differences - and similarities - between these two sectors of the media. In tracing the production of food scares, one of the problems encountered related to the time elapsed between the coverage analysed and the conducting of interviews with those concerned. This gap meant that at times, interview subjects were unable to recall specific details, and the 'trail' in effect was to some extent lost or obscured. Further research might attempt to overcome this by selecting contemporaneous examples from the media and following up immediately in order to follow a story essentially 'as it happens'. Indeed, participant observation - within news organisations, consumer groups or the public relations offices of the food industry - might provide crucial data in the development of such news stories. There may well be major problems of access involved in this kind of research; nevertheless, producing contemporaneous data would be a significant step forward in this respect.

The theoretical aspects of both Habermas' and Beck's arguments have obviously been the subject of much discussion and debate. Nevertheless, I would suggest that the links between them could usefully be pursued, most particularly in the connections between, on the one hand, Habermas' conception of communicative action and its role in counteracting the otherwise 'one-sided' rationalisation derived from instrumental-purposive rationality (i.e. Weber's 'iron cage' - Pusey 1987: 83), and, on the other, Beck's conception of social rationalities in the development of reflexive modernisation. There are some clear differences between the two conceptual frames (not least the relatively 'overly-rational' emphasis for which Beck's account of social rationality has been criticised - see 'critiques' section of the previous chapter), but enough overlap to suggest that they might be 'reconciled' to provide an even stronger theoretical synthesis. Further work could also examine the importance of the media in the risk

society, and the importance to the wider thesis of the notion of 'anxiety communities'. While the phrase is given little attention in Beck's overall schema (Beck 1992: 49), its apparent assumption of a link between media audiences and risk positions demands that it is afforded some theoretical elaboration.

More empirical research is also essential, as Cottle argues, to support Beck's analysis which, while granting the media a 'key role', lacks empirical ballast (Cottle 1998: 25). The sales figures for the foods involved in scares can be seen as a crude measure of the response to such media coverage; audience research might help to explore the underlying attributions made by the different audiences of various particular media sectors or channels; thus differences (in perceptions of food scare risks) between tabloid and broadsheet audiences, or between those who read newspapers and those who receive their news from broadcast media, might be investigated. The link between media representations of risks such as food scares, and the understandings and perceptions they produce is clearly a major area of concern. Furthermore, attention should be paid not just to whether people feel affected or threatened by particular risk situations, and the role of the media representations in those perceptions, but also the extent to which those understandings represent a feeling of being part of a group - however loosely defined, however tentative - in what amounts to a 'risk position' (indeed, such questions begin to approach those outlined by Herbst (1993: 454) concerning the descriptive nature of 'public opinion' itself). This link to the notion of an 'anxiety community' - which is perhaps the closest Beck gets to specifying the mechanisms by which public concerns might generate political energy - is a further key issue to be addressed through audience research. Beck's argument that British shock at the toxicity of eggs is "where and how their ecological conversion starts" (Beck 1994: 9) suggests that issues like food scares do play a role in preparing the ground for changes in social understandings of risk; empirical research might help to explain in more detail the processes through which such conversions are effected.

Appendix

Interviewees

Peter Beaumont, The Pesticides Trust; 27 November 1995.

Joanna Blythman, Food Writer (Freelance), *Guardian*; 20 November 1995.

Paul Brown, Environment Correspondent, *Guardian*; 23 November 1995.

John Coles, Chairman, British Egg Industry Council; 9 August 1994.

Paul Crosbie, Consumer Editor, *Daily Express*; 4 August 1994.

Helen Dickinson, Food and Drink Federation; 4 August 1995.

Clare Dover, (ex) Medical Correspondent, *Daily Express*; 3 August 1994.

James Erlichman, Consumer Affairs Correspondent, *Guardian*; 20 September 1994.

David Fletcher, Health Services Correspondent, *Daily Telegraph*; 2 August 1994.

Oliver Gillie, Medical Editor, *The Independent*.

Jackie Graveney, Press Officer, Consumers Association; 19 June 1995

Trevor Hayes, Chief Press Officer, National Farmers Union; 20 June 1995

Patrick Hennessy, (ex) Consumer Reporter, *The Sun*.

Roger Highfield, Science Editor, *Daily Telegraph*; 2 August 1994.

Michael Hornsby, Agriculture Correspondent, *The Times*; 13 October 1994.

Ambrose Landon, Press and Industry Relations Manager, Meat and Livestock Commission; 9 August 1995.

Tim Lang, (ex) Director, London Food Commission; 4 October 1994.

Tim Lobstein, The Food Commission; 7 June 1995.

Peter Martin, Freelance Journalist (*Mail on Sunday* magazine *Night and Day*); 24 January 1996.

Richard North, Independent. Environmental Health Consultant; 2 September 1994.

Keith Pulman, UK Egg Producers Association; 9 August 1994.

Peter Scott, Secretary, Federation of Fresh Meat Wholesalers; 21 June 1995.

Janet Thorn, scientist at Oxford Brookes University, (ex) Media Fellow at BBC; 22 August 1996.

Dennis Warren, UK Egg Producers Association; 9 August 1994.

Pearce Wright, (ex) Science Editor, *The Times*.

(Anonymous) Broadsheet specialist correspondent; 2 August 1994.

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