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Meat consumption and meat avoidance among young people

Meat consumption and avoidance

An 11-year longitudinal study

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Abstract *This paper reports the findings of an 11-year longitudinal study of the food preferences of first-year social science undergraduates at a UK university. Argues that this predominantly young and female response group constitutes a "critical case" that can be used to assess broader trends in meat consumption and meat avoidance. Relatively high levels of meat avoidance (in terms of reduced consumption or vegetarianism) were detected, although in recent years the trend appears to be away from avoidance and towards an increase in the reported inclination to eat meat. An attempt is made to interpret the findings of the study within the broader context of long-term shifts in attitudes towards meat consumption in general, and towards beef consumption in particular.*

Introduction

Across the wide sweep of human cultures, meat (in the sense of the edible parts of mammals and birds) is perhaps the most universally valued and sought after source of human nutrition. Broadly speaking, as the level of affluence in a society rises, so does the per capita consumption of meat, although there are, of course, some notable exceptions to this rule, and per capita data may often mask significant inequalities between individuals and between social strata. However, rising affluence does not necessarily promote rising meat consumption indefinitely. For example, data from the UK indicate the consumption of certain types of meat may reach a peak and then begin to decline over time, so the relationship may be a less than straightforward one.

What is more, despite, or perhaps indeed because of, its highly valued status, meat is one of the most ambiguous and morally problematic items in the human diet. Evidence for this assertion can be found in the complicated symbolism that is often attached to the production, preparation and consumption of meat, and in the elaborate rules and prohibitions which frequently surround it in its various forms. Nor are such ambiguities and prohibitions present only in more traditional foraging, pastoralist or agrarian societies. They also survive in contemporary western societies, albeit in rather different guises. This fact underlies the logic of the research which is reported in this paper, specifically the investigation of the extent to which young people in the UK choose to eat, or choose to avoid eating, meat. The data are derived from questionnaires completed by successive intakes of first-year university undergraduates over an 11-year period, and provide a useful window into this complex issue.

Thus, the nutritional and cultural foundations of meat eating will be explored next, along with issues of meat symbolism and ambivalence. Trends in meat consumption and meat avoidance will also be examined. Following that, the design and methodology of the study will be described in some detail, with the background to the study being discussed next, along with the findings of the first phase of the research.



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The next part covers the overall findings, including a presentation of the second phase of the research, and goes on to make an attempt to set these into a broader cultural context, before offering a number of tentative conclusions in the last part.

Meat: symbolism, ambivalence, selection and avoidance

While the assertion contained in the first sentence of this paper is an eminently plausible one, the question remains as to why the human appetite for meat appears to be so widespread. There is certainly a wealth of evidence as to the importance of meat as an element in the diet of many pre-agricultural hunting-gathering cultures (Foley, 1988; Sahlins, 1974; Gordon, 1987). Indeed, social anthropologists like Harris (1986) have argued for the existence of a "meat hunger" as an innate feature of the human appetite, albeit a feature which is shaped and moulded by custom and taboo in specific cultural contexts (Farb and Armelagos, 1980; Mennell, 1985).

On the other hand, many social scientists have argued that the primary motivation to eat meat is, in fact, cultural. Such motivation is seen as driven by the powerful forms of symbolism which are attached to meat in many cultures. Thus, for example, Adams (1990) argues that the consumption of red meat in particular is associated with expressions of male identity, male power, and male domination of women. In a similar vein, Fiddes (1991) suggests that in western thought and practice, the consumption of red meat is driven by the desire to express human power to dominate and exploit the natural world. A similar motif related to the symbolic connection between meat, strength and power is found in the work of Twigg (1979).

Whatever the merits of the debate over whether the human inclination to eat meat is "natural" or "cultural" in origin, there can be little doubt about the profoundly ambiguous status of meat mentioned above. Thus, a number of authors have explored the inherently ambivalent nature of the art of eating itself (e.g. Rozin, 1976; Fischler, 1980; Beardsworth, 1995), as well as the ambivalence specifically associated with meat eating (e.g. Beardsworth and Keil, 1997; Maurer, 1995; Harris, 1986; Fiddes, 1991; Twigg, 1979). Such ambivalence may be centred on ideas like the notion that red meat, for example, may be simultaneously desirable (associated with strength, virility, etc) and undesirable (associated with "animal passions", threats to health, etc). This means that in many cultures, the consumption of various types of meat is hedged around with complex sets of taboos and prohibitions (see, for example, Simoons, 1961).

The consideration of such prohibitions leads inevitably to the recognition that meat eating frequently raises a whole range of ethical questions related to the use of animals as sources of food. Such concerns usually arise out of welfare issues linked to rearing, transportation and slaughtering practices, or out of a more specific focus on animal rights (Singer, 1976; Regan, 1984; Midgley, 1983). What is more, these concerns may lead to the voluntary avoidance of some or even all animal products in the diet, and voluntary vegetarianism has emerged as a significant dietary option in many western societies (Fiddes, 1991; Amato and Partridge, 1989; Freeland-Graves *et al.*, 1986; Maurer, 1995; Spencer, 1993). Exploration of the motives behind meat avoidance suggests an interweaving of ethical, health, gustatory and environmental factors (Beardsworth and Keil, 1992; Maurer, 1995). However, even though meat avoidance and vegetarianism may appear initially as challenges to conventional carnivorous foodways, there is evidence that such practices are increasingly being incorporated into the mainstream of the commercial food system (Beardsworth and Keil, 1993).

In relation to the great majority in the UK and comparable western societies who do eat meat, a considerable amount of research has been carried out into their patterns of motivation and preference. For example, Becker (2000) provides an analysis of the extrinsic and intrinsic cues relevant to the ways in which consumers assess the quality of meat (specifically beef). Becker *et al.* (2003) apply Becker's concepts to an analysis of German consumers' assessment of fresh meat quality, noting the crucial significance of extrinsic cues like "country of origin". Findings from a comparative study of consumer behaviour and perceptions regarding meat in Germany, Ireland, Italy, Spain, Sweden and the UK are reported by Glitsch (2000). More specifically, the impact of the BSE outbreak on beef purchases has been analysed (Tilston *et al.*, 1992). American consumers' attitudes and interactions in relation to the consumption of beef have also been subjected to empirical analysis (Sapp and Harrod, 1989; Zey and McIntosh, 1992). In addition, the decline in per capita of red meat observed in many western societies over recent decades (Bansback, 1993) has also been studied. For example Woodward (1988) in a survey of 584 respondents from the North of England, found that the single most frequently cited reason for reducing meat consumption among the third of respondents who were meat reducers, was concern about health issues. Other issues included cost, and increased availability of alternatives.

Thus, both the study of meat consumers and the study of meat avoiders or reducers highlight the importance of a range of issues of relevance to decisions relating to meat eating. Of particular salience are health concerns, ethical issues, and issues of taste and perceived quality.

Research design and methods

It was an interest in these issues of meat selection and meat avoidance, and the possibility that the underlying processes were undergoing long term changes, which led to the initiation of the study whose findings are reported here. In fact, the project was begun in 1992. Starting in that year, all first year sociology and social policy undergraduates at Loughborough University in the United Kingdom were invited to complete a brief self-administered questionnaire. Over the course of 11 years, 637 students completed the questionnaire. The students were all members of a class in quantitative data analysis and computing, and used the resulting data in exercises in processing and analysing questionnaire responses. Thus, the data set is "longitudinal" in the sense that it contains 11 "generations" of comparable respondents, rather than in the sense of being made up of data from the same group of respondents questioned over an 11-year period. The questionnaire contained a number of background or contextual variables, plus variables covering meat selection or avoidance, and food choice criteria. While self-administered questionnaires can be susceptible to low response rates and a relatively high incidence of missing data (particularly when distributed by post or email and completed unsupervised), this study effectively avoided such problems. The questionnaire was completed in class, and no students declined to participate.

Of course, a convenience sample of this nature, not based on random sampling, cannot be analysed using conventional inferential statistics. This means that the data presented below have not been subjected to any of the conventional tests of statistical significance that accompany the results of studies whose data are derived from randomly selected samples. Instead of conceiving of our sample in terms of notions of

statistical representativeness, from the outset the intention was to use the data produced as a form of "critical case". This means that we were able to explore some implications of the unique features of this sample, such as its age profile and gender composition, in order to examine the personal and social correlates of vegetarianism and meat avoidance. Moreover, it is unusual to have longitudinal data on issues of the kind covered in our research. In spite of the obvious problems of external validity that a study of a convenience sample such as this exhibits, some interesting comparisons with other longitudinal data could be forged and these proved illuminating in helping us to understand trends in vegetarianism and food avoidance.

The logic behind our research design of treating the undergraduate students as a critical case is a simple one. There is evidence to suggest that younger people and women are more likely to engage in meat avoidance than older people and men (Beardsworth and Keil, 1997). Since this response group is predominantly female and young, the authors reasoned that if meat avoidance and vegetarianism are on the increase, then this group would be most likely to demonstrate such increases most clearly. There are also grounds for concluding that women are somewhat more sensitive to ethical and health issues in relation to food (Beardsworth *et al.*, 2002), which might also encourage higher levels of meat avoidance. On the other hand, the absence of any such increases in the group would be strongly suggestive that such a long-term trend was not present in the wider population.

Background to the study and the first phase findings

In the past, an upward trend in vegetarianism does seem to have been occurring, with data collected by Gallup between 1984 and 1995 indicating a rise from 2.1 per cent of the United Kingdom population to 4.5 per cent (Beardsworth and Keil, 1997). In this section, we assess briefly how far this growth in vegetarianism was evident in our first six cohorts of students.

After the first six years of the study the data were analysed, and the findings published. Full details of those findings can be found in Beardsworth and Bryman (1999), although a brief summary of the main points will be provided here in order to provide the context for the presentation below of the data for the whole 11-year period of the research. Some 350 students answered the questionnaire in the first six years. As might have been expected from a group predominantly young and female (mean age 20.91 years, 80.3 per cent women), a higher proportion was vegetarian (15.7 per cent) than the general population. However, strikingly, there was not a clear upward trend in meat reduction or vegetarianism. This led to the conclusion that, even in a group such as this, which might be seen as particularly "susceptible" to such dietary decisions, vegetarianism and/or the tendency to reduce meat consumption might have reached a kind of "plateau" (Beardsworth and Bryman, 1999, p. 297).

On the other hand, the findings from the first six years did indicate a link between respondents' primary criterion for food choice and level of meat consumption. For example, respondents who selected "tastiness" as their main criterion were more likely to be maintaining their level of meat eating. Respondents who allocated priority to the "healthiness" of food were more likely to be reducing or avoiding meat consumption. Significantly, of those respondents who gave highest priority to the production of food in a morally acceptable manner, no less than 78.9 per cent were vegetarian. No clear association was found between the social class position of respondents (as indicated by

father's occupation) and meat eating patterns, leading to the tentative conclusion that food selection decisions may be increasingly becoming detached from class identities (Beardsworth and Bryman, 1999, p. 298). In this sense, such selection decisions may be less and less significant as markers of social differentiation in the form suggested by such writers as Bourdieu (1984).

The full 11-year study

Having looked briefly at the main features of the findings from the first phase of the study, we can now go on to consider the overall picture provided by the whole 11 years of the project. In terms of its social composition, the 11-year response group is very similar to that built up after the first six years. A total of 637 respondents answered the questionnaire. Of these respondents, 81 per cent were female, and the group was predominantly made up of young people, as might be expected (mean age 20.38 years, median age 19 years).

The data were employed to address five research questions that derived from an analysis of the literature on meat consumption and vegetarianism:

RQ1. Is vegetarianism increasing?

RQ2. Is the practice of the reduction of meat in the diet increasing?

RQ3. Do factors like class and gender play significant roles in vegetarianism and meat avoidance/reduction?

RQ4. Are vegetarianism and meat reduction linked to other values (e.g. political)?

RQ5. What forms of motivation lie behind food choice in general, and meat reduction and vegetarianism in particular?

Figure 1 provides a representation of levels of meat consumption and avoidance in the whole response group. The level of vegetarianism was slightly lower at 13.4 percent (including one vegan who was identified in the 1998-2002 period) than in the 1992-1997

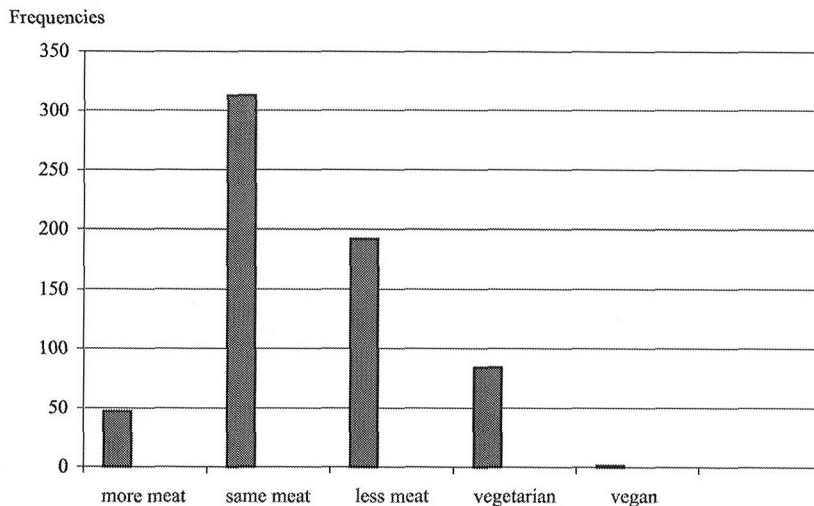


Figure 1.
Level of meat
avoidance/consumption

period. Bearing in mind that the 1992-2002 data include the 1992-1997 data, this suggests a decline in vegetarianism in the years after the first time series and leads us to an examination of the first two research questions regarding trends in vegetarianism and meat avoidance.

Figure 2 plots the trends over the 11 years for each of the four main forms of meat consumption/avoidance. The trend for vegetarianism strongly suggests a downward shift. The pattern is by no means consistent, with upward blips in 1995, 1997 and 1998, but since then the trend has been downwards. By contrast, there is a slight increase in the levels of those eating more meat. The trends also suggest a downward shift in meat reduction among the post-1997 cohort. Thus, to answer the first two research questions, vegetarianism and reduction in meat consumption are not currently increasing and if anything are declining in incidence in this response group.

Is meat avoidance related to gender, age and class? As with the earlier article, we found no connection with age, largely owing to the low variation in age in the sample. Table I shows the relationship with gender. The table shows a clear tendency for

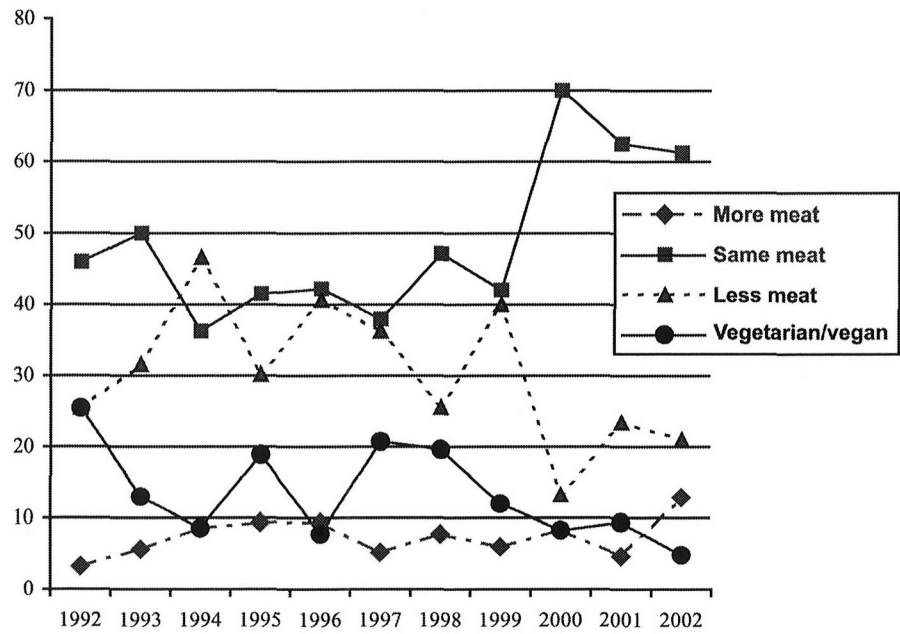


Figure 2.
Levels of meat
consumption/avoidance
by cohort

Table I.
Levels of meat
consumption and
avoidance by gender

Meat consumption/avoidance	Gender	
	Male (%)	Female (%)
More meat	13.2	6.0
Same amount of meat	60.3	46.5
Less meat	19.8	32.6
Vegetarian/vegan	6.6	14.9
n	121	516

females to be more likely to be vegetarians than males (more than twice as likely) and for males to be more likely to be eating more meat than females (also more than twice as likely). Also, females are more likely than males to be eating less meat. This pattern of relationship with gender is similar to that reported in Beardsworth and Bryman (1999), but if anything the gender differences are now more pronounced, especially when it is borne in mind that the findings reported in Table I incorporate the data relating to the 1992-1997 period. However, Table II shows, in line with the findings reported in the earlier article, there is no clear pattern in relationship between forms of meat consumption/avoidance and class, as measured by father's occupation.

In order to address the final research question, we report the results of an analysis of the relationship between forms of meat consumption/avoidance and the influences that respondents report on eating habits. Students were asked to choose between four possible influences as the most important: the tastiness of food; the healthiness of food; the familiarity of food; and the moral acceptability of food. As in the earlier article, by far the most important influence was the tastiness of food (63.9 percent). Table III reports the links between this variable and meat consumption/avoidance. The general pattern of results is very similar to that reported in 1999 and still shows a link between forms of meat consumption/avoidance and influences. Thus, among those stipulating the importance of food as being healthy, nearly 60 percent were either eating less meat or were vegetarians. Similarly, the majority of those indicating the importance of food as being morally acceptable, the majority were vegetarians. However, it is also striking that in the five years since the first batch of results, only seven respondents chose the "morally acceptable" response, as against 19 in the first six years of the series. It would seem that the issue of the moral acceptability of food has declined in significance and importance for these respondents, which may in part be related to the decline in vegetarianism reported above.

Finally, we have connected our findings as closely as possible to the Realeat surveys that are regularly carried out on the population of the UK by Gallup for the Haldane Foods Group. The surveys allow the identification of vegetarians in each of the years that the surveys have been carried out. We have extracted data from two sources: from www.vegsoc.org/info/realeat.html, which covers the period 1984-1999, and from the report of the results from the most recent survey in 2001. We are grateful to Haldane Foods Group for granting us access to this report. Since 1993 the surveys have been carried out every other year. In Figure 3 our findings are shown alongside the Realeat surveys of the same year. Two points stand out. First, as might be expected, there are considerably higher levels of vegetarianism in our sample than in the Realeat samples. Second, both series show a peaking of vegetarianism around 1997 and a slow falling off of its incidence since then. The reasons for this pattern, and for the other patterns of meat consumption and avoidance emerging from our data, will be discussed in some detail in the next section.

However, before this discussion is presented, one minor point is worthy of note. Among the entire 637 respondents who took part in the study, only one vegan was found. In fact, no vegan had emerged in the first phase of the study, the single example appearing in the second phase. As pointed out in our earlier article (Beardsworth and Bryman, 1999) this does appear to demonstrate that veganism is a very rare dietary option, even among these relatively young, middle class, female respondents. However, there may be an age factor at work here, if it is the case, as suggested by Beardsworth

Table II.
Levels of meat
consumption and
avoidance by father's
occupation

Meat consumption/avoidance	Father's occupation				
	Higher professional (%)	Lower professional (%)	Routine white collar (%)	Skilled manual (%)	Semi/unskilled manual (%)
More meat	5.8	7.6	6.5	9.5	9.1
Same amount of meat	54.2	48.9	43.5	43.1	54.5
Less meat	26.8	32.1	30.4	32.8	33.3
Vegetarian/vegan	13.2	11.4	19.6	14.7	3.0
<i>n</i>	190	184	46	116	33
					66

and Keil (1992), that vegetarian “careers” may move through stages of increasingly restrictive avoidances. It is possible that most of these younger respondents who reported themselves as vegetarian had not yet considered a move towards the much more demanding observances of veganism. Although it may only be coincidence, it is striking that the only vegan respondent in the study was, in fact, a mature student.

Discussion

On the basis of the findings presented above, there does appear to be a reasonably consistent picture which emerges from the trends highlighted in this longitudinal study. Broadly speaking, vegetarianism and meat avoidance seem to have reached a peak and then manifested a slight decline. On the other hand, those reporting that they are eating more meat seem to have risen as a percentage of the year-on-year respondents. Of course, the challenge is to explain these trends, preferably by setting them into their broader nutritional and cultural context. In this section, we will attempt to offer some explanation of these phenomena, although our attempt will inevitably be a somewhat tentative and speculative one.

Perhaps a useful starting point is to note that the period of the study approximately matches the period in which Bovine Spongiform Encephalopathy (BSE) became a

Meat consumption/avoidance	Influence			
	Food tasty (%)	Food healthy (%)	Food familiar (%)	Morally acceptable (%)
More meat	8.6	1.8	22.0	0.0
Same amount of meat	55.5	41.7	34.1	19.2
Less meat	26.5	39.3	39.0	15.4
Vegetarian/vegan	9.3	17.2	4.9	65.4
<i>n</i>	407	163	41	26

Table III.
Levels of meat
consumption and
avoidance by influence

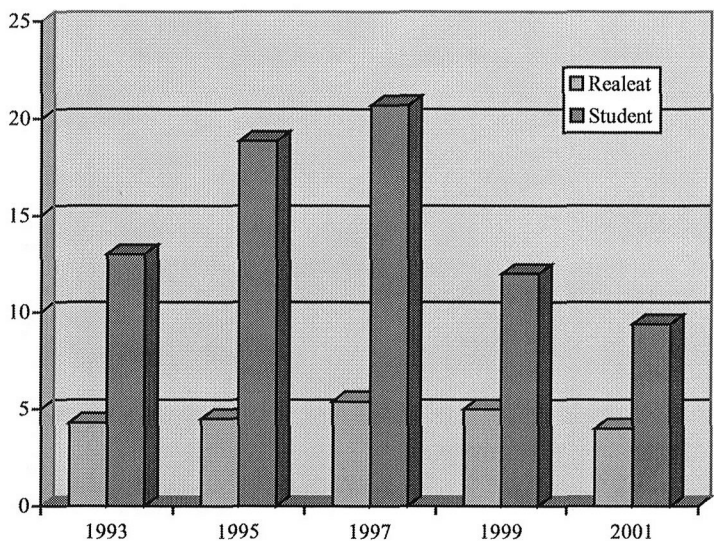


Figure 3.
Patterns of vegetarianism
in the Realeat and
Loughborough University
student surveys –
percentages

significant public health issue in the UK. While only beef and beef products have been implicated in debates concerning threats to human health, it is plausible to argue that our respondents' attitudes towards meat generally, and hence their answers to the questions we posed, may have been coloured by the controversies and anxieties surrounding this issue. It is perfectly feasible to map the emergence and evolution of the BSE debate, and to quantify, if only indirectly, the levels of public concern. For example, Figures 4 and 5 respectively show the findings derived from a content analysis of leading British tabloid and broadsheet newspapers for all or part of the period 1988 to 2002.

The data were produced using the Lexis Nexis Professional software, which contains newspapers in electronic form, and includes a facility for searching for articles using specified keywords. A range of keywords was employed, including Bovine Spongiform Encephalopathy; BSE; Mad Cow Disease; CJD; Creutzfeld Jakob Disease; Variant CJD; vCJD. In Figures 4 and 5, the number of articles appearing in each year containing at least one of the above keywords is graphed, although it should be noted that for some newspapers data are not available for the entire period. These numbers can be taken, at the very least, as rough indications of the changing levels of public interest and concern (although we are not, of course, arguing that there is some simple, direct relationship between media coverage and audience beliefs and attitudes). Three features are immediately clear. First, there is an initial "spike" of concern in 1990, when the disease first came to prominence, and implications for human consumers were discussed. The occurrence of this first "spike" can also be seen in the data presented in Reilly (1999), although Reilly's data appear to have been produced on a different basis to those shown in Figures 4 and 5. Second, there is a much more dramatic "spike" in the mid-1990s, when possible links between BSE and variant CJD became the focus of

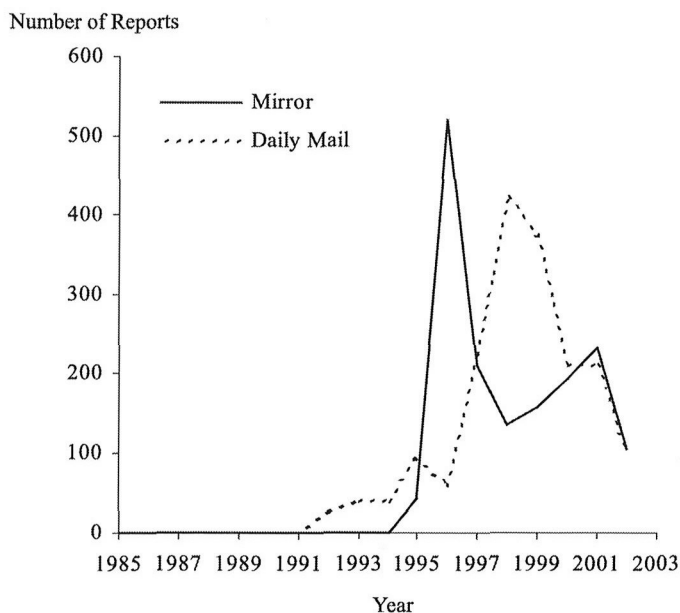


Figure 4.
Tabloids and BSE
reporting

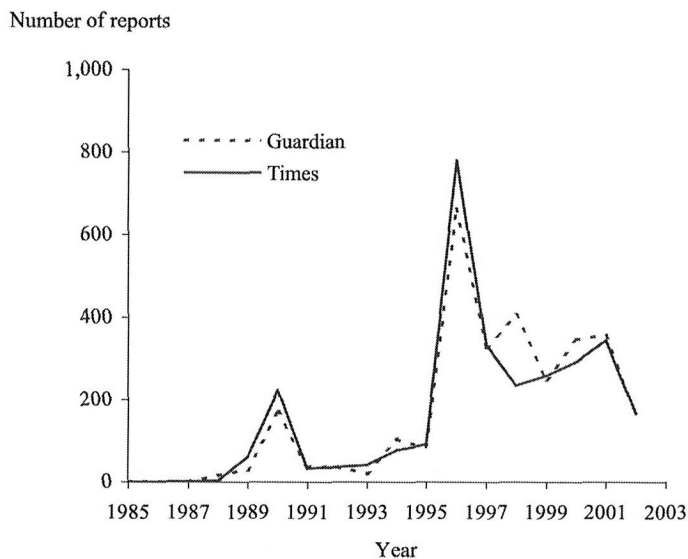


Figure 5.
Broadsheets and BSE
reporting

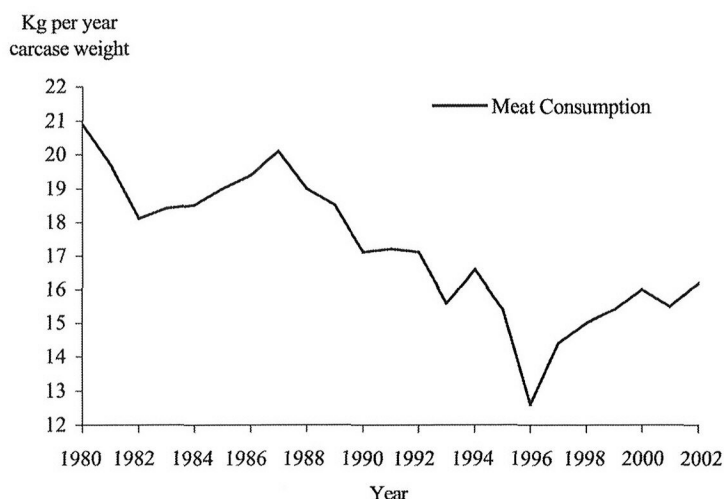
much media attention, along with the measures that had been put in place in order to forestall transmission to humans. Third, since the mid-1990s the level of coverage has tailed off, dropping to a level not much higher than that of the early 1990s. Broadly speaking, these figures show a trend of rising concern through the early to mid-1990s, then a gradual decline in that concern subsequently.

If we look at a measure of beef consumption in the UK, we can see a possible link between consumer choices and public concern over a particular issue relating food and health.

Figure 6 graphs the trend in beef and veal consumption in the UK from 1980 to 2002. The data were created by dividing the estimated total supplies of such meat moving into human consumption, divided by the mid-year population to give an estimate of kilograms per capita per year (Meat and Livestock Commission, 2003). What is immediately striking is that the long term steady decline in beef and veal consumption (which has been going on for several decades) appears to take a sharper downward turn in 1996, at precisely the time when media coverage of the BSE/CJD issue seems to have been at its most intense. Subsequently, the trend begins what might tentatively be regarded as a recovery, and even a modest increase over the years 1997 to 2002, perhaps paralleling the decline in media coverage over the same period. Interestingly, these findings seem to be broadly consistent with the data from the longitudinal study shown in Figure 2. From the mid-1990s we see a rise in those answering that they are eating the same amount of meat as previously, a decline in those saying they are eating less meat, and a decline in those saying they are vegetarian. There may even be a slight detectable upward trend in those saying they are eating more meat.

The co-variation of these trends may well be more than mere coincidence. The decline in public concern relating to the safety of beef (as measured by the content analysis data in Figures 4 and 5) may well be associated with an increased sense of the acceptability of meat in general. Indeed, this possibility has been recognised by the UK

Figure 6.
Beef and veal
consumption per capita



press (Uhlig, 2003). Of course, such a proposition, while providing an interesting clue to the possibility of an important shift in nutritional attitudes and choices, must be regarded with due caution. The consumption of mutton and lamb declined steadily from 1980 to 2002 (7.5 kilograms per capita to 5.8 kilograms per capita), whereas pork consumption remained stable. Poultry consumption rose significantly (13.4 kilograms per capita to 27.9 kilograms per capita), producing an overall rise in total meat consumption (Meat and Livestock Commission, 2003) over the period in question, and over the 11 years of the longitudinal study. Moreover, the study asked respondents about their meat consumption in general, and not about their consumption of specific types of meat. However, it may be that the increasing “rehabilitation” of beef led to an increased tendency for respondents to report that they were maintaining or even increasing their consumption of meat in general, and a fall in their inclination to report reduced meat consumption, or meat avoidance in the form of vegetarianism. This is particularly likely to be the case given the prestigious position accorded to beef in British culinary culture (Fiddes, 1991; Charles and Kerr, 1988).

Nevertheless, despite these pieces of empirical evidence, we are left with a group of apparently related phenomena whose explanation still remains something of a puzzle. The peak and subsequent apparent decline in the incidence of vegetarianism; the rise and rise of poultry consumption; the BSE-related drop in beef consumption and then its apparent recovery; such features suggest that what in the past might have been construed as a generally increasing tendency to reduce the meat component of everyday diets, may need to be re-assessed. At this stage, it remains an open question as to whether these effects are the result of some basic shift in the public’s nutritional ideas, e.g. away from the “healthy eating” principles contained in Government campaigns initiated in the 1980s and 1990s to modify eating patterns (Jacobson *et al.*, 1991). Alternatively, or additionally, the question also arises as to whether, say, ethical or ecological sensibilities that may have been encouraging meat reduction or meat avoidance may be declining in influence. Such possibilities clearly demand further research if anything other than purely speculative explanation is to be available.

Some conclusions

It has been argued above that the group of respondents who took part in this study constitute a "critical case", i.e. a group which we might expect to be particularly prone to manifesting patterns of meat reduction and meat avoidance. The fact that in the most recent phase of the study there appears to be a distinct, if not exactly dramatic, trend in the opposite direction is certainly worthy of note. Whether this effect represents a faint signal emanating from a broader upward trend in meat (specifically beef) eating and a downward trend in vegetarianism only future time series data can demonstrate. There is no doubt that measuring such a trend poses significant challenges. The data derived from the longitudinal study, are, of course based on respondents' generalised reports of their own dietary habits and decisions. More accurate data would require a much more detailed dietary diary approach, or a much more sophisticated longitudinal survey based study. In such ways, possibly a more reliable picture of actual dietary choices might emerge, compared with the method of estimating total meat availability (production, minus exports, plus imports), and then dividing this by population. What is more, diary or survey approaches could also be complemented by the use of more intensive qualitative methodologies aimed at mapping and describing the nuances of evolving attitudes and beliefs concerning meat. In this way, our fundamental understanding of the cultural, psychological and sociological dimensions of this prized but problematical element in the human diet would be enhanced and extended.

References

- Adams, C.J. (1990), *The Sexual Politics of Meat: A Feminist – Vegetarian Critical Theory*, Polity Press, Cambridge.
- Amato, P.R. and Partridge, S.A. (1989), *The New Vegetarians: Promoting Health and Protecting Life*, Plenum Press, New York, NY.
- Bansback, B. (1993), "Meat demand economics", *Meat Consumption in the European Community*, Office for Official Publications of the European Communities, Luxembourg.
- Beardsworth, A.D. (1995), "The management of food ambivalence: erosion and reconstruction?", in Maurer, D. and Sobal, J. (Eds), *Eating Agendas: Food and Nutrition as Social Problems*, Aldine de Gruyter, New York, NY.
- Beardsworth, A.D. and Bryman, A.E. (1999), "Meat consumption and vegetarianism among young adults in the UK: an empirical study", *British Food Journal*, Vol. 101 No. 4, pp. 289-300.
- Beardsworth, A.D. and Keil, E.T. (1992), "The vegetarian option: varieties, conversions, motives and careers", *The Sociological Review*, Vol. 40 No. 2, pp. 253-93.
- Beardsworth, A.D. and Keil, E.T. (1993), "Contemporary vegetarianism in the UK: challenge and incorporation?", *Appetite*, Vol. 20 No. 3, pp. 229-34.
- Beardsworth, A.D. and Keil, E.T. (1997), *Sociology on the Menu: An Invitation to the Study of Food and Society*, Routledge, London.
- Beardsworth, A.D., Bryman, A., Keil, T., Goode, J., Haslam, C. and Sherratt, E. (2002), "Women, men and food: the significance of gender for nutritional attitudes and choices", *British Food Journal*, Vol. 104 No. 7, pp. 470-91.
- Becker, T. (2000), "Consumer perception of fresh meat quality: a framework for analysis", *British Food Journal*, Vol. 102 No. 3, pp. 158-76.

- Becker, T., Benner, E. and Glitsch, K. (2003), "Consumer perception of fresh meat quality in Germany", *British Food Journal*, Vol. 102 No. 3, pp. 246-66.
- Bourdieu, P. (1984), *Distinction: A Social Critique of the Judgement of Taste*, Routledge & Kegan Paul, London.
- Charles, N. and Kerr, M. (1988), *Women, Food and Families*, Manchester University Press, Manchester.
- Farb, P. and Armelagos, G. (1980), *Consuming Passions: The Anthropology of Eating*, Houghton Mifflin, Boston, MA.
- Fiddes, N. (1991), *Meat: A Natural Symbol*, Routledge, London.
- Fischler, C. (1980), "Food habits, social change and the nature/culture dilemma", *Social Science Information*, Vol. 19 No. 6, pp. 937-53.
- Foley, R. (1988), "Hominids, humans and hunter-gatherers: an evolutionary perspective", in Ingold, T., Riches, D. and Woodburn, J. (Eds), *Hunters and Gatherers 1: History, Evolution and Social Change*, Berg, Oxford.
- Freeland-Graves, J.H., Greninger, R.S.A. and Young, R.K. (1986), "A demographic and social profile of age - and sex-matched vegetarians and non-vegetarians", *Journal of the American Dietetic Association*, Vol. 86, pp. 907-13.
- Glitsch, K. (2000), "Consumer perceptions of fresh meat quality", *British Food Journal*, Vol. 102 No. 3, pp. 177-94.
- Gordon, K.D. (1987), "Evolutionary perspectives on human diet", in Johnston, F.E. (Ed.), *Nutritional Anthropology*, Alan R. Liss, New York, NY.
- Harris, M. (1986), *Good to Eat: Riddles of Food and Culture*, Allen & Unwin, London.
- Jacobson, B., Smith, A. and Whitehead, M. (Eds) (1991), *The Nation's Health: A Strategy for the 1990s*, King's Fund Centre, London.
- Maurer, D. (1995), "Meat as a social problem: rhetorical strategies in the contemporary vegetarian literature", in Maurer, D. and Sobal, J. (Eds), *Eating Agendas: Food and Nutrition as Social Problems*, Aldine de Gruyter, New York, NY.
- Meat and Livestock Commission (2003), *Meatfax 11*, Meat and Livestock Commission, Milton Keynes.
- Mennell, S. (1985), *All Manners of Food: Eating and Taste in England and France from the Middle Ages to the Present*, Blackwell, Oxford.
- Midgley, M. (1983), *Animals and Why They Matter*, Penguin, Harmondsworth.
- Regan, T. (1984), *The Case for Animal Rights*, Routledge, London.
- Reilly, J. (1999), "Just another food scare? Public understanding and the BSE crisis", in Philo, G. (Ed.), *Message Received: Glasgow Media Group Research - 1993-1998*, Longman, Harlow.
- Rozin, P. (1976), "The selection of food by rats, humans and other animals", in Rosenblatt, J.S., Hinde, R.A., Shaw, E. and Beer, C. (Eds), *Advances in the Study of Behaviour*, Vol. 6, Academic Books, London/New York, NY.
- Sahlins, M. (1974), *Stone Age Economics*, Tavistock, London.
- Sapp, S.G. and Harrod, W.J. (1989), "Social acceptability and intentions to eat beef: an expansion of the Fishbein-Ajzen model using reference group theory", *Rural Sociology*, Vol. 54 No. 3, pp. 420-38.
- Simoons, F.J. (1961), *Eat not This Flesh: Food Avoidances in the Old World*, University of Wisconsin Press, Madison, WI.
- Singer, P. (1976), *Animal Liberation*, Jonathan Cape, London.

-
- Spencer, C. (1993), *The Heretic's Feast: A History of Vegetarianism*, Fourth Estate, London.
- Tilston, C.H., Sear, R., Neale, R.J. and Gregson, K. (1992), "The effect of BSE: consumer perceptions and beef-purchasing behaviour", *British Food Journal*, Vol. 94 No. 9, pp. 23-6.
- Twigg, J. (1979), "Food for thought: purity and vegetarianism", *Religion*, Vol. 9, Spring, pp. 13-35.
- Uhlig, R. (2003), "Vegetarians rediscover the taste of red meat", *The Daily Telegraph*, 9 July.
- Woodward, J. (1988), "Consumer attitudes towards meat and meat products", *British Food Journal*, Vol. 90 No. 3, pp. 101-4.
- Zey, M. and McIntosh, W.A. (1992), "Predicting intention to consume beef: normative versus attitudinal influences", *Rural Sociology*, Vol. 57 No. 2, pp. 250-65.

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